The National Maternity Hospital

ANNUAL REPORT 2024

The National Maternity Hospital
Holles Street

ANNUAL REPORT 2024

This Annual Report should be read in conjunction with the Annual Financial Statements which provide certain additional information required under the Code of Practice for the Governance of State Bodies Business and Financial Reporting Requirements purposes.

Front cover image: Oshya George, Neonatal Staff Nurse, with her husband Melbit Joseph and their newborn son Ruben.

The NMH Mission and Vision Statements

Mission

We are the national centre of clinical excellence in maternal, neonatal and gynaecological health. Our mission as leaders in women's healthcare is to deliver the highest quality of safe, evidence-based care. We are committed to providing choice, listening to and learning from our patients' experiences. Through excellence and innovation in research and education, we drive the advancement of women and babies' healthcare in Ireland. Our outstanding team is our greatest asset – we are dedicated to investing in and supporting our people.

Vision

To continuously advance the health of women and babies through excellence in care led by dedicated teams.

Values

Quality
Compassion
Respect
Collaboration
Innovation
Sustainability

Contents

Jean Clarisse L. Benito with her newborn daughter Ceana Kelsey B. Claro.

Deputy Chairman's Report

2024 was another memorable year at NMH. Once again despite the ongoing difficulties with the current aging buildings on Holles Street all our staff provided quality care to our patients and continued to administer to the varying disparate needs of our patients. Listening to patients and hearing their concerns continues to be a quality imbued in every group within NMH staff. Imagination and inspiration are present in abundance in the NMH with the continued focus of improving patient care and experience and also furthering the practice of medicine through training and research all focussed on providing better maternity, gynaecology and neonatal care for our patients and future generations. The positivity and camaraderie that staff consistently demonstrate throughout the Hospital, in every circumstance, continues to impress me and this is evident in the calibre of people we attract to work in our Hospital. In every category of staff the quality of our employees, in spite of the site limitations, clearly evidences the outstanding reputation of NMH both nationally and internationally. Unfortunately, like many other hospitals, particularly in the Dublin region, in recent years we have experienced difficulty in recruiting staff into a number of clinical areas including midwifery, sonography, medical scientists. This is a growing and concerning trend and while the issues are no doubt multi-faceted it certainly appears that accommodation costs are one factor. It is imperative that we retain staff and source new hires for succession to ensure we retain our excellent team.

Pat McCann, Deputy Chairman.

The number of deliveries has remained reasonably static during 2024. Once again an analysis of the data indicates that 48.6% of our births are to women aged 35 years or older and 11.7% of those are aged over 40 which can lead to additional complications.

The new services that we have introduced in recent years continue to grow and develop and the demand for these services is ever increasing. We continue to expand and evolve services for women in many areas such as fertility, genetics, menopause, pain management, psychosexual counselling, perinatal mental health, neonatal additional therapies, endometriosis to highlight just a few of the recent areas of expansion. As one of the six national hubs for the roll out of the public fertility services this particular area is likely to expand in the coming years with additional services being offered with the support of National Women and Infants Health Programme and the Department of Health. Our goal is to continue to provide quality care for our patients and to provide them with choice and options for all the services that they may require. We will continue to do this with the assistance of the National Women and Infants Health Programme (NWIHP) and the Dublin South East Hospital Group (DSE). We continue to be heavily involved in pursuing the implementation of the National Maternity Strategy and the rollout of Sláintecare with NMH being the major hub in the Dublin South East Region for the provision of women's and neonatal care.

During this year there were significant milestones in relation to the project to co-locate the NMH to the Elm Park Campus and specifically the issue of the tender for the main works to the market. In addition, tenders were awarded for Framework 3 and other enabling works under framework 2 continued throughout the year. These enabling works will ensure that the site is prepared for the main contractor. The work of the senior teams was very much focussed on new governance arrangements for the next phase (the build phase) of the project with various proposals for the governance structures discussed and reviewed in the latter months of 2024. We continue to engage with HSE Estates, St Vincent's University Hospital (SVUH)

and the entire project team to deliver this much needed infrastructure.

Whilst the project continues, it will still be many years before the new Hospital opens on the Elm Park site and the many infrastructural difficulties identified in the past two decades on the Holles Street site remain a concern. During 2024 we have dealt with some significant electrical issues and also improved the stairs and flooring in some of the more critical areas. Apart from the maintenance of the aging infrastructure the growing need for additional space is a major concern. In 2013, it was clearly identified that the current site was deficient in terms of space and since that time the services have continued to expand. We have a number of urgent projects that we hope will be progressed in the next few months to provide the resources required for our staff and patients to continue to deliver essential services to women and neonates.

The continued implementation of Sláintecare and specifically the introduction of the Public Only Consultant Contract since March 2023 (POCC23) has implications for the NMH, our staff and our patients. One implication particularly for obstetrics is that there are no hospitals in Ireland that offer private inpatient obstetrics. Within a few years this will likely no longer be an option for patients. The POCC23 also allows for review of service delivery and particularly the extension of the services across the day/week subject to availability of all relevant resources. At present there is a mix of consultant contracts and there will be a gradual transition over the coming years and the impacts of this transition, both positive and negative, will need to be carefully managed.

The Research and Innovation Symposium Exhibition (RISE) continues to grow and have a major impact with many staff and Departments participating each year. This highlights the ingenuity and brilliant work of the Hospital and the dedication of the incredibly skilled talented staff that are part of the Hospital. Once again, I would like to commend Prof Fionnuala McAuliffe and all the team involved for this amazing initiative.

During the year the QRPS Department had some posts filled from within the Hospital. A new Director of QRPS was appointed, Dr Orla Sheil and later in the year a new Risk Manager, Mr Martin Creagh was also appointed. These roles, within the current team in QRPS, play a significant part in ensuring ongoing quality and excellence in the care of our patients.

There were no HIQA reports or visits for NMH during the year but the various groups continued to work on QIPS identified from previous reports.

Once again I am happy to report that our Catering Team have managed to maintain their own very high standards and during the year received a number of awards including obtaining a score of 100% in the FSPA audit and ISO 22000 certification for 2024.

Our staff are our core resource and are the fundamental backbone of the delivery of quality services to our patients. Recruitment difficulties continued in many of the Midwifery and Nursing categories and also in a number of the associated healthcare professional grades such as laboratory scientists and dietetics. International recruitment has provided some much needed midwifery and nursing staff but this is relatively costly and has a long lead time before the staff come onsite. Accommodation is an ongoing issue for many staff and we have continued to rent a number of houses to provide short term accommodation for staff who are migrating to Dublin. Anecdotal evidence suggest that newly qualified staff continue to leave our employment for work in other parts of the world and there remains the issue of staff moving out of Dublin due to many factors and certainly some focus around accommodation and transport. Apart from the obvious difficulties in sourcing staff, the HSE imposed recruitment embargo and the subsequent 'pay and numbers strategy' have been a cause for concern. The fact that the pay and numbers levels were set by HSE at December 2023 employed whole time equivalent numbers (WTEs) is a major issue for NMH as the numbers employed at that stage were artificially low due to vacancies and also due to the student midwives, as usual, not being present in December. All of these issues have been raised by the NMH and many other Hospitals but there are unlikely to be any quick solutions but the Health Service need to look to long term solutions. The Executive Committee has been very aware of the difficulties and the potential risks and ongoing service needs where staff replacements are necessitated.

The hospital's Executive Committee and the sub committees have continued to engage in significant work programs during the year. The output from the external review of our committees and structures has led to enhancements in documentation and updates in various committees' annual work programs.

I am honoured to continue to play a small part in this fabulous institution. I really enjoy the time I spend in NMH. I am blessed with a wonderful and engaged Board who also work really hard on the committees required. We are very conscious of our responsibilities as Board members and the need for vigilance on corporate governance. We are well supported in this by a strong executive team led by Professor Shane Higgins, a big thank you to all for their involvement in NMH. We have lots to do in 2025 and no doubt face many challenges.

Pat McCann, Deputy Chairman.

Master's Report

Prof Shane Higgins, Cllr James Geoghegan, Lord Mayor of Dublin and Mary Brosnan, Director of Midwifery & Nursing.

It is a great privilege to introduce the combined Corporate and Clinical Reports for the year 2024.

I would like to take this opportunity to thank some of the many people I have worked with during the year and to reflect on some of our achievements and challenges faced.

Mr Pat McCann, who has been the Deputy Chair of the Executive Committee (The Board) for the past five years, is as we know from his success in the commercial world, an outstanding strategic thinker, which has allowed him to guide the Board in setting and achieving our long-term goals. He manages challenges with great calmness, while maintaining a clear focus on the Hospital's mission and values. He has a wonderful collaborative spirit when it comes to his engagement with the Executive Management Team, assisting us in driving the organisation forward.

My thanks to Mr Tom Murphy, Honorary Treasurer, Mr William Johnston, Honorary Secretary and all members of the Board for giving so freely of their time, expertise, knowledge and advice during the year.

Ms Mary Brosnan, Director of Midwifery and Nursing has indicated her intention to retire next year after 20 years in the position. She will be an enormous loss to the Hospital. Mary is a powerful and vocal advocate for women and midwives on many national committees, supporting and driving change in the maternity and women's health services. She was a member of the National Maternity Strategy Taskforce which was launched in 2016; the framework which continues to influence the future development of the Irish maternity services.

My thanks also to the other members of the Executive Management Team, Mr Ronan Gavin, Secretary General Manager, Dr Roger McMorrow, Clinical Director and Mr Alistair Holland, Financial Controller for their continued support and commitment to the Hospital during another extraordinary year. As the Clinical Director Roger will be also stepping down from his role next year, I would like to personally thank him for his enormous contribution to the Hospital and his personal support to me during his time in the role.

To all my consultant colleagues, thank you for your constant support and words of support. This job would be impossible to do without them.

To the midwives and nurses who do the majority of the work of looking after mothers and babies during pregnancy, delivery and after birth: your unheralded commitment and support of your patients must be acknowledged.

To the wider staff and all staff: your loyalty to the hospital and the pride you take in your work are what make this a truly remarkable place.

My thanks to Minister Stephen Donnelly who has supported and invested significantly in women's' health in his time as Health Minister.

We have seen changes to our clinical services and encounter ongoing and new challenges during the last 12 months. We have commenced a public infertility service, one of six publicly funded units and more recently publicly funded IVF cycles.

With Board support we have introduced and remain the only maternity hospital in the country to have a full dedicated perinatal genetic service which provides care to patients with complex pregnancies where fetal abnormalities are detected, to patients suffering recurrent pregnancy loss and to couples with subfertility issues.

We have introduced a hydrotherapy pool and have commenced a water birth service for suitable patients and we celebrated the 25-year anniversary of the Community Midwifery programme in 2024.

We have expanded other services including the placenta accreta service which has now been funded to run as a national multidisciplinary team.

We continue to engage with the HSE Estates Team, St. Vincent's University Hospital and the Department of Health to drive the proposed co-location to Elm Park forward.

In the last six years, the final business case for the proposed move has been approved by Government and the tenders for the main construction contract have been returned and will be evaluated over the coming months, leading, we hope, to the appointment of a construction team in the next 12 months to commence works on the new hospital build.

We have agreed the suite of legal documents underpinned by the Mulvey Agreement to ensure our independence when we move to the Elm Park site. It is vital for our service and our patients that The National Maternity Hospital maintains its voluntary status.

Prof Shane Higgins with his family.

We have faced a number of challenges over the past year.

The new public-only consultant contract was introduced in March 2023, which will unfortunately, lead within a few years to women not being able to choose private obstetric care for their pregnancy. This will increase the burden of work on the public system which will prove challenging at times.

The recent HSE pay and numbers strategy will make providing all services challenging but we will advocate tirelessly for our patients to redress any funding or staffing deficits.

We continue to have infrastructural issues which will need to be addressed on our current site for the next number of years. We were recently granted planning permission from Dublin City Council to build a suitable patient transport lift on the outside of the building at the corner of Holles Street and Holles Row, making patient transfers through the hospital safer.

The Ambulatory Gynaecology suite tender has been awarded and is expected to be completed by the end of April 2025.

We continue to seek funding to develop a new Perinatal Pathology and Bereavement Suite at our current location and a refit of the clinical decontamination unit.

During the year valued members of my Consultant colleagues concluded dedicated careers at NMH and I would especially like to mention, Dr Anthony McCarthy and Dr Anne Twomey and thank them wholeheartedly for their long years of service and enormous contribution to the Hospital. They are sorely missed along the Hospital corridors but I wish them only the best for the future.

It is with great sadness and regret I must mention the passing of a Consultant Colleague during the year. Dr Edward Gallagher retired Consultant Anaesthetist, who provided remarkable service to our patients over the years. May he rest in peace.

My thanks also to Ms Michele Connolly, who stepped down as Honorary Treasurer in May 2024, after many years of working with the Hospital.

Prof Shane Higgins, Master.

Casey Phillips and Shauna Lehane, Staff Midwives in the Labour and Birthing Unit.

Honorary Treasurer's Report

The financial results for the Hospital for 2024 reflected an overall deficit of €0.8m.

Total income for the year at €111m was up €5.9m (5.7%). Income for the Hospital comes from two primary sources. Funding from the HSE amounted to €98.8m for the year which was 89% of overall income. HSE income is up €6.1m (6.6%) on prior year reflecting both cost inflation as well as an increasing volume of services and specialties that the Hospital delivers. This includes expanding activity in the genetics function and fertility service among other things. Overall the breadth and complexity of services provided by NMH continues to increase year on year. The balance of funding primarily comes from services provided to private and semi-private patients. This amounted to €11.9m for 2024 which was a marginal 2% decline on prior year. Considerable effort is being made in maintaining and enhancing this very important source of income.

Total costs incurred were €111.5m which is an increase of €7.9m (7.6%) over 2023. Of this €89m related to Pay which saw an increase of €5.4m (6.4%) over the prior year. The main reason for this increase was government mandated pay awards, some of which related to backpay settlements for 2023 as well as continuing migration towards Slaintecare POCC23. In addition, there was a marginal level of headcount increase which related to the enhancement of new and existing services. Consistent with previous years the cost base of the Hospital remains largely fixed with staff costs accounting for 80% (prior year 81%) of Hospital spend.

The major elements of non-pay costs relate to medicine, pathology costs, medical supplies, catering, energy and maintenance costs. Non-pay expenditure at €22.3m was an increase of €2.5m (12.7%) over last year. This, however, includes c. €1m of once off expenditure on a cybersecurity project and software upgrades, both of which were funded by the HSE. Excluding this it is €1.5m (7%) up on last year representing inflationary increases. Included in this are the ongoing increasing recruitment costs for foreign nurses and midwives reflecting a general shortage available qualified candidates. Staffing remains a challenge for the Hospital with a number of reasons attributable with the cost of accommodation high on the list. The Hospital continues to look at all possible avenues to try and support staff with this issue.

Whilst the Hospital awaits its co-location to the St Vincent's University Campus at Elm Park, it continues to provide excellent care in an aging building. The move is still some years away. The current building does need continual maintenance but also investment in the intervening period. Discussions are ongoing with HSE in relation to funding of additional essential upgrade works. Approval for any new capital projects or essential upgrades is long and protracted.

> **"The NMH Finance Team have successfully exercised strong financial control whilst concentrating on essential spend to ensure we can continue to deliver excellent care to the patients."**

The funding model from the HSE has improved somewhat but remains a challenge. There are considerable delays in approval for any new funding – capital or revenue. The revenue allocation for a given year is never fully confirmed until several months post the year end. This is totally sub-optimal from a financial planning and cash management perspective. The upfront allocation and timely provision of funds would result in a much more efficient outcome both in terms of administration and value for money for all concerned. The Hospital is left managing the current delays by seeking advance drawdown of its revenue allocation from the HSE on an ongoing basis but that is a short term solution to a longer term issue. The HSE have sought to make changes to this process in 2025 which will aid cash flow planning through the year.

Other areas of focus by the Finance Committee during 2024 included NMH@ ElmPark, governance, procurement, the impact of Slaintecare, policies and procedures, management of debtors, compliance, activity based budgeting, new services and SORP accounting.

I would like to extend my appreciation to all the NMH Finance Team and my fellow members of the Finance Committee. The NMH Finance Team have successfully exercised strong financial control whilst concentrating on essential spend to ensure we can continue to deliver excellent care to the patients.

In this my first year as Honorary Treasurer, I would like to thank my predecessor Michele Connolly whom, during an eight year period in the role, made an outstanding contribution to the NMH and has been very helpful in the handover.

Tom Murphy, Honorary Treasurer.

Executive Committee Report

EXECUTIVE COMMITTEE (THE BOARD)

At the first Board meeting following the 2024 AGM, Mr Pat McCann was re-elected unanimously as Deputy Chair – effectively the Chair of the Hospital.

We congratulate Cllr James Geoghegan who was elected Lord Mayor in June 2024. Cllr Geoghegan was appointed to the Board as one of two Dublin City Council (DCC) representatives. We congratulate Cllr Naoise Ó Muírí and Cllr James Geoghegan on their elections to Dáil Éireann in the General Election in November 2024 and wish them well in their future careers. Both Cllr Ó Muírí and Cllr Geoghegan made many helpful contributions to the deliberations of the Board. Cllr. Naoise Ó Muírí was a long standing member of the Board having been elected to the Board following his term as Lord Mayor during which he showed a keen interest in the Hospital. Following the election of James Geoghegan, TD, Cllr Emma Blain, one of the DCC representatives on the Board, was elected as Lord Mayor on 18th December 2024; we congratulate her on her appointment.

Six Board members resigned during the year: Ms Mairéad Butler, Fr Enda Cunningham, Ms Nóirín O'Sullivan, Dr John Murphy, Prof Peter McParland and Dr Ingrid Browne.

Ms Mairéad Butler resigned from the Board and as a Governor in May 2024. Mairéad was elected a Governor in March 2017 and was elected to the Board in January 2019. She was a valued member, not only of the Board, but also as a member of the Audit, QRPS and Nominations Committees. We thank her for her very significant contribution to the Hospital and especially for her role as Chair of the Quality Risk and Patient Safety Committee.

Fr Enda Cunningham came onto the Board in August 2016 as Administrator of Westland Row, and served the Board faithfully until he moved Parish in June 2024. Fr Cunningham actively contributed to the Board; his perspective on the business of the Board was unique and of great assistance.

In May 2024, Ms Nóirín O'Sullivan resigned from the Board and as a Governor. Nóirín was elected a Governor and a member of the Board in May 2021 and was a member of the People and Organisation Committee from May 2022. Her contributions were always particularly useful.

Dr John Murphy was elected as a Governor in April 2001 and onto the Board in November 2004. During his time with the NMH, John served as Clinical Lead in Neonatology, Director of Paediatrics and Director of Neonatal Intensive Care Unit. He was also Clinical Lead for the National Clinical Programme for Paediatrics and Neonatology. In 2022, Dr Murphy was awarded the prestigious RCPI Kathleen Lynn Medal for exceptional service on behalf of children.

Prof. Peter McParland was elected as a Governor in May 2005 and onto the Board in December 2008. Peter established and developed the Fetal Medicine Unit, of which he was Director until 2022.

Dr Ingrid Browne was elected as a Governor and onto the Board and the NMH Executive Ethics Committee in May 2016 serving with her expertise as Director of Anaesthetics. She was subsequently elected onto the QRPS Committee in January 2019.

The knowledge and experience of John, Peter and Ingrid very much enhanced the deliberations of the Board.

Cllr Cat O'Driscoll was nominated to the Board in July 2021 as one of two DCC representatives. Cllr O'Driscoll served the Board with worthwhile contributions until July 2024, when new DCC representatives were nominated.

The following were appointed to the Board during 2024: Andrew Crotty, Jill Beck, Dr Deirdre Sweetman and Alison Quinn. Dr Deirdre Sweetman was appointed in place of Dr John Murphy, and as Director of Neonatology. Fr Alan Hilliard in place of Fr Enda Cunningham and two new Councillors appointed were Emma Blain and Cian Farrell.

Board Work

To enhance the understanding of, and thus contributions by Board members, there have been several presentations to the Board during the year: In February, Dr Susan Knowles, Director of Pathology and Mr Damian Lally, Laboratory Manager presented the work of the Hospital Laboratory. In March, Mr James Byrne presented the role of the Tendering Office within the Hospital. In June, Ms Martina Cronin, CMM3, gave a presentation on the Labour and Birthing Unit. Mr David Fitzgerald, Pharmacy Executive Manager, presented on behalf of Pharmacy Services in September. Ms Sophie MacNeice, Communications Officer, along with Ms Patricia Ryan, Managing Director, DHR Communications, gave a presentation on Communications Overview.

The NMH Strategy 2024 – 2028, Goal 4, was presented, by Ms Mary Brosnan, Director of Midwifery and Nursing, to the Governors and to the Board at the AGM in May 2024.

At each monthly meeting of the Board, reports from members of the Executive Management Team (the EMT) are discussed and where considered appropriate, further direction is given by the Board to the EMT. Clinical aspects of these reports are covered elsewhere in the Annual Report.

An issue which is continually brought to the attention of the Board is the cost of living and accommodation in Dublin. This impacts directly on recruiting and retaining midwives. The cost of living outside Dublin is considerably lower and

qualifying midwives regularly relocate to hospitals in the State outside Dublin. This phenomenon continues to pose considerable challenges to the Hospital.

Corporate Governance

To assist with good corporate governance, the Board retained Mr Bob Semple, who attended four Board meetings, during this exercise (3 in 2023 and 1 in 2024) and also met members of the Board prior to presenting his report to the Board.

At the AGM, following the recommendation of the Nominations Committee, the following persons were elected as Governors of the Hospital: Ms Keara McAndrew, Ms Margaret Fanagan, Mr Charles Watchorn, Mr Andrew Crotty and Dr Deirdre Sweetman, as Director of Neonatology.

The election of Ms Sara Spencer as Governor by the Executive Committee in December 2023 was ratified at the AGM.

The Board met on eleven occasions in 2024 and attendances were as follows:

Members of Executive Committee	Meetings Attended	Meetings Appointed to Attend
Mr Pat McCann, Deputy Chair	9	11
Mr William Johnston, Honorary Secretary	10	11
Ms Michele Connolly, Honorary Treasurer *(to May)*	10	11
Mr Tom Murphy, Honorary Treasurer *(from May)*	11	11
Prof Shane Higgins, Master	10	11
Ms Jill Beck (from Sept)	2	3
Cllr Emma Blain *(from July to Dec.)*	3	4
Ms Ingrid Browne *(to Oct.)*	7	7
Ms Mairéad Butler *(to May)*	3	4
Ms Sarah Claxton	10	11
Ms Denise Cole	9	11
Mr Andrew Crotty *(from May)*	7	7
Fr Enda Cunningham *(to May)*	4	5
Mr Aidan Devlin	10	11
Mr Frank Downey	3	11
Cllr Cian Farrell *(from July)*	4	5
Cllr James Geoghegan *(to June)*	3	5
Fr Alan Hilliard *(from Oct.)*	2	2
Prof Declan Keane	5	11
Ms Carmel Logan	10	11
The Lord Mayor, Cllr. Daithí de Róiste, (from Jan. to June)	0	5
The Lord Mayor, Cllr. James Geoghegan *(July to Nov.)*	1	5
Dr John Murphy *(to May)*	4	4
Prof Fionnuala McAuliffe	7	11
Ms Jane McCluskey	8	11
Prof Peter McParland *(to May)*	2	4
Dr Roger McMorrow	7	11
Cllr Cat O'Driscoll *(to June)*	4	5
Cllr Naoise Ó Muírí	7	11
Ms Patricia O'Shea	5	11
Ms Nóirín O'Sullivan *(to May)*	3	4
Ms Alison Quinn *(from Sept)*	3	3
Dr Michael Robson	5	11
Dr Deirdre Sweetman *(from May)*	6	6
Prof. Jennifer Walsh	10	11
In Attendance		
Mr Ronan Gavin, Secretary/General Manager	9	11
Ms Mary Brosnan, DOM&N	9	11
Mr Alistair Holland, Financial Controller	10	11
Ms Geraldine Duffy, ADoMN	2	2
Mr Carl Alfvag, Compliance & Operations Manager (part of)	1	1
Dr Susan Knowles, Dir of Pathology (part of)	1	1
Mr Damian Lally, Laboratory Manager (part of)	1	1
Mr James Byrne, Tendering Manager (part of)	1	1
Ms Martina Cronin, CMM3 (part of)	1	1
Mr David Fitzpatrick, Pharmacy Executive Manager (part of)	1	1
Ms Sophie MacNeice (Communications Officer) (part of)	1	1
External Attendees		
Bob Semple - External Governance Consultant	1	1
Ms Mo Flynn, Director, IVHA (part of)	1	1
Ms Patricia Ryan, Managing Director, DHR (part of)	1	1
Mr John O'Driscoll, Team Power of 1 (part of)	1	1

His Grace the Catholic Archbishop of Dublin does not attend the meetings.

SUB COMMITTEES OF THE BOARD

Finance Committee

As can be seen from the Financial Report summarised on page 228 the Hospital closed the year with a deficit of €0.8m. Further detailed commentary on the finances are provided in the Honorary Treasurer's Report, page 11

The Committee met on eleven occasions during 2024 and attendances were as follows:

Members of Finance Committee	Meetings Attended	Meetings Appointed to Attend
Mr Pat McCann, Deputy Chair	8	11
Mr William Johnston, Honorary Secretary	6	11
Ms Michele Connolly, Honorary Treasurer *(to May)*	4	5
Mr Tom Murphy, Honorary Treasurer *(from May)*	11	11
Prof Shane Higgins, Master	9	11
Ms Denise Cole	10	11
Mr Aidan Devlin *(from May)*	6	6
Ms Carmel Logan	10	11
In Attendance		
Mr Ronan Gavin, Secretary/General Manager	10	11
Ms Mary Brosnan, DOM&N	10	11
Mr Alistair Holland, Financial Controller	10	11
Mr Francis Rogers, Management Accountant	1	1

Alison Quinn, member of the Executive Committee (The Board) and Prof Shane Higgins, Master.

Audit Committee

The Audit Committee continued its work throughout the year and a separate report on the work of the Committee is provided on page 26

The Committee met six times during 2024 and attendances were as follows:

Members of Audit Committee	Meetings Attended	Meetings Appointed to Attend
Mr Aidan Devlin, Chair	6	6
Ms Michele Connolly, Honorary Treasurer *(to May)*	2	3
Mr Tom Murphy, Honorary Treasurer *(from May)*	6	6
Ms Mairéad Butler *(to May)*	3	3
Mr Frank Downey	6	6
Cllr. Naoise Ó Muírí	4	6
Mr Charles Watchorn *(from Sept)*	1	1
In Attendance		
Mr Ronan Gavin, Secretary/General Manager	5	6
Mr Alistair Holland, Financial Controller	5	6
Mr Eoghan Hayden, Clinical Engineering Lead	5	6
Mr Carl Alfvag, Compliance & Operations Manager	1	1
Mr Francis Rogers, Management Accountant	1	1
James Byrne, Tendering Manager	3	3
Caoimhe de Brun, Acting HR Manager	1	1
External Attendees		
Mr Alan Davidson, Crowe	2	2
Ms Carron Heffernan, Risk Consultant, Crowe	2	2
Ms Catherine Rogers, Crowe	1	1
Mr Richard Sammon, PWC	1	1
Mr Cameron Kasavan, PWC	1	1

QRPS Committee

The QRPS (Quality, Risk & Patient Safety) Committee continued its work throughout the year and a separate report on the work of the Committee is provided on page 27

The QRPS Committee met on five occasions in 2024 and attendances were as follows:

Members of QRPS Committee	Meetings Attended	Meetings Appointed to Attend
Ms Mairéad Butler, Chair *(to May)*	2	2
Ms Sarah Claxton (from May), Chair *(from June)*	3	3
Dr Ingrid Browne *(to Oct.)*	2	3
Mr Aidan Devlin	3	5
Prof. Declan Keane	2	5
Ms Carmel Logan	5	5
Prof. Fionnuala McAuliffe	4	5
Ms Jane McCluskey	4	5
Mr Bernard McLoughlin	2	5
Dr Roger McMorrow	2	5
Cllr. Naoise Ó Muírí	1	5
Ms Patricia O'Shea	4	5
In Attendance		
Ms Mary Connolly, AON *(to Aug.)*	3	3
Dr Anne Twomey, Director of QRPS *(to June)*	3	3
Dr Orla Sheil, Director of QRPS *(from July)*	3	3
Mr Ronan Gavin, Secretary/General Manager	3	5
Mr Carl Alfvag, Compliance & Operations Manager	5	5
Mr Martin Creagh, Operational Risk Manager	5	5
External Attendees		
None in 2024		

Orla Gavigan, Clinical Placement Coordinator who retired during the year after almost 40 years of service.

Geraldine Duffy, Assistant Director of Midwifery & Nursing.

Co-Location Committee

The Co-Location Committee continued its work throughout the year and a separate report on the work of the Committee is provided on page 28

The Committee met on three occasions during 2024 and attendances were as follows:

Members of Co-Location Committee	Meetings Attended	Meetings Appointed to Attend
Mr Pat McCann, Deputy Chairman (Chair)	3	3
Ms Michele Connolly, Honorary Treasurer *(to May)*	1	2
Mr Tom Murphy, Honorary Treasurer *(from May)*	1	1
Prof. Shane Higgins, Master *(from May)*	3	3
Ms Sarah Claxton	2	3
Ms Jill Beck *(from Sept)*	1	1
Dr Roger McMorrow	3	3
Dr Orla Sheil *(from May)*	3	3
In Attendance		
Mr Ronan Gavin, Secretary/General Manager	3	3
Mr William Johnston, Honorary Secretary (Observer)	2	2
Ms Sarah McCourt, Project Office Administrator	3	3
External Attendees		
Ms Alice Murphy, MHC	1	1
Ms Naomi Clarke, MHC	1	1
Mr Brian Flood, Newpark (part of)	1	1
Ms Marion Noone, Newpark (part of)	1	1

Nominations Committee

The Nominations Committee provides the Board with recommendations in relation to the appointment of Governors and the appointment of members of the Executive Committee and other committees provided for under the Charter and Bye-laws and Regulations in line with succession planning and criteria.

The Nominations Committee met on two occasions during 2024 and attendances were as follows:

Members of Nominations Committee	Meetings Attended	Meetings Appointed to Attend
Mr Pat McCann, Deputy Chairman, Chair	2	2
Mr William Johnston, Honorary Secretary	2	2
Ms Michele Connolly, Honorary Treasurer *(to May)*	1	1
Mr Tom Murphy, Honorary Treasurer *(from May)*	1	1
Prof Shane Higgins, Master	2	2
Ms Mairéad Butler *(to May)*	0	1
Ms Sarah Claxton *(from Aug.)*	1	1
Ms Denise Cole	2	2
Mr Aidan Devlin	2	2
Prof. Declan Keane	2	2
Dr John Murphy	1	2
Ms Paula Reid *(to May)*	0	1
In Attendance		
Mr Ronan Gavin, Secretary/General Manager	2	2

Medical Fund Committee

This Committee, which receives funds from the Fitzwilliam Clinic (semi-private clinic (SPC)), provides funding principally for education and research relating to the medical services provided by the Hospital. A separate report on the work of the Committee is provided on page

The Medical Fund Committee met on six occasions during 2024 and attendances were as follows:

Members of the Medical Fund Committee	Meetings Attended	Meetings Appointed to Attend
Ms Michele Connolly, Chair, Honorary Treasurer *(to May)*	6	6
Prof Shane Higgins, Master	6	6
Dr Stephen Carroll	4	6
Mr Andrew Crotty *(from May)*	3	3
Mr Frank Downey	5	6
Prof Declan Keane	5	6
In Attendance		
Mr Ronan Gavin, Secretary/General Manager	6	6
Mr Alistair Holland, Financial Controller	6	6
Mr Francis Rogers, Management Accountant	6	6
Ms Ann Barry, Acting Manager, Fitzwilliam Clinic (SPC)	3	3
Mr Aiden Devlin	2	2
External Attendees		
Mr Richard Sammon, PWC (part of)	1	1
Mr Cameron Kasavan, PWC (part of)	2	2

Executive Ethics Committee

The Executive Ethics Committee met once during the year to review the terms of reference, the Committee's effectiveness/ self-assessment and review the succession/skill mix.

The members of the Executive Ethics Committee are: Dr John Murphy, Chair, Prof Shane Higgins, Master, Ms Catherine Altman, Dr Ingrid Browne, Ms Denise Cole, Ms Caroline Devlin, Mr Frank Downey, Dr Paul Downey, Ms Jane McCluskey and Cllr Naoise Ó Muírí.

House Committee

The Committee, which is one of the longest serving the Hospital, assists in ensuring that the Hospital's infection control strategies are effective. The work of the Committee involves carrying out on-site inspections of various areas in the Hospital. The Committee continued its work throughout the year and a separate report is provided on page 30

The Committee met on five occasions during 2024 and attendances were as follows:

Members of the House Committee	Meetings Attended	Meetings Appointed to Attend
Ms Catherine Altman, Chair	4	5
Ms Sara Appleby	2	5
Ms Cecilia Barker	4	5
Ms Louise Bennett	3	5
Ms Bernadette Campion	3	5
Ms Sheena Carton	2	5
Ms Jane Collins	2	5
Ms Fiona Davy	2	5
Ms Elaine Doyle	4	5
Ms Margaret Fanagan *(from May)*	3	3
Ms Kate Higgins	5	5
Ms Keara McAndrew *(from May)*	3	3
Ms Margaret McCourt	3	5
Ms Anne Murphy	4	5
Ms Teresa Murphy	3	5
Ms Suzanne O'Brien	5	5
Ms Aoife O'Shea	3	5
In Attendance		
Prof. Shane Higgins, Master	4	5
Ms Mary Brosnan, DOM&N	3	5
Mr Mark Anderson, Hygiene Services Manager	5	5
Mr Calin Buie, Housekeeping Services Supervisor	3	2
Ms Sharon Hynes, Patient Services Administrator	5	5

The People and organisation Committee

The People and Organisation Committee provides oversight of the Human Resources (HR) function and HR policies within the NMH.

The Committee met on eight occasions during 2024 and attendances were as follows:

Members of the People & Organisation Committee	Meetings Attended	Meetings Appointed to Attend
Ms Denise Cole, Chair	8	8
Ms Mairéad Callanan *(from Sept)*	2	2
Ms Sarah Claxton	6	8
Mr George Maybury	7	8
Ms Patricia Nolan	6	8
Ms Nóirín O'Sullivan *(to May)*	0	4
In Attendance		
Mr Ronan Gavin, Secretary/General Manager	7	8
Ms Mary Brosnan, DOM&N	6	8
Ms Yvonne Connolly, Dir. of Learning & Development	7	8
Ms Caoimhe de Brun, Acting HR Manager	8	8
Mr David Allen, Senior HR Executive	1	1

MATERNITY HOSPITALS JOINT STANDING COMMITTEE

The Committee of the three Dublin Maternity Hospitals meets every second month to discuss issues of common interest and concern. During 2024 the Committee, under the Chairmanship of Dr Don Thornhill, continued to meet to discuss issues of common concern. Some of the issues discussed were the ongoing midwifery recruitment issues, menopause services, the impact of the Pay and Numbers Strategy and the Public Only Consultant Contracts.

Regular meetings with National Women and Infants Health Programme (NWIHP) now form part of the Committee's programme.

MEDALS AND ACHIEVEMENTS

Charter Day

The annual Charter Day reception was hosted on 25th January 2024, by the Master, Prof. Shane Higgins and his wife, Mrs Kate Higgins to whom we are most grateful.

The Master delivered an inspiring address to the Governors, guests, staff, prize-winners and their families.

The 67th Annual Charter Day Lecture was held in the Lecture Theatre on Friday, 26th January 2024. The Lecture entitled "Working at Unusual Places with Challenging Patients" was delivered by Prof. Dr. Thomas Bernd Hildebrandt, Hon FRCVS, Hon MSRF, Dip ECZM Reproductive Management, Leibniz Institute for Zoo and Wildlife Research (IZW) Berlin, and Professional Fellow, Dept. Zoology, University of Melbourne.

A Symposium entitled "What I've learned about..." was held as part of the Charter Day celebrations. The symposium was Chaired by the Master, Prof Shane Higgins and the following lectures were delivered.

"Pathology"
Dr Paul Downey, Pathologist, NMH

"Assisted Reproduction"
Prof Cathy Allen, Obstetrician and Gynaecologist, NMH

"Midwifery"
Ms Ann Rath, Midwife (Retired), NMH

"Fetal Medicine"
Dr Stephen Carroll, Obstetrician and Fetal Medicine, NMH

"Neonatal Nursing"
Ms Emily Barriga, Neonatal Nurse, NMH

"Medicine"
Dr Medsud Hatunic, Endocrinologist, NMH & Mater Misericordiae University Hospital

"Research in Neonatology"
Prof Colm O'Donnell, Neonatologist, NMH

Hospital Awards & Certificates

Awards for 2024 examinations are as follows:

Medical Students	
John F. Cunningham Medal	Dr Isabel Dwyer
RCSI/NMH Medal	Renitha Reddi Bathuni
Kieran O'Driscoll Prize	Eoghan Culligan
A. Edward Smith Medal	Louise Murphy
Student Midwives	
Hospital Gold Medal	Emma Donohoe (BSc) Ann Nwagwu (Bsc)
Elizabeth O'Farrell Medal	Katie White (HDip) Alexandra Novotna (BSc)
Neonatal Medal (established by Dr Niall O'Brien)	Oshya George

We congratulate each of them and wish them every success in their future careers.

Additional awards were obtained during the year by:

Director of Midwifery Award
Ann Calnan, Assistant Director of Midwifery & Nursing.
Awarded to Ann to acknowledge her outstanding contribution to midwifery and to The National Maternity Hospital for almost 35 years.

Colm O'Herlihy Medal
Aoife Reynolds, Chief Medical Scientist in Transfusion. Awarded for Research and Innovation. Aoife's research undertook a study on
"Increased Blood Produce Requirement Associated with Compliance with the National PPH Guidelines at The National Maternity Hospital".

Declan Meagher Medal
Helen Thompson, CNM3.
Awarded for Innovation. Medal awarded to Helen for her presentation entitled "Transforming Scheduled Outpatient Care; Centralizing Benign Gynaecology Referrals"

Orla Gavigan, (CMM2) NMH's Clinical Placement Coordinator (CPC) was presented with a Commendation for Midwifery Practice Education Leader Trailblazer Award at the All Ireland Maternity and Midwifery Festival on the 9th April, which is a fantastic achievement.

The NMH Pharmacy Team took the Bronze prize for the Hospital Pharmacy Team of the Year, at the Pharmacy Excellence Awards for maintaining motivation within the team, ensuring high-quality patient care, fostering a positive work environment and their incredibly high staff retention rate. In addition, the NMH Pharmacy Team were finalists in the Hospital Pharmacy Team of the Year at the Hospital Professional Honours Award Ceremony.

Hospital Professional Honours Awards 2024
Alice Hoffmeister, NMH Community Midwife, won the Innovation and service development award for her Birth Affirmation project.

The Declan Meagher Symposium was held on Friday, January 12th, 2024. This is the National Maternity Hospital Annual Fetal Medicine Meeting comprising of a full day's programme with lectures on Fetal Growth, Placenta Accreta Spectrum, Preterm Delivery and Preventing Stillbirth. There was also a Masterclass on the latest technologies in 3D Ultrasound. Alongside several local Consultants and Professors, speakers included Prof Basky Thilaganathan, Prof Eric Jauniaux and Dr Rocco Cuzzilla. This International Society of Ultrasound in Obstetrics and Gynaecology

(ISUOG) accredited Fetal Medicine Symposium is aimed at midwives, doctors, sonographers and radiographers practicing or interested in Obstetrics and Gynaecology and Fetal Medicine.

Research and Innovation Symposium Exhibition (RISE)

The RISE event took place on 19th April 2024. Staff members from across the Hospital Departments made oral and poster presentations of both research and innovation projects, on a wide range of subjects to improve patient care, training and staff experiences in all aspects of the Hospital.

APPOINTMENTS, PROMOTIONS, RETIREMENTS AND DEATHS

New appointments in 2024 included:

Dr Ann McHugh, Consultant Obstetrician/Gynaecologist
Dr Kate Glennon, Consultant Obstetrician/Gynaecologist
Dr Maebh Horan, Consultant Obstetrician/Gynaecologist
Dr Catherine Connolly, Consultant Histopathologist
Corinne Henry-Bezy, Psychosexual Therapist
Seamus Moriarty, Senior Project Manager

Internal Promotions in 2024 included:

Martin Creagh, Operational Risk Manager
Caoimhe De Brun, Acting HR Manager
Yvonne Connolly, Director of Learning and Development
Dr Orla Sheil, Director of Quality, Risk and Patient Safety
Rahel Dalton, ADOM
Sara Rock, CMM3
Fidelma Martin, CMM3
Fiona Murphy, CMM2
Christina Silas, CMM2
Geraldine Walsh, CSF

Long serving staff

We would like to congratulate Bridget Carew, Haemovigilance Officer, Ann Courtney Reade, Lorraine McLoughlin and Linda Mulligan, Administration, who are still in post and will have reached 40 years' service. We wish to thank them for their service over the years and wish them many more, happy years in NMH.

Staff Retirements

The following staff members retired during the year after many years of service:

Name	Years of service
Martina Cardin, ADOM	40 yrs
Margaret (Maggie) Bree, CMN2	40 yrs
Elizabeth Watson, Household	38 yrs
Orla Gavigan, CMM2	37 yrs
Caitriona Sullivan, CNM2	36 yrs
Laurence Rousseill, GVII Clinical Risk	32 yrs
Eileen Dorman, Senior Enhanced Midwife	29 yrs
Hilda Wall, CNM3	29 yrs
Barbara McMackin, CNM1	25 yrs
Maria Luisa Gante, Senior Enhanced Midwife	22 yrs
Siobhan O'Sullivan, Senior Enhanced Midwife	21 yrs
Jean Waller, Health Care Assistant	21 yrs
Yvonne Meegan, GIII, Patient Services.	19 yrs
Ann Duggan, GIV, Patient Services.	18 yrs
Pauline Haskins, GV, Patient Services.	17 yrs
Celine Mooney, Phebotomist	16 yrs
Lyubov Sedyk, Health Care Assistant	15 yrs

We thank each of them for their enormous contribution during their many years of service and wish them a very happy retirement.

Deaths

During the year three of our retired staff died and we send our sincere condolences to their families: Dr Edward Gallagher, Consultant Anaesthetist, Dr Douglas Veale, visiting Honorary Consultant in Rheumatology Medicine and Veero Douglas, Midwife.

Conclusion

The Board are grateful to the Executive Management Team for their tireless work during the year of continuing challenges. The Master, Prof Shane Higgins, the Director of Midwifery and Nursing, Ms Mary Brosnan, the Secretary/General Manager, Mr Ronan Gavin, the Clinical Director, Dr Roger McMorrow and Mr Alistair Holland, Financial Controller and their teams, and indeed all persons who have devoted their time during the year in the Hospital, deserve our special appreciation for their unstinting and selfless dedicated work in their care of woman and babies.

Mr William Johnston, Honorary Secretary.

Secretary/General Manager's Report

During 2024, apart from continuing to develop our core activities in maternity, gynaecology and neonatology, we continued to grow additional women's health services introduced in the past few years and also to continually strive to offer new services, all within the context of our existing site with its known infrastructural limitations. Many of our new services have been introduced with the support of National Women and Infant's Health Programme (NWIHP) and also the Dublin South East Hospital Group (DSE) and often involve additional resources, primarily staffing. In certain instances the NMH, with the support of our Executive Committee, has been the innovator in providing and investing in a new service (genetics/fetal MRI) with other Hospitals and NWIHP then recognising the need and the benefits and subsequently providing additional support. While core maternity numbers have continued a moderate decline in recent years, the cohort of patients has shown an increase in complexity due to many factors and, as in other Hospitals, there continues to be a rise in caesarean section rates. New and developing services such as fetal MRI, genetics, menopause, placenta accreta, mesh and fertility all have seen growth in numbers since their introduction. Existing departments such as dietetics, perinatal mental health and medical social work have expanded their services to offer additional supports to our patients and also see increasing referrals due to increasing complexity in the patient cohort. In 2024, there was continued expansion and investment in public fertility and very significantly, a respiratory syncytial virus (RSV) immunisation program for newborns was introduced in August and this should yield significant health benefits to these babies.

The co-location to Elm Park continued to be a major focus of the Executive Management Team (EMT) and the Executive Committee. Enabling works on the site continued with further contractors appointed in 2024 for additional enabling projects to ensure the site would be "de-risked" for the main contract works. The major focus of the Project Board was the main contract tender and the re-engineering of the governance preparation for the build and commissioning phases of the project. The Design Team were focussed on preparing the full range of tender documents and these issued to the market during the summer. Tenders for main contractors were received back by year end and the sub specialist contract tenders are due back early 2025. These tenders will be evaluated by the Design Team with a report expected mid-2025.The tender evaluation and revised Business Case then go through approvals processes in the HSE and Department of Health for final approval by Government and hopefully award of contract around end of 2025.

A significant development during the year was the HSE purchase of a number of buildings on the Elm Park site which will greatly assist in the decanting of some St Vincent's University Hospital (SVUH) departments to progress site works for the project. In addition, this space in Elm Park has the potential to allow NMH some additional space to deal with capacity issues in the intervening years until the new hospital is completed. Over the coming 12 months we will be liaising with DSE to determine what services might be able to utilise the space available and to determine design and fit-out.

Dealing with the aging infrastructure on the Holles Street site continues to be challenging, and during 2024 significant works continued on main electrical infrastructure including new generators. This was supported by IEHG and HSE capital funding. As noted in previous years various aspects of the building continue to be problematic including lifts, heating and water systems, windows and downpipes and the lack of adequate bathroom facilities. A project for a new patient transport lift was pursued with the assistance of the Ireland East Hospital Group (now DSE) and planning permission was granted after year end. Similarly, the ambulatory gynae project (approved during 2023) finally commenced post year-end. Other significant issues to be considered in the lifetime of the current site continue to be the central decontamination unit and perinatal pathology/bereavement which had been highlighted as concerns for over four years.

The continued introduction of new services and the expansion of both new and existing services continues to exacerbate the urgent demand for additional space. It is hoped that the potential use of some of the buildings on the Elm Park site might address some of these needs during the years before the new hospital is completed.

Extended service periods have been introduced in a number of areas with new rosters including longer days and Saturdays which provides an overall better access to services for patients and other Hospital Departments. Virtual consultations continue to be an option offered by many Hospital Departments where appropriate.

Our ICT, both infrastructure and systems, continues to be an area requiring constant updating. During 2024 the phone systems upgrade was substantially completed and work continued across our ICT and network infrastructure. This work is overall important in the context of ongoing cybersecurity and there are a number of further initiatives in development to enhance our cybersecurity and compliance when Network and Information Security 2 (NIS2), a European directive is enacted. A number of major software upgrades were initiated, including the upgrade of the Winpath lab system, radiology system, single sign-on and viewpoint.

As part of our continuous monitoring of governance processes, underpinned by our Charter, the Hospital's Executive Committee (the Board) put in place a number of enhancements to committees and meetings including review of committee memberships and enhanced documentation for Executive and Finance meetings.

The Hospital's fundamental resource is our staff and 2024 proved to be a difficult year for the NMH, like many others, in relation to recruitment and retention combined with the HSE embargo and then the 'Pay and Numbers' strategy. Recruitment was problematic in many groups of staff but particularly in midwifery and nursing and the paramedical grades. The issues involved are multi factorial but there is no doubt that the lack of affordable accommodation in the Dublin region and transport difficulties are factors. The Hospital continues to source some accommodation that is available for new entrants on a short-term basis but this is not a long term solution. The imposition of the 'Pay and Numbers' strategy which effectively sets a target employment limit at the level of actual employees at the end of December 2023 is a major issue for NMH. December 2023 was a particularly low figure due to all the aforementioned recruitment issues with many posts vacant at this point. In addition, the student midwives rotation are not onsite in December every year so this is a significant cohort that have been 'ignored' by the HSE strategy. These issues have been highlighted to both HSE and DSE at a number of meetings and hopefully there will be some positive resolution during 2025.

During the year our patient experience surveys continue to score in the high 90s for satisfactory rating, which is a very positive endorsement of our staff especially when we consider the physical limitations of the building. During the year many Departments again maintained accreditation and also won awards. The laboratory continued its accreditation to ISO 15189 standard and the Catering Department to ISO 22000:2018 standard. As in previous years, I need to mention the Catering Department who again won multiple awards including a Gold Award Certification from the Irish Heart Foundation for healthy catering practices, being nominated as finalists in the Irish Hotels and Catering Gold Medals Awards and obtaining a 100% score in the FSPA Audit (Food Safety Professional Association). Like many other Departments, they achieve these recognitions for a service that is provided in sub optimal infrastructural conditions.

Finally, I would like to thank all of the members of the Executive Committee and the various Sub Committees for their ongoing support and advice during the year. A special thanks to Ms Michele Connolly, our Honorary Treasurer who stepped down from this position at the AGM. Michele has been a fabulous supporter of the NMH and has been invaluable to the EMT and Executive with her advice and expertise over the years. I would also like to thank the other members of the EMT: Prof Shane Higgins, Master, Ms Mary Brosnan, Director of Midwifery & Nursing, Dr Roger McMorrow, Clinical Director and Mr Alistair Holland, Financial Controller for their support and assistance. Special thanks to both Clare Gray and Pam Robinson who ensure that the work of my office and of the various Board Committees and sub committees is always under control. As always, the most important factor in providing quality patient care is our extraordinary staff and I thank them all for their tireless work on behalf of our patients throughout the year.

Ronan Gavin, Secretary/General Manager.

Director of Midwifery & Nursing

Ann Calnan, Assistant Director of Midwifery & Nursing with Mary Brosnan, Director of Midwifery and Nursing. Ann received the Direcotr of Midwifery & Nursing medal to acknowledge her outstanding contribution to midwifery and to the National Maternity Hospital for almost 35 years.

After 20 years in my role as Director of Midwifery and Nursing, I am writing my final annual report. It's been my pleasure and privilege to lead my team and I could not function without their supportng me. I would like to pay tribute to all of my colleagues within the Hospital, my Midwifery and Nursing managers and staff and in particular my Assistant Directors of Midwifery and Nursing. Siobhan Flanagan my PA and Lisa Murray, Midwifery & Nursing HR Executive whom are the backbone of my office and I owe them a debt of gratitude. I have also been so fortunate to work with my Executive Management Team colleagues and friends, Prof Shane Higgins, Ronan Gavin and Alistair Holland and Clinical Director Dr Roger Mc Morrow whom have always supported me in my role.

As I reflect on the last twenty years, I am immensely proud of our Midwifery and Nursing team. The range of services across maternity, neonatal care, women's health and gynaecology have increased exponentially. Many staff have established additional support services for women that facilitates the sharing of expertise and knowledge which enhances each woman's care experience in so many areas, from booking in to discharge with her new baby or when she engages with the gynaecology team.

Each year in this Hospital, midwives and nurses have innovative ideas to improve the way care is planned and provided. Some of this was driven by national strategies such as the National Maternity Strategy 2016-2026. Investment from NWIHP following the publication of this document, which focused on many areas such as the expansion of the community midwifery services, investment in infrastructure, women's health services including publicly funded fertility treatment and menopause services or the national neonatal transport service.

Service Developments often arise from innovative leaders who look at ways that services for women can be improved. There are so many examples of this local innovation: the establishment of the dedicated Emergency Room, expanding the Labour and Birthing Unit, including a birthing pool, or the development of a new clinic such as the IRIS clinic for hyperemesis, the Labour Hopscotch to improve active labour for women, the introduction of waterbirths, the affirmation cards to promote a positive approach to birthing and colostrum harvesting sets to promote breastfeeding. So many women have benefitted from the Birth Reflections service, the Poppy Clinic for postnatal morbidity or the Pre-assessment Clinic, Menopause Clinic and Fertility service. All of these ideas involve Senior Midwives or Nurses who took the initiative and established new clinics or services to meet a specific need for women and improve processes.

Some challenges stand out for me over the last number of years in particular. The introduction of the Maternal Newborn Clinical Management System (MN-CMS) electronic health record (EHR) across the Hospital was a system wide change in 2018 that required years of planning and preparation. It was led internally by Dr Tina Murphy, RIP. Tina was an incredibly dedicated colleague and friend and we all miss her still. She established a strong team who have continued to embed the EHR and to improve the functionality and applicability of the data generated from the system. During the cyber-attack on the entire HSE in May 2021 which lasted 10 weeks, it was really evident to us how much we missed the EHR and the benefits of having the MN-CMS to manage patient's information.

The Repeal the 8th Amendment was passed in May 2018 after a long campaign and the subsequent introduction of the **Termination of Pregnancy** service was very challenging for the Hospital in January 2019.

With the usual 'can do' approach, a multidisciplinary team planned and established the service for women in a respectful, compassionate manner.

The Covid-19 pandemic in March 2020 was probably one of the most difficult periods we all lived through. Again as a multidisciplinary team we created a plan to provide safe and effective maternity services during the uncertainty of the first year when the virus was new and there was no vaccine available to staff. The Hospital was relying on the staff who continued to show up and care for women with dignity and respect, despite potential risks to their own safety and their families safety. Many other staff were in support functions, also worried for their safety and without the choice to work from home and protect themselves by isolating. All of the team worked with the guidelines, which were changing so often, and managed the service safely, keeping women's needs foremost and facilitating partners to be present as early as possible.

Midwifery and nursing staff recruitment and retention have probably been the most important and constant focus of my twenty years in this role. This is because without a stable and committed workforce, the provision of high quality midwifery and nursing care is always going to be more challenging. Turnover rates are 12% annually and continue to be higher in the nursing and midwifery workforce due to the problems of the cost of living in Dublin, particularly the cost of accommodation or rent which is often deemed unaffordable, the cost of crèche and childcare fees.

As with every hospital in Ireland we are highly reliant on overseas recruitment, particularly in the specialist areas of operating theatre and neonatology. In partnership with our academic partners, we are constantly exploring ways of increasing the numbers of midwifery and nursing students in our education programmes, in order to improve the stability of the Irish workforce and to reduce this burden of overseas recruitment. Our BSc and Higher Diploma Midwifery programmes continue to attract good numbers and we are delighted when the graduates continue on their journey to become registered midwives and part of our valued workforce.

As part of our efforts to improve our workforce planning and to adopt a more strategic approach, we have invested in the **Birthrate Plus Acuity App** for all maternity inpatient areas, including the Labour and Birthing Unit, Antenatal and Postnatal wards. This has proven to be extremely useful in demonstrating the acuity of the service and the fluctuations in demand due to the unscheduled nature of the maternity service. We are in the process of formally evaluating the data with our UCD colleagues.

The Joint Research Network (JRN) between The National Maternity Hospital (NMH) and University College Dublin (UCD) was established in 2007 to develop a research culture for midwives, student midwives and nurses. Each year we have pursued an active research agenda covering a diverse range of topics including bereavement, breastfeeding, care in labour, birth satisfaction, midwifery retention issues. This year a number of midwifery led research projects were undertaken including.

- Birth Reflections Service Evaluation
- Evaluation of the Midwifery care at the Fetal Medicine & Ultrasound Department
- Health and Wellbeing of the Health Workforce Across Maternity Settings (MatWell)

Findings from the research have been published in academic journals and presented at National and International conferences.

One of the initiatives that I am extremely proud of is the **Community Midwifery Service** which is now in existence for 25 years. To date, this service has provided midwifery care for over 35,000 women both during pregnancy and post-birth. The Domino and Homebirth Service have cared for over 10,000 women throughout pregnancy, labour and into the postnatal period and over 800 homebirths have been facilitated.

In April we welcomed Mrs. Sabina Higgins, wife of the current President of Ireland, Michael D. Higgins and Minister for Health Mr Stephen Donnelly as our special guests of honour, to mark 25 years of the service in Kilruddery House in Co. Wicklow. Representation from the service users and Hospital staff and community partners who have supported the service over the last twenty five years along with current and previous midwives who had worked on the team, celebrated this momentous occasion.

In November we had a wonderful celebration of **Neonatal World Prematurity Day** where our team invited many families of premature babies who received care by our neonatal staff. It was a great celebration for the parents who have had the difficult journey of caring for a premature or sick baby and a joyful occasion for families and staff to celebrate the successes and witness these children growing and thriving.

During my years as Director of Midwifery and Nursing, the area of **Women's Health** has received very significant investment, allowing a great deal of expansion in all the subspecialist areas including Colposcopy, Fertility treatment, Complex Menopause clinic and Gynaecology. In September 2024, following a HSE National Screening Service quality assurance audit, the NMH Colposcopy Service was recognised as one of the largest and highest-performing colposcopy units in Ireland. The team were commended for their strong commitment to audit, quality improvement and education. As with the wider hospital, infrastructural challenges in service delivery and the

patient environment were noted as points for improvement. Menopause clinics are expanding in each region and our team is playing a leading role in providing information and choice for women in terms of treatment options, with improvements in quality of life for so many women. The Fertility Hub has also seen a large increase in referrals with the introduction of publicly funded IVF. Our team is growing and their expertise is supporting many couples in their fertility pathway.

I would like to congratulate the following on their promotions during the year. Rahel Dalton, ADOM, Sara Rock, CMM3 Neonatal Unit, Fidelma Martin, CMM3 Clinical Risk, Fiona Murphy, CMM 2 Postnatal, Christina Silas, CMM 2 Night Duty, Geraldine Walsh, Clinical Skills Facilitator, Neonatal Unit.

In 2024, many senior staff members retired from our team after many years of service to the Hospital which was greatly appreciated by ourselves and by patients throughout their careers. Marie Luise Gante, Barbara McMackin, Hilda Wall, Martina Carden, Orla Gavigan, Maggie Bree, Eileen Dorman, Siobhan O'Sullivan, Jean Waller, Lyubov Sedyk and Celine Mooney: we wish each of them many years of good health and happiness in the future.

Since 1912 **The Linen Guild** has been playing an incredibly important role in supporting parents and families in need of financial assistance. It has been my privilege to be involved in the Linen Guild and to witness the amount of support provided to so many very needy patients each month. The demands have increased year on year, due to the level of need in society, driven by domestic violence, substance use or homelessness, all of which are increasing annually and our Medical Social Work team are engaging in this work supported by the Linen Guild.

I have witnessed so much change in the Irish maternity services over the last 20 years. Society has evolved and with that, the maternity landscape is catering for a much more diverse and international population of women and families. Birth rates across the developed world have fallen significantly. Women are now having babies in their late 40s whilst teenage pregnancies have become much less common with the availability of contraception and Termination of Pregnancy. Many couples rely on fertility treatment in order to achieve a pregnancy. Caesarean sections are now accounting for 40% of births. Homebirths and water births are also more common than they were 20 years ago. Choice and informed consent are now a central consideration in the dialogue between the health care professionals and the women giving birth. There are many more additional services for women to avail of such as Perinatal Mental Health and Bereavement Support.

As a midwifery leader, I am hopeful for the future when I look at my colleagues who are working so hard to respond to women's needs. As professionals, we are constantly embracing the challenges and always adapting to meet the needs of women, whatever their circumstances. I am very grateful and privileged to have worked with this incredible team and I wish everyone continued success for the future in this wonderful institution.

Mary Brosnan, Director of Midwifery & Nursing.

Mary Brosnan, Director of Midwifery & Nursing and Prof Shane Higgins, Master.

The People and Organisation Committee

BSc. Midwifery Graduates!

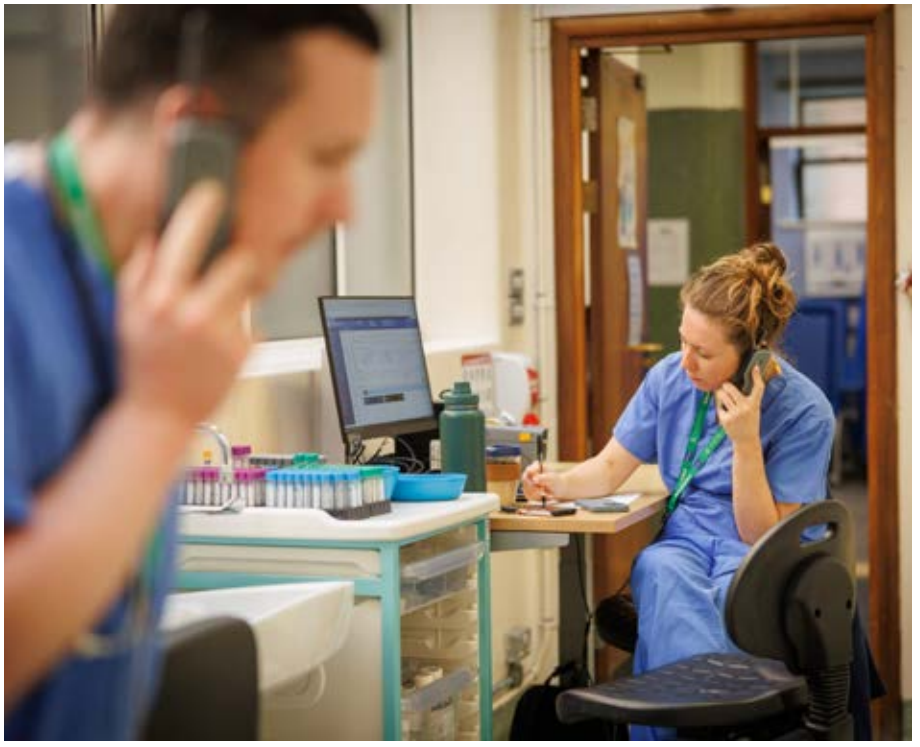
The People and Organisation Committee was formed in May 2022 with a mandate to "advise The National Maternity Hospital Executive on all matters relating to People and Organisation and to maintain and grow the reputation of The National Maternity Hospital as one of Europe's leading providers of maternity and women's healthcare services with a focus on the proposed move to Elm Park campus." This is done through the provision of strategic oversight to the Human Resources (HR) Department and Executive Management Team on matters to support the people ambitions of the NMH Strategy, to provide assurance to the NMH Executive Committee that the HR and People and Organisation related activities are in place and to deliver the required outcomes and benefits.

The focus of the Committee for 2024 was to look at recruitment challenges, particularly against the wider Pay and Numbers Strategy limits implemented nationally, people risks and HR Process assurance and governance pathways in conjunction with the implementation of the revised hospital strategic plan for the period 2024-2028. Additionally, the People and Organisation Committee supported an audit and creation of an action plan to improve HR processes, the outcome of which was satisfactory from an assurance perspective. The findings also supported the streamlining and automation of certain processes, for which an action plan has been created and progress in respect to implementation will be kept under review by the Committee over 2025.

In addition, the Committee supported the HR Department in identifying and developing staff retention initiatives, as well as providing guidance on industrial relation matters.

Ms Denise Cole, Chair.

Audit Committee



Dr David Rooney, Specialist Registrar in Obstetrics and Gynaecology and Dr Emma Shanley, Senior House Officer in Obstetrics & Gynaecology in the Holles Outpatient Clinic.

The Audit Committee's roles and responsibilities include:
Oversight of the audit of The National Maternity Hospital (NMH) annual financial statements including the terms of engagement of the external auditor, the nature and scope of the annual audit programme and to assess on an annual basis, the independence, objectivity and effectiveness of the external auditor.

Review of the NMH Annual Report and Financial Statements and to consider whether they are fair, balanced and understandable, and provide the information necessary for an understanding of the NMH framework. Specific responsibilities in this regard include recommending to the Board approval of the annual financial statements.

Oversight of compliance with legal and regulatory requirements including Charities Act 2015, Charities Governance Code and HSE Service Level Agreement.

Provide assurance to the Board as to the effectiveness of the Hospital's systems of internal control, including financial, operational and compliance controls and non-clinical risk management.

The Audit Committee convened six times during the year which included meeting with the Hospital's external auditors, PWC, to agree their terms of engagement for the audit of the Hospital's annual financial statements and, following completion of the audit, to receive and consider PWC's post audit report and recommendations.

The Audit Committee also had ongoing interactions throughout the year with the Hospital's internal auditors, Crowe, to agree their work plan for the year and review reports issued. Internal Audit reports received from Crowe and considered by the Audit Committee during 2024 covered Accounts Payable, Fixed Assets, HR, Procurement and Contract Management. The Audit Committee also tracks and monitors the implementation of recommendations of earlier internal audit reports.

Furthermore, the Audit Committee oversaw the reappointment of Crowe as the Hospital's internal auditors for a further 3 years for 2025 to 2027 following a tender process conducted under the public procurement framework.

The Audit Committee, in conjunction with Finance Committee, continues to oversee preparations for the adoption of the Charities SORP (Statement of Recommended Practice) for the Hospital's accounts, which will become mandatory following approval of the Charities Amendments Bill which is currently before the Houses of the Oireachtas.

Ms Michele Connolly who stepped down from her role as Honorary Treasurer at the AGM on 29th May 2024 also stepped down from the Audit Committee and was replaced by Mr Tom Murphy who succeeded Ms Connolly as Honorary Treasurer. Ms Mairéad Butler, who served on The Audit Committee since 2019 stepped down from the Audit Committee in April 2024. I would like to thank both Michele and Mairéad for their invaluable contributions and support to the work of the Audit Committee.

Aidan Devlin, Chair.

Quality Risk & Patient Safety Committee

The Quality Risk and Patient Safety Committee (QRPS) operates under Terms of Reference approved by the NMH Executive Committee (the Board). These are reviewed annually and changes made as needed.

The main aims of the QRPS Committee are to:

- understand the risks to which the patients and the staff are exposed and to provide assurance that process is in place to ensure they are managed adequately;
- drive quality, risk and patient safety strategy, management and improvement within the NMH and
- provide a level of assurance to The Board that there is adequate and suitable governance of quality, risk and patient safety in place.

The QRPS Committee met five times during the year. At these meetings, reports from various departments were reviewed, covering matters such as data protection, incident management and risk management in general.

The Committee continues its work in all aspects of potential risk: Departmental Risk Registers Reports are reviewed as well as reports in relation to General Data Protection Regulation (GDPR) and Health and Safety. The IT Department continues to ensure that the Hospital follows the HSE guidelines in relation to Cyber Security, an area where that the Hospital has always been at the forefront. There was continued engagement with the National Cyber Security Centre in relation to Network & Information Systems. Consideration of the best means, and possible software to manage data extraction from various systems for the best possible risk related reports was initiated.

The digitisation of administrative processes for offsite and electronic health records has progressed steadily throughout the year. Several awareness campaigns were also conducted to minimise data breaches.

The HSE Enterprise Risk Management Policy and Procedures 2023 has been embraced and the QRPS Department and committee strive to comply. Further work is planned for the coming year with assistance from members of the committee. The appointment of Martin Creagh as Operational Risk Manager will also facilitate this.

The Patient Safety (Notifiable Incidents and Open Disclosure) Act 2023 formally commenced on 26 September 2024. To summarise, there are 13 notifiable incidents which require notification to National Incident Management System (NIMS), HIQA and NWIHP within 7 days, along with the appointment of a Designated Person to support the patient, a mandatory Open Disclosure (OD) meeting to be held as soon as is appropriate, and a written record of this meeting provided within 5 calendar days of the OD meeting. This has added a significant workload to the QRPS Department without any additional resources provided nationally. The Hospital is fully compliant with this process and the Department acknowledges the support from the Executive Management Team and The Board.

During the year the Hospital was visited by the Cervical Check Quality Assurance Team. Their report was extremely favourable and noted that the service provided in NMH is of a high standard and is recognised as one of the largest and best performing colposcopy units in Ireland. They acknowledged the infrastructural limitations particularly regarding the waiting and reception areas.

The embargo on recruitment continued during 2024 and was then replaced by the Pay and Numbers Strategy. This has limited the Hospital workforce to the staff census collated in December 2023. It remains an item of concern among an already stretched and stressed workforce. The provision of safe staffing is an ongoing challenge when caring for increasingly complex patients.

Rensu and Sujin Thomas with their newborn daughter Irene Thomas.

At the AGM on 29th May 2024, Ms Sarah Claxton was elected onto the Committee and was nominated and appointed chair of the committee at the June meeting.

The Committee thanks the Master, Prof Shane Higgins, Mr Ronan Gavin, Drs Anne Twomey and Orla Sheil, and Ms Mary Connolly for their support and assistance throughout the year.

Sarah Claxton, Chair.

Co-Location Committee

The Committee continue to work on progressing The National Maternity Hospital (NMH) at Elm Park project through the various decision processes. The focus of the project during 2024 was the Design Team preparing tender documents for issue to the market for the main construction.

The tender was issued in April 2024. During the year, a number of contractors were onsite undertaking enabling works.

As the focus was confined to design, the Committee only met three times during 2024.

The Committee noted and discussed the fact that existing project governance structures were being stood down now that the tender was issued and the Project was, hopefully, moving into the construction stage. The HSE issued some proposals for the new governance structures which were reviewed and suggestions were issued back to the HSE.

I would like to thank all of the Committee members for their time, expertise and commitment over the course of 2024.

Mr Pat McCann, Chair,
Co-Location Committee.

Lord Mayor of Dublin, Cllr James Geoghegan with Valerie Seymour, CMM1 Holles Clinic.

Medical Fund Committee

Dr Niamh Joyce, Aspire Clinical Fellow and Michelle Barry, Fertility CNS.

The Medical Fund, as set out in the Hospital Charter and bye-laws, provides funding for education and research related to women's health care. It receives its funding from the semi-private Fitzwilliam Clinic, whose costs and revenues are shared between the consultants who operate the clinic and the Medical Fund. The Fitzwilliam Semi-Private Clinic (SPC) offers a third category of care for patients of The National Maternity Hospital that falls between the public offering and that offered on a fully private basis. The Medical Fund Committee meets on a regular basis and reports to the NMH Executive Committee.

> "This was used to fund a variety of activities including the provision of €492k funding towards five WTE Research Fellows and €53k for other comparable research and education activities."

Activity levels continue to increase at the clinic during the year following new booking and operational initiatives introduced together with some much needed physical upgrade works.

During 2024 the Medical Fund received a total of €1,503k income from its share of the semi-private clinic activities. Its share of the costs to operate the clinic, amounted to €1,342k of which €835k related to clinic salaries. That resulted in funds available for charitable purposes of €507k. This was used to fund a variety of activities including the provision of €492k funding towards five WTE Research Fellows and €53k for other comparable research and education activities. The Fund had a surplus of €221k for the year.

The focus of the Committee during 2024 centred about medium and long term planning. The Fitzwilliam SPC provides a vital source of income to fund Research Fellows and it was reaffirmed that this should continue to be the primary use of the funds generated by the clinic. The financial statements of the Fitzwilliam SPC were also brought up to the same reporting standard as that of the main Hospital.

Our thanks to all the Fitzwilliam Semi-private clinic staff and in particular Ann Barry for her assistance during the year.

Michele Connolly, Chair, Medical Fund.

House Committee

Rhiannon Smith with her newborn son Duncan in the Neonatal High Dependency Unit.

The House Committee is one of the longest serving sub-committees of the NMH Executive Committee (The Board) and meets five times each year. The Committee conducts unannounced independent quality assurance inspections of the Hospital's facilities and equipment and communicates these findings to the Executive Management Team and The Board. The House Committee reviews the facilities through a structured format that is founded on the infection control requirements of the Health Protection and Surveillance Centre, and plays a significant role in monitoring many of the elements that contribute to the efficacy of the Hospital's infection control strategies.

In 2024, the Committee assessed 9 clinical areas of the Hospital. Collectively, these assessments achieved an overall average score of 92% and an average medical equipment score of 89%, exceeding the Hospital's targets. In June, the Committee welcomed Ms Keara McAndrew and Ms Margaret Fanagan.

The Committee wishes to thank Prof Shane Higgins, Master, Ms Mary Brosnan, Director of Midwifery & Nursing, Mr Ronan Gavin, Secretary and General Manager, Mr Mark Anderson, Hygiene Services Manager and Mr Calin Buie, Hygiene Services Supervisor, for their support and assistance during the year.

Catherine Altman, Chair.

Masters of The National Maternity Hospital

2019 –	Shane Higgins
2012 – 2018	Rhona Mahony
2005 – 2011	Michael Robson
1998 – 2004	Declan Keane
1991 – 1997	Peter Boylan
1984 – 1990	John M. Stronge
1977 - 1983	Dermot W. MacDonald
1970 – 1976	Declan J.Meagher

1963 – 1969	Kieran O'Driscoll
1956 – 1962	Charles F.V. Coyle
1949 – 1955	Arthur P. Barry
1942 – 1948	Alex W. Spain
1932 – 1941	John F. Cunningham
1924 – 1931	Patrick T. McArdle
1923	Sir Andrew J. Horne
1923	Patrick T. McArdle

1909 – 1922	Sir Andrew J. Horne
1909 – 1922	Reginald J. White
1894 – 1908	Patrick J. Barry
1894 – 1908	Sir Andrew Horne
1885 – 1893	William Roe

Charter Day Lectures

2024	**Prof Thomas Bernd Hildebrandt**	"Working at unusual places with challenging patients"
2023	**Professor Michael A. Patton**	“The Importance of Genetics”
2022	**Professor Andrew Shennen**	“The 3 P’s of Preterm Birth, Predict, Prevent & Prepare
2021	**Dr. Sanne Gordijn, PhD.**	“The Placenta – A Love Story”
2020	**Dr. Roch Cantwell**	“There is no Health without Perinatal Mental Health”
2019	**Professor Alan D. Cameron**	“Each Baby Counts - a Five Year Quality Improvement Programme”
2018	**Professor Lesley Regan**	“Current challenges for the President, Royal College of Obstetrics & Gynaecology, UK”
2017	**Dr David Hugh Richmond**	“When will we ever learn?”
2016	**Dr Jeanne A. Conry**	“The Ostrich And The Obstetrician Gynaecologist: How The Environment Can Impact Reproductive Health”
2015	**Dr John O. L. DeLancey**	“Birth, Pelvic Floor Injury and Prolapse: Who Cares?”
2014	**Professor Mark Kilby**	“Fetal Medicine & Therapy: A Fantastic Step Forward But Are We Delivering A Good Service?”
2013	**Professor Michael Raymond Foley**	“Discovering Fulfilment as a Medical Professional – Ancient Wisdom for Modern Medicine”
2012	**Professor Michael de Swiet**	“Saving Mothers’ Lives: Lessons to be learned from the Confidential Enquiry into Maternal Mortality”
2011	**Professor Dian Donnai**	“Genetic Medicine – Possibilities and Promises”
2010	**Professor James Eisenach**	“Pain Pregnancy & Depression.”
2009	**Dr Kenneth J. Leveno**	“Caesarean Memories"
2008	**Dr. Terry Inder**	“The Pathway to Improving Neurodevelopment in at-risk Infants – Nurturing Fetal and Neonatal Neurons”
2007	**Prof Wolfgang Holzgreve**	“Fetal Cells and DNA in maternal circulation- clinical importance for non-invasive prenatal diagnosis and maternal diseases”
2006	**Dr. José Belizán**	“Calcium Intake During Pregnancy- Maternal and Fetal Outcome”
2005	**Dr. Robert C. Pattinson**	“Getting the Right Thing Done”
2004	**Prof. Thomas F. Baskett**	“The Evolution of Operative Vaginal Delivery”
2003	**Prof Heman V. Van Geijn**	“Is Cardiotocography to Blame?”
2002	**Joseph J. Volpe**	“Brain Injury in the premature infant – is it preventable?”
2001	**Professor Frank A. Manning**	“Echoes from the Past: the Alpha-Omega Theory.”
2000	**Raymond J. Reilly**	“Surgical Gynaecology, the Past, the Present and the Future.”
1999	**Paul Hilton**	“Vesicovaginal Fistula – Of Historical Interest?”
1998	**Sir Naren Patel**	“Chronogenetics – Role of Obstetricians.”
1997	**Dr. Fredric D. Frigoletto Jr.**	“Is Obstetric Practice Evidence based?”
1996	**Carol J. Baker**	“Group B Streptococcal Disease: Pilgrims’ Progress.”
1995	**Prof. Fiona Stanley**	“Cerebral Palsy – Contribution from the Antipodes.”
1994	**R. W. Beard**	“Medicine in the New Europe – The Impact on Obstetrics and Gynaecology”
1993	**Knox Ritchie**	“Sad – but can anything be done? ...”
1992	**John Monaghan**	“A Century of Subspecialization in Gynaecological Oncology – are we progressing?”
1991	**Charles Whitfield**	“The Rh Story”
1990	**Roy M. Pitkin**	“Anatomy and Physiology of a Peer Review Journal”
1989	**Claude Sureau**	“Decision making in reproductive medicine.”
1988	**Geoffrey Chamberlain**	“One up on Dactylonomy”
1987	**Hugh Philpott**	“Obstetrics of Poverty.”
1986	**Charles R. Scriver**	“Medelian Disease – What can it do to us? Can it be treated?”
1985	**Alexander C. Turnbull**	“Learning Obstetrics in Scotland, Wales, England and Ireland.”

1984	**Sir Rustam Feroze**	“What alternative to what Medicine?”
1983	**William Dignam**	“Post Graduate Education in Obstetrics and Gynaecology in the U.S.A.: At the Crossroads.”
1982	**Richard Mattingly**	“New Horizons in Cervical Cancer Detection.”
1981	**Robert H. Usher**	“The Very Low Birth-weight Infant – Immediate and Long Term Prospects.”
1980	**Shirley Driscoll**	“Placentas I Have Known.”
1979	**John S. Tomkinson**	“Ultimate Tragedy.”
1978	**Otto Kaser**	“Post-operative Complications.”
1977	**Denis Cavanagh**	“Eclamtogenic Toxaemia – The Science and the Art.”
1976	**John H. Pinkerton**	“The Tell Tale Heart.”
1975	**Marcel Renaer**	“Transplacental Haemorrhage as a Cause of Perinatal Mortality and Morbidity.”
1974	**James Scott**	“Counting the Cost”
1973	**Mogens Ingerslev**	“Modern Democracy in the National Health Service”
1972	**Ian Donald**	“Naught for Your Comfort”
1971	**Raymond Illsley**	“Social Limitations on Obstetric Management.”
1970	**Christopher J. Dewhurst**	“The Place of Modern Technical Advances in Obstetrics.”
1969	**Dunanc Reid**	“The Right and Responsibility.”
1968	**G. J. Kloosterman**	“The Practice of Obstetrics in the Netherlands.”
1967	**Sir John Peel**	“Pre-Diabetes in Obstetrics and Gynaecology.”
1966	**Hugh McLaren**	“The Conservative Treatment of Cervical Pre-Cancer.”
1965	**John McClure Browne**	“Placental Insufficiency.”
1964	**Sir Hector MacLennan**	“Version.”
1963	**Harold Malkin**	“The Art of Obstetrics.”
1962	**Charles Scott Russell**	“The Fetus and its Placenta.”
1961	**Sir Norman Jeffcoate**	“Prolonged Labour.”
1960	**John Stallworthy**	“The Debt We Owe.”
1959	**George Gibbard**	“Changes in the Manifestations of Puerperal Sepsis.”
1958	**Sir Arthur Gemmell**	“Some thoughts on the Adrenal in pregnancy.”

Executive Committee (The Board)

Pat McCann *Deputy Chairman*
Pat has over fifty years' experience in the Hotel business. He started in 1969 in Ryan Hotel Group plc before joining Jurys Hotel Group plc in 1989. He retired from Jurys Doyle in 2006 and founded Dalata Hotel Group in 2007. Pat served as President of IBEC from September 2019 to September 2020. Pat was Chairman of Whitfield Hospital in Waterford from 2011 to 2018. He is currently a Non-Executive Director of Glenveagh and a number of private companies. On March 2nd 2021, Pat announced his retirement from Dalata Hotel Group plc.

William Johnston *Honorary Secretary*
William Johnston is an economics graduate of Trinity College Dublin, a solicitor and the external examiner in banking law for the Law Society; he is a member of the Governing Body and chair of the Finance and Property Committee of Technological University Dublin; he is a Board member of the Port of Waterford.

Michele Connolly
Michele Connolly is a Chartered Accountant with over 25 years commercial experience. She is currently a partner in KPMG Ireland and Head of Corporate Finance. She specialises in supporting State, Semi State, not for profit and commercial companies in development of new infrastructure, fund raising and general financial matters.

Prof Shane Higgins *Master*
Shane Higgins, is a Consultant Obstetrician/ Gynaecologist and the current Master of The National Maternity Hospital. He is an Associate Professor at UCD, Department of Obstetrics & Gynaecology and has a special interest in Maternal-Fetal Medicine. Shane has a broad range of clinical and management experience gained within Ireland, Scotland and Melbourne, Australia.

Ms Jill Beck *(from Sept)*
Jill Beck graduated from Trinity College with a Mechanical Engineering and Mathematics Degree. She has been working as a Commercial Manager in the Construction Industry for the past 20+ years. She has been involved in such projects as semi-conductor plants, pharmaceutical manufacturing facilities, Data Centres, Hotels, College and many more.She is a mother of 3 children, all of whom were born in the National Maternity Hospital.

Cllr Emma Blain *(to Dec)*
Emma is a councillor on Dublin City Council, having previously served on Dún Laoghaire Rathdown County Council from 2016-2024. She is also an Irish delegate to the European Committee of the Regions, representing the interests of Dublin City at the European Union. An experienced media and communications professional, she is also the editor of The Church of Ireland Gazette. Emma is the mother of 2 children, both of whom were born at the NMH. She was elected Lord Mayor of Dublin in Dec 2024.

Dr Ingrid Browne *(to Oct)*
A graduate of RCSI medical school, Ingrid Browne has been a Consultant Anaesthesiologist since 2004 to National Maternity Hospital and St Vincent's University Hospital. She is a fellow of the College of Anaesthesiologists and holds a Masters in medical science. She completed post graduate fellowship training in obstetric anaesthesia at Columbia University NYC. She is involved in Clinical Governance and is a member of the QRPS committee.

Mairéad Butler *(to May)*
Mairéad Butler is a Chartered Accountant and has spent most of her career in financial services in Dublin and Sydney, working in risk, compliance and communications roles. She is also a Director of An Cosán, a charity focused on education as a pathway out of poverty.

Sarah Claxton
Sarah is an Engineer with over 24 years' experience in the energy industry. Having worked in technical engineering and line management roles, she completed an MSc in Work and Organisation Behaviour and has worked in the area of Strategic HR & Organisation Development for the past 10 years. She currently leads People and Organisation Capability at ESB Networks as that business transforms to enable wide-scale electrification of society in support of the National Climate Action Plan.

Denise Cole
Denise Cole has 25 years of experience working in Human Resources and combines a wealth of strategic and operational HR and organisation development experience in both the private and public sectors. Her career includes KPMG in London and Dublin, the Beacon Hospital as Head of HR and St James Hospital as Head of HR Strategy. Denise is currently Head of HR for the Courts Service where she leads a People & Organisation Transformation programme.

Mr Andrew Crotty *(from May)*
Andrew Crotty is a Chartered Accountant with over 40 years' experience initially in a partnership practice and subsequently in the commercial sphere as finance director of TileStyle. Whilst now retired he continues to be involved as a long-standing financial consultant to a number of companies and individuals.

Fr Enda Cunningham *(to May)*
Son of a NMH nurse, Fr Enda serves as Administrator of Westland Row parish and chaplain to the National Maternity Hospital.

Aidan Devlin
Aidan Devlin is a Chartered Accountant and a UCC Commerce graduate. He is a member of the Institute of Directors in Ireland and the Mediators Institute of Ireland. Aidan has over 35 years' experience in Corporate Banking and Project Finance both in Ireland and the Middle East. He is also a board member of an Affordable Housing Body and was a founding board member of the NMH Foundation.

Frank Downey
Frank Downey has over 30 years' experience as an Actuarial and Employee Benefits Consultant. Frank is an economics graduate of Trinity College, Dublin, a Director of Invesco Limited and an actuary and advisor for corporate clients. Frank also acts as a trustee for a number of large pension schemes.

Cllr Cian Farrell *(from July)*
Cian Farrell is a Dublin City Councillor for the South East Inner City ward. Cian studied International Commerce in UCD, and currently works for a technology company.

Cllr. James Geoghegan *(to Nov)*
James Geoghegan is an elected member of Dublin City Council, practising Barrister at Law in Ireland with a mixed civil practice with a focus on Banking Law, Administrative Law, European Union Law and civil proceedings related to crime. He was elected Lord Mayor in June 2024 and elected to Daíl Éireann in November 2024

Fr Alan Hilliard *(from Oct)*
Fr Alan Hilliard serves as administrator of Westland Row, City Quay and University Churches in Dublin's South Inner City. He spent many years as Coordinator of the Pastoral Care and Chaplaincy Service guiding it through the transition from DIT to TU Dublin while ensuring a high quality of service to all students and staff. He has had varied roles in his time with the Archdiocese of Dublin including Director of the Irish Episcopal Commission for Emigrants and Prisoner's Overseas. He is an author of many books published by Messenger Publications and is a familiar voice on RTE's A Word in Edgeways.

Prof Declan Keane
Declan Keane has been a Consultant Obstetrician since 1995 and is a former Master of the Hospital. He has worked in the UK and the USA and was recently appointed as a Professor to the RCSI. He has considerable administrative experience and was a former member of the National Women's Council and was the obstetrician advising the Citizen's Assembly on the 8th Amendment.

Carmel Logan
Carmel Logan is a Chartered Accountant and Tax Adviser. She is a partner at KPMG with over 20 years' experience providing tax services to Irish and international companies across a range of sectors including real estate, infrastructure, technology and lifesciences. She is also a member of a number of industry bodies across the sectors she works in.

Prof Fionnuala McAuliffe
Fionnuala McAuliffe is Chair and Professor of Obstetrics & Gynaecology, UCD, Director UCD Perinatal Research Centre, Head, Women's and Children's Health, UCD, Consultant Obstetrician & Gynaecologist at The National Maternity Hospital. Her subspecialty area is maternal and fetal medicine and she is Programme Director of the RCOG maternal and fetal medicine subspecialisation fellowship at NMH. She has received significant grant funding both nationally and internationally. Fionnuala has developed guidelines for pregnancy both in Ireland, UK and internationally.

Jane McCluskey
Jane McCluskey is a lawyer with a large multinational technology company and has over ten years' experience practising corporate, commercial and intellectual property law. She is also a registered trade mark agent. Jane is Mum to four children, all of whom were born at the National Maternity Hospital.

Dr Roger McMorrow
Roger McMorrow is a graduate of The Queens University of Belfast and he has been a consultant anaesthetist at the National Maternity Hospital and St Vincent's University Hospital since 2009. He has served as Clinical Director of the NMH since January 2018. He has a specialist interest in high risk obstetrics, clinical risk and high altitude mountaineering. In 2007 he was part of an expedition that reached the summit of Mt Everest.

Prof Peter McParland *(to May)*
Peter McParland is a retired Consultant Obstetrician/ Gynaecologist at the National Maternity Hospital having worked there for over 30 years. He previously worked in Bristol, London and Toronto. He was Director of Fetal Medicine for over 20 years with a special interest in ultrasound, prenatal diagnosis and high risk pregnancies. He is the author of several National guidelines.

Dr John Murphy *(to May)*
John Murphy is a Consultant Paediatrician and Paediatric & Neonatal Clinical Lead with the HSE in Clinical Strategy & Programmes Directorate. His is also editor of the Irish Medical Journal.

Tom Murphy *Honorary Treasurer*
Tom Murphy is a Chartered Accountant with over 30 years of financial and commercial experience while based in the UK, the US and Ireland. He served as CFO of Fyffes Plc. for 14 years. Now retired, he is a non-executive director of several companies.

Cllr. Naoise Ó'Muirí
Naoise Ó Muirí has served as a Dublin City Councillor since June 2004 and is a former Lord Mayor of Dublin. Naoise studied Engineering at the National University of Ireland, Galway and runs a technology company. He was elected to Daíl Éireann in November 2024

Cllr. Cat O'Driscoll *(to June)*
Cat O'Driscoll represents the Cabra Glasnevin LEA and chairs the Arts and Culture Strategic Policy Committee in Dublin City Council. A native of Cork, Cllr. O'Driscoll has been a board member of Quality and Qualifications Ireland and The National Forum for the Enhancement of Teaching & Learning.

Ms Patricia O'Shea
Patricia O'Shea is a law graduate of University College Cork and is Group Head of Legal Affairs & Secretariat for a semi-state company. She was formerly General Counsel of a US multinational company serving as Company Secretary and a Director of a group company.

Nóirín O'Sullivan *(to May)*
Nóirín O'Sullivan most recently served as United Nations Assistant Secretary General for Safety and Security based in New York. Nóirín served as Garda Commissioner from 2014 – 2017. She holds a Masters in Business Studies from UCD Smurfit Business School. She has served two terms on the Governing Council of the Pharmaceutical Society of Ireland and chaired the Inspection and Enforcement Committee. She is a member of the North American Advisory Board of the UCD Smurfit Business School. Nóirín is the recipient of numerous awards including an Honorary Doctorate of Laws from the University of Ulster for Distinguished Public Service.

Ms Alison Quinn *(from Sept)*
Alison graduated from UCD with a BComm degree and then completed a Masters in International Business from Smurfit Business School before qualifying as a solicitor. Alison is an experienced commercial lawyer and litigator with more than 12 years experience advising multinational companies, Irish corporations and semi-state bodies on a range of commercial, consumer, data protection (GDPR) and technology matters. Her work has included secondment to a large tech organisation and representing clients before the Irish Commercial Court, the Irish High Court, and the European Court of Justice. Alison is a mum of 5 children, all of whom were born in Holles Street.

Dr Michael Robson
Michael Robson is a Consultant Obstetrician & Gynaecologist and former Master of the NMH. Dr Robson is the National Clinical Director of the Maternal and New-born Clinical Management System (Maternity, neonatal and gynaecology electronic patient record for Ireland). He also developed the methodology behind the perinatal and caesarean classification system used world wide known as the Ten group (Robson) Classification System.

Ms Deirdre Sweetman *(from May)*
Dr Deirdre Sweetman graduated from UCD School of Medicine and began her training in Paediatrics and Neonatology in Ireland. She completed a PhD in neonatal brain injury in the NMH and moved to Melbourne where she undertook a neonatology fellowship in the Royal Women's Hospital and Royal Children's Hospital. Deirdre returned to Ireland and took up a Consultant Neonatologist post in Holles Street in 2015. Deirdre is the Director of Neonatology at the NMH and continues to have a strong interest in neonatal neurocritical care".

Prof Jennifer Walsh
A graduate of UCD, Jennifer Walsh is a Consultant Obstetrician & Gynaecologist and Maternal and Fetal Medicine Subspecialist at the National Maternity Hospital. She was appointed to NMH in 2016 following completion of postgraduate subspecialty training at Columbia University NYC. She is the Director of Fetal Medicine at the NMH. Jennifer sits on both the Project Team and Project Board for the move to SVUH campus at Elm Park and chairs the Digital Health Steering Group for the future hospital. She is also Mum to three children, all of whom were Holles Street babies.

Executive & Sub Committees

Dr Dermot Farrell, Archbishop of Dublin, *Chairman*
Lord Mayor of Dublin, Cllr. James Geoghegan *(from July to Nov.)*
Lord Mayor of Dublin, Cllr. Emma Blain *(from Dec.)*
Mr Pat McCann, *Deputy Chairman*
Mr William Johnston, *Honorary Secretary*
Ms Michele Connolly, *Honorary Treasurer (to May)*
Mr Tom Murphy, *Honorary Treasurer (from May)*
Prof Shane Higgins, *Master*
Ms Jill Beck *(from Sept.)*
Cllr Emma Blain *(from July to Dec.)*
Dr Ingrid Browne *(to Oct.)*
Ms Mairéad Butler *(to May)*
Ms Sarah Claxton
Ms Denise Cole
Ms Andrew Crotty *(from May)*
Very Rev Fr Enda Cunningham (*to May)*
Mr Aidan Devlin
Mr Frank Downey
Cllr Cian Farrell *(from July)*
Cllr James Geoghegan *(to June)*
Fr Alan Hilliard *(from Oct.)*
Prof. Declan Keane
Ms Carmel Logan
Dr John Murphy *(to May)*
Prof Fionnuala McAuliffe
Ms Jane McCluskey
Prof Peter McParland *(to May)*
Dr Roger McMorrow
Cllr Cat O'Driscoll *(to June)*
Cllr Naoise Ó Muírí
Ms Patricia O'Shea
Ms Nóirín O'Sullivan *(to May)*
Ms Alison Quinn *(from Sept.)*
Dr Michael Robson
Dr Deirdre Sweetman *(from May)*
Prof Jennifer Walsh

In Attendance

Mr Ronan Gavin, *Secretary/ General Manager*
Ms Mary Brosnan, *Director of Midwifery & Nursing*
Mr Alistair Holland, *Financial Controller*

Finance Committee

Mr Pat McCann, *Deputy Chairman*
Mr William Johnston, *Honorary Secretary*
Ms Michele Connolly, *Honorary Treasurer (to May)*
Mr Tom Murphy, *Honorary Treasurer (from May)*
Prof Shane Higgins, *Master*
Ms Denise Cole
Mr Aidan Devlin *(from May)*
Ms Carmel Logan

In Attendance

Mr Ronan Gavin, *Secretary/General Manager*
Ms Mary Brosnan, *Director of Midwifery & Nursing*
Mr Alistair Holland, *Financial Controller*

Audit Committee

Mr Aidan Devlin, *Chair*
Ms Michele Connolly, *Honorary Treasurer (to May)*
Mr Tom Murphy, *Honorary Treasurer (from May)*
Ms Mairéad Butler *(to May)*
Mr Frank Downey
Cllr Naoise Ó Muírí
Mr Charles Watchorn *(from Sept.)*

In Attendance

Mr Ronan Gavin, *Secretary/General Manager*
Mr Alistair Holland, *Financial Controller*
Mr Eoghan Hayden, Chief Clinical Engineer

QRPS Committee

Ms Mairéad Butler, *Chair (to May)*
Ms Sarah Claxton, *(from May), Chair (from June)*
Dr Ingrid Browne *(to Oct.)*
Mr Aidan Devlin
Prof. Declan Keane
Ms Carmel Logan
Prof Fionnuala McAuliffe
Ms Jane McCluskey
Mr Bernard McLoughlin
Dr Roger McMorrow
Cllr Naoise Ó Muírí
Ms Patricia O'Shea

In Attendance

Ms Mary Connolly, *AON (to Aug.)*
Dr Anne Twomey, *Director of Quality, Risk & Patient Safety (to June)*
Dr Orla Sheil, *Director of Quality, Risk & Patient Safety (from July)*
Mr Ronan Gavin, *Secretary/General Manager*
Mr Carl Alfvag, *Compliance & Operations Manager*
Mr Martin Creagh, *Operational Risk Manager*

Co-Location Committee

Mr Pat McCann, *Deputy Chairman*
Ms Michele Connolly, *Honorary Treasurer (to May)*
Mr Tom Murphy, *Honorary Treasurer (from May)*
Prof Shane Higgins, *Master (from May)*
Ms Jill Beck *(from Sept.)*
Ms Sarah Claxton
Dr Roger McMorrow
Dr Orla Sheil *(from May)*

In Attendance

Mr Ronan Gavin, *Secretary/ General Manager*
Ms Sarah McCourt, *Project Coordinator*

Nominations Committee

Mr Pat McCann, Deputy Chairman, Chair
Mr William Johnston, Honorary Secretary
Ms Michele Connolly, Honorary Treasurer *(to May)*
Mr Tom Murphy, Honorary Treasurer ***(from May)***
Prof Shane Higgins, Master
Ms Mairéad Butler *(to May)*
Ms Sarah Claxton *(from Aug.)*
Ms Denise Cole
Mr Aidan Devlin
Prof. Declan Keane
Dr John Murphy
Ms Paula Reid *(to May)*

In Attendance

Mr Ronan Gavin, *Secretary/General Manager*

Medical Fund Committee

Ms Michele Connolly, *Chair*
Prof Shane Higgins, *Master*
Dr Stephen Carroll
Mr Andrew Crotty *(from May)*

Baby Duncan Smith.

Mr Frank Downey
Prof Declan Keane

In Attendance
Mr Ronan Gavin, *Secretary/ General Manager*
Mr Alistair Holland, *Financial Controller*
Mr Francis Rogers, *Management Accountant*

NMH Executive Ethics Committee
Dr John Murphy, *Consultant Paediatrician, Chair*
Prof Shane Higgins, *Master*
Ms Catherine Altman
Dr Ingrid Browne
Ms Denise Cole
Ms Caroline Devlin
Mr Frank Downey
Dr Paul Downey
Ms Jane McCluskey
Cllr Naoise Ó Muíří

In Attendance
Mr Ronan Gavin, *Secretary/ General Manager*

House Committee
Ms Catherine Altman, *Chair*
Ms Sara Appleby
Ms Cecilia Barker
Ms Louise Bennett
Ms Bernadette Campion
Ms Sheena Carton
Ms Jane Collins
Ms Fiona Davy
Ms Elaine Doyle
Ms Margaret Fanagan *(from May)*
Mrs Kate Higgins
Ms Keara McAndrew *(from May)*
Ms Margaret McCourt
Ms Anne Murphy
Ms Teresa Murphy
Ms Suzanne O'Brien
Ms Aoife O'Shea

In Attendance
Prof. Shane Higgins, *Master*
Ms Mary Brosnan, *Director of Midwifery & Nursing*
Mr Mark Anderson, *Hygiene Services Manager*

People and Organisation Committee
Ms Denise Cole, *Chair*
Ms Mairéad Callanan (*from Sept.*)
Ms Sarah Claxton
Mr George Maybury
Ms Patricia Nolan
Ms Nóirín O'Sullivan *(to May)*

In Attendance
Mr Ronan Gavin, *Secretary/General Manager*
Ms Mary Brosnan, *Dir. of Midwifery & Nursing*
Ms Yvonne Connolly, *Dir. of Learning & Development*
Ms Caoimhe De Brun, *Acting HR Manager*

Board of Governors

Governors Ex-Officio
Dr Dermot Farrell
(Archbishop of Dublin – Chairman)
Councillor James Geoghegan,
(Lord Mayor - Vice Chairman)
(from July to Nov.)
Councillor Emma Blain,
(Lord Mayor - Vice Chairman) (from Dec.)
Prof Shane Higgins (Master)
Very Rev Enda Cunningham, Administrator,
Parish of St. Andrew,
Westland Row (to May)
Very Rev Alan Hilliard, Administrator,
Parish of St. Andrew,
Westland Row (from Oct.)

Nominated by the Minister for Health
Ms Patricia O'Shea
Vacant

Nominated by Dublin City Council
Councillor James Geoghegan (to June)
Councillor Cat O'Driscoll (to June)
Councillor Cian Farrell (from July)
Councillor Emma Blain (from July to Dec.)

Governors Elected
Dr Alan O'Grady
Dr Niall O'Brien
Mr J. Brian Davy
Mrs Judith Meagher
Dr Jack T. Gallagher
Mr Gabriel Hogan
Mrs Anne Davy
Mrs Margaret Anderson
Mrs Kathleen O'Grady
Dr John F. Murphy, Obs.
Dr Frances Meagher
Mr Kevin Mays
Dr Declan O'Keeffe
Prof. Colm O'Herlihy
Mr William Johnston *(Honorary Secretary)*
Dr Peter Boylan
Mrs Joanne Keane
Mrs Anne Murphy
Mr Frank Downey
Mr Anthony Garry
Dr Freda Gorman
Mrs Jane Collins
Ms Alexandra Spain
Mrs Margo McParland
Mrs Catherine Altman
Dr John Murphy, Paeds.
Mr Niall Doyle
Ms Lydia Ensor
Ms Sara Appleby
Ms Caroline Hayes
Dr Peter Lenehan
Dr Orla Sheil
Prof. Peter McParland
Ms Sheena Carton
Ms Elaine Doyle
Prof. Declan Keane
Ms Maeve Dwyer
Dr Kevin McKeating
Mrs Mary Donohoe
Ms Catherine Ghose
Mr Barry Dixon
Ms Paula Reid
Ms Suzanne O'Brien
Ms Margaret McCourt
Ms Teresa Murphy
Ms Eugenée Mulhern
Ms Fiona Davy
Dr Michael Robson
Dr Deirdre MacDonald
Prof. Fionnuala McAuliffe
Ms Jane McCluskey
Ms Isabel Foley
Cllr Naoise Ó Muírí
Ms Elizabeth Nolan
Dr Ingrid Browne
Mr Stephen Vernon
Ms Rachel Hussey
Ms Niamh Callaghan
Mr Aidan Devlin
Ms Lisa Taggart
Ms Helen Caulfield
Ms Marie Daly Hutton
Mr Nicholas Kearns
Ms Michele Connolly
Ms Aoife O'Connor
Ms Mairéad Butler *(to May)*
Dr Roger McMorrow
Dr Rhona Mahony
Dr Paul Downey
Mrs Kate Higgins
Ms Aoife O'Shea
Ms Caroline Devlin
Ms Denise Cole
Mr Pat McCann *(Deputy Chairman)*
Ms Nóirín O'Sullivan *(to May)*
Ms Louise Bennett
Dr Stephen Carroll
Ms Sarah Claxton
Mr George Maybury
Mr Bernard McLoughlin
Ms Patricia Nolan
Prof. Jennifer Walsh
Ms Carmel Logan
Mr Tom Murphy *(Honorary Treasurer)*
Ms Cecilia Barker
Ms Bernadette Campion
Ms Sara Spencer
Mr Andrew Crotty *(from May)*
Mr Charles Watchorn *(from May)*
Ms Margaret Fanagan *(from May)*
Ms Keara McAndrew *(from May)*
Dr Deirdre Sweetman *(from May)*
Ms Jill Beck *(from Sept)*
Ms Alison Quinn *(from Sept)*
Ms Mairéad Callanan *(from Sept)*

Professional Advisors

Law Advisors
Mason, Hayes & Curran,
South Bank House,
Barrow Street,
Grand Ωanal Dock,
Dublin 4.

Arthur Cox,
Ten Earlsfort Terrace,
Dublin 2.

Daniel Spring & Co. Solicitors,
50 Fitzwilliam Sq,
Dublin 2.

Auditors
External
Price Waterhouse Coopers,
Chartered Accountants,
One Spencer Dock,
North Wall Quay,
Dublin 1.

Internal
Crowe Advisory Ireland Limited,
40 Mespil Road,
Dublin 4,
D04 C2N4.

Bankers
The Bank of Ireland,
2 College Green,
Dublin 2.

Aedamair & Gavin Grace with their daughters Beibhinn and newborn baby Fiadh. Image credit: DesignWorks Photography

Neonatology

James Bingham with his newborn son Tadgh O'Connell Bingham and Sheila Fronda, Staff Nurse in the Neonatal Unit.

The Department of Neonatology aims to deliver excellence in neonatal care through innovation, cooperation, education, research with attention to evidence based practice, empathy and a family-centred approach. The NMH Neonatal Intensive Care Unit (NICU) provides tertiary medical services for newborns up to 6 weeks of age and admits patients from all over Ireland. The neonatal unit has 35 beds (9 NICU, 13 HDU, 13 SCBU) and provides a high level of care to medically complex neonates. It is recognised for its expertise in the management of prematurity, neonatal encephalopathy, seizures, perinatal stroke, sepsis, twin-to-twin transfusion syndrome, rhesus isoimmunisation and congenital anomalies.

We supervise the care of all liveborn babies (n=6,722) who are born in this hospital even if they do not require admission to the Neonatal Intensive Care Unit (NICU). Our staff attend all instrumental deliveries, emergency caesarean sections and the delivery of any baby where there are recognised risk factors: in 2024, the instrumental delivery rate was at 10.7% and emergency C/S rate 20.1%. Every baby born in NMH undergoes a comprehensive physical examination by one of the neonatal team before discharge home. On average, we examine approximately 19 babies a day. Apart from providing reassurance to parents, this examination allows us to pick up conditions including heart murmurs, unstable hips and congenital anomalies that may not have been suspected antenatally so that advice can be given, and appropriate follow-up arranged. With mothers and babies spending less and less time in hospital, it is often a challenge to arrange such tests and referrals in such a short-time frame, particularly over weekends. We provide a nurse-doctor team every third week to the National Neonatal Transport Programme (NNTP), a vital service that transports critically ill newborn babies from anywhere in the country. Our staff is available to meet any family in advance of a delivery where problems are anticipated. This service has grown significantly over the past few years for a variety of reasons including more widespread access to routine antenatal scanning, advances in neonatal care and recent legislation allowing for termination of pregnancy in cases of fatal

fetal anomalies. Our care of a baby does not end when the baby is discharged from the hospital as many of our babies return to clinic for follow-up or are referred for assessment by their GP or Public Health Nurse.

Last year, in 2024, we admitted 1,240 babies to the NICU. On average, 1 in every 6 babies delivered in this hospital is admitted to us even if only for a brief period of time. Many first-time parents are surprised to hear how high that figure is and are often not prepared for the fact that they may be separated from their baby for several hours. For the past number of years, we have made every effort to keep our admission rates for term infants (those infants born ≥37 weeks' gestation) as low as possible. We do this by auditing the reasons why babies are admitted and by looking at alternative ways to provide care that minimise the chances of mothers and babies being separated. In 2020, we introduced changes to how hypoglycaemia (low blood glucose) was managed in the newborn period. By doing so, our staff, supported by our nursing and midwifery colleagues on the postnatal wards, reduced the admissions for hypoglycaemia from 306 babies in 2019, 189 babies in 2020, 109 babies in 2021, 81 babies in 2022, 70 babies in 2023, and 43 babies in 2024. We will continue to make incremental changes year on year guided by feedback received from families who have used our services. A core value in our Department is the concept of family-centred care, not just for those babies who spend long periods of time in our NICU, but also for those babies who may only be with us for a few days. As the clinicians caring for babies, we believe our role is to support families to provide as much of the direct care that their babies need as possible. Family Integrated Care (FICare) is a model of care developed initially in North America which aims to involve families in an integral way in the care of their babies while in NICU. FICare integrates families as partners in the NICU care team, and provides a structure that supports the implementation of family-centred care. In 2023, we introduced further FICare initiatives. We began by instituting a number of changes in the NICU to align more closely with a FICare model. For example, we have rolled out regular FICare group meetings for parents (mother's group, father's group and joint group sessions) to encourage mutual parental emotional and psychological support and to give parents a forum to feedback to us on where we could improve our NICU service. This initiative has been predominantly led by NMH neonatal nursing staff and I would like to thank all those involved in making these meetings a success. We are also working on FICare cot cards for parents and nurses to fill in with the aim of increasing parental involvement in the day-to-day activities of their NICU baby. Also, during the ward rounds, parents are now encouraged to be at their baby's cotside to contribute to the ward round discussion and parents at a neighbouring cotside are offered noise cancelling headphones to promote confidentiality between patients. Ideally, mothers (and partners) should be accommodated in beds beside their sick babies. Obviously, the infrastructural constraints of our hospital in its current location are the main reason why this cannot be achieved. This hospital was not built with modern neonatal intensive care in mind. This is another reason why this Department, along with the rest of the hospital, is fully supportive of our co-location to the St Vincent's University Hospital campus. In a newly-built modern hospital, one that is specifically designed with mothers and babies in mind, mothers and partners will be able to room-in with their babies day and night.

Our NICU is one of four designated tertiary care NICUs in this country that provides specialised care to the most premature of infants, many of whom are referred to us while still in-utero (i.e. when the mother is still pregnant) from locations all around the country. Last year, in 2024, we looked after 113 Very Low Birth Weight Infants (babies born ≤29 weeks and/or ≤1500g). These infants are extremely vulnerable and often spend several weeks in hospital frequently not being discharged home before their due date. There have been major advances in neonatal intensive care medicine over the past 50 years and survival across all gestational ages is increasing. We now have reported survivors of infants born at 23 weeks' gestation. In our hospital, where healthy babies are born at a rate of about one every hour, it can be hard to fathom that just a few feet away, in our NICU on the first floor, a tiny baby weighing less than 1lb may be attached to a life-support machine, receiving high level intensive care. The probability of a baby surviving at 23 weeks is still quite low but some of these tiny babies can, and do, survive. Unfortunately, many will face ongoing challenges, particularly as they get older, in terms of their long-term neurodevelopmental outcome. As greater numbers of these tiny fragile babies survive, research has shown us that optimising babies' early neurosensory experiences, and social environment, impacts on their long-term neurodevelopmental outcome. By providing individualised, neuroprotective care to each baby, by gentle containment, minimising stress and pain, safeguarding sleep and optimising nutrition, it has been shown that babies have better long-term physical, cognitive and emotional outcomes. Such developmental care principles underpin all of our care practices in the NICU. Our multidisciplinary team (MDT) which includes Psychology (Marie Slevin), Physiotherapy (Jo Egan and her team), Dietetics (Roberta McCarthy and her team), Speech and Language Therapy (Zelda Greene), Neonatal Occupational Therapy (Aoife Tonge) and Medical Social Work complement the advanced medical and nursing care we provide, advising parents and staff alike on positioning, feeding and social interactions. We continue to benchmark our neonatal

outcomes with the Vermont Oxford Network (VON) and the National Perinatal Epidemiology Centre (NPEC).

Our NICU is one of 4 centres in the country that provides therapeutic hypothermia to infants with Hypoxic Ischaemic Encephalopathy (HIE). In 2024, a total of 19 infants (7 inborn and 12 outborn) were reported with HIE of which 19 (7 inborn and 12 outborn) received therapeutic hypothermia. A further 2 infants (2 inborn and 0 outborn) were diagnosed with Neonatal Encephalopathy but did not meet the criteria for HIE. All 2 of these underwent therapeutic hypothermia. Details on these cases are included in this report (see Neonatal Encephalopathy section).

In late 2023, we launched the Early Detection and Intervention for Cerebral Palsy in Ireland (EDI-CPI) project. This initiative aims to reduce the age at diagnosis of cerebral palsy (CP) to < 12 months of age. It is supported by the Cerebral Palsy Foundation in the United States and has been rolled out nationally across all 4 tertiary maternity hospitals. The project involves identifying newborn babies who are at higher risk of developing CP prior to NICU discharge and following these babies in a structured way with regular neurological examinations in the outpatient setting (baby clinic and neonatal physiotherapy outpatients). Where neurodevelopmental concerns arise, there is a formal pathway for referral to a more specialised neurodevelopmental clinic in NMH and MRI brain/genetic investigations as appropriate. In 2024, we continued to improve on recruitment and retention to the study. The CP early detection team in NMH have undergone significant training and have invested huge time and energy into this project. I would like to take this opportunity to thank everyone involved.

Another significant development in our neonatal service over 2024 has been the neonatal MRI service in NMH. We are now able to offer neonatal inpatients a MRI scan within 2-3 days. For NMH infant outpatients, we have high success rates with 'Feed and Wrap' MRI scans up to the age of 16 weeks corrected gestational age. This is no small feat and in the main part, this success rate is due to the skill and dedication of our neonatal MRI nurses with the support of the NMH radiology team. We have further expanded this service to include babies from the Rotunda Hospital who require MRI scans and we are in discussions with the Coombe Hospital also.

2024 saw the role out of the first respiratory syncytial virus (RSV) immunisation programme (Nirsevimab) for all newborn infants born in NMH from 1st September 2024. This immunisation is > 80% effective and protects babies for the first 150 days of life and is particularly effective in reducing the incidence of severe RSV infection. We had very high uptake rates in NMH (>80%), congratulations to all the midwifery, nursing, medical and education and training staff who helped to make this programme such a success.

Our outpatient clinic continued to be very busy, with numbers attending increasing year on year. In all, 3,128 babies were seen in clinic of which 1,821 were first-time visits and 1,307 were follow-up visits. Apart from overseeing the patients who attend, the outpatient nursing and administrative staff triage numerous queries, provide a huge amount of advice over the telephone to families, GPs and community services and follow up on a myriad of investigations and referrals. While a large part of this work often goes unnoticed, the clinic could not provide such a good service to our families without their dedication. We have also recently developed a specialised multi-disciplinary clinic for follow-up of the ex-NICU high risk babies (ACORN clinic, see below).

The neonatal Clinical Psychologist, Marie Slevin, continues her important work in seeing all our NICU graduates at 2 years corrected age for a detailed neurodevelopmental assessment. Such data are invaluable by providing us with important feedback as to how our babies do in the long-term. Additionally, these assessments can provide families with very useful information that can be used to lobby for additional resources for their infant, if required.

Staying with the neonatal follow-up theme, we held our World Prematurity Day Coffee afternoon for ex-NMH NICU graduates on Sunday 17th November 2024. We invited 173 families in advance and almost 60 families attended on the day. This event was a resounding success with a huge attendance. The neonatal team pulled out all the stops for our ex-NICU families; there was a clown doctor, a photo-booth, a soft play area, a 'mini-hospital play area', finger painting, arts and crafts area and lots of purple cupcakes. It provided a lovely opportunity for families to return to NMH with their infants and toddlers for a happy, social occasion where they got to meet up with other families and with the nurses and doctors who cared for their babies while they were in the NICU.

Research plays a central and important role in the Neonatal Unit. In 2024, five Neonatology Specialist Registrars performed clinical research in the Department for higher degrees at UCD. Dr Caitriona Ní Chathasaigh studied airway management of newborns, supervised by Dr. Anna Curley and Dr. Eoin Ó Curraín; and Dr. Lucy Geraghty studied the use of videolaryngoscopy for intubation of newborns, supervised by Prof Colm O'Donnell. Dr Elizabeth Murphy, Dr Laura Ryan, Dr Robert Joyce all commenced their higher degrees in neonatal research in 2024. The Department also participated in several multi-centre trials. Our NCHDs and nursing staff are encouraged to participate in local projects and audits, and to present their work at local and international meetings. We are

enormously grateful to our families for their willingness to participate in research at such a difficult time in their lives. We are also hugely grateful to our colleagues – nursing, administrative, clinical engineering, allied health and medical – for their support, as we try to answer important questions about how to better care for babies.

One achievement the Department would like to highlight this year is the continued promotion of breastfeeding for our most vulnerable babies. We actively encourage women to express breast milk for their premature babies and use those tiny precious drops of colostrum as babies' first feeds. With the support and encouragement, not just of the staff in the NICU but also of the staff on the postnatal wards, the numbers of babies receiving their own mother's milk is increasing and we are seeing for the first time, mothers who have successfully transitioned their baby from tube feeding to exclusive breastfeeding, before discharge home. Our staff should take great pride in the role they play in empowering women to successfully breastfed their babies even when delivered prematurely. In addition, 2023 saw the appointment of an additional lactation nurse dedicated to NICU, Ms Ramita Dangol. Ramita has hugely enhanced the lactation support service offered to NICU mothers and over 2024, she has introduced a number of quality improvement initiatives which have resulted in both cost and environmental savings.

While most babies make the transition to extra-uterine life without a problem, we know that about 5 in every 100 babies born at term require medical assistance to help them begin breathing. As time is of the essence, much effort is focused on training staff, and not just those working in the Department of Neonatology, in the art of neonatal resuscitation. Increasingly, it is being recognised that simulation is a powerful tool to teach practical skills, build proficiency and speed and encourage good teamwork. Dr Eoin O'Currain, Dr Carmel Moore and Ms Shirley Moore ANP now run weekly neonatal resuscitation simulations in various locations around the hospital. These sessions have been very well received by staff and have resulted in improved core competencies across all levels and grade of staff.

Sadly, not all babies born in NMH survive and ensuring that the journey travelled by these families is as free from distress as possible is extremely important. In 2024, we further expanded our neonatal palliative care service in conjunction with the paediatric palliative care team in Children's Health Ireland. Dr John Allen, consultant in paediatric palliative care medicine attends NMH weekly and offers valuable insights and advice to the weekly perinatal meeting and the neonatal-fetal medicine MDT. Dr Allen provides excellent support to both the neonatal and fetal medicine teams and enhances the links with community palliative care services.

We continue our use of "AngelEye" in the NICU; a secure camera system that allows mothers and their partners to keep a watchful eye on their babies even when not in the hospital. This facility for families receives much positive feedback. The option to access all teaching sessions and hospital meetings using a virtual platform is now standard, allowing the staff much greater flexibility and leading to increased attendance rates. Our Allied Health Professionals and Clinical Discharge Coordinators took virtual platforms a step further and now host a number of parental educational webinars and facilitated Q&A sessions on-line and these have been very well received by families.

May I conclude by taking this opportunity to thank the entire neonatal team which includes consultant colleagues, our non-consultant hospital doctors, many of whom are with us for more than one year, our neonatal nursing staff under the excellent leadership of our CMM3, Ms Sara Rock, our allied health professionals, our multi-task assistants, our administrative staff and our dedicated household staff. We must also mention the many other ancillary services who support our work including the laboratory, pharmacy, radiology, infection control, ICT and bioengineering. We welcome two new Consultant Neonatologists, Dr Madeleine Murphy and Dr Mary O'Dea, to the team. Both of these posts are shared between NMH and CHI and therefore serve to enhance and improve the links between the two hospitals and allow for more streamlined follow-up of NMH babies transferred to CHI. Over 2024, a number of senior NICU staff retired/left the neonatal department, we thank them for their years of service. We are very grateful to our visiting consultants from Children's Health Ireland Crumlin and Temple Street for the service they provide in reviewing our babies and for their support and expert advice.

I would like to thank all of those who contributed to the writing of this report. The time and effort invested is enormous and is much appreciated. Lastly, we acknowledge all the parents and babies who passed through our NICU in 2024, and in particular, the 19 babies who sadly died in our care. They remain in our thoughts.

Advanced Nurse Practitioner, Neonatology (Shirley Moore)

Shirley Moore has been accredited and registered to this post since 2014. The role of the Advanced Neonatal Nurse Practitioner, who is a Neonatal Resuscitation Program instructor, includes: clinical workload, training with the NCHDs and nursing staff, involvement in audit and education as well as local and national tenders and committees and simulation.

The ANP is actively involved in a number of Random Control Trials (RCTs) in the unit and is a member of the research committee as well as a committee

for curriculum development for the post-graduate diploma in Neonatal Intensive Care Nursing alongside in-house committees including drugs and therapeutics and blood transfusion. The ANP is actively involved in the development of neonatal policies and presented at a number of academic lectures nationally and locally.

A further candidate ANP (Neonatology) post was approved through NWIHP, the successful applicant Ms Linda Smiles commenced the role in late 2024.

Neonatal Discharge Planning (Caroline McCafferty & Ciara Murphy)

The Neonatal Discharge Planning service continues to play a vital part in the care of the high risk infant and family in the Neonatal Unit by streamlining each infant's discharge. This has been achieved by supporting and building a rapport with the family from admission until discharge and thereafter. The service offers support to parents as well as anticipating their needs pre and post discharge home. The Clinical Nurse Specialist (CNS) collaborates early with the multidisciplinary team (MDT) and Community Support Services so that the best possible support is made available to the high risk infant and their family while an inpatient and post discharge home. The service is represented on the Prime B – Breastfeeding and Infant Mental Health hospital committees and substance use working group.

Caseload & Activity

High risk infants include all preterm infants with birth weight <1500g or <32 weeks gestational age, infants with Neonatal Abstinence Syndrome, complex social admissions, life-shortening Illnesses, those requiring palliative care as well as infants with congenital abnormalities and brain injury.

Total discharges involving CNS: 233
Discharged home tube feeding: 2

Prof Shane Higgins, Master, Dr Deirdre Sweetman, Consultant Neonatologist and NICU Director, Cllr James Geoghegan, Lord Mayor of Dublin when he visited the Hospital during the year.

Training and Education

Staff are continually updated and advised regarding changes to discharge policies and procedures. Students, midwives, NCHD's, Allied Health Professionals and Student Public Health Nurses are also updated by the CNS.

Education and Information

A Basic Life Support class and preparing for home class is regularly provided and also available online for families and carers of high risk infants and also on 1:1 basis.

- Follow up calls are made to parents following their infant's discharge providing advice and support to families.
- Continues to be the link person with the HSE appointed Northgate Hearing Screening Service that provide a national hearing screening programme for all infants.
- Chairs the Inter Hospital Neonatal Clinical Nurse Specialist Group
- Involved in Quality Improvement Initiative in safe sleep practices in NICU.
- Conducted audit on safe sleep practices in NICU and collaborating with MDT to improve these practices.
- Initiating and attending MDT meetings for vulnerable babies and their families.
- Hosting a PHN Community Discharge Information sharing Day in May 2025

Dr Deirdre Sweetman, Consultant Neonatologist.

NEONATAL ACTIVITY

Number of Admissions to the Neonatal Intensive Care Unit (NICU)

Year	2020	2021	2022	2023	2024
Number of Admissions	1240	1243	1132	1198	1240

Sources of Admission to the NICU

Year	2020	2021	2022	2023	2024
First admission for inborn infants	1107 (89%)	1059 (85%)	957 (85%)	1005 (84%)	1043 (84%)
-Delivery Ward	772	783	715	764	784
-Theatre	Inc. above	Inc. above	Inc. above	Inc. above	Inc. above
-Postnatal Ward	335	276	242	241	259
First admission for Outborn infants	46 (4%)	60 (5%)	57 (5%)	28 (2%)	60 (5%)
First admission from home	30 (2%)	59 (5%)	48 (4%)	66 (6%)	64 (5%)
Readmission from postnatal ward	21 (2%)	15 (1%)	29 (3%)	43 (4%)	38 (3%)
Readmission from other hospital	12 (1%)	14 (1%)	11 (1%)	14 (1%)	16 (1%)
Readmission from home	24 (2%)	36 (3%)	30 (3%)	42 (4%)	19 (2%)
Total	**1240**	**1243**	**1132**	**1198**	**1240**

Clinical Reasons for First Admission of Inborn and Outborn Infants

Clinical Reason	2020		2021		2022		2023		2024	
Respiratory	399	35%	394	35%	405	40%	381	37%	440	40%
Prematurity	259	22%	248	22%	134	13%	145	14%	112	10%
Gastroenterology	189	16%	109	10%	81	8%	70	7%	43	4%
Suspected/Proven Infection	77	7%	111	10%	75	7%	83	8%	188	17%
Small for Dates	63	5%	81	7%	136	13%	138	13%	142	13%
Congenital Anomalies	30	3%	37	3%	30	3%	31	3%	19	2%
Cardiac	32	3%	41	4%	34	3%	29	3%	33	3%
Birth Depression	17	1%	17	2%	9	1%	4	<1%	12	1%
Other Neurological	12	1%	20	2%	11	1%	14	1%	25	2%
Surgical	4	<1%	6	<1%	2	<1%	2	<1%	6	< 1%
Haematological	23	2%	14	1%	10	1%	6	1%	11	1%
Other	48	4%	41	4%	89	9%	130	13%	72	7%
Total	**1153**		**1119**		**1014**		**1033**		**1103**	

Levels of Neonatal Care

Year	2020	2021	2022	2023	2024
Number of Intensive Care Days	1105	1295	1208	1299	1444
Number of High Dependency Care Days	3134	3142	2659	3201	3423
Number of Special Care Days	5822	5440	4563	4646	4107

*British Association of Perinatal Medicine. Categories of Care 2011 (August 2011). http://www.bapm.org/publications/documents/guidelines/CatsofcarereportAug11.pdf

Outpatient Clinic Attendances

Year	2020	2021	2022	2023	2024
Actual clinics	250	250	249	360	377
New patients (first visits)	1669	1827	1784	1650	1821
Return visits	861	1332	1031	1348	1307
Total visits	**2530**	**3159**	**2815**	**2998**	**3128**

Summary of Infants reported to VON

Year	All Cases	Number of cases excluding congenital anomalies
Infants <401g	4	2
Infants 401-500g	5	5
Infants 501-1500g	96	84
Infants >1500g but ≤29 wks gestation	8	7
Total	**113**	**98**

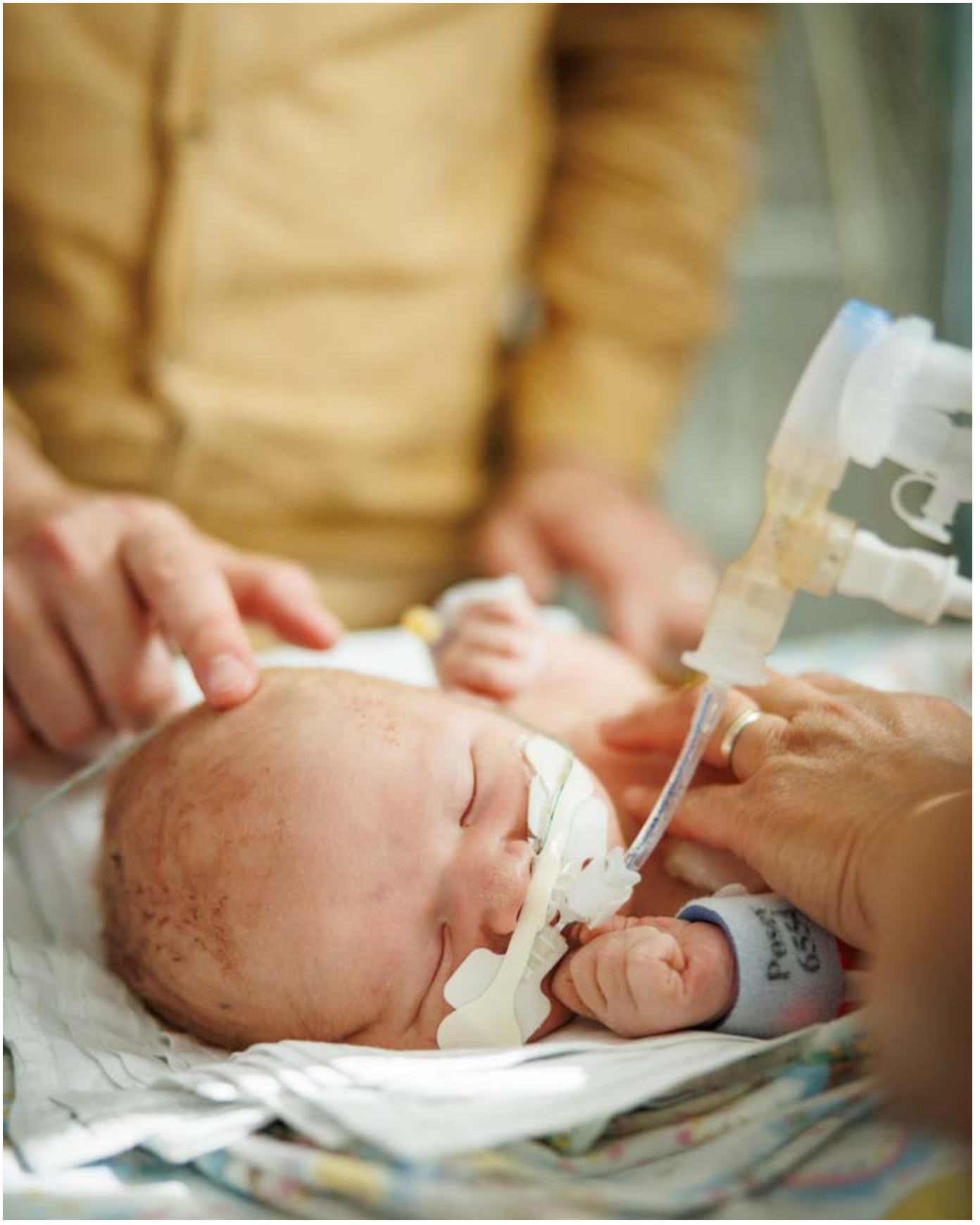
Survival Rate to Discharge of VLBW Infants reported to VON according to Gestational Age (n=113)

Gestational Age	Inborn Infants	Survival to Discharge	Outborn Infants	Survival to Discharge	Total Survival to Discharge
<20 wks	2	0 (0%)	0	0 (0%)	0 (0%)
20 wks	0	0 (0%)	0	0 (0%)	0 (0%)
21 wks	3	0 (0%)	0	0 (0%)	0 (0%)
22 wks	3	0 (0%)	0	0 (0%)	0 (0%)
23 wks	1	0 (0%)	2	0 (0%)	0 (0%)
24 wks	4	3 (75%)	4	2 (50%)	5 (63%)
25 wks	4	2 (50%)	1	1 (100%)	3 (60%)
26 wks	5	4 (80%)	0	0 (0%)	4 (80%)
27 wks	11	6 (55%)	0	0 (0%)	6 (55%)
28 wks	7	6 (86%)	6	5 (83%)	11 (85%)
29 wks	21	19 (90%)	2	2 (100%)	21 (91%)
30 wks	13	12 (92%)	0	0 (0%)	12 (92%)
31 wks	3	3 (100%)	0	0 (0%)	3 (100%)
32 wks	7	7 (100%)	1	0 (0%)	7 (88%)
>32 wks	13	13 (100%)	0	0 (0%)	13 (100%)
Total	**97**	**75 (77%)**	**16**	**10 (63%)**	**85 (75%)**

Survival Rate to Discharge of VLBW Infants reported to VON according to Birthweight (n=113)

Birthweight	Inborn Infants	Survival to Discharge	Outborn Infants	Survival to Discharge	Total Survival to Discharge
<501g	8	2 (25%)	1	0 (0%)	2 (22%)
501-600g	5	0 (0%)	1	0 (0%)	0 (0%)
601-700g	7	4 (57%)	0	0 (0%)	4 (57%)
701-800g	3	1 (33%)	3	1 (33%)	2 (33%)
801-900g	8	7 (88%)	3	3 (100%)	10 (91%)
901-1000g	6	5 (83%)	1	1 (100%)	6 (86%)
1001-1100g	7	6 (86%)	0	0 (0%)	6 (86%)
1101-1200g	8	8 (100%)	1	1 (100%)	9 (100%)
1201-1300g	13	13 (100%)	1	1 (100%)	14 (100%)
1301-1400g	11	9 (82%)	1	0 (0%)	9 (75%)
1401-1500g	15	15 (100%)	2	1 (50%)	16 (94%)
>1500g	6	5 (83%)	2	2 (100%)	7 (88%)
Total	**97**	**75 (77%)**	**16**	**10 (63%)**	**85 (75%)**

Neonatal Intensive Care Unit Ward Round.



Baby Tadgh O'Connell Bingham in the NICU.

NEONATOLOGY HEALTH & SOCIAL CARE PROFESSIONALS

Speech and Language Therapy (Zelda Greene)

2024 saw the third full calendar year of the Neonatal SLT service. Zelda Greene is the Clinical Specialist SLT in Neonatology at the NMH and currently provides both inpatient and outpatient clinical services across a full working week.

Clinical Service Development is continuing to develop and evolve. The SLT works with all members of the neonatal multidisciplinary team. Zelda also sees families on the postnatal wards if required e.g. diagnosis cleft lip/palate, Down Syndrome.

In 2024 SLT recorded involvement for 166 inpatients with 403 recorded contacts. Of the inpatients seen, 99 were premature (<37 weeks) and of those, 72 were high risk infants (<30-32 weeks/<1500g). There were 23 term infants (37+ weeks) seen in the Neonatal Unit. Average time spent per inpatient was 49 minutes ranging from 42-97 minutes. At any one time there are 12-22 babies active on the SLT caseload every month.

A total of 50 babies requiring ongoing SLT input were transferred to other acute hospitals including level 1 and 2 neonatal units and Children's Health Ireland and of these, 38 were high risk infants. Many of our Level 1 units have no SLT service provision resulting in limited appropriate SLT follow up for many of these high risk babies and families.

Outpatient Service

High risk infants (those born at <32 weeks/<1500g or infants post therapeutic hypothermia) who are admitted to the neonatal unit are seen by therapists in the unit. This is called the ACORN programme (Allied Care Of at Risk Newborns). On discharge there is a defined schedule of appointments that are offered to families as part of a follow up developmental surveillance programme. These infants are at risk of developmental delays and internationally surveillance is proven to identify these delays earlier and minimise their effects.

SLT is involved in the following parts of this follow up programme:

1. 'Feeding my baby after NICU' – new online parent class offered by SLT/ Dietitians and lactation consultant twice a month
2. In-person appointment at 3 months corrected gestational age – joint assessment with physiotherapy
3. 'Introduction of solids and textures to my baby after the NICU' – online parent class offered by SLT/OT and Dietitians once babies are 4 months corrected gestational age, takes place once a month
4. In-person appointment at 9 months corrected gestational age – joint assessment with physiotherapy
5. In-person appointment at 12 months corrected gestational age – joint assessment with OT

However, as the inpatient caseload demands are increasing, the ability to provide a consistent service to this growing clinic is more difficult as is evident from Table 2 below.

Education & Research

Zelda continues in her role as adjunct Assistant Professor in the School of Clinical Speech and Language Studies at the University of Dublin, Trinity College (TCD) and this year supported Ms Sarah Alsunyadi, who attended for her MSc clinical placement at the NMH. Sarah's thesis focused on parents experiences of feeding their preterm infants and her placement at NMH supported her learning and knowledge in this area. In December 2024, she was accepted for a poster presentation at the Dysphagia Research Society Annual Meeting in Philadelphia in March 2025 with her poster entitled "When I had a preemie, I didn't realize feedings would be so impersonal": Parents' autobiographical accounts of feeding premature infants". Zelda continues to contribute to teaching on the MSc course in TCD on neurodevelopmental assessment of feeding and swallowing and in assessment and management of paediatric tracheostomy.

In November 2024, in conjunction with colleagues on the neonatal team and at TCD, Zelda developed a protocol for developing a Core Outcome Set (COS) for oral feeding outcomes in neonatal care called the 'NEOFEED COS' and is seeking funding for this research.

Zelda continues to contribute to the development of national standards and guidelines with the Irish Association of Speech and Language Therapists (IASLT) in relation to Feeding and Swallowing Disorders. As part of a working group for the Royal College of Physicians of Ireland she contributed to a Consensus document 'The Assessment and Mangement of Ankyloglossia (Tongue Tie) in babies-A Consensus Statement' due to be released for publication early 2025.

NMH Health & Social Care Professionals celebrating HSCP Day! Other Health & Social Care Professionals work across many areas of the Hospital including Neonatology, and their reports are in the dedicated HSCP section of this report.

Table 1: Hospital transfers requiring ongoing SLT input

	N	SLT Service
Children's Hospital, Ireland (CHI)	9	Y
Galway	1	Y (since mid 2024)
Kilkenny	5	N
Letterkenny	5	N
Limerick	2	Y
Sligo	4	N
Mayo	1	N
Mullingar	9	N
Waterford	5	Y (limited)
Wexford	9	N

Table 2: ACORN Outpatient appointments attended by SLT

Year	Total
2022	11
2023	82
2024	128

Petria O'Connell, CNM2 Baby Clinic reviewing Baby Alex Athorn.

Neonatal Occupational Therapy (Aoife Tonge)

2024 marked the first full year of Neonatal Occupational Therapy (OT) in the NMH NICU which continues to be delivered by Aoife Tonge, Senior Occupational Therapist. In 2024 neonatal occupational therapy interventions on the NICU focused on optimising the sensory environment for infants and providing family-centred developmentally-supportive care via parent education, promoting participation in parenting roles (e.g. bathing) and supporting infant mental health, together with the provision of multi-disciplinary (MDT) interventions via the ACORN Pathway and coordinating a weekly MDT developmental ward round (Jan –June).

Aoife completed her International certification in Neonatal Touch and Massage in May 2024 and also completed the Bayley-4 upskill master training and the sensory beginnings master class. She presented at the NMH Public Health Nurse study day, Irish Neonatal HSCP study day, and the AOTI annual conference, and she co-facilitated a neonatal occupational therapy workshop at the Association of Occupational Therapists, (AOTI) Conference with her neonatal OT colleagues from the Coombe Women's and Health University Hospital, and CHI Temple Street. As an active member of the Dublin Inner City Infant Mental Health Network, Aoife presented alongside her NMH Occupational Therapy colleague in Perinatal Mental Health, Fidelma Shortall, on Sensory Overwhelm in the Infant and Parent. She participated in marking international events within NMH including International Readathon, HSCP day, kangaroo care day, and world prematurity day.

A significant component of the neonatal occupational therapy services at the NMH in 2024 involved neurodevelopmental follow-up. Over 50 infants per year living within the NMH catchment area are followed up by the ACORN team in-person, while regional families have access to a range of online supports. Neonatal occupational therapy outpatient contacts, in conjunction with neonatal physiotherapy, speech and language and dietetics, were allocated to the following outpatient clinics/ webinars in 2024: THRIVE classes (8-10 per annum), online weaning webinar (12 per annum), 6 month corrected gestational age (CGA) developmental assessments (N=47), 12 month CGA BAYLEY III assessments (N=34). Other neonatal outpatient occupational therapy contacts in 2024 involved specific functional/sensory assessments and therapeutic interventions (e.g. screening hand assessment for infants, infant toddler sensory profile, Brazelton's newborn behavioural observations, and online mealtime observations with SLT/OT/Dietetics), alongside collaboration with community and national services supporting early intervention and onward referral to community services.

ACORN Team

ACORN means **A**llied **C**are **O**f at **R**isk **N**ewborns. This multidisciplinary neonatal programme includes neonatal physiotherapy, speech and language therapy, occupational therapy, dietetics, medical social work, pharmacy, and psychology. This HSCP team works with the neonatal medical and nursing teams to provide developmentally supportive care to high risk infants both in the neonatal unit and after discharge to infants in the NMH catchment area. High risk infants are those born ≤ 1500 g/ ≤32 weeks gestational age or following therapeutic hypothermia for Hypoxic Ischaemic Encephalopathy

(HIE). There are 2 service elements to this programme – inpatients and outpatients.

ACORN Inpatient Service

Multidisciplinary developmental rounding in the neonatal unit continued in 2024 focusing on family integration and joint goal setting for the infant's care. Up to June 2024 there were 26 babies included on the developmental ward round. It was paused from July to allow a quality improvement review and to survey parents about their experience of the developmental ward round. 36 families were identified and surveyed and there were 16 respondents. 74% of respondents found it helpful, they reported feeling supported, respected, listened to, empowered and some were overwhelmed. 87% reported they understood why they were meeting the developmental team. The time and location were suitable for the majority of parents with plenty of opportunity to ask questions.

Quotes from parents about Developmental Ward Round

'My first baby was also born premature at 31+4 days; she was not eligible for the ACORN developmental follow up then. I found a huge difference in my experience this time with a 30 week premature baby. I received lots of excellent helpful information which has been carried through since her birth'.

'I appreciated having the developmental rounds and the acorn team taking the time to talk to me and try and alleviate any concerns I had'

'It made me feel empowered and that I could help my baby, and that I had a role in his progression. It was so helpful to understand the importance of not only the medical interventions that could be done for my child, and how I could be a part of these'

As the HSCP services are becoming more embedded in the neonatal unit now

Jonathan Ermitano, Senior Enhanced Staff Nurse caring for Baby Duncan Smith.

the inpatient service needs are becoming more demanding with increasing inpatient workloads. In 2024 there were 99 babies admitted to the unit who were eligible for the ACORN programme, 63 of these were inborn. There were 36 babies transferred back to regional hospitals. On 17 December 2024 an updated policy called 'Developmental Ward Round on the Neonatal Unit' was agreed by the Neonatology team at their policy and guidelines meeting. The quality improvement process will continue in 2025.

ACORN Post Discharge Screening Clinic

The ACORN clinic offers multidisciplinary developmental screening for high risk infants in the NMH catchment area. A range of online parent classes have been developed. The team provide specialist assessment and advice. Early referral to appropriate community services is done if additional needs are identified. The ACORN team continue to refine this post-discharge pathway for high risk infants which may in time act as a national template for services. A new online class 'Feeding my baby at home after the neonatal unit' was established as a pilot programme in Sept 2024 for parents of infants in the weeks after discharge from the neonatal unit. This class is co-hosted by dietetics, speech and language therapy and the neonatal lactation consultant twice a month. As the numbers of appointments grow in this clinic and the demands of the inpatient service are becoming more apparent, it has become increasingly difficult to provide consistent staffing to a number of these clinics as the inpatient service needs to be prioritised. In 2023 there were 56 infants seen in the clinic for 122 appointments and this increased to 85 infants seen in 2024 for 168 appointments.

Overall in 2024 there were 99 families were seen as inpatients and 94 families were seen in the developmental surveillance clinic. There is a very low DNA rate for this clinic (1.7%) suggesting this is highly valued by families.

Other post discharge activity this year included:

- 51 parents attended our online class for 'Introducing Solids and Textures to Your Baby after the Neonatal Unit' (SLT, Dietitian and Occupational Therapy led).
- 22 parents attended our new online post discharge class for 'Feeding my Baby at Home after the Neonatal Unit' (pilot programme since Sept 2024 which is led by SLT, Dietitian and Neonatal lactation).
- 19 parents attended the physiotherapy post discharge online class 'Little Feet Big Steps'
- 16 families attended the in-person THRIVE*** group with neonatal physiotherapy and occupational therapy for babies up 12 weeks corrected age. There were 7 groups in total and there were 2-3 families in each group

***__T__herapy supported __R__elationship based sensorimotor __I__nter__V__ention __E__arly

Education and Research

The team continue to be actively involved in disseminating information, professional development and seeking peer support by attending study days and research meetings. Activity included oral presentations at Irish Neonatal Society research day and at the NMH in-house research and innovation study day (RISE). The whole ACORN team presented at the NMH study day for PHNs and community allies in March 2024. The team hosted the second 'Irish HSCPs in Neonatal Care' Study Day on 17th May which saw 53 professionals working in Irish neonatal units come together to share research and experiences of service delivery. There was also team involvement in kangaroo care day, national breastfeeding week, world prematurity day with the rest of the neonatal team.

The Neonatal Baby Bookworms Bookclub

This continues to go from strength to strength and this year from September 9-15 the Neonatal Unit participated in the international Babies-With-Books Neonatal Readathon kindly supported by the NMH Foundation. 224 Neonatal Units took part internationally. The NMH Neonatal Unit came in 6th place in the top 15 Larger NICUs for numbers of books read to babies.

We recorded lots of fun facts during the readathon. Favourite books read to our babies included 'Guess how much I love you', 'On the night you were born' and 'Going on a bear hunt'. We have been able to give French and Spanish books to families increasing our foreign language book selection. Over 20 new books added to the library thanks to the support of the NMH Foundation. Most of the reading on our unit appears to take place in the afternoons. There were 99 reading sessions captured during the 2 weeks.

Some feedback from parents and staff about bookreading to babies in neonatal care included:

'Helps bonding with the baby! Is relaxing and comforting for both parents and babies' (a parent) 'Heartwarming' 'Empowering for parents' 'Family centred' 'Wholesome' (from some staff)

Neurodevelopmental Follow-Up Report, Marie Slevin

Neurodevelopmental Follow-up of Infants Born Preterm and Term Infants with NE and Seizures

Children born preterm and term children with NE due to HIE have higher risks of neurodevelopmental and behavioural disabilities in the first years of life and throughout childhood and adolescence compared with children born term. Extreme preterm babies are at risk for interrupted brain development. Being born so early they are spending their third trimester during a period of rapid brain development in a NICU environment. To date in NMH our

neurodevelopmental follow-up of infants born preterm has included all infants born <1500g and/or <29+6 weeks (both inborn and outborn). It now spans 25 years from birth dates between 1997-2022. Our follow-up of term infants diagnosed with neonatal encephalopathy (NE) at birth is in its 15th year. The Bayley Scales (BSID II and Bayley-III) being the most widely used standardised tools for the assessment of neurodevelopment in early childhood have been our key and preferred measurement of developmental outcome in these cohorts being in-person assessments. The revised Bayley 4 Scales will now be used for our 2023 cohort.

The PARCA-R – a parent report questionnaire was used for the families who did not wish to travel to Dublin for a Bayley Assessment (due to distance to travel / being happy with their child's development to date). Seven families completed the PARCA-R. The PARCA-R accepts that parents are good judges of their child's current abilities. It assesses cognitive and language development from 23.5 – 27.5 months of age. Unfortunately, the PARCA-R does not have a motor scale. Hence, motor follow-up was by discussion with the child's parents similar to the Ages and Stages Questionnaire. The face-to-face assessment using the Bayley Scales is the preferred option for assessment. Much can be learned by watching while assessing. How the children perform and handle the assessment provides additional valuable information.

In 2022 the NWIHP (National Women and Infants Health Programme) formed the National Neonatal Psychology Forum to support the national roll out of the Bayley assessment. The first aim of this forum was to ensure a Bayley assessment for all preterm (< 1500g /<29 wks) and NE infants at two years of age (corrected age for preterms) and to collate this data using REDCap* to facilitate ongoing national data collection for future planning of services. Neurodevelopmental follow-up of high-risk infants is important in early detection and in the provision of early intervention for those with potential impairments. In relation to cerebral palsy, preterm infants account for 50% of cases, HIE infants account for 15% of cases, and infants with congenital malformations (especially cardiac) account for 20% of cases.
The second aim was to accommodate the Bayley assessment in the infant's catchment area to minimise disruption and travel for infants and their families. Three additional psychologist posts were created in Cork, Limerick and Galway. However, more psychology posts are needed to support Level 2 NICUs to provide assessments for their own patients and for the local Level 1 hospitals in their RHA.

Infants born preterm are assessed at two years' corrected age. Term infants who presented with Neonatal Encephalopathy / seizures are assessed at two years' chronological age. An assessment at two years of age (2 years' corrected age for preterm infants) is the optimum time to measure cognitive, language and motor outcome when following up these cohorts.

Preterm Group

In the NMH preterm cohort who presented for assessment, 26 children (29.2%) were from the Dublin area, and 10 children (11.2%) from the Wicklow area. The remaining 53 children (60%) lived outside the Dublin area for example, Donegal (10 children) 11.2%, Mayo/Galway (4 children) 4.5%, South Midlands (8 children) 9%, Midlands (19 children) 21.3%, Northeast (8 children) 9%. Three children were from Northern Ireland.

A total of 89 NMH preterm infants born <1500g and/or <29 weeks, gestation,11 NMH term infants with Neonatal Encephalopathy, 3 babies with neonatal seizures and 1 NAS baby were listed for follow-up in 2024 in NMH. One NE baby was followed up in Limerick. This baby's outcomes have been included in this report.

Of these 89 preterm infants, 72 (81%) had a Bayley assessment. Seven families (8%) completed a PARCA-R Questionnaire meaning a total of 79 (89%) infants had a formal follow-up. One family declined the assessment as their child was linked in to early services with some medical and physical issues mentioned. Three families were living outside Ireland. Of the 3, one child was reported as doing extremely well. Two families could not be located. Two families did not attend despite several attempts to encourage them to attend. Both children were presenting with significant sensory dysregulation. Two assessment outcomes are still pending with normal outcome expected for one baby. The other baby had a confirmed mild CP diagnosis. This baby is doing well with near normal development apart from some gross motor issues. These children were assessed locally by their early intervention therapist.

Table 1 outlines the outcome of our preterm population represented across each gestational age category who were assessed using the Bayley Scales and the PARCA - R Questionnaire. Looking at the Bayley data first, these preterm children did well overall (80.6%) showing good outcome in terms of their Cognitive Development, 4% less than last year. In terms of advanced performance 9.7% performed within the Superior /Superior Range and 22.2% performed within the High Average Range. 48.6% performed within the Average Range, with 8.3% performing within the Low Average Range. There was some Cognitive Delay in that 2.8% showed Moderate Delay (Borderline Range) and 8.3% showed Extreme Delay (2% less than last year).

Language outcomes indicated a 4% improvement in terms of extreme delay indicating 13.9% compared with 18.3% in 2023. 9.7% showed Moderate

Language Delay while 19.4% showed Mild Delay indicating that Language Delay is still a risk factor for this cohort of children. Only 57% performed within the Average /Advanced Range in comparison to 80.6% for Cognitive Outcomes. Last year the Language outcome figure for Average performance was 55% for Language Development and 77.5% for Cognitive Development. Again, while the Covid-19 pandemic may have been a factor, these results reflect previous pre-Covid outcomes and are more likely representative of the impact of prematurity.

When the Motor Outcomes were examined, it was very encouraging to see that 74% of the children were performing within the Average/Advanced Range, an improvement of 4% on last year's outcomes. In all, 13.9% showed Mild Motor Delay, 2.8% showed Moderate Delay and 9.7% showed Extreme Delay. Last year Extreme Delay was measured at 11.3%. For children to score well on this scale they need to be running with good coordination, kicking a small ball well and be able to ascend/ descend steps independently. Children who perform well on this scale engage in prompt performances, listen well to follow the task commands well.

"When the Motor Outcomes were examined, it was very encouraging to see that 74% of the children were performing within the Average/Advanced Range, an improvement of 4% on last year's outcomes..."

The PARCA-R being a questionnaire is avoided, if possible, for the earlier gestational age babies as the Bayley in-person assessment is the preferred assessment especially as these babies are more vulnerable in terms of developmental delay. All babies assessed using the PARCA-R were performing within the Superior / Average Range for both the Cognitive and Language Scales. All had Normal Motor Outcomes as assessed using the Ages and Stages Questionnaire.

The Bayley Outcomes in the table above represent the Composite Scores. Composite scores are a transformation of a distribution of scores and have a given mean and standard deviation showing how far an individual's score is from the mean or average score. These give a general overview of the results and are the scores that are used when reporting outcomes for most audit reviews and research studies. However, valuable information can be lost. The Composite Scores can sometimes mask Expressive Speech Delay and Gross Motor Delay if the Receptive Scores and Fine Motor Scores are high. When examining these results, it is also important to look at the Scaled Scores that make up these Composite Scores. For example, the Receptive and Expressive Communication Scales make up the Composite Language Score and the Fine Motor and Gross Motor Scales make up the Composite Motor Score. Please see below the classification for the scaled scores.

Bayley Scaled Scores are divided into the following ranges:

- 16-19: Superior Performance
- 13-15: High Average Performance
- 8-12: Average Performance
- 5-7: Mild Delay
- 1-4: Moderate-Severe Delay

Looking at Table 2, using the scaled scores to interpret outcomes, there was a very slight improvement in terms of Average score outcomes for Expressive Communication Skills at 55.5% compared with 52% in 2023. This year's outcomes have maintained a much-improved outcome compared to 31% in 2022. Receptive Communication Skills showed a lower Average outcome score at 48.6% compared to 53.5% in 2023 but similar to outcomes for 2022 measured at 49%. Expressive Speech Delay was similar in outcome to Receptive Language Delay at 34.7% compared to 33.3%. A total of 12.5% showed Moderate - Extreme Receptive compared to 9.7% for Expressive Speech Delay respectively. These figures indicate that a total of 33-34% of children were performing below average for both the Receptive and Expressive Communication Scales. If it is recommended that any preterm infant who is performing below average at 2 years of age would benefit from intervention, then 34% of our preterm cohort in 2024 meet the criteria for access to speech and language therapy.

In terms of Motor Outcomes, Gross Motor Outcome was very good with 66.6% of the children performing within the Average Range and 59.7% for Fine Motor Outcomes. Fine Motor Skills were represented as an area of strength within the Motor scale with 28% of children performing within the Superior /Very Superior Range for Fine Motor performance compared with 2.7% for Gross Motor performance. There was more Mild - Moderate Gross Motor Delay than Mild- Moderate Fine Motor Delay (20.8% vs 4.2%). A total of 9.7% of infants showed Moderate-Severe Gross Motor Delay compared with 8.3% for Severe Fine Motor Delay.

In summary, by analysing the scaled scores, it is evident that delays in gross motor skills were more prevalent than delays in fine motor skills in our preterm population. Language delay continues to be a concern although the difference between the two scales is not as marked as previously with similar delay noted for each scale Receptive and Expressive. The welcomed improvement in Expressive Speech could be attributed to the ACORN programme. In time we will be able to present more specific data to determine

this. Speech delay and gross motor delay can present as co-morbidities in this cohort of children (this year at 8.3% compared with 11.3% in 2023) when cognitive, receptive, and fine motor skills fall within the normal range.

When assessing the developmental profiles for this cohort 23.6% showed global developmental delay, (6 children within the severe delayed range, 4 within the moderate delayed range and 7 within the mild delayed range). Hence, it is so important to be aware of how these children are doing in terms of their follow-up. As the national REDCap* data grows, trends and patterns will begin to emerge which will enable us to build profiles of key issues to build better predictive models to inform clinical practice and to provide vital information for service provision.

Term Babies and the Neonatal Encephalopathy Group

Fifteen term babies were listed for assessment. Eleven babies who had Neonatal Encephalopathy and were cooled, 3 who had seizures at birth and 1 independent referral following NAS. Fourteen were assessed in NMH. One NE baby was assessed in Limerick (as guided by the National Psychology Neonatal Forum) indicating follow-up at 100%. This baby's results are included in this report.

Table 3 shows that the NE group of children did well overall in terms of their individual profile scores. Seven children (63.6%) showed Normal and Advanced profiles (some very advanced) across all parameters measured for their Cognitive, Language and Motor Development which was very encouraging. Four children (36.4%) indicated Mild / Moderate Delayed profiles.

Of the 3 children who had seizures at birth two showed normal outcome. One child showed severe delay across all three parameters. An underlying genetic syndrome was queried.

Tables 4 and 5 demonstrate how the group of NE children performed as a group in terms of their Composite and Scaled Score outcomes. The tables show the different outcome categories to indicate advanced /normal/delayed outcomes across the different parameters. Seven children (63.6%) showed Normal and Advanced Cognitive Performance (with three very advanced performance). Three children (27.3%) showed Mild Cognitive Delay, and 1 child showed (9.1%) Moderate /Severe Cognitive Delay.

> **"In summary, by analysing the scaled scores, it is evident that delays in gross motor skills were more prevalent than delays in fine motor skills in our preterm population."**

In terms of Composite Language Outcomes, 6 children (54.5%) showed Normal /Very Advanced Language Performance, 3 (27.3%) showed Mild Language Delay, while 2 (18.2%) showed Moderate/Severe Delay.

In terms of Composite Motor Outcomes 7 (63.6%) children showed Normal/ Advanced Motor Performance. Three children (27.3%) showed Mild Motor Delay and 1 (9.1%) showed Moderate/Extreme Motor Delay. One baby was diagnosed with CP.

Table 5 shows the breakdown of the Composite scores to allow us to examine the Scaled Score outcomes. For example, a child might have a normal Fine Motor/ Receptive Communication score but delayed Gross Motor/ Expressive Communication score that can mask outcome.

In terms of Cognitive Performance 54.5% (6/11 children) showed Normal / Advanced Performance, 27.3% (3/11) showed Mild Delay while 9.1% (1/11) showed Moderate / Severe Cognitive Delay.

The outcomes for Expressive Communication were better than for Receptive Communication Skills. This year 72.7% (8/11) of children showed Normal / Advanced Expressive Communication Performance compared with 54.5% (6/11 children) for Receptive Communication Performance. There was more Receptive Speech Delay at 36.4% (4/11) than Expressive Delay at 18.2% (2/11 children).

In terms of Motor Outcomes, 72.7% (8/11) of children performed within the Normal/Advanced Range for Fine Motor Development while 81.8% (9/11) showed Normal /Advanced Gross Motor Development which was a good outcome. Mild Fine Motor Delay (18.2%) was noted for 2/11 children. Severe Gross Motor Delay (9.1%) was measured for 1/11 children.

What are the Bayley Scales of Infant and Toddler Development?

The Bayley Scale is a clinical tool that is used to identify developmental delay in early childhood. It comprises of a series of play tasks and language stimulus books broken up into 3 composite scales with 5 sub-categories – cognitive development **(Cognitive Scale)**, receptive and expressive communication **(Language Scale)** and fine motor and gross motor development **(Motor Scale).** It can classify delayed or advanced development within the specific sub-categories. The standardised score across each of the 5 domains is 100 (SD15). Scores below 85 indicate mild delay, scores below 70 indicate moderate / severe delay. The assessment session can take 2 hours or more to complete depending upon toddler cooperation, duration of assessment feedback and discussion with parents. The process can be tedious as the children are only 2 years of age, active and busy. It can be demanding

when children are tired or challenged (especially for those travelling for more than 2-3 hours for the assessment). During the testing session, the child's emotional and behavioural reactions are noted. A full report is documented. The scores generated allow for a comparison between a child's performance over time and in relation to peers of the same age range. The scale identifies children with developmental delay and hence provides information for intervention planning.

What is the PARCA-R (Parent Report of Children's Abilities–Revised)?

The PARCA-R is a standardised, UK norm-referenced assessment of children's cognitive and language development at 24 months of age. It can assess a child's developmental level and can classify delayed development of any severity as well as advanced development. The children need to be assessed at 23.5 to 27.5 months to derive the standardised scores. There are separate scores for Non-Verbal Cognition and Language. The outcomes, 'above average', 'average', 'mild', 'moderate' and 'severe delay' can be calculated as used in conventional standard deviation (SD-banded) cut-offs. It is available in 14 languages. The PARCA-R is free and is immediately available to download www.parca-r.info.

Since its first validation study was published in 2004, it has been used as an outcome measure in clinical trials, observational studies, and as a screening tool in child development clinics and neonatal follow-up services. The PARCA-R is a well-researched tool that took 20 years to develop. It was the popular substitute for the Bayley Scales during the pandemic. It has been recommended by the NICE Guidelines as an assessment tool to screen for developmental delay. It has validity and reliability ratings providing standardised scores. It has been accepted as producing standard scores similar to other IQ/ developmental tests. It has been favourably compared with the Bayley-III.

Extreme Preterm Birth

Preterm birth can be associated with high rates of adverse neurodevelopmental outcomes. The risk of having a disability increases with decreasing gestational age for example, the overall risk of neurodevelopmental impairment (NDI) for extremely preterm infants <27 weeks gestation is 36%-40% and has been static for the past 2 decades. They are at greater risk of cerebral palsy particularly if they have a Grade 3 or 4 IVH (intraventricular haemorrhage) or PVL (periventricular leukomalacia). Other risk factors include cognitive impairment (low IQ - especially non-verbal, poor working memory, slow processing speed and deficits in executive functions), attention problems/ADHD, peer relationship problems/Autistic Spectrum Disorder, anxiety/emotional disorders as well as subtle learning difficulties. Neurosensory issues are increasingly recognised. ADHD (attention deficit disorder) is more frequently encountered in those less than 28 weeks gestation. These children are 3-10 times more likely to require assistance during the early school years.

The preferred Bayley assessment enables the clinician to identify specific developmental delays, early signs of poor attention skills, poor auditory processing skills, poor sensory integration skills and poor motor/coordination skills. All of these factors are relevant in terms of later classroom performance. The process of administering the scale alone generates valuable information about a child's learning potential. Identifying and managing these issues at an early age is important to facilitate optimum long-term outcome. The assessment experience is also educational for parents as it gives them an insight into the range of developmental activities from which their child can benefit. The process can strengthen a child's potential by bringing about a change in parent attitude, knowledge and behaviour. Providing Bayley Assessments is a valuable service in terms of assessing two-year outcomes for preterm babies and the data is used to counsel parents when their babies are admitted to the Neonatal Intensive Care Unit (NICU).

Over the years we have noted that attention and sensory processing skills are two notable challenges for the preterm child, who despite having a good outcome, is not achieving his/her potential in terms of learning and language development. We looked at a home intervention programme to address these issues in a small cohort of infants. Our research paper titled 'Therapeutic Listening for Preterm Children with Sensory Dysregulation, Attention and Cognitive Problems' was published in January 2020.[1] The research showed this home intervention programme to be a feasible intervention for preterm children improving their attention levels and sensory processing skills. These skills, as we know, are very important for future learning and language development. The NMH ACORN Early Developmental Programme is now an established early intervention programme for our at-risk newborn preterm infants which should help to support these challenges. We need more research so that we can get a better understanding of the needs of our preterm population in terms of attention and sensory processing skills.

Neonatal Encephalopathy (NE) Diagnosis

Term infants with NE are at high risk of long-term disability. The National Neonatal Encephalopathy collaborative is of increasing importance for these infants, particularly since the advent of therapeutic hypothermia (January 2009). Outcome is improving since the introduction of therapeutic hypothermia as evidenced by our follow-up and international studies. However, we have seen from our small cohort over the years that neonatal encephalopathy impacts neurodevelopmental outcomes, and that outcome is mainly determined by the extent of injury to the brain. In

an NMH retrospective study looking at developmental outcomes in a cohort of 115 NE infants from 2009-2016, developmental delay was greater in the infants with abnormal MRI brain scans compared to those with normal MRIs. In the cohort of infants with normal MRIs, language delay was 27%, motor delay was 9% and cognitive delay was 9%. In the cohort of infants with abnormal MRIs, language delay was 48%, cognitive delay was 40%, and motor delay was 30% indicating a marked difference[2]. High seizure burden was also associated with poor outcome.

In the Neonatal Therapeutic Hypothermia in Ireland Annual Report 2020 (national aggregate report 2016-2019)[3], Bayley outcome follow-up data for 85 children showed that 26% had Gross Motor Delay, 21% had Receptive Language Delay, 21% had Expressive Language Delay,16% had Cognitive Delay, and 12% had Fine Motor Delay. This was a broad outcome measure without reference to MRI outcomes or degree of encephalopathy.

From the data presented above, neonatal encephalopathy that is treated with therapeutic hypothermia but not followed by severe impairments such as CP, can still be associated with impairments in sensory regulation, cognitive, motor, language and educational outcomes. Hence, we need to structure our neonatal encephalopathy follow-up to identify the best interventions both in the NICU and during the recovery and development of this highly vulnerable group of infants. As these children are at 'high risk' of potentially modifiable neurodevelopmental sequelae, they should be enrolled in neonatal follow-up programmes such as in our recently introduced NMH ACORN Programme. It is hypothesized that the NE children who achieve a normal Full-Scale IQ at 4 years of age (WPPSI-IV) can still have poorer performance with regard to Verbal Information and Processing Speed Skills compared with children without NE.

Why are we doing these assessments?

Great advances have been made in neonatal intensive care over the past decade. Survival of infants born at 23 weeks' gestation is now increasingly reported. Unless we measure our neonatal outcomes, we cannot hope to make improvements in the care we provide. These assessments are also an important service for our babies and their families. The parents receive a detailed copy of their child's report. Copies of the report, if requested by the family, may be sent to other clinicians who are involved in the care of their child.

Professional resources continue to be very limited for those children requiring developmental intervention such as speech therapy, physiotherapy and occupational therapy. This was particularly evident during the Covid pandemic when many children did not receive any follow-up at all. Waiting lists still continue to be long. There is often no service available when a therapist is on leave. There was a lack of consistency in how publicly funded services were provided throughout the country. This was addressed by the launch of a National Policy on Access to Services which was approved by the HSE in September 2021 to ensure more equitable access to services for children in need and to Children Disability Network Teams (CNDTs). The CNDT has replaced existing disability teams provided by Enable Ireland, the Health Service Executive (HSE) Early Intervention Teams and School-Aged Assessment Teams, St. Catherine's Association, St. John of Gods Services and St. Michael's House. Unfortunately, as reported in the Irish Times on 3rd March 2023, and again recently, over one third of these services' approved posts remain vacant.

We need to improve educational outcomes. Neurodevelopmental outcomes do not appear to be improving despite improved survival and neonatal care. In a UK survey, carried out in 2020, more than 90% of 426 families reported

> **"It outlines strategies to support children with inattention, working memory difficulties, slow processing speed, poor visuospatial skills, social and emotional problems and mathematics difficulties."**

that there should be more awareness and understanding of the educational needs of children born preterm. Impairments in speech and language impact negatively on academic learning and executive functioning skills during the school years. Recognising these challenges, the PRISM E–learning resource programme[4], consisting of 5 x1 hours sessions, with interactive multimedia content, has been devised for educational professionals in the UK.4 The sessions examine preterm birth, educational outcomes, cognitive outcomes, behavioural outcomes and social and emotional outcomes. It outlines strategies to support children with inattention, working memory difficulties, slow processing speed, poor visuospatial skills, social and emotional problems and mathematics difficulties. There is a need to bridge the gap between healthcare and education to determine what support children and families need, to understand the factors that contribute to attainment after preterm birth and to develop and evaluate intervention programmes.

Our neonatal speech and language therapist (SLT) took up her post in November 2021.The importance of such roles was highlighted in the HSE Model of Care document and the NICE Guidelines.5 A speech and language therapist working with parents during the neonatal period and for the first two years is now deemed an essential service for children born

preterm. The support of an SLT is vital for children struggling with feeding or who present with speech and language delays. We know that preterm infants who have had early feeding problems are more likely to have language impairment, some with lasting effects into childhood and adolescence. Although preterm infants will not speak for a few years, elements of their care in the NICU may impact on their speaking ability over the long-term. Of our preterm group who were followed-up in 2022, 52% showed an expressive speech delay at least one standard deviation or more below the mean (score <85) while 31% had a receptive speech delay. The extent of language delay as a problem in preterm infants is often under-appreciated, as many centres, including ours, primarily report on composite cognitive and motor scores as opposed to language scores. Our data support the need for early speech and language therapy input commencing in the NICU. Our SLT now works with parents to initiate and develop their child's attention and listening skills, play skills, their comprehension and expression of language (combining words to make sentences), and their speech articulation, all which contribute to language development.

For our cohort of children, born preterm (<+1500g/or at 29+6 weeks) and term with neonatal encephalopathy, the NICE Guideline NG72 provides a very comprehensive outline of the biomarkers for delay and the need for follow-up at 2 years and 4 years of age respectively.[5] We have introduced the ACORN Programme to ensure all our Very Low Birth Weight Infants receive early intervention while in NICU and during their first 2 years post discharge within the Dublin area. However, these babies are not yet being seen at 4 years of age, which should be our next goal, if we wish to better support their school life and learning potential, and their social and emotional development.

We are still not formally assessing moderate (32-33 weeks >1500g) or late (34-36 weeks) preterms. This may be something we should consider going forward as recently published in the British Journal of Medicine[6] 2024. The population cohort (diagnosed up to 16 years of age) was a national study of nearly 1.5 million (1,496 950 births exactly) births recorded in Sweden from 1998 – 2012. Birth weight was by centiles so more difficult to comprehend. The study concluded that children born moderately or late preterm have higher risks of adverse neurodevelopmental outcomes when compared to term infants. As these children compromise the largest proportion of children born preterm these risks should not be underestimated. The PARCA-R screening tool discussed above would be a good start for follow-up within this cohort of moderate to late preterms to measure potential cognitive or language delay.

Dr Ebithal Abdelaziz, Neonatal Senior House Officer and Dr Marahaini Isa, Specialist Registrar in Neonatology, caring for Baby Basma Ekky on the Postnatal Ward.

Table 1: Bayley Composite Cognitive, Language and Motor Scores (n=72 and PARCA-R Cognitive and Language Scores (n=7) according to Gestational Age DOB 2022 - Assessed at 2 Years Corrected Age.

Bayley Composite Cognitive Score	23 wks	24 wks	25 wks	26 wks	27 wks	28 wks	29 wks	30-32 wks	>32 wks	Total
Very Superior (≥130)	0	0	0	0	0	1	0	1	0	2 (2.8%)
Superior (120-129)	0	1	0	0	0	0	2	2	0	5 (7%)
High Average (110-119)	0	2	1	1	1	3	2	6	0	16 (22.2%)
Average (90-109)	0	1	4	6	2	8	5	8	1	35 (48.6%)
Low Average (80-89)	0	1	0	3	0	2	0	0	0	6 (8.3%)
Borderline (70-79)	0	0	0	0	0	0	0	2	0	2 (2.8%)
Extremely Low (<69)	0	0	0	0	0	2	2	0	2	6 (8.3%)
Total	**0**	**5**	**5**	**10**	**3**	**16**	**11**	**19**	**3**	**72 (100%)**

Bayley Composite Language Score	23 wks	24 wks	25 wks	26 wks	27 wks	28 wks	29 wks	30-32 wks	>32 wks	Total
Very Superior (≥130)	0	0	0	0	0	0	1	0	0	1(1.4%)
Superior (120-129)	0	0	0	0	1	2	0	4	0	7(9.7%)
High Average (110-119)	0	0	0	1	0	1	1	1	1	5 (7%)
Average (90-109)	0	4	2	3	1	5	4	9	0	28 (39%)
Low Average (80-89)	0	1	1	3	0	4	2	3	0	14 (19.4%)
Borderline (70-79)	0	0	1	2	1	1	1	1	0	7 (9.7%)
Extremely Low (<69)	0	0	1	1	0	3	2	1	2	10 (13.9%)
Total	**0**	**5**	**5**	**10**	**3**	**16**	**11**	**19**	**3**	**72 (100%)**

Bayley Composite Motor Score	23 wks	24 wks	25 wks	26 wks	27 wks	28 wks	29 wks	30-32 wks	>32 wks	Total
Very Superior (≥130)	0	0	0	0	0	0	0	0	0	0 (0%)
Superior (120-129)	0	0	0	0	0	1	1	2	0	4 (5.5%)
High Average (110-119)	0	1	1	1	0	2	1	4	1	11 (15.3%)
Average (90-109)	0	3	3	5	2	10	5	10	0	38 (52.8%)
Low Average (80-89)	0	0	0	3	1	1	2	3	0	10 (13.9%)
Borderline (70-79)	0	1	1	0	0	0	0	0	0	2 (2.8%)
Extremely Low (<69)	0	0	0	1	0	2	2	0	2	7 (9.7%)
Total	**0**	**5**	**5**	**10**	**3**	**16**	**11**	**19**	**3**	**72 (100%)**

1motor assessment is by telephone consultation with parents

PARCA-R Cognitive Score	23 wks	24 wks	25 wks	26 wks	27 wks	28 wks	29 wks	30-32 wks	>32 wks	Total
Very Superior (≥130)	0	0	0	0	0	1	0	0	0	1 (14.3%)
Superior (120-129)	0	0	0	0	0	1	0	0	1	2 (28.6%)
High Average (110-119)	0	0	0	0	0	0	0	3	1	4 (57.1%)
Average (90-109)	0	0	0	0	0	0	0	0	0	0 (0%)
Low Average (80-89)	0	0	0	0	0	0	0	0	0	0 (0%)
Borderline (70-79)	0	0	0	0	0	0	0	0	0	0 (0%)
Extremely Low (<69)	0	0	0	0	0	2	0	3	2	7 (100%)
Total	**0**	**5**	**5**	**10**	**3**	**16**	**11**	**19**	**3**	**72 (100%)**

PARCA-R Language Score	23 wks	24 wks	25 wks	26 wks	27 wks	28 wks	29 wks	30-32 wks	>32 wks	Total
Very Superior (≥130)	0	0	0	0	0	0	0	0	0	0 (0%)
Superior (120-129)	0	0	0	0	0	2	0	0	0	2 (28.6%)
High Average (110-119)	0	0	0	0	0	0	0	3	2	5 (71.4%)
Average (90-109)	0	0	0	0	0	0	0	0	0	0 (0%)
Low Average (80-89)	0	0	0	0	0	0	0	0	0	0 (0%)
Borderline (70-79)	0	0	0	0	0	0	0	0	0	0 (0%)
Extremely Low (<69)	0	0	0	0	0	2	0	3	2	7 (100%)
Total	**0**	**5**	**5**	**10**	**3**	**16**	**11**	**19**	**3**	**72 (100%)**

Table 2: Bayley Scaled Score Outcomes for Cognitive (Cog), Receptive (RC) and Expressive (EC) Communication Skills (Language Scale) and Fine (FM) and Gross (GM) Motor Skills (Motor Scale) for our Preterm Infants Born in 2022; Assessed in NMH in 2024 (n=72).

Scaled Scores	Cog Scale	%	RC Scale	%	EC Scale	%	FM Scale	%	GM Scale	%	Outcome
16-19	2	2.7%	3	4.2%	1	1.3%	2	2.7%	0	0%	Superior
13-15	13	18 %	10	14%	6	9.7%	18	25%	2	2.7%	High Average
8-12	43	59.7%	35	48.6.%	40	55.5%	43	59.7%	48	66.6%	Average
5-7	7	9.7%	15	20.8%	18	25%	3	4.2%	15	20.8%	Mild Delay
1-4	7	9.7%	9	12.5%	7	9.7%	6	8.3%	7	9.7%	Moderate-Severe Delay
Total	**72**	**100%**	**72**	**100%**	**72**	**100%**	**72**	**100%**	**72**	**100%**	

Table 3: Neurodevelopmental Outcomes using Bayley Scores for the Neonatal Encephalopathy Cohort Born in 2022: Assessed in 2024 in NMH. All NE Babies received Therapeutic Hypothermia.

Case	Classification	Cog	RC	EC	FM	GM	COG	LANG	MOTOR	Outcomes based on Composite Scores
1	Inborn 3,4 HIE NE Grade 2 MRI Normal	11	14	16	11	10	105	129	103	Superior Language Average Cog and Motor
2	Inborn 1,2 HIE NE Grade 2 Seizures MRI Normal	10	11	10	13	8	100	103	103	Normal Performance
3	Inborn 1,2,4HIE NE Grade 2 Seizures MRI Abnormal but GBS infection	18	15	12	13	11	140	121	112	Very Superior Cognitive Superior Language Normal Motor
4	Outborn 1,2 HIE Seizures NE Grade3 MRI Abnormal	7	7	8	7	9	85	86	88	Mild Delay Globally
5	1,2 HIE NE Grade 2 MRI Normal	16	14	14	13	10	130	124	110	Very Superior Cognitive Superior Language High Average Motor
6	Outborn 2,3,4 HIE NE Grade 2 MRI Abnormal	19	19	19	15	16	145	153	133	Very Superior Performance
7	Inborn NE Grade 2 Seizures MRI Abnormal CP / Visual impairment	4	8	8	8	1	70	89	67	Moderate Cognitive Delay Normal Language + Fine Motor Extreme Gross Motor Delay
8	Inborn NE Grade 2 MRI Normal	7	4	4	8	8	85	65	88	Extreme Language Delay Mild Cognitive + Motor Delay
9	Outborn NE Grade 2 MRI Normal	8	6	9	9	10	90	86	97	Mild Language Delay Cognitive + Motor Normal
10	NE Grade 2 Outborn MRI Normal	10	9	9	10	8	100	94	94	Normal Cognitive, Language + Motor
11	Outborn NE Grade 2 Seizures MRI Normal	7	6	5	7	9	85	74	88	Moderate Language Delay Mild Cognitive + Motor Delay
					Non Cooled Babies					
12	Inborn Seizures ? underlying syndrome	3	4	5	5	6	65	68	73	Extreme Cognitive + Language Delay Moderate Motor Delay
13	Inborn Seizures MRI bilateral ischaemic changes	9	8	7	10	9	95	86	97	Normal Cognitive + Motor Mild Language Delay
14	Inborn Seizures 2ry to culture negative meningitis U/S Normal	13	13	11	10	12	115	115	107	High Average /Average
15	NAS Baby	8	8	12	11	13	90	100	112	Normal Performance

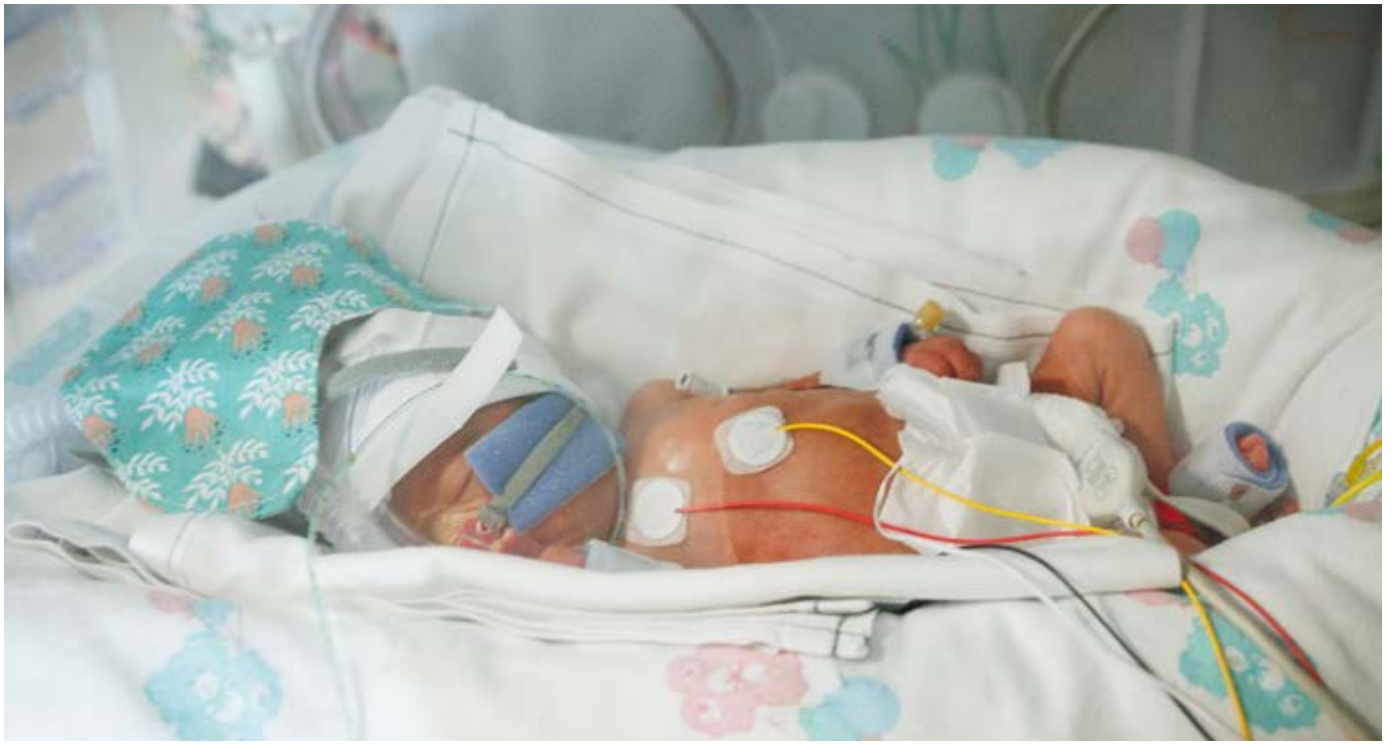
Scaled Scores: Cognitive Scale (Cog), Receptive Communication Scale (RC), Expressive Communication Scale (EC), Fine Motor Scale (FM), Gross Motor Scale (GM)
Composite Scales: Cognitive Scale (Cog), Language Scale (Lang) and Motor Scale (Motor)
**HIE Classification*
1)Apgar score < 5 @ 10 mins of age
2)Continued need for resus @10 mins of age
3)pH <7.0 within 60 mins of birth

Table 4: Bayley Composite Scores using Bayley Classification for Cognitive, Language and Motor Outcomes for Term Infants with Neonatal Encephalopathy born in 2022; Assessed in 2024 (n=11).

Composite Scores	Cognitive Scale (No.)	%	Language Scale (No.)	%	Motor Scale (No.)	%	Interpretation
≥ 130	3	27.2%	1	9.1%	1	9.1%	Very Superior
120-129	0	0%	3	27.2%	0	0%	Superior
110-119	0	0%	0	0%	2	18.2%	High Average
90-109	4	36.4%	2	18.2%	4	36.4%	Average Range
80-89	3	27.2%	3	27.2%	3	27.2%	Low Average
70-79	1	9.1%	1	9.1%	0	0%	Borderline
≤ 69	0	0%	1	9.1%	1	9.1%	Extreme Delay
Total	11	100%	11	100%	11	100%	

Table 5: Bayley Scaled Score Outcomes for Cognitive (Cog), Receptive (RC) and Expressive (EC) Communication Skills (Language Scale) and Fine (FM) and Gross (GM) Motor Scale for our Term Infants with Neonatal Encephalopathy Born in 2021; Assessed in NMH in 2023 (n=11). All babies received Therapeutic Hypothermia.

Scaled Scores	Cog Scale	%	RC Scale	%	EC Scale	%	FM Scale	%	GM Scale	%	Outcome
16-19	3	27.2%	1	9.1%	2	18.2%	0	0%	1	9.1%	Superior
13-15	0	0%	3	27.2%	1	9.1%	4	36.4%	0	0%	High Average
8-12	4	36.4%	3	27.2%	6	54.5 %	5	45.5%	9	81.8%	Average
5-7	3	27.2%	3	27.2%	1	9.1%	2	18.2%	0	0%	Mild Delay
1-4	1	9.1%	1	9.1%	1	9.1%	0	0%	1	9.1%	Moderate-Severe Delay
Total	**11**	**100%**	**11**	**100%**	**11**	**100%**	**11**	**100%**	**11**	**100%**	



Laura Da Silveira Lima.

Neonatal & Infant Mortality

All Liveborn Deaths

Year	2020	2021	2022	2023	2024
Total number of liveborn deaths	52	50	50	51	43
Inborn deaths	45	48	46	48	39
Deaths in infants with congenital anomalies	21	15	15	18	22
Deaths in normally formed infants	30	35	34	33	21
Deaths in normally formed infants weighing ≤1500g	21	31	28	28	16
Deaths occurring in first 7 days of life	37	33	33	34	32
Deaths occurring in first 28 days of life	42	45	41	46	36
Deaths occurring in NMH	40	40	40	46	34

This table includes all deaths of liveborn infants irrespective of gestational age or birthweight. A liveborn infant is defined as any infant who breathes or has any evidence of life, such as beating of the heart, pulsation of the umbilical cord or definite movement of voluntary muscles. Any death that is reported to the staff of the NICU, irrespective of the place or timing of death (i.e. the death may occur after discharge from the NICU), is also included in the above table. It should be noted that complete ascertainment of deaths that occur post-discharge from NMH, particularly after 28 days of age, cannot be guaranteed as NMH relies on other institutions/agencies to be notified of such deaths.

All normally formed infants (inborn and outborn) to whom intensive care measures were initiated: n = 16/20.

Perinatal Mortality Rates for all inborn babies born ≥500g and/or 24 wks gestation including stillbirths

Perinatal Mortality Rates	2020	2021	2022	2023	2024
Overall perinatal mortality rate per 1000 births	8.9	8.1	7.6	6.1	6.7
Perinatal mortality rate corrected for lethal congenital anomalies	6.4	5.7	5.1	2.6	4.0
Overall Perinatal mortality rate including late neonatal deaths	10	9.7	8.5	7.7	7.1
Overall Perinatal Mortality Rate excluding external referrals	7.3	6.6	5.1	3.8	5.4
Perinatal Mortality Rate corrected for lethal congenital anomalies and excluding early deaths and stillbirth external referrals	5.7	4.2	3.5	1.6	3.4

Overall perinatal mortality rate (PMR): Number of stillbirths and early neonatal deaths per 1,000 total births (live births and stillbirths from 24 weeks gestation and/or weighing ≥500g). Late neonatal deaths are not included in the PMR.
Corrected PMR: Perinatal mortality rate excluding perinatal deaths associated with or due to a major congenital anomaly per 1,000 total births (livebirths and stillbirths from 24 weeks gestation and/or weighing ≥500g).

Liveborn infants with Congenital Anomalies: n=22

Case No.	EGA	BW	Gender	Inborn	External Referral	Delivery mode	Apgars	Day of death	Place of death	Placental histology	Cause of death	PM
1	21+0	320	Male	Yes	No	Vaginal	1, 1	1	NMH LBU	Gross only.	Bilateral renal agenesis.	No
2	21+1	357	Female	Yes	No	Vaginal	2, 2	1	NMH LBU	Gross only.	Trisomy 18.	No
3	25+4	790	Female	Yes	No	Vaginal	1, 1	1	NMH LBU	No abnormal histology reported.	Lethal skeletal dysplasia.	Yes
4	27+6	1330	Female	Yes	No	C-Section	1, 1	1	NMH LBU	Large abnormal placenta.	Triploidy.	No
5	28+5	1040	Female	Yes	No	Vaginal	9, 9	7	NMH NICU	Severe acute chorionamnionitis with fetal response.	Multiple congenital anomalies, holoprosencephaly. prematurity, low birth weight	No
6	29+5	1400	Female	Yes	No	Vaginal	4, 6, 6	1	Paediatric Hospital	MIR and FIR.	Multiple congenital anomalies; bilateral congenital diaphragmatic hernias, severe pulmonary hypoplasia, genetic testing ongoing.	Yes
7	30+3	665	Female	Yes	Yes	C-Section	5, 8	41	NMH NICU	Hypercoiled cord. CMV villitis.	Intracranial malformations secondary to severe congenital CMV infection, prematurity.	No
8	33+2	2100	Female	Yes	No	C-Section	2, 6, 7	5	NMH NICU	Placental disease	Multiple congenital anomalies, genetic testing ongoing.	Yes
9	33+2	2910	Male	Yes	No	Vaginal	1, 2, 2	1	NMH LBU	Large hydropic placenta.	Skeletal dysplasia, hydrops.	No
10	33+5	2200	Female	Yes	Yes	C-Section	2, 3	2	NMH NICU	SUA. Placenta accreta.	Giant omphalocele.	No
11	34+0	2250	Male	Yes	Yes	C-Section	1, 1, 1	1	NMH LBU	Small placenta with DVM and low grade FVM.	Multiple congenital anomalies; complex cardiac and intracranial.	No
12	35+5	1995	Male	Yes	Yes	C-Section	2, 1	1	NMH LBU	DCDA. SUA. Small placenta with abnormal maturation.	Limb body wall complex.	No
13	35+5	2080	Male	Yes	Yes	Vaginal	7, 8, 9	57	Paediatric Hospital	Gross only.	Complex congenital cardiac anomaly.	No
14	36+5	1815	Male	Yes	Yes	C-Section	1, 1	1	NMH LBU	MIR. Low grade FVM.	Severe hydranencephaly.	No
15	36+6	2105	Female	Yes	No	C-Section	9, 9	154	Paediatric Hospital	Small placenta with low grade MVM.	Complex congenital cardiac anomaly, sepsis.	No
16	36+6	2730	Female	Yes	No	C-Section	6, 8	11	Hospice	MCDA. DCH.	Congenital bowel abnormality.	Yes
17	37+0	2115	Male	Yes	No	C-Section	7, 8	7	Paediatric Hospital	Massive perivillous fibrin. Low grade FVM. Hypercoiled cord.	Coroner's PM	Yes
18	37+0	3350	Male	Yes	No	Vaginal	6, 8	3	Home	Gross only.	Trisomy 13.	No
19	38+0	2030	Female	Yes	Yes	C-Section	9, 7	18	Paediatric Hospital	High grade FVM. Placental hypoplasia. Abnormal maturation.	Multiple congenital anomalies, genetic cause identified.	No
20	38+6	1750	Female	Yes	No	C-Section	4, 6, 6	2	NMH NICU	High grade FVM. SUA.	Trisomy 18.	No
21	39+1	3815	Male	Yes	Yes	C-Section	4, 5, 4	1	Paediatric Hospital	DVM.	Congenital diaphragmatic hernia, cardiac anomaly.	No
22	42+1	2240	Female	Yes	No	Vaginal	3, 3	1	NMH LBU	Small placenta; single umbilical artery, high grade villitis.	Trisomy 18.	No

Liveborn deaths of normally formed inborn infants: n = 21

Case No.	EGA	BW	Gender	Inborn	External Referral	Delivery mode	Apgars	Day of death	Place of death	IUGR	Placental histology	Cause of death	PM
1	17+5	140	Male	Yes	No	Vaginal	N/R	1	NMH LBU	No	MCDA. Severe acute chorionamnionitis.	Extreme prematurity	No
2	19+2	210	Female	Yes	No	Vaginal	1, 1	1	NMH LBU	No	MIR and FIR.	Extreme prematurity secondary to ascending infection.	No
3	21+3	480	Male	Yes	No	Vaginal	2, 1, 1	1	NMH LBU	No	RPH.	Extreme prematurity secondary to abruption.	No
4	22+1	535	Male	Yes	No	Vaginal	2, 4, 6	5	NMH NICU	No	MIR and FIR.	Extreme prematurity secondary to ascending infection, extensive intraventricular haemorrhage, preterm lung disease.	No
5	22+5	570	Male	Yes	No	Vaginal	5, 4	1	NMH LBU	No	DCDA. MIR and FIR.	Extreme prematurity secondary to ascending infection.	No
6	22+5	595	Male	Yes	No	Vaginal	7, 7	1	NMH LBU	No	DCDA.	Extreme prematurity secondary to ascending infection.	No
7	23+0	425	Male	Yes	No	C-Section	2, 2, 7	32	NMH NICU	Yes	MVM.	Necrotising enterocolitis, extreme prematurity.	Yes
8	23+0	435	Female	No	Outborn	Vaginal	6, 5, 8	4	NMH NICU	Yes	Not available.	Extreme prematurity, extensive intraventricular haemorrhage	No
9	23+0	520	Male	No	Outborn	Vaginal	6, 5, 6	2	NMH NICU	No	Not available.	Extreme prematurity, severe lung disease, E.Coli sepsis.	No
10	23+6	640	Male	Yes	No	Vaginal	5, 7	38	NMH NICU	No	DCDA. Low grade FVM.	Acute pneumonia, intraventricular haemorrhage, extreme prematurity, extremely low birth weight.	Yes
11	24+3	520	Male	Yes	Yes	C-Section	4, 5, 7	48	NMH NICU	No	High grade MFM.	Necrotising enterocolitis, complications of extreme prematurity; preterm lung disease, intraventricular haemorrhage, intestinal failure.	No
12	25+0	700	Male	Yes	No	Vaginal	2, 6, 8	5	NMH NICU	No	MIR and FIR.	Multi-organ failure, extreme prematurity, extremely low birth weight, parenteral nutrition collection due to liver necrosis.	Yes
13	27+0	440	Male	Yes	Yes	C-Section	4, 8	72	Paediatric hospital	Yes	Small placenta with MVM.	Malrotation, necrotic bowel	No
14	27+1	885	Female	Yes	No	C-Section	0, 0, 1	1	Theatre	No	MCDA. TTTS.	TTTS.	No
15	28+1	1550	Female	Yes	No	Vaginal	1, 1	1	NMH NICU	No	MIR and FIR.	Fetal hydrops, Parvovirus B19 congenital infection, prematurity.	No
16	29+1	760	Female	Yes	No	C-Section	6, 7	2	NMH NICU	N/A	MCDA. Low grade FVM. Moderate MVM.	Complications of prematurity and extremely low birth weight; twin to twin transfusion syndrome.	No
17	32+6	1380	Male	No	Outborn	C-Section	1, 4, 7	27	NMH NICU	Yes	CMV positive.	Neonatal encephalopathy, prematurity, CMV infection.	No
18	36+6	3000	Male	Yes	No	C-Section	1, 3	3	NMH NICU	No	Abruption	Severe neonatal encephalopathy due to placental abruption.	No

Case No.	EGA	BW	Gender	Inborn	External Referral	Delivery mode	Apgars	Day of death	Place of death	IUGR	Placental histology	Cause of death	PM
19	37+0	3450	Male	No	Outborn	C-Section	1, 5, 7	3	NMH NICU	No	Abnormal villous maturation associated with Diabetes. Low grade FVM. SUA.	Coroner's PM	Yes
20	39+0	2475	Female	Yes	No	C-Section	0, 2, 2	3	NMH NICU	Yes	Torn velamentous cord, maternal and low grade fetal vascular malperfusion.	Severe neonatal encephalopathy due to severe maternal antepartum haemorrhage.	No
21	39+0	2845	Female	Yes	No	C-Section	1, 2, 5	8	NMH NICU	No	High grade FVM.	Severe neonatal encephalopathy, respiratory failure and severe PPHN.	No

Antepartum Stillbirths of normally formed inborn infants: n = 18

Case No.	EGA	BW	Gender	External Referral	Delivery mode	IUGR	Placental histology	Cause of death	PM
1	25+2	955	Male	No	Vaginal	No	Parvovirus.	Parvovirus	Yes
2	25+3	860	Male	No	Vaginal	No	No abnormal histology reported.	Unexplained.	No
3	25+4	500	Female	Yes	Vaginal	Yes	Hypercoiled cord with High grade FVM.	Placental disease.	No
4	25+6	770	Male	Yes	Vaginal	No	DCH. High grade FVM. Chorionamnionitis.	Placental disease.	No
5	26+5	805	Male	No	Vaginal	n/a	MCMA.	TRAP sequence.	No
6	27+1	181	Female	No	C-Section	n/a	MCDA. TTTS.	TTTS.	No
7	27+4	855	Male	Yes	Vaginal	No	DCH. High grade fetal vascular malperfusion. Old RPH.	Placental disease.	Yes
8	28+2	650	Male	Yes	Vaginal	Yes	Small placenta with high grade FVM.	Placental disease.	No
9	29+4	1200	Female	No	C-Section	No	MCDA, Low grade MVM.	TTTS.	No
10	29+4	1310	Female	No	C-Section	No	MCDA.	TTTS.	No
11	30+1	357	Male	No	Vaginal	Yes	Massive perivillous fibrin.	Placental disease.	No
12	33+2	1620	Female	No	Vaginal	Yes	High grade FVM.	Placental disease.	No
13	38+2	3355	Male	No	Vaginal	No	High grade FVM with DVM.	Coroner's PM	Yes
14	38+4	2965	Female	No	Vaginal	No	Hypercoiled cord with FVM.	Coroner's PM	Yes
15	39+4	3300	Female	No	Vaginal	No	Hypercoiled cord with high grade FVM and DVM.	Placental disease.	Yes
16	39+4	3805	Female	No	Vaginal	No	Retroplacental haemorrhage. Segmentally hypercoiled cord. Low grade FVM.	Abruption	No
17	39+5	3170	Male	No	Vaginal	No	Tight true knot with high grade FVM.	Cord accident.	Yes
18	41+0	3640	Female	No	C-Section	No	Hypercoiled cord with high grade FVM and DVM.	Coroner's PM	Yes

Antepartum Stillbirths of inborn infants with Congenital Anomalies: n = 3

Case No.	EGA	BW	Gender	External Referral	Delivery mode	Placental histology	Cause of death	PM
1	24+0	406	Female	No	Vaginal	No abnormal histology reported.	Trisomy 21.	Yes
2	25+0	655	Male	No	Vaginal	Gross only. Small placenta.	Trisomy 18.	No
3	40+2	3990	Female	No	Vaginal	Umbilical arterial thrombosis with high grade FVM.	Trisomy 21.	Yes

Hypoxic Ischaemic Encephalopathy, Neonatal Encephalopathy & Seizures

Since 2013, NMH now reports on all infants ≥35 weeks gestation who during the first week of life have:

- Signs of Neonatal Encephalopathy (NE) which are defined as clinical findings in 3 or more of the following domains, present for at least 24 hrs:
- Seizures
- Level of consciousness
- Spontaneous activity when awake or aroused
- Posture
- Tone
- Primitive reflexes
- Automonic system

or

- Seizures alone

All NE and seizure cases are reviewed and classified as as Hypoxic-Ischaemic Encephalopathy (HIE) based on the presence one or more of the following physiological criteria:

- Apgar score ≤5 at 10 mins of age
- Continued need for resuscitation (endotracheal intubation or PPV) at 10 mins after birth.
- Acidosis within 60 mins of birth (defined as a pH < 7.0 in an umbilical cord or any neonatal arterial, venous or capillary blood sample)
- Base deficit ≥ 16 mmol/L in an umbilical cord or any neonatal blood sample (arterial, venous or capillary) within 60 mins of birth

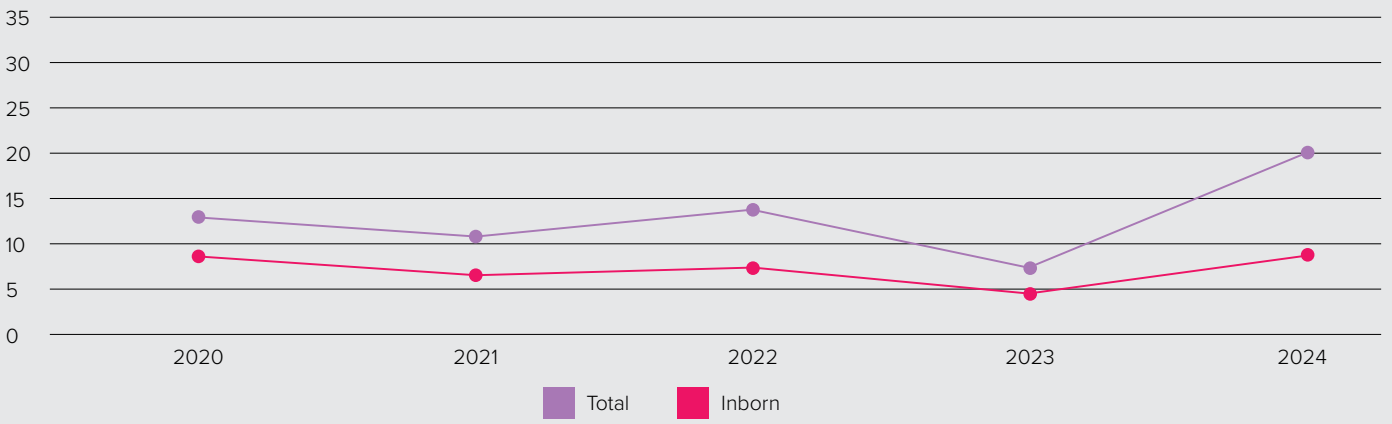
Reported cases are therefore classified into one of 6 groups:

- HIE inborn
- HIE outborn
- NE without HIE inborn
- NE without HIE outborn
- Isolated seizure without NE or HIE inborn
- Isolated seizures without NE or HIE outborn

Reference is also made to which cases undergo therapeutic hypothermia. If pertinent obstetric details surrounding the delivery are not available (as in the case of some outborn infants), then, the case, by default is reported as a case of Neonatal Encephalopathy without HIE. In all reported cases, it is assumed that there is no evidence of an infectious cause, a congenital malformation of the brain or an inborn error of metabolism that could explain the encephalopathy.

All cases (both neonatal encephalopathy cases and hypoxic-ischaemic encephalopathy cases) are further categorised according to severity of presentation. The most severe stage observed during the first 7 days following birth is recorded based on the infant's level of consciousness and response to arousal manoeuvres such as persistent gentle shaking, shining a light or ringing of a bell. Infants are considered to fall into the 'mild' category if they are alert or hyperalert with either a normal or exaggerated response to arousal, infants fall into the 'moderate' category if they are arousable but are lethargic and have a diminished response to arousal manoeuvres and infants fall into the 'severe' category if they are stuporous or comatosed and are difficult to arouse or are not arousable. If further clarification regarding any of these clinical terms or definitions is required, please refer to the appendix.

Infants Undergoing Therapeutic Hypothermia in the NMH 2020-2024



	2020	2021	2022	2023	2024
Inborn	8	6	7	4	9
Total	**13**	**11**	**14**	**7**	**21**

No. of Cases 2024

	Inborns	Outborns
Neonatal Encephalopathy - with HIE	7	12
Mild HIE (Grade 1)	0	0
Moderate HIE (Grade 2)	4	9
Severe HIE (Grade 3)	3	3
Neonatal Encephalopathy – without HIE	2	0
Seizures – No Encephalopathy	0	0
Therapeutic Hypothermia	9	12

Infants Undergoing Therapeutic Hypothermia in the NMH

	2020	2021	2022	2023	2024
Inborn					
HIE cases reported	8	6	4	2	7
Number cooled	*8*	*6*	*4*	*2*	*7*
NE cases reported	0	0	3	2	2
Number cooled	*0*	*0*	*3*	*2*	*2*
Total (*cooled)	**8** **8***	**6** **6***	**7** **7***	**4** **4***	**9** **9***
Outborn					
HIE cases reported	4	2	4	3	12
Number cooled	*4*	*2*	*4*	*3*	*12*
NE cases reported	2	3	3	0	0
Number cooled	*1*	*3*	*3*	*0*	*0*
Total (*cooled)	**6** **5***	**5** **5***	**7** **7***	**3** **3***	**12** **12***
Total Inborn and Outborn Cases	14	11	14	7	21
Inborn infants cooled	8	6	7	4	9
Outborn infants cooled	5	5	7	3	12
Total	**13**	**11**	**14**	**7**	**21**

Hypoxic Ischaemic Encephalopathy: Inborn (7)

Case No.	EGA	BW (g)	Delivery Method	Delivery Method Indication	Apgars 1, 5, 10, 15, 20	PPV at 10 mins	Min pH within 60 min	Max BE within 60 min	Seizures Y/N	TH	Grade of NE	Summary of MRI brain	Organ Involvement	Outcome	Placental Histology	Classification
1	36+6	3000	Emergency C-Section (GA)	Fetal bradycardia, placental abruption	1, 3, 3	Yes	6.8	unrecordable	Yes	Yes	3	None	Ventilated, multi-organ dysfunction	Died on day 3 of life, coroner's post-mortem not directed	Features of placetal abruption, low grade fetal vascular malperfusion	1, 2, 3, 4, HIE inborn
2	38+3	3225	Spontaneous vaginal (waterbirth)	Spontaneous labour	1, 2, 4	Yes	7.07	-13	Yes	Yes	2	Abnormal: bilateral periventricular pattern of ischaemia/infarction	Ventilated, hepatic and renal dysfunction	Discharged home on day 23 of life	Acute chorioamnionitis, maternal vascular malperfusion	HIE 1, 2
3	39+0	2475	Emergency C-Section	Antepartum haemorrhage, Fetal bradycardia	0, 2, 2	Yes	6.83	-16	Yes	Yes	3	Abnormal: unilateral thalamic pattern of ischaemia/infarction	Ventilated, multi-organ dysfunction	Died on day 3 of life, coroner's post mortem not directed	Torn velamentous cord, maternal and low grade fetal vascular malperfusion	1, 2, 3, 4 HIE inborn
4	39+0	2845	Emergency C-Section (GA)	Abnormal CTG, meconium stained liquor	1, 2, 5	Yes	6.83	-18	Yes	Yes	3	Abnormal: global pattern of ischaemia/infarction	Ventilated, multi-organ dysfunction	Died on on day of life 8, coroner's post mortem not directed	High grade FVM.	1, 2, 3, 4, HIE inborn
5	39+5	3075	Operative vaginal (ventouse)	Fetal bradycardia, shoulder dystocia	2, 7, 8	No	6.91	-17	No	Yes	2	Normal	No	Discharged on day 7 of life	Decidual necrosis	3, 4 HIE inborn
6	40+1	3500	Operative vaginal (ventouse)	Abnormal CTG, Shoulder dystocia	3, 4, 5	Yes	7.2	-8.1	No	Yes	2	Abnormal: bilateral thalamic pattern of ischaemia/infarction	Ventilated	Discharged home on day 5 of life	Increased NRBC and meconium.	1, 2 HIE inborn
7	41+4	3510	Operative vaginal (ventouse)	Abnormal CTG, meconium, maternal pyrexia	3, 4, 7	No	6.97	-16.7	Yes	Yes	2	Normal	Ventilated, meconium aspiration syndrome	Discharged home on day 8 of life	Acute chorioamnionitis, low grade villitis.	3, 4, HIE inborn

Neonatal Encephalopathy: Inborn (2)

Case No.	EGA	BW (g)	Delivery Method	Delivery Method Indication	Apgars 1, 5, 10, 15, 20	PPV at 10 mins	Min pH within 60 min	Max BE within 60 min	Seizures Y/N	TH	Grade of NE	Summary of MRI brain	Organ Involvement	Outcome	Placental Histology	Classification
1	40+6	3740	Operative vaginal (ventouse)	Abnormal CTG, antepartum haemorrhage	8, 8	No	7.24	-6.8	Yes	Yes	2	Normal	No	Discharged home on day 7 of life	Acute chorioamnionitis, maternal vascular malperfusion	NE with seizures inborn, no HIE
2	41+2	4110	Operative vaginal (ventouse, forceps)	Abnormal CTG, meconium, maternal pyrexia	5, 6, 7	No	7.16	-8	Yes	Yes	2	Abnormal: small, uniilateral, focal areas of cerebellar, occipital lobe and corpus callosum ischaemia	No	Discharged home on day 5 of life	Acute chorioamnionitis, low grade villitis.	NE with seizures inborn, no HIE

Hypoxic Ischaemic Encephalopathy: Outborn (12)

Case No.	EGA	BW (g)	Delivery Method	Delivery Method Indication	Apgars 1, 5, 10, 15, 20	PPV at 10 mins	Min pH within 60 min	Max BE within 60 min	Seizures Y/N	TH	Grade of NE	Summary of MRI brain	Organ Involvement	Outcome	Placental Histology	Classification
1	36+3	2965	Emergency C-Section	Antepartun haemorrhage, Fetal bradycardia	1, 4, 5	Yes	6.8	-27.8	Yes	Yes	2	Abnormal: basal ganglia pattern of ischaemia/ infarction	Venitilated	Transferred to referring hospital on day 12 of life	No placenta in NMH	1, 2, 3, 4 HIE outborn
2	37+0	3450	Emergency C-Section	Reduced fetal movements, abnormal CTG, poorly controlled diabetes	1, 5, 7	Yes	6.88	-17.5	Yes	Yes	3	Abnormal: global pattern of ischaemia/ infarction	Ventilated, multi-organ dysfunction	Died on day 4 of life, coroners post morten directed	Small, maternal vascular malperfusion and delayed villlous maturation secondary to maternal diabetes	2, 3, 4, HIE outborn
3	38+3	3700	Emergency C-Section	Abnormal CTG, antepartum haemorrhage	1, 1, 1	Yes	6.98	-24	Yes	Yes	2	Abnormal: basal ganglia pattern of ischaemia/ infarction	No	Discharged home on day 18 of life	Hypercoiled cord, FVM	1, 2, 3, 4 HIE outborn
4	38+6	2770	Emergency C-Section	Meconium stained liquor, planned for C-section for previous myomectomy	5, 6, 8	Yes	7.18	-9.1	No	Yes	2	Normal	Ventilated, severe pulmonary hypertension, ECMO in Sweden	Discharged home on day 33 of life	No placenta in NMH	2 HIE outborn

Case No.	EGA	BW (g)	Delivery Method	Delivery Method Indication	Apgars 1, 5, 10, 15, 20	PPV at 10 mins	Min pH within 60 min	Max BE within 60 min	Seizures Y/N	TH	Grade of NE	Summary of MRI brain	Organ Involvement	Outcome	Placental Histology	Classification
5	39+1	3560	Spontaneous vaginal	IOL poor obstetric history/ maternal discomfort	7, 4, 4	Yes	6.99	-15.5	No	Yes	2	Normal	No	Transferred to referring hospital on day 6 of life	MIR and FIR.	1, 2, 3, HIE outborn
6	39+3	3010	Operative vaginal (ventouse)	Fetal bradycardia	3, 4, 6	No	6.89	-13.8	No	Yes	2	Normal	Ventilated	Discharged home on day 7 of life	No placenta in NMH	3 HIE outborn
7	39+6	2870	Spontaneous vaginal	Breech (undiagnosed)	1, 4, 6	Yes	6.69	-24.2	No	Yes	3	Normal	Ventilated	Transferred to referring hospital on day 4 of life	No placenta in NMH	2, 3, 4, HIE outborn
8	39+6	3300	Spontaneous vaginal	Breech (undiagnosed), fetal bradycardia, meconium	1, 3, 4	Yes	6.65	-20	No	Yes	2	Abnormal: unilateral thalamic pattern of ischaemia/ infarction	Ventilated	Discharged home on day 7 of life	Normal histology (external)	1, 2, 3, 4, HIE outborn
9	40+4	3030	Operative vaginal (ventouse)	Fetal bradycardia, meconium stained liquor	0, 6, 7	No	6.8	-14.8	Yes	Yes	2	Abnormal: thalamic pattern of ischaemia/ infarction	Ventilated, multi-organ dysfunction	Discharged home on day 8 of life	No placenta in NMH	3, 4 HIE outborn
10	40+6	3720	Operative vaginal (ventouse)	Reduced fetal movements, IOL, abnormal CTG	2, 4, 4	Yes	6.7	-18.2	Yes	Yes	2	Abnormal: global pattern of ischaemia/ infarction	Ventilated	Transferred to referring hospital on day 8 of life	Normal histology	1, 2, 3, 4 HIE outborn
11	41+0	3620	Emergency C-Section (GA)	Reduced fetal movements, abnormal CTG	0, 1, 6	Yes	7.19	-7.6	No	Yes	2	Normal	Ventilated	Discharged home on day 6 of life	No placenta in NMH	2 HIE outborn
12	41+2	3705	Emergency C-Section (GA)	Meconium stained liquor, abnormal CTG, failed instrumental	0, 2, 4	Yes	6.83	-21.4	No	Yes	3	Normal	Ventilated	Transferred to referring hospital on day 7 of life	No placenta in NMH	1, 2, 3, 4 HIE outborn

Classification:

1) Apgar score ≤5 at 10 mins of age
2) Continued need for resus at 10 mins after birth
3) pH <7.0 within 60 mins of birth
4) Base excess ≥ 16.0 within 60 mins of birth

Antenatal Education

Eleanor Durkin and Theresa Barry, in collaboration with a multidisciplinary team, continue to develop and create resources and supports which promote improvements in the health and wellbeing of babies, pregnant women, and their partners throughout the antenatal and postnatal periods. We continue to revise the suite of antenatal education classes using a Universal Design for Learning (UDL) approach to parenthood education. A comprehensive, inclusive, interactive programme of in-person and virtual antenatal education classes using this approach is used to teach, reassure and empower women and partners. It is a key part of our antenatal education vision for all: to improve parent's knowledge and understanding of preparation for childbirth and parenthood.

We continue to provide a broad range of midwifery led and multidisciplinary online classes, and have resumed in-person classes since Spring 2023. We receive referrals from colleagues in Medical Social Work, Perinatal Mental Health, Ultrasound Department, Bereavement Services and Clinics to provide specialist and individual classes for vulnerable women. Classes include:

- A set of four 'Pregnancy Wellbeing' classes facilitated by the multidisciplinary team. This is open to women at any stage of their pregnancy but ideally the earlier the better.
- A set of three classes for first time parents (online or in-person).
- A refresher class (online or in-person) for women/partners who have had previous vaginal births
- A VBAC (Vaginal Birth After Caesarean) class (online or in-person) for women who wish to have a vaginal birth this time.
- A 'Preparation for Elective Caesarean Birth' online class for women with a booked elective caesarean section.
- A Twins online class, for women/partners expecting twins.
- 'Young Mums and Dads' in-person classes which include 'hands on' baby care.
- 'Partners Only' online class once a month.
- 'An Introduction to Hypnobirthing' online class.
- 'Mental Wellbeing in Pregnancy and Beyond' and 'Postnatal Mental Wellbeing' classes-facilitated by mental health midwives
- 'Healthy Bodies After Birth' classes-facilitated by physiotherapists.
- Individual classes for vulnerable women/couples

> **"A comprehensive, inclusive, interactive programme of in-person and virtual antenatal education classes using this approach is used to teach, reassure and empower women and partners."**

Antenatal education and the delivery of information has dramatically changed over the past few years, and The NMH eLearning Hub is integral to our classes. Whilst innovations enhance our service, they require development and monitoring, all of which takes time and expertise. We continue to develop resources to meet parent expectations.

National antenatal education standards now guide our service and the development of resources. In 2024, Theresa and Eleanor completed part two of the National Antenatal Educator's Programme. As part of this programme, a new national antenatal education curriculum was unveiled providing an opportunity to review all class material and structure provided in the NMH. In 2023 and 2024 we took part in a national antenatal education audit. The NMH was consistently found to be demonstrating a 'commitment towards developing a quality service'. Both educators are members of the National Antenatal Education Forum and attend national meetings.

This year Theresa Barry completed Hypnobirthing for Midwives: A Practitioner Training Programme. The vision is to provide a Hypnobirthing programme which will further complement the Introduction to Hypnobirthing that currently exists. Services are developed beyond antenatal education. Theresa is part of the Basic Life Support teaching team within the hospital and both educators are members of many multidisciplinary meeting groups. We plan to recommence providing in-person evening classes shortly.

- 72% of expectant mothers attended classes,
- 43% of expectant mothers attended the Pregnancy Wellbeing Class. An initiative is in place to increase awareness of this class.
- 30% of first time expectant mothers attended in-person classes and 70% attended online classes. Further plans are in place to expand the staff resources and availability of in-person classes in 2025.
- 16% attended the refresher classes.
- Attendance varies at other classes for 2024: Hypnobirthing (430), VBAC (171), Preparation for Elective Section (165), Partners (80),

Our service could not run without the administration support of Susan Doyle and Nicola Jordan. They provide invaluable support to staff and parents.

Theresa Barry and Eleanor Durkin, Antenatal Education Facilitators.

Bereavement

Brenda Casey, CMS Bereavement with the Remembrance Book. We offer bereaved families an opportunity to include their baby's details into our Remembrance Book which is located in the Chapel.

The vast majority of babies at the NMH are born healthy and well. However, when the death of a baby occurs it is the most difficult experience any parent can face, whatever the circumstance. Over the past number of years, we have been working together to develop a comprehensive holistic service for bereaved families attending The National Maternity Hospital (NMH).

The Bereavement Midwives at the NMH care for women who experience first trimester loss, second trimester miscarriage, stillbirth, neonatal death and support couples who have Termination of Pregnancy in the case of life limiting conditions or termination in maternal interest. Central to the running of the service are the Clinical Midwife Specialists (CMS) in Bereavement, Brenda Casey, Yvonne Fallon and Katarzyna Sobczyk (CMM1) who co-ordinate bereavement care pathways for women, their partners and families. Arrangements are made for follow-up in specialist clinics which are run by the bereavement midwives, senior medical personnel and specialist consultants.

Bereavement Clinics

There are four bereavement clinics led by Consultant Obstetrician & Gynaecologists.

- Stillbirth Clinic: Dr Stephen Carroll met with 16 couples in the Stillbirth Clinic in 2024.
- Preterm birth bereavement Clinic: Dr Siobhan Corcoran met with 19 couples whose pregnancy loss was related to Preterm Labour/Prolonged Spontaneous Rupture of Membranes in which a comprehensive individualised care pathway was outlined for a subsequent pregnancy.
- Individual/Neonatal bereavements: Follow up was also arranged with individual consultants for a further 22 couples that required joint obstetric and neonatal appointments.
- Pregnancy After Loss Clinic: The 'TLC Clinic' provides additional support to women in the 1st trimester, specifically for women who are pregnant again, having previously attended the recurrent miscarriage clinic. In 2024, 68 women attended the TLC clinic.
- Miscarriage Clinic: 21 couples attended the late miscarriage clinic with Prof Cathy Allen. The recurrent miscarriage clinic remains busy with a high demand for appointments. 132 couples were investigated in the Recurrent Miscarriage clinic led by

Prof Cathy Allen with input from the multidisciplinary Reproductive Genetics team. Dr David Crosby further supports this clinic and counselled 56 couples following early pregnancy loss in the reproductive genetics clinic.

Since the introduction of new HSE guidelines in January 2024, there has been a significant increase of 55% in the number of cases seen in the Miscarriage Clinic. In 2024, we managed 135 new cases of Recurring Pregnancy Loss in 1st trimester, and Pregnancy Loss in 2nd trimester, compared to 87 in 2023 and 87 in 2022. This does not capture all of the additional referrals which are triaged and returned to referring clinicians with recommendations on management.

The Recurrent Pregnancy Loss service at NMH continues to be unique in Ireland in having expert Genetics input into the cases. A fortnightly multidisciplinary team meeting occurs between the teams from Genetics, Recurring Miscarriage and Bereavement: all case referrals are reviewed and individualised plans are agreed. This approach has led to targeted, faster interventions and reduction in unnecessary tests, thus benefitting patients and reducing costs for the Hospital.

All the clinics provide an opportunity to determine how parents are coping with grief and loss and risk assess those who may need additional support. Medical information, obtained through investigations including haematological, microbiological, sonographic, radiological, genetic and histology is shared. The MRI scanner at the Hospital assists in this specialised area and images are reviewed by the Consultant Radiologist. Clinics are supported by Consultant Pathologists Dr Paul Downey and Dr Eoghan Mooney, who provide valuable information through rapid histological placental examination and post-mortem examination. Dr Sam Doyle, Consultant Clinical and Biochemical Geneticist provides expertise and counsels couples in cases where genetic assessment is required.

Internment

The Bereavement Midwives arrange all hospital burials or cremation of miscarriages. Burials or cremations were organised for 39 babies following early or mid-trimester miscarriage in 2024. We believe time invested in preparing babies for burial with respect and dignity is one of the most important aspects of our work.

Annual Service of Remembrance

The Annual Remembrance Service was held on the 2nd Sunday in October, coinciding with Pregnancy Loss Awareness week. It is an important day in the hospital calendar where bereaved parents, their families and hospital staff come together to remember all babies that have died during pregnancy and around the time of birth.

Dedicated 1-1 Bereavement Support Service

Support, information and advocacy continues to be provided to women who have experienced the death of a baby at any stage of pregnancy. The introduction of a dedicated 1-1 bereavement support service in 2024 is bridging the gap in holistic bereavement care in the NMH. Since the service commenced in mid-April, 39 women availed of the service which is available one day per week, online or in person. 51% attended in-person and 48% online. 20% of attendees availed of all 6 sessions, with the remainder having their grief and loss validated and normalised based on their individual needs. 46% of attendees experienced recurrent miscarriage, 38% experienced a miscarriage/ectopic pregnancy, 8% experienced mid- trimester loss and 8% stillbirth. Feedback from patients has been very positive with women stating it has been hugely beneficial in navigating the challenges faced moving forward.

Pregnancy After Loss Support Group

This continued during the year in collaboration with the Perinatal Mental Health Team. 24 women attended the online support groups in February, May, September and November, with plans to evaluate the service next year.

We continue educational input with staff and student midwives within the hospital, UCD and the Centre for Midwifery Education. The Hospice Friendly Hospitals standard of care initiatives are in place. Multidisciplinary bereavement education sessions continued in 2024 and Brenda was invited to develop and facilitate a National Grief in Maternity Settings Workshop in March 2024.

Brenda Casey, CMS Bereavement and Prof Cathy Allen, Consultant Obstetrician & Gynaecologist.

Breastfeeding Support

The National Maternity Hospital Breastfeeding Support Service supports all mothers who choose to breastfeed or provide expressed breastmilk to their babies.

The team provide a 7-day service. The service includes antenatal education classes online/in-person and weekly colostrum harvesting classes along with ward based support and we also provide postnatal clinic support for women.

78% initiated breastfeeding at birth with 75% non-exclusively breastfeeding on discharge. Our exclusive breastfeeding rates at discharge are 51% which is the highest in years, however it is something that we will continue to improve. Maternal choice to use both breast and formula feeding is an important factor to consider when looking at breastfeeding trends. Many mothers opt for this mixed feeding due to various personal, practical, or medical reasons.

Antenatal Education

The antenatal colostrum harvesting session at The National Maternity Hospital has been a valuable resource for expectant mothers. Over 1,000 women attended this drop-in class which provides essential knowledge on how to hand express colostrum before birth, helping to prepare mothers for their breastfeeding journey. It's great to hear that mothers who attend are more confident with breastfeeding, which positively impacts their baby's feeding and overall health.

This approach aligns directly with the current national efforts to support breastfeeding education and assist mothers to feel a sense of empowerment and be prepared for the challenges of early parenthood.

The attendance to this class has significantly increased, doubling from 2023, which speaks to the growing awareness of the importance of this education. Collaborating with the Communications Team at the Hospital has clearly helped in spreading the word about the session's benefits. This collaboration also led to the creation of an updated colostrum harvesting leaflet and an upcoming how-to video, both to be launched in early 2025. This is a great way to make the information more accessible to expectant mothers.

A specific antenatal breastfeeding education class was also hosted twice a month. The class is offered in-person or virtually. Providing this combination of in-person interaction and virtual options offers flexibility, allowing mothers to choose the format that best suits their schedules and preferences.

In 2024, approximately 1,000 mothers attended either in-person or virtual class.

Postnatal Wards

In 2024, 2,973 consultations on the postnatal wards with mums experiencing difficulties / complications establishing breastfeeding. A new and exciting change initiative has been developed: Traffic Light Pilot Project (TLPP) . The aim of the TLPP is to provide a streamlined referral system for postnatal women to Breastfeeding Midwives from the postnatal ward and to ensure that the women receive the most appropriate review based on their individual needs. It also aimed to support the Breastfeeding Midwives in the prioritisation of care and appropriate use of their specialist skills. The Traffic Light Pilot Project (TLPP) was launched during National Breastfeeding Week, October 2024. The project was developed as a result of an audit of 'reasons for referral to the breastfeeding support team'. On foot of this audit, it was found that almost 50% of referrals to the Breastfeeding Midwives were relating to maternal questions and reassurance, position and latch and sore nipples. Three areas, which are very much interlinked and can be easily addressed by the midwife on the ward and in group based breastfeeding support classes on the postnatal ward facilitated by the Breastfeeding Midwives .

> **"A specific antenatal breastfeeding education class was also hosted twice a month. The class is offered in-person or virtually. Providing this combination of in-person interaction and virtual options offers flexibility, allowing mothers to choose the format that best suits their schedules and preferences. "**

Women and babies are referred to the Breastfeeding Midwives via the MN-CMS system with an accompanying Traffic Light Referral Form. This means that all involved can see how best to assist the women on her breastfeeding journey and make sure the most appropriate care in the most appropriate setting is provided for her.

Green referrals are provided for group postnatal Breastfeeding education sessions which are held on the postnatal wards 3 times per week or more frequently if the demand is there. Red/orange referrals are seen on a 1:1 basis and are prioritised with same day/next day reviews.

This project is currently ongoing and being reviewed and updated.

Breastfeeding Clinic

The twice-weekly postnatal breastfeeding clinic is by appointment and women can book in themselves

> **“It is especially valuable that the clinic focuses on both the mother and the baby, addressing their needs as a pair and offering tailored advice based on each individual situation.“**

providing a vital part of the support system for new mothers up to 6 weeks postpartum. In 2024, 1,221 women attended this clinic. Offering this support in the early weeks after birth helps mothers navigate any challenges they may face with breastfeeding, including issues like latching, milk supply, or nipple pain. This kind of continued care can make all the difference in encouraging successful breastfeeding and promoting maternal confidence.

It is especially valuable that the clinic focuses on both the mother and the baby, addressing their needs as a pair and offering tailored advice based on each individual situation. The postnatal period can be overwhelming, so having a reliable resource to turn to for support in those early weeks can be incredibly reassuring for new parents.

It is very interesting to note while nipple pain can be caused by poor latching of the baby, a clinical diagnosis of both bacteria or fungal infections Staphylococcus Aureus (12) Candidiasis (4) Group B strep (3) Group A strep (1) and E.Coli (1) have been identified through analysing some expressed breast milk in the laboratory. Prompt treatment can be arranged for the mother through our Consultant Microbiologist Dr Susan Knowles and our Infection Control Assistant Director of Midwifery/Nursing Shideh Kiafar and a team member who is a midwife prescriber.

National Standards for Infant Feeding in Maternity Services

In 2024, NWHIP requested that the service complete a self-assessment of the National Standards for Infant Feeding in Maternity Services utilising the HIQA Quality Improvement Framework. The aim of the self-assessment tools are to support each of the 19 Maternity Hospitals/Units to:

1. Appraise their practices against the requirements of the National Standards for Infant Feeding in Maternity Services (2022).
2. Review their systems and procedures to support breastfeeding and other methods of infant feeding
3. Benchmark their progress to monitor future progress.

The process involved in depth interviews with service users and service providers. The outcomes were measured against levels of compliance known as ‘Judgement Descriptors’ (JDs) and these were used to assess each Maternity Hospital/Service performance against each of the eight HIQA themes. It must be commended that The National Maternity Hospital demonstrated meeting the standard in almost all 8 themes showing that we are working towards meeting the remaining standards. Action plans have been developed in order to reach the target of meeting the standard in all 8 themes.

One of these actions is the roll out of the new national programme for staff learning about the basic skills of breastfeeding.

This new programme sees a collaborative approach between acute and community settings. Merging breastfeeding education for NMH staff alongside our CHO 6, Public Health Nurses. Our breastfeeding support team have undertaken extra training in order to facilitate teaching these courses and are commencing same in 2025.

Supplementation Policy

The team introduced a new supplementation policy in 2024 which is a significant step forward in promoting and supporting breastfeeding with the aim of reducing formula supplementation especially for non-clinical reasons. Focusing on providing expressed breastmilk through the use of safe soft syringes instead, the team is empowering mothers to feed their babies with their own milk, which offers optimal nutrition and strengthens the breastfeeding bond.

Collaborating with Neonatology Clinical Director Dr Deirdre Sweetman on this policy, ensures that it’s grounded in both expert medical advice and a compassionate understanding of mothers’ needs. The use of safe soft syringes for expressing milk is a great solution for mothers who may face challenges with direct breastfeeding, as it ensures babies still receive their mother’s milk in a safe and controlled manner.

Coupled with the antenatal colostrum harvesting education, written materials, and visual resources, this policy offers a comprehensive approach to ensure that mothers are well-prepared for their breastfeeding journey. Aligning these collective actions with the National Standards provides safe care and support to women and babies attending The National Maternity Hospital.

Breastfeeding Midwives.

Community Midwifery Service

Katie Cosgrove, CMM3 Community Midwives, Pia Crofton and Aoibhinn Ní Shúilleabháin, service users and Clodagh Manning, CMM2 Community Midwives, at an event celebrating 25 years of the Community Midwifery Service.

The Community Midwifery Service is now in its 26th year of service at The National Maternity Hospital. In April 2024, we celebrated the 25th anniversary marking a major milestone. Mrs Sabina Higgins was our guest of honour and it was a wonderful celebration in Kilruddery House, Co Wicklow. Also in attendance were key supporters, including Minister for Health Stephen Donnelly, Martina Queally, Regional Executive Officer HSE Dublin and South East, along with past and present midwives and service users.

Since its inception, our community services have provided midwifery care to over 35,000 women during their pregnancy and post-birth. The Domino and homebirth services have supported more than 10,000 women through their pregnancy, labour, and postnatal period, including facilitating over 800 home births.

Our care is delivered through three main components:

1. Domino and Homebirth Service
2. Antenatal Care in Outlying Clinics: providing care for women on a supported or assisted care pathway. Certain clinics have liaison Consultant Obstetricians on set days each month
3. Early Transfer Home Programme (ETH): provides midwifery-led postnatal care, support, and advice in the comfort of women's homes.

Domino and Homebirth Service

The aims of the Domino and Homebirth service are:

- To provide continuity of care to low-risk women on the supported care pathway throughout pregnancy, labour, and the postnatal period.
- To offer 24-hour midwifery care for all women booked with the scheme.
- To have a Domino midwife providing care during labour.
- To enable early discharge home for continued postnatal care with home visits.

Domino and Homebirth Antenatal Clinics

The antenatal clinics are held at primary care centres around South Dublin and Wicklow, including Blackrock Centric Health, Churchtown, Primary Care Centre, Leopardstown Primary Care Centre, Bray Primary Care Centre, Greystones Primary Care Centre and Newtownmountkennedy Primary Care Centre. We encourage all women to receive combined care with

their GPs. It must be acknowledged that many GP practices do not offer combined care to women choosing a homebirth due to medical insurance limitations.

In 2024 we are delighted to report all women are offered a dating scan which takes place in The National Maternity Hospital Ultrasound Department. In addition to the dating scan, women also receive an anatomy scan which is scheduled between 18-22 weeks. We work closely with our liaison Consultant Obstetrician Dr Zara Fonseca-Kelly, who provides support and clinical review for women if needed. Women are offered a postdates point of care scan for liquor volume, either in our clinic at NMH or at community Domino clinics with our midwives who have been trained to provide same, using portable tablet scanners.

Domino and Homebirth Service Bookings

Over 500 women booked into the service in 2024, with 359 birthing with our service. Reasons for this reduction are similar to previous years, either women suffered a miscarriage or where the woman's risk profile changed and assisted or specialised care became the appropriate pathway for them, as per the National Maternity Strategy.

Domino Service Intrapartum Care

Of the 359 women who birthed through the Domino and Homebirth scheme, 32.3% required induction of labour. The indications for induction align with national guidelines and The National Maternity Hospital policy. Table 4 outlines the primary reasons for induction, which include prolonged spontaneous rupture of membranes (PSROM), fetal distress, advanced maternal age, Group B Streptococcus (GBS), and postdates.

The Robson Ten Groups Classification of Caesarean Section (Table 3) shows that the Group 1 LSCS rate is 5.7%, with our overall LSCS rate being 13.9%. This rate is in line with the World Health Organization (WHO) 'ideal acceptable' LSCS rate of 10-15%. This occurs in the context of national and global trends, where there is an increasing rate of LSCS year on year.

It is also worth noting that 75.2% of Domino women experienced a spontaneous vaginal delivery. The table for the Community Midwives Robson Ten Groups Classification of Caesarean Section is provided at the end of this section.

> **"In 2024 we are delighted to report all women are offered a dating scan which takes place in The National Maternity Hospital Ultrasound Department. In addition to the dating scan, women also receive an anatomy scan which is scheduled between 18-22 weeks."**

Epidural and Birthing Pool Use

Tables 6 and 7 outline the mode of birth, epidural rates, and our use of the hydrotherapy pool. In June 2024, waterbirth was introduced as an option for women who wish to remain in the birthing pool for birth. One in five Domino women chose to use the hydrotherapy pool for labour, with 30 women going on to have a waterbirth. This has been an incredibly positive development, offering women more birth options. This has been an incredibly positive achievement not only for women but for midwives to be able to practice the supportive care model of midwifery in the intrapartum period. This initiative was made possible by the collaboration of key stakeholders from across the hospital including our Consultant Neonatologists, Obstetricians and management teams.

We are currently researching women's experiences with hydrotherapy, and the feedback has been overwhelmingly positive from those who have used the birthing pool. Our total epidural rate stands at 44%, with the majority of this rate being accounted for by nulliparous women. While we actively promote the hydrotherapy pool, it's important to note that some women are excluded from using it due to the need for continuous fetal monitoring, which is often a result of the overall higher induction rates.

Perineal Outcome

The perineal outcomes for women who had a vaginal birth are displayed in Table 5 and 5b. The episiotomy rate for women last year was 15%, which includes instrumental deliveries. For the spontaneous vaginal delivery (SVD) group, the episiotomy rate is 9.6%, and the OASI (Obstetric Anal Sphincter Injury) rate is 2.2%

Breastfeeding

Breastfeeding Rates	Total	%
Breastfeeding at delivery	333	92.8%
Breastfeeding at discharge	324	90.3%

One of the key success indicators for our service is that 90% of women are breastfeeding upon discharge from the Domino service. We believe this success is largely attributed to the effectiveness of our antenatal breastfeeding classes, combined with the promotion of colostrum harvesting. These initiatives are empowering women with the knowledge and confidence to choose breastfeeding as their preferred method of feeding. Additionally, the home visits provided up

to days 7/8 play a vital role in supporting women through the early breastfeeding challenges. This added support ensures women receive the guidance they need during those crucial first days, helping to foster a successful breastfeeding experience.

Homebirths

In 2024, we had 35 planned homebirths, of which 18 proceeded to have a homebirth. As in previous years, the majority of these women were multiparous. Notably, there were no intrapartum transfers, and the 17 women who did not have a homebirth continued to receive care under our service and only their place of birth changed.

There has been a continued decrease in homebirth numbers nationally, with some women opting for private service providers offering homebirth options. Table 8 lists the details on the reasons for transfer out of the Homebirth service.

Birth Preparation and Breastfeeding Classes

The Domino and Homebirth service run their own Antenatal Classes include birth preparation and breastfeeding classes. These are all in-person classes offered in both Wicklow and Dublin venues. Over 70% of women attending the service avail of these classes which promote physiological birth.

Additionally, we conducted a research project to evaluate our breastfeeding classes, and the results were very positive. We look forward to sharing the outcomes of this research in 2025.

Antenatal Care in Outlying Clinics

External clinics provide both assisted and supported care to women in their local areas who are attending the hospital. Women can access midwifery-led care or obstetric-led care at these clinics. The clinics are primarily run by midwives, with Consultant Obstetricians attending to provide obstetric-led care for women who require additional input. These combined obstetric and midwifery clinics are available in Loughlinstown, Bray, Arklow, Greystones, and Wicklow Town.

Table 2 provides a breakdown of each clinic's activity. In total, 531 women booked into these clinics, and 3,765 women attended appointments, benefiting from a combination of consultant and midwifery-led care.

Postnatal Care

Table 9 outlines the number of visits made to mothers and babies at home in 2024 which totalled 10,396 visits. This number reflects a combined effort between the Early Transfer Home Programme (ETHP), Domino, and Homebirth services, as all visits are coordinated between both teams based on geographical location. This approach is necessary due to congested traffic and it allows for a more efficient use of the teams' time.

Prof Shane Higgins, Master, Martina Queally, Regional Executive Officer, HSE Dublin and South East, Stephen Donnelly, Minister for Health, Wife of Michael D Higgins, President of Ireland, Sabina Higgins, Rachel Kenna, Chief Nursing Officer, Department of Health and Mary Brosnan, Director of Midwifery & Nursing at the Community Midwives event celebrating 25 years of the service.

EARLY TRANSFER HOME PROGRAMME

The ETHP remains a popular service, with midwives seeing all women on the postnatal ward before discharge to assess their suitability and interest in receiving this service. Feedback continues to be overwhelmingly positive.

OTHER DEVELOPMENTS

The Community Team remains committed to fostering a culture of continuous professional development to meet the evolving needs of the women who attend our services. Our team includes five lactation consultants, six midwife prescribers, and 11 midwives qualified to perform new-born examinations. In 2024, two midwives also became NRP facilitators, while seven team members became qualified in 'point of care' post-date scanning. Additionally, three other team members are currently completing their observational hours to finalize their training.

In 2024, Our Domino team undertook speculum training, with the majority of the team attending the educational component delivered by Dr Venita Broderick. The team is now completing the practical aspect of this training and will soon be signed off in 2025.

The dedication of our Community Team to continually evolve and meet the needs of the women in our care reflects the passion and commitment our midwives demonstrate in providing exceptional care within the community.

We are also pleased to announce the appointment of Trinity Bonham as CMM2 for the Domino and Homebirth service after joining the team in a rotational role earlier in 2024. Additionally, Leah Byrne has joined our Community Team as a CMM1 for our Early Transfer Home Service.

Affirmation Project

We are incredibly proud of our ongoing collaboration with The National Maternity Hospital Foundation, whose support has enabled the creation of updated positive affirmation cards. These cards were honoured with an Innovation in Healthcare Award in September 2024 at the National Healthcare Awards.

We're also excited to announce the completion of a new set of breastfeeding affirmation cards, designed to provide educational information for women during the first few days of their breastfeeding journey. These will be launched in first half of 2025.

Katie Cosgrove, CMM3 Community Midwifery Manager.

Celebrating 25 years of the Community Midwives!

Table 1: Domino and Homebirth Antenatal Attendances

Clinic Name	New	Follow-Up	Total
Bray	57	315	372
Dún Laoghaire	61	462	523
Churchtown	63	402	465
Greystones	51	283	334
Leopardstown	51	338	389
Newtownmountkennedy	28	190	218
Domino Outpatients Visits	0	39	39
Pearse	36	215	251
Domino Review Clinic	0	212	212
Total	**348**	**2455**	**2803**

Table 2: External (Satellite) Antenatal Clinic Attendances

Clinic Name	New	Follow-Up	Total
Bray	4	607	611
Newtownmountkennedy	196	0	196
ETH – Ballinteer	27	251	278
ETH – Dun Laoghaire	29	252	281
Loughlinstown	106	551	657
Arklow	52	355	407
Greystones	2	531	533
Bray	115	0	115
Wicklow	0	687	687
Total	**531**	**3234**	**3765**

Table 3: Community Midwives Robson Ten Groups Classification of Caesarean Section (C/S)

Ten Groups Classification	All Sections	Births	Size of Group	C/S Rate in Group	Contribution of Group to C/S Rate
1. Nulliparous, single cephalic, >=37 weeks, in spontaneous labour	5	88	24.5%	5.7%	1.4%
2. Nulliparous, single cephalic, >=37 weeks, induced and CS before labour	30	77	21.4%	39.0%	8.4%
2a. Nulliparous, single cephalic, >=37 weeks, induced	*30*	*77*	*21.4%*	*39.0%*	*8.4%*
2b. Nulliparous, single cephalic, >=37 weeks, C/S before labour	*0*	*0*	*0.0%*	*0.0%*	*0.0%*
3. Multiparous (excluding prev. C/S), single cephalic, >=37 weeks, in spontaneous labour	1	140	39.0%	0.7%	0.3%
4. Multiparous (excluding prev. C/S), single cephalic, >=37 weeks, induced and CS before labour *	2	40	11.1%	5.0%	0.6%
4a. Multiparous (excluding prev. C/S), single cephalic, >=37 weeks, induced	*1*	*39*	*10.9%*	*2.6%*	*0.3%*
4b. Multiparous (excluding prev. C/S), single cephalic, >=37 weeks, C/S before labour	*1*	*1*	*0.3%*	*100.0%*	*0.3%*
5. Previous CS, single cephalic, >= 37 weeks	0	0	0.0%	0.0%	0.0%
6. All nulliparous breeches	10	10	2.8%	100.0%	2.8%
7. All multiparous breeches (including prev. C/S)	2	2	0.6%	100.0%	0.6%
8. All multiple pregnancies (including prev. C/S)	0	0	0.0%	0.0%	0.0%
9. All abnormal lies (including prev. C/S)	0	0	0.0%	0.0%	0.0%
10. All single cephalic,<=36 weeks (including prev. C/S)	0	2	0.6%	0.0%	0.0%
Total	**50**	**359**	**100%**	**13.9%**	**13.9%**

Table 4: Induction of labour indications

Group 2a - Indications for Induction	No.	%	Group 4a - Indications for Induction	No.	%
Fetal	19	24.7%	Fetal	18	46.2%
Maternal	6	7.8%	Maternal	4	10.3%
Maternal request	1	1.3%	Maternal request	0	0.0%
PET/Hypertension	5	6.5%	PET/Hypertension	0	0.0%
Postdates (>40 <42 weeks)	13	16.9%	Postdates (>40 <42 weeks)	6	15.4%
Postterm (>= 42 weeks)	2	2.6%	Postterm (>= 42 weeks)	2	5.1%
SROM not in labour	31	40.3%	SROM not in labour	9	23.1%
Total	**77**		**Total**	**39**	

Table 5a: Perineum Outcome (All Birth Modes)

Perineal Outcome	Nullip	%	Multip	%	Total	%
1st Degree Tear	10	5.7%	42	23.0%	52	14.5%
2nd Degree Tear	47	26.7%	60	32.8%	107	29.8%
3rd Degree Tear	6	3.4%	3	1.6%	9	2.5%
Episiotomy	48	27.3%	6	3.3%	54	15.0%
Episiotomy + 1st	0	0.0%	1	0.5%	1	0.3%
Episiotomy + 2nd	9	5.1%	0	0.0%	9	2.5%
Grazes	3	1.7%	17	9.3%	20	5.6%
Intact	53	30.1%	54	29.5%	107	29.8%
Total	**176**		**183**		**359**	

Table 5b: Perineum Outcome (SVDs Only)

Perineal Outcome	Nullip	%	Multip	%	Total	%
1st Degree Tear	10	10.5%	42	24.0%	52	19.3%
2nd Degree Tear	47	49.5%	60	34.3%	107	39.6%
3rd Degree Tear	3	3.2%	3	1.7%	6	2.2%
Episiotomy	22	23.2%	4	2.3%	26	9.6%
Episiotomy + 1st	0	0.0%	1	0.6%	1	0.4%
Episiotomy + 2nd	2	2.1%	0	0.0%	2	0.7%
Grazes	3	3.2%	17	9.7%	20	7.4%
Intact	8	8.4%	48	27.4%	56	20.7%
Total	**95**		**175**		**270**	

Table 6: Intrapartum Birthing Pool Use and Epidural Rate

	Nullip	%	Multip	%	Total	%
Epidural	112	63.6%	47	25.7%	159	44.3%
No Epidural	64	36.4%	136	74.3%	200	55.7%
Total	**176**	**100.0%**	**183**	**100.0%**	**359**	**100.0%**

Table 7: Hydrotherapy use and Waterbirths

Water Immersion	Nullip	%	Multip	%	Total	%
Yes	33	18.8%	45	24.6%	78	21.7%
No	143	81.3%	138	75.4%	281	78.3%
Total	**176**		**183**	**100.0%**		**100.0%**

Waterbirth	Nullip	%	Multip	%	Total	%
Yes	7	4.0%	23	12.6%	30	8.4%
No	169	96.0%	160	87.4%	329	91.6%
Total	**176**	**100.0%**	**183**	**100.0%**	**359**	**100.0%**

Table 8: Planned Homebirth and Reason for Transfer

	Planned vs Actual		Indications for Transfer							
	Planned Homebirth	Actual Homebirth	PSROM	Post Dates	GBS	Fetal	Maternal request	Intrapartum Transfer	Maternal	Other homebirth service
Multips	28	16	1	2	1	2	4	0	1	1
Nullips	7	2	0	2	1	1	1	0	0	0
Total	**35**	**18**	**1**	**4**	**2**	**3**	**5**	**0**	**1**	**1**

Table 8a

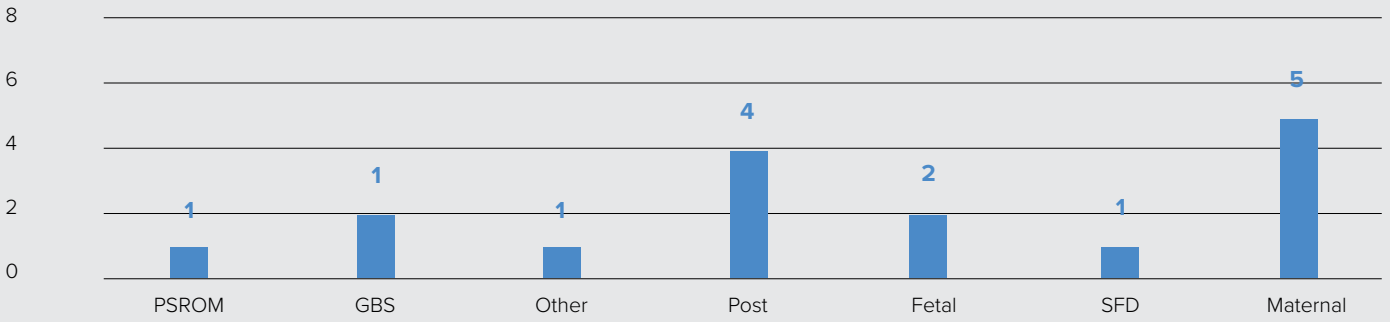


Table 9: Domino/Early Transfer Home Programme (ETHP) Postnatal Care Table of Visits

Clinic Name	Attendances
Domino - Dublin Home Visits	1898
Domino - Wicklow Home Visits	1010
Total	**2908**

Clinic Name	Attendances
ETH - Dublin Home Visits	5616
ETH - Wicklow home visits (CMMETHW)	1518
Total	**7134**

Former and present Community Midwives at the 25th Anniversary Celebrations of this unique midwifery service. From left to right Teresa McCreery Katie Cosgrove Clodagh Manning and Margaret Hanahoe.

Birth Reflections Service

Since April 2023, The National Maternity Hospital (NMH) offers a dedicated midwife led Birth Reflections Service to women who are currently pregnant and attending the NMH or who have given birth in The NMH within the past year.

The Birth Reflections Service is a listening service for women who wish to explore and reflect on their birth experience in a confidential and supportive environment.

Some women wish for greater clarity and understanding about the events surrounding their birth and others may feel worried or anxious about giving birth for the first and next time. Talking with our dedicated birth reflections midwife can help.

If a woman has given birth in the NMH, there will be an opportunity to go through the birth notes and answer questions relating to antenatal, intrapartum and postnatal events. If a woman has given birth at another hospital, they can be part of the discussion with the Birth Reflections Midwife once they have their birth notes.

The Birth Reflections Midwife will meet women either in person or by phone depending on their individual needs. Women are seen at the NMH room in a satellite clinic or in a meeting room at the NMH.

The service generally offers a one-off appointment, however, depending on anyone's individualised needs, a further follow up appointment may be arranged.

The Birth Reflections service is not a complaints or counselling service. However, referral will be made to the relevant appropriate services if required.

Women can self-refer to the service or be referred by all Hospital clinicians, GP or Public Health Nurse.

Helen McHale, CMM2 Birth Reflections.

Dina and Radu Budacan with their newborn son Eric, born in The NMH in January 2024.

Diabetes

The National Maternity Hospital (NMH) provides a multidisciplinary Diabetes in Pregnancy service, delivering specialised care across two primary categories:

- Women with Pre-Gestational Diabetes Mellitus (PGDM)
- Women with Gestational Diabetes Mellitus (GDM)

Niamh Gilmartin, Senior Dietitian and Aoife Gill, Gestational Diabetes Dietitian.

Pre-Gestational Diabetes Mellitus (PGDM)

Women with PGDM, Cystic Fibrosis-Related Diabetes, MODY, LADA, and other forms of diabetes comprised approximately 15% of the total diabetes service population. The complexity of care continues to increase with a growing number of patients experiencing chronic kidney disease and retinopathy. Patients with Cystic Fibrosis related diabetes are cared for in conjunction with the Cystic Fibrosis service in St. Vincent's University Hospital and our close connections with this team help communicate effectively across the two sites.

Advancements in Diabetes Technology

The NMH multidisciplinary team (MDT) provides comprehensive care for women utilising Continuous Subcutaneous Insulin Infusion (CSII) and continuous glucose monitoring (sensor) technology. The introduction of Hybrid Closed-Loop CSII systems has significantly improved diabetes management during pregnancy. Additionally, the use of Smart Insulin Pens has enhanced insulin safety.

As a tertiary referral centre, NMH remains committed to staying at the forefront of diabetes technology. In 2024, 32% of the PGDM population utilised CSII, marking the first full year of hybrid closed-loop system adoption. The majority of women with PGDM also benefited from sensor technology.

Launch of "Diabetes in Pregnancy: A Model of Care for Ireland 2024"

In February 2024, NMH played a pivotal role in the launch of "Diabetes in Pregnancy: A Model of Care for Ireland." This initiative was the result of years of collaborative multidisciplinary work. NMH was well represented by Prof Mary Higgins (co-chair), Prof Mensud Hatunic, and AMP Ciara Coveney. At the launch event, attended by Minister for Health Stephen Donnelly, Prof Higgins and Ms Coveney highlighted the role of their respective professions in implementing this new model of care for pregnant women with diabetes.

Gestational Diabetes Mellitus (GDM)

The midwifery-led GDM service at NMH, supported by dietitians, offers a unique and patient-centred care pathway. The virtual GDM service has gained national and international recognition through presentations at midwifery and medical conferences.

A research study titled "Maternal and Neonatal Outcomes Following Implementation of a Gestational Diabetes Virtual Clinic: A Before-and-After Comparative Study" is in its final stages and is expected to be published in early 2025.

Presentations by Diabetes Type

Year	Type 1 diabetes	Type 2 diabetes	GDM and Previous GDMs	Cystic Fibrosis Related Diabetes	MODY / LADA / Other	Total
2020	43	19	589	3	2	656
2021	47	17	774	6	0	844
2022	50	21	561	3	3	637
2023	43	22	525	2	14	606
2024	43	26	535	2	23	629

MODY = Maturity Onset Diabetes of the Young; LADA = Latent autoimmune diabetes in adults
*Other includes insulin resistance and bariatric related glucose abnormalities

With robust support from endocrinology, obstetrics, dietetics, and the wider MDT, the RAMP-led service has successfully reduced overall pharmacological treatment rates. In 2024, of the 535 women diagnosed with GDM (85% of total referrals), 205 required pharmacological therapy (116 insulin, 89 metformin), representing a treatment rate of 37%.

Continuing Professional Development

In June 2024, the Diabetes in Pregnancy Midwifery and Dietetic team attended a two-day diabetes technology course in Maynooth, delivered by the Leicester Diabetes Centre. This training has significantly improved the use of diabetes technology at NMH, leading to the successful management of the first cohort of pregnant women on the hybrid closed-loop system.

Collaborative Work & Research

The NMH Diabetes team continues to engage in national and international collaborations. Key highlights include:

- Ciara Coveney provided consultation for the HSE and various hospitals on pre-conceptual clinics, virtual clinics, and diabetes technology.
- The virtual care pathway and preliminary research findings were presented at the DICE (Diabetes in Ireland) conference in Croke Park by Ciara Coveney.
- Prof Mary Higgins, Prof Mensud Hatunic, Ms Ciara Coveney, and Ms Catherine Chambers were appointed to the working group responsible for updating national guidelines for Diabetes in Pregnancy.
- Ciara Coveney was appointed to a HIQA working group focused on establishing a national health data access body, HealthData@IE, in compliance with EU directives.

NMH celebrated World Diabetes Day with a sunrise Pilates session, led by Claire-Daisy O'Reilly (CMM1 Diabetes and qualified Pilates instructor), to recognise staff contributions. The team also organised a staff quiz and an educational session.

The diabetes dietitians were involved with recruiting women from NMH who had GDM to a pilot diabetes prevention programme which is being facilitated by community diabetes services. This pilot has been well received and it is hoped will be available going forward.

Role of Diabetes Dietitians

Dietitians play an essential role in the MDT, providing patient-centred nutritional guidance through face-to-face consultations, virtual classes, and phone reviews. Their collaboration with other healthcare professionals ensures optimal management of complex medical conditions during pregnancy.

Key Statistics

- 64% of women diagnosed with GDM received individual dietitian consultations.
- 97% of women requiring pharmacological treatment were seen by a dietitian, aligning with key performance indicators.

Dietitians also support patients with carbohydrate counting, nutritional adequacy, and managing conditions such as CF-related diabetes, nausea, coeliac disease, excessive weight gain, and anaemia, particularly in the context of increasing insulin pump and glucose sensor usage.

Team & Leadership

The Diabetes Team is a dedicated, multidisciplinary, and highly collaborative team comprising:
Obstetrics: Prof Mary Higgins, Prof Jennifer Walsh, Prof Rhona Mahony, Dr Gillian Corbett (Fellow)
Endocrinology: Prof Mensud Hatunic, Dr David Fennell (Fellow) until July 2024 and Dr Sinead Cadogan (Fellow) from July 2024.
Midwifery: Ciara Coveney, Eimear Rutter, Claire-Daisy O'Reilly, Hannah Rooney
Dietetics: Catherine Chambers, Aoife Gill
Administration: Helen McCrimmon

Research & Development

Dr David Fennell completed the second year of his MD/Endocrinology fellowship, focusing on pregnancy outcomes associated with different GDM screening methods.

The NMH was also a site for the IRELAND study, multicentre randomised controlled trial of aspirin in diabetes in pregnancy which was published in 2024.

Conclusion

The NMH Diabetes Team remains steadfast in its commitment to delivering high-quality care for women with complex medical needs. Through continuous innovation, collaboration, and professional development, the service continues to evolve, ensuring optimal care for pregnant women with diabetes.

Prof Mary Higgins, Consultant Obstetrician & Gynaecologist, Ciara Coveney, AMP Diabetes.

Labour and Birthing Unit

Throughout 2024, the staff of the Labour and Birthing Unit (LBU) continued to provide care and support for women and their partners in labour. Of the 6,598 births in The National Maternity Hospital (NMH) in 2024, 4,069 (61%) were born vaginally in the Labour and Birthing Unit (LBU). The focus on safe delivery of care continued. Midwives remain committed to the vision for maternity services, as set out by the Maternity Strategy, which places women and children at the centre of the care they provide. Midwives recognise that pregnancy and birth is a normal physiological process, and insofar as it is safe to do so, a woman's choice of maternity care is facilitated.

While the overall number of women attending the LBU for care in labour decreased, the complexity of women and the induction of labour rate continues to be a challenge. While patients at the NMH are always encouraged to deliver vaginally where possible, maternal choice is part of the hospital philosophy and will always be respected.

The overall induction of labour (IOL) rate remained at 38.5% The IOL rate a decade previous in 2014 was 27%. Nulliparous women are currently more likely to undergo induction of labour or have a pre-labour caesarean section rather than experience spontaneous onset of labour. The decision to induce labour is influenced by national and international recommendations, co-morbidities and maternal choice.

Water Birth and Hydrotherapy Pool Use

In May 2024, Birth in water was introduced as an option for women who wish to remain in the birthing pool. This has been an incredibly positive development, offering women more birth options while also enabling midwives to provide care in line with the supportive care pathway. This initiative was successful due to the commitment and collaboration of all key stakeholders of the hospital, not just the LBU. 64 women gave birth in water while 195 women used hydrotherapy in labour. Audit of this new initiative is ongoing and practices continue to develop to ensure this continues to be a safe choice for labouring women.

"While the overall number of women attending the LBU for care in labour decreased, the complexity of women and the induction of labour rate continues to be a challenge. While patients at the NMH are always encouraged to deliver vaginally where possible, maternal choice is part of the hospital philosophy and will always be respected."

Birthrate Plus®

In May of 2024, in an attempt to successfully document the complexity of the midwifery care required to safely care for women and their babies from admission to discharge, Birthrate Plus® became operational hospital wide. Birthrate Plus® is a workforce planning and decision making system for assessing the needs of women for midwifery care throughout pregnancy, labour, and the postnatal period both in hospital and community settings. The methodology has been in constant use in the UK since 1988. It calculates the required number of midwives to meet all the needs of women and babies in relation to defined standards and models of care, whilst incorporating local workforce planning factors.

Not every woman requires the same level of care nor the same amount of midwifery time during her pregnancy, labour and postnatal period. Using Birthrate Plus® supports managers to match their staffing requirement to the clinical needs of women. It is supporting staff rostering and staff allocation on a daily basis depending on the clinical needs of the women in different areas of the hospital.

Staff Retention

Staff retention continues to be a challenge. The LBU saw the departure of many midwives to travel to other countries or to promoted posts. Despite these challenges, midwives of the LBU continued to mentor student midwives, medical students, general student nurses, paramedic students and physiotherapy students as part of their daily role while being committed to providing care to women that is high quality, safe, evidence based and respectful of the woman's individual choice and needs.

Martina Cronin, CMM3 Labour and Birth & Antenatal Inpatient Services.

	May	June	July	August	Sept	Oct	Nov	Dec	Total
Hydrotherapy use	29	25	29	25	21	21	22	23	195
Water birth	7	6	7	8	8	7	9	12	64
Unable to facilitate	5	2	0	1	0	0	0	0	8

Labour and Delivery (including Caesarean Section)

Audit of maternal and fetal outcome following labour and delivery in this chapter is based on a standardised prospective framework consisting of the four obstetric concepts within which there are different parameters. The obstetric concepts are **Previous record of the pregnancy** *(nulliparous, multiparous without a uterine scar, multiparous with a uterine scar)* **Category of pregnancy** *(single cephalic pregnancy, single breech pregnancy, single oblique or transverse lie, or multiple pregnancy)* **pathway to delivery** *(spontaneous labour, induced labour or pre labour caesarean)* and **gestational age in completed weeks at the time of delivery**. These concepts are mutually exclusive and totally inclusive.

Dr Michael Robson, Consultant Obstetrician & Gynaecologist

Population changes of nulliparous women and multiparous women

	1999				2022			
	Number in group	Number of C/S	Contribution to total population	% C/S	Number in group	Number of C/S	Contribution to total population	% C/S
Nullip	3465	562	3465/7533 (46.0%)	562/3465 (16.2%)	2910	1097	2910/6815 (42.7%)	1097/2910 (37.7%)
Multip no scars	3559	185	3559/7533 (47.2%)	185/3559 (5.2%)	2811	312	2811/6815 (41.2%)	312/2811 (11.1%)
Multip + 1 scar	450	169	450/7533 (6.0%)	169/450 (37.6%)	882	721	882/6815 (12.9%)	721/882 (81.7%)
Multip + 2 or more scars	59	58	59/7533 (0.8%)	58/59 (98.3%)	212	211	212/6815 (3.1%)	211/212 (99.5%)
Totals	**7533**	**974**		**974/7533 (12.9%)**	**6815**	**2341**		**2341/6815 (34.4%)**

	2023				2024			
	Number in group	Number of C/S	Contribution to total population	% C/S	Number in group	Number of C/S	Contribution to total population	% C/S
Nullip	3084	1195	3084/6764 (45.6%)	1195/3084 (38.7%)	3171	1266	3171/6598 (48.1%)	1266/3171 (39.9%)
Multip no scars	2567	293	2567/6764 (38%)	293/2567 (11.4%)	2304	280	2304/6598 (34.9%)	280/2304 (12.2%)
Multip + 1 scar	883	730	883/6764 (13.1%)	730/883 (82.7%)	878	743	878/6598 (13.3%)	743/878 (84.6%)
Multip + 2 or more scars	230	225	230/6764 (3.4%)	225/230 (97.8%)	245	240	245/6598 (3.7%)	240/245 (98%)
Totals	**6764**	**2443**		**2443/6764 (36.1%)**	**6598**	**2529**		**2529/6598 (38.3%)**

Comment: There has been a decrease in total deliveries.

Pathway to Delivery

	1999	%	2013	%	2022	%	2023	%	2024	%
Spontaneous	5062	67.2%	5214	59.6%	2711	39.8%	2578	38.1%	2266	34.3%
Induced	2006	26.6%	2323	26.5%	2611	38.3%	2604	38.5%	2669	40.5%
Pre-labour CS	466	6.2%	1218	13.9%	1493	21.9%	1582	23.4%	1663	25.2%
Total Deliveries	**7534**		**8755**		**6815**		**6764**		**6598**	

Comment: *The incidence of IOL and pre-labour CS continues to increase.*

Overall Delivery Method

	2017	%	2019	%	2022	%	2023	%	2024	%
Spontaneous Vaginal Delivery	5048	59.9%	4498	57.1%	3706	54.4%	3502	51.8%	3365	51.0%
Vaginal Operative Delivery	1094	13.0%	989	12.6%	768	11.3%	819	12.1%	704	10.7%
Caesarean Section	2291	27.2%	2384	30.3%	2341	34.4%	2443	36.1%	2529	38.3%
Total	**8433**		**7871**		**6815**		**6764**		**6598**	

C-Section Rate by Pathway to Delivery

	Number in group	Number of C/S	Contribution to total population	% C/S
Spontaneous labour	2266	166	2266/6598 (34.3%)	166/6598 (2.5%)
Induced labour	2669	700	2669/6598 (40.5%)	700/6598 (10.6%)
Pre labour c-section	1663	1663	1663/6598 (25.2%)	1663/6598 (25.2%)
Totals	**6598**	**2529**		**2529/6598 (38.3%)**

Oxytocin Rates

	Nullip	Multip no scar	Multip +scar	Total
No Oxytocin	1448 (45.7%)	1679 (72.9%)	1099 (97.9%)	4226 (64%)
Oxytocin	1723 (54.3%)	625 (27.1%)	24 (2.1%)	2372 (36%)
Total	**3171**	**2304**	**1123**	**6598**

Table I: The overall caesarean section rate as classified by the 10 groups (total numbers)

Year	1974*	1984*	1994*	2018	2019	2020	2021	2022	2023	2024
Totals	**377/7546**	**330/7758**	**551/6244**	**2157/7496**	**2384/7871**	**2279/7263**	**2411/7694**	**2341/6815**	**2443/6764**	**2529/6598**
1	46/2020	63/2259	80/1771	147/1515	127/1468	113/1283	137/1322	118/992	108/1006	102/956
2	68/555	41/378	104/566	525/1249	697/1544	646/1531	645/1527	694/1525	802/1690	881/1826
2a				363/1085	490/1336	449/1334	436/1318	515/1346	555/1443	593/1538
2b				162/164	207/208	197/197	209/209	179/179	247/247	288/288
3	24/3217	15/3739	25/2467	34/2038	20/1946	11/1567	24/1700	15/1358	14/1258	16/1028
4	88/967	19/562	38/622	178/994	152/1053	177/1112	179/1281	181/1230	174/1112	154/1091
4a				72/888	46/947	50/985	58/1160	74/1123	76/1014	58/995
4b				106	106	127/127	121/121	107/107	98/98	96/96
5	32/196	74/332	108/321	712/917	816/1024	792/979	858/1041	812/955	825/964	871/1003
6	26/79	27/79	65/99	165/175	176/191	143/152	170/181	166/177	146/158	166/170
7	7/105	14/98	40/78	105/121	143/156	123/133	110/120	76/87	84/96	76/78
8	10/93	18/96	25/78	92/103	87/129	93/136	105/156	101/130	79/107	90/117
9	20	23	15	38/38	32/32	45/45	40/40	27/27	37/37	38/38
10	56/294	36/192	51/227	161/346	134/328	136/325	143/326	151/334	174/336	135/291

** Years 1974, 1984 and 1994 were not split up into 2a, 2b and 4a, 4b. The numbers are inclusive of inductions and pre labour caesarean sections*

Table II: The contribution that each group makes to the overall hospital population (percentages)

Year	1974	1984	1994	2018	2019	2020	2021	2022	2023	2024
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
1	26.7%	29.1%	28.4%	20.2%	18.7%	17.7%	17.2%	14.6%	14.9%	14.5%
2	7.4%	4.9%	9.1%	16.7%	19.6%	21.1%	19.8%	22.4%	25.0%	27.7%
2a				14.5%	17.0%	18.4%	17.1%	19.8%	21.3%	23.3%
2b				2.2%	2.6%	2.7%	2.7%	2.6%	3.7%	4.4%
3	42.6%	48.2%	39.5%	27.2%	24.7%	21.6%	22.1%	19.9%	18.6%	15.6%
4	12.8%	7.2%	10.0%	13.3%	13.4%	15.3%	16.6%	18.0%	16.4%	16.5%
4a				11.8%	12.0%	13.6%	15.1%	16.5%	15.0%	15.1%
4b				1.4%	1.3%	1.7%	1.6%	1.6%	1.4%	1.5%
5	2.6%	4.3%	5.1%	12.2%	13.0%	13.5%	13.5%	14.0%	14.3%	15.2%
6	1.1%	1.0%	1.6%	2.3%	2.4%	2.1%	2.4%	2.6%	2.3%	2.6%
7	1.4%	1.3%	1.2%	1.6%	2.0%	1.8%	1.6%	1.3%	1.4%	1.2%
8	1.2%	1.2%	1.2%	1.4%	1.6%	1.9%	2.0%	1.9%	1.6%	1.8%
9	0.3%	0.3%	0.2%	0.5%	0.4%	0.6%	0.5%	0.4%	0.5%	0.6%
10	3.9%	2.5%	3.6%	4.6%	4.2%	4.5%	4.2%	4.9%	5.0%	4.4%

Table III: The caesarean section rate within each of the 10 groups (percentages)

Year	1974	1984	1994	2018	2019	2020	2021	2022	2023	2024
Totals	5.0%	4.3%	8.8%	28.8%	30.3%	31.4%	31.3%	34.4%	36.1%	38.3%
1	2.3%	2.8%	4.5%	9.7%	8.7%	8.8%	10.4%	11.9%	10.7%	10.7%
2	12.3%	10.8%	18.3%	42.0%	45.1%	42.2%	42.2%	45.5%	47.5%	48.2%
2a				33.5%	36.7%	33.7%	33.1%	38.3%	38.5%	38.6%
2b				98.8%	99.5%	100.0%	100.0%	100.0%	100.0%	100.0%
3	0.7%	0.4%	1.0%	1.7%	1.0%	0.7%	1.4%	1.1%	1.1%	1.6%
4	9.1%	3.4%	6.1%	17.9%	14.4%	15.9%	14.0%	14.7%	15.6%	14.1%
4a				8.1%	4.9%	5.1%	5.0%	6.6%	7.5%	5.8%
4b				100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
5	16.3%	22.3%	33.5%	77.6%	79.7%	80.9%	82.4%	85.0%	85.6%	86.8%
6	32.9%	34.2%	65.0%	94.3%	92.1%	94.1%	93.9%	93.8%	92.4%	97.6%
7	6.7%	14.3%	50.6%	86.8%	91.7%	92.5%	91.7%	87.4%	87.5%	97.4%
8	10.8%	18.8%	31.6%	89.3%	67.4%	68.4%	67.3%	77.7%	73.8%	76.9%
9	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
10	19.0%	18.8%	22.4%	46.5%	40.9%	41.8%	43.9%	45.2%	51.8%	46.4%

Table IV: The absolute contribution of each group to the overall caesarean section rate (percentages)

Year	1974	1984	1994	2018	2019	2020	2021	2022	2023	2024
Totals	**5.0%**	**4.3%**	**8.8%**	**28.8%**	**30.3%**	**30.4%**	**31.3%**	**34.4%**	**36.1%**	**38.3%**
1	0.7%	0.8%	1.7%	2.0%	1.6%	1.6%	1.8%	1.7%	1.6%	1.5%
2	0.9%	0.5%	0.4%	7.0%	8.9%	8.9%	8.4%	10.2%	11.9%	13.4%
2a				4.8%	6.2%	6.2%	5.7%	7.6%	8.2%	9.0%
2b				2.2%	2.6%	2.7%	2.7%	2.6%	3.7%	4.4%
3	0.3%	0.2%	0.4%	0.5%	0.3%	0.2%	0.3%	0.2%	0.2%	0.2%
4	1.2%	0.2%	0.6%	2.4%	1.9%	2.4%	2.3%	2.7%	2.6%	2.3%
4a				1.0%	0.6%	0.7%	0.8%	1.1%	1.1%	0.8%
4b				1.4%	1.3%	1.7%	1.6%	1.6%	1.4%	1.5%
5	0.4%	1.0%	1.7%	9.5%	10.4%	10.9%	11.2%	11.9%	12.2%	13.2%
6	0.3%	0.3%	1.0%	2.2%	2.2%	2.0%	2.2%	2.4%	2.2%	2.5%
7	0.1%	0.2%	0.6%	1.4%	1.8%	1.7%	1.4%	1.1%	1.2%	1.2%
8	0.1%	0.2%	0.4%	1.2%	1.1%	1.3%	1.4%	1.5%	1.2%	1.4%
9	0.3%	0.3%	0.2%	0.5%	0.4%	0.6%	0.5%	0.4%	0.5%	0.6%
10	0.7%	0.5%	0.8%	2.1%	1.7%	1.9%	1.9%	2.2%	2.6%	2.0%

Robson Ten Groups Classification of Caesarean Section 2024

	CS No. / No. of Deliveries (2529 / 6598)	Size of Group % (100%)	CS rate in Group %	Contribution of each Group % (38.3%)
1. Nulliparous, single cephalic, >=37 weeks, in spontaneous labour	102 / 956	14.5%	10.7%	1.5%
2. Nulliparous, single cephalic, >=37 weeks, induced and CS before labour	881 / 1826	27.7%	48.2%	13.4%
3. Multiparous (excluding prev. CS), single cephalic, >=37 weeks, in spontaneous labour	16 / 1028	15.6%	1.6%	0.2%
4. Multiparous (excluding prev. CS), single cephalic, >=37 weeks, induced and CS before labour *	154 / 1091	16.5%	14.1%	2.3%
5. Previous CS, single cephalic, >= 37 weeks	871 / 1003	15.2%	86.8%	13.2%
6. All nulliparous breeches	166 / 170	2.6%	97.6%	2.5%
7. All multiparous breeches (including prev. CS)	76 / 78	1.2%	97.4%	1.2%
8. All multiple pregnancies (including prev. CS)	90 / 117	1.8%	76.9%	1.4%
9. All abnormal lies (including prev. CS)	38 / 38	0.6%	100.0%	0.6%
10. All single cephalic,<=36 weeks (including prev. CS)	135 / 291	4.4%	46.4%	2.0%
Total	**2529 / 6598**		**38.3%**	**38.3%**

Indications for Caesarean Section by Pathway to Delivery

Tables 1 and 2 show the indications for CS within the TGCS. A different classification is used for pre labour CS and those carried out after either spontaneous or induced labour. A great deal of effort is needed to ensure that the classification is correctly applied and the data validated and quality controlled. In these tables although the quality is good there remain discrepancies which we continue to seek to improve.

Table 1: Spontaneous/Induced Caesarean Section Reason 866/6598 (13.1%)

	Fetal reason (no oxytocin)	% of Group	IUA - Inability to treat fetal intolerance	% of Group	IUA - Inability to treat over contracting	% of Group	IUA - Poor response	% of Group	IUA - No oxytocin given	% of Group	EUA - Persistent malposition	% of Group	EUA - Cephalopelvic disproportion	% of Group	Total	% of Group
Group 1	36	3.8%	38	4.0%	0	0.0%	17	1.8%	3	0.3%	7	0.7%	1	0.1%	102/956	10.7%
Group 2a	88	5.7%	223	14.5%	4	0.3%	187	12.2%	57	3.7%	30	2.0%	4	0.3%	593/1538	38.6%
Group 2b	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0/288	0.0%
Group 3	6	0.6%	3	0.3%	0	0.0%	2	0.2%	2	0.2%	3	0.3%	0	0.0%	16/1028	1.6%
Group 4a	19	1.9%	19	1.9%	2	0.2%	10	1.0%	3	0.3%	4	0.4%	1	0.1%	58/995	5.8%
Group 4b	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0/96	0.0%
Group 5	18	1.8%	4	0.4%	0	0.0%	6	0.6%	22	2.2%	1	0.1%	3	0.3%	54/1003	5.4%
Group 6	10	5.9%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	10/170	5.9%
Group 7	3	3.8%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	3/78	3.8%
Group 8	4	3.4%	2	1.7%	1	0.9%	7	6.0%	1	0.9%	0	0.0%	0	0.0%	15/117	12.8%
Group 9	1	2.6%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	1/38	2.6%
Group 10	6	2.1%	3	1.0%	0	0.0%	2	0.7%	2	0.7%	0	0.0%	1	0.3%	14/291	4.8%
Total	**191**	**2.9%**	**292**	**4.4%**	**7**	**0.1%**	**231**	**3.5%**	**90**	**1.4%**	**45**	**0.7%**	**10**	**0.2%**	**866/6598**	**13.1%**

Table 2: Pre-labour Caesarean Section Reason: 1663/6598 (25.2%)

	Fetal reason	% of Group	Maternal medical reason/ pains	% of Group	Non medical reason/ patient request	% of Group	PET/ Hypertension	% of Group	Postdates	% of Group	Previous caesarean section	% of Group	SROM	Total	% of Group
Group 1	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0/956	0.0%
Group 2a	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0/1538	0.0%
Group 2b	27.4%	67	23.3%	126	43.8%	10	3.5%	1	0.3%	1	0.3%	4	1.4%	288/288	100.0%
Group 3	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0/1028	0.0%
Group 4a	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0/995	0.0%
Group 4b	15.6%	47	49.0%	30	31.3%	2	2.1%	0	0.0%	1	1.0%	1	1.0%	96/96	100.0%
Group 5	4.3%	28	2.8%	33	3.3%	10	1.0%	0	0.0%	669	66.7%	34	3.4%	817/1003	81.5%
Group 6	85.3%	1	0.6%	0	0.0%	4	2.4%	0	0.0%	0	0.0%	6	3.5%	156/170	91.8%
Group 7	65.4%	0	0.0%	0	0.0%	4	5.1%	0	0.0%	15	19.2%	3	3.8%	73/78	93.6%
Group 8	45.3%	5	4.3%	4	3.4%	4	3.4%	0	0.0%	8	6.8%	1	0.9%	75/117	64.1%
Group 9	63.2%	4	10.5%	0	0.0%	1	2.6%	0	0.0%	8	21.1%	0	0.0%	37/38	97.4%
Group 10	20.3%	18	6.2%	2	0.7%	28	9.6%	0	0.0%	12	4.1%	2	0.7%	121/291	41.6%
Total	**7.1%**	**170**	**2.6%**	**195**	**3.0%**	**63**	**1.0%**	**1**	**0.0%**	**714**	**10.8%**	**51**	**0.8%**	**1663/6598**	**25.2%**

Groups 1 and 2

Total single cephalic nulliparous pregnancies at greater than or equal to 37 weeks' gestation (n=2782)

Spontaneous labour	Induced labour	Pre labour C/S
956/2782 (34.4%)	1538/2782 (55.3%)	288/2782 (10.4%)

Caesarean section contribution according to onset of delivery, in single cephalic nulliparous pregnancies at greater than or equal to 37 weeks' gestation 983/2782 (35.3%)

Spontaneous labour	102/2782	3.7%
Induced labour	593/2782	21.3%
Pre labour C/S	288/2782	10.4%

Group 1

Caesarean section rate of single cephalic nulliparous pregnancies at greater than or equal to 37 weeks gestation in spontaneous labour 102/956 (10.7%)

Fetal reason (no oxytocin)	36/956	3.8%
IUA - Inability to treat fetal intolerance	38/956	4.0%
IUA - Inability to treat over contracting	0/956	0.0%
IUA - Poor response	17/956	1.8%
IUA - No oxytocin given	3/956	0.3%
EUA - Persistent malposition	7/956	0.7%
EUA - Cephalopelvic disproportion	1/956	0.1%

Group 1 Outcomes

Group 1	2024		2023	2022	2021	2020
ARM	45.7%	437/956	47.2%	45.8%	49.8%	49.9%
Prostaglandin/Propess	0.0%	0/956	0.0%	-	-	-
Oxytocin	48.8%	467/956	47.6%	44.2%	53.8%	47.3%
Epidural	75.2%	719/956	75.4%	66.9%	76.0%	68.4%
Electronic monitoring	90.9%	869/956	91.9%	85.0%	91.4%	92.0%
Fetal blood sample	4.2%	40/956	5.3%	8.3%	13.1%	18.8%
Vaginal operative delivery	23.8%	228/956	28.8%	28.9%	29.2%	28.7%
Apgars <7 at 5 mins	1.3%	12/956	0.9%	1.1%	0.5%	1.0%
Cord pH < 7.0	0.9%	9/956	0.4%	-	0.0%	0.4%
Overall caesarean section	10.7%	102/956	10.7%	10.4%	8.8%	9.0%
Caesarean section at VE=10	0.6%	6/956	1.3%	1.3%	0.9%	1.5%
Admitted to Neonatal Unit	11.7%	112/956	8.7%	8.9%	8.6%	18.8%
Episiotomy	44.9%	429/956	49.8%	48.8%	49.0%	45.7%
*OASIS	3.2%	31/956	3.4%	2.2%	3.0%	2.2%
Length of labour >12 hrs	1.9%	18/956	2.8%	2.8%	2.4%	5.1%
Babies >=4.0kg	8.5%	81/956	8.3%	12.4%	12.2%	12.7%
Aged >=35	27.4%	262/956	25.0%	26.5%	31.3%	26.6%
BMI >=30	19.1%	183/956	13.6%	9.1%	9.4%	8.6%
PPH >= 1000mls	6.4%	61/956	7.1%	3.9%	3.4%	2.9%
HIE	0.3%	3/956	0.2%	0.0%	0.0%	0.1%
Blood transfusion	0.9%	9/956	2.5%	2.0%	1.6%	2.7%

** includes Epi and Sphincter (n=9).*
The 3 cases of HIE in Group 1 were Grade 2, there were 2 cases of Neonatal Encephalopathy with seizures

Age Range	Number	%
<20	15	1.6%
20 - 24	70	7.3%
25 - 29	162	16.9%
30 - 34	447	46.8%
35 - 39	242	25.3%
>=40	20	2.1%
Unrecorded	0	0.0%
Total	**956**	

Body Mass Index	Number	%
Underweight: <18.5	24	2.5%
Healthy: 18.5 - 24.9	568	59.4%
Overweight: 25 - 29.9	250	26.2%
Obese class 1: 30 - 34.9	69	7.2%
Obese class 2: 35 - 39.9	20	2.1%
Obese class 3: >40	4	0.4%
Unrecorded	21	2.2%
Total	**956**	

Birthweight Range	Number	%
500 - 999 g	0	0.0%
1000 - 1499 g	0	0.0%
1,500 - 1,999 g	0	0.0%
2,000 - 2,499 g	5	0.5%
2,500 - 2,999 g	134	14.0%
3,000 - 3,499 g	406	42.5%
3,500 - 3,999 g	330	34.5%
4,000 - 4,449 g	76	7.9%
4,500 - 4,999 g	5	0.5%
>= 5,000 g	0	0.0%
Total	**956**	

Labour Duration	Number	%
0 - 2 hrs	107	11.2%
2 - 4 hrs	156	16.3%
4 - 6 hrs	200	20.9%
6 - 8 hrs	192	20.1%
8 - 10 hrs	131	13.7%
10 - 12 hrs	49	5.1%
> 12 hrs	18	1.9%
Unrecorded	103	10.8%
Total	**956**	

Group 2a

Single cephalic nulliparous pregnancies at greater than or equal to 37 weeks' gestation. Indications for induction of labour 1538/2782 (55.3%). (Group 1 & 2 as the denominator)

Fetal	552/2782	19.8%
SROM not in labour	430/2782	15.5%
Postdates (>40 and less than 42 weeks)	291/2782	10.5%
PET/Hypertension	142/2782	5.1%
Maternal	90/2782	3.2%
Maternal request	23/2782	0.8%
Postterm (>= 42 weeks)	10/2782	0.4%
Total	**1538/2782**	**55.3%**

Comment: Many of the maternal indications, when reviewed, are actually really fetal. This requires continuous validation.
The collection of BMI needs to be improved

Group 2a

Caesarean section rates according to indication for induction in single cephalic nulliparous pregnancies at greater than or equal to 37 weeks gestation 593/1538 (38.6%).

	Fetal reason (no oxytocin)		IUA - Inability to treat fetal intolerance		IUA - Inability to treat over contracting		IUA - Poor response		IUA - No oxytocin given		EUA - Cephalopelvic disproportion		EUA - Persistent malposition	
Fetal 217/552 (39.3%)	46	8.3%	78	14.1%	2	0.4%	42	7.6%	36	6.5%	3	0.5%	10	1.8%
SROM not in labour 167/430 (38.8%)	4	0.9%	74	17.2%	1	0.2%	78	18.1%	1	0.2%	1	0.2%	8	1.9%
Postdates (>40 and less than 42 weeks) 110/291 (37.8%)	18	6.2%	36	12.4%	1	0.3%	36	12.4%	11	3.8%	0	0.0%	8	2.7%
PET/ Hypertension 59/142 (41.5%)	12	8.5%	22	15.5%	0	0.0%	16	11.3%	6	4.2%	0	0.0%	3	2.1%
Maternal 24/90 (26.7%)	4	4.4%	10	11.1%	0	0.0%	8	8.9%	2	2.2%	0	0.0%	0	0.0%
No medical indication 9/23 (39.1%)	2	8.7%	2	8.7%	0	0.0%	4	17.4%	0	0.0%	0	0.0%	1	4.3%
Postterm (>= 42 weeks) 7/10 (70%)	2	20.0%	1	10.0%	0	0.0%	3	30.0%	1	10.0%	0	0.0%	0	0.0%
Total 593/1538 (38.6%)	**88**	**5.7%**	**223**	**14.5%**	**4**	**0.3%**	**187**	**12.2%**	**57**	**3.7%**	**4**	**0.3%**	**30**	**2.0%**

Group 2a Outcomes

Group 2a	2024		2023	2022	2021	2020
ARM	57.7%	887/1538	56.3%	48.2%	52.6%	62.8%
Prostaglandin/Propess	56.6%	870/1538	57.9%	39.2%	50.4%	55.2%
Oxytocin	78.0%	1199/1538	80.1%	70.9%	81.3%	72.1%
Epidural	84.6%	1301/1538	85.0%	73.2%	82.8%	91.8%
Electronic monitoring	98.8%	1520/1538	98.5%	87.3%	98.7%	92.6%
Fetal blood sample	5.7%	88/1538	6.7%	-	19.6%	29.6%
Vaginal operative delivery	22.2%	341/1538	25.6%	-	27.0%	0.0%
Apgars <7 at 5 mins	1.4%	21/1538	0.8%	1.0%	1.6%	1.3%
Cord pH < 7.0	0.3%	4/1538	0.3%	-	0.0%	0.2%
Overall caesarean section	38.6%	593/1538	38.5%	33.1%	33.7%	31.9%
Caesarean section at VE=10	1.8%	28/1538	1.8%	2.0%	1.8%	2.4%
Admitted to Neonatal Unit	18.4%	283/1538	15.6%	14.0%	13.2%	29.8%
Episiotomy	36.3%	559/1538	39.8%	39.8%	42.0%	40.9%
*OASIS	2.1%	32/1538	2.1%	1.7%	1.6%	1.4%
Length of labour >12 hrs	3.8%	59/1538	3.9%	4.7%	3.8%	9.1%
Babies >=4.0kg	13.3%	205/1538	15.0%	16.3%	17.5%	19.5%
Aged >=35	35.0%	538/1538	33.8%	36.6%	41.5%	32.8%
BMI >=30	31.7%	488/1538	21.3%	18.5%	19.9%	12.4%
PPH >= 1000mls	11.5%	177/1538	8.1%	6.6%	6.2%	6.9%
HIE	0.1%	1/1538	0.1%	0.4%	0.3%	0.0%
Blood transfusion	3.9%	60/1538	2.1%	2.2%	1.6%	4.2%

**includes Episiotomy and Sphincter Damage (n=17). The 1 case of HIE in Group 2a was Grade 2*

Age Range	Number	%
<20	11	0.7%
20 - 24	90	5.9%
25 - 29	248	16.1%
30 - 34	651	42.3%
35 - 39	433	28.2%
>=40	105	6.8%
Unrecorded	0	0.0%
Total	**1538**	

Body Mass Index	Number	%
Underweight: <18.5	22	1.4%
Healthy: 18.5 - 24.9	712	46.3%
Overweight: 25 - 29.9	472	30.7%
Obese class 1: 30 - 34.9	202	13.1%
Obese class 2: 35 - 39.9	66	4.3%
Obese class 3: >40	30	2.0%
Unrecorded	34	2.2%
Total	**1538**	

Birthweight Range	Number	%
500 - 999 g	0	0.0%
1000 - 1499 g	0	0.0%
1,500 - 1,999 g	1	0.1%
2,000 - 2,499 g	38	2.5%
2,500 - 2,999 g	206	13.4%
3,000 - 3,499 g	530	34.5%
3,500 - 3,999 g	558	36.3%
4,000 - 4,449 g	175	11.4%
4,500 - 4,999 g	28	1.8%
>= 5,000 g	2	0.1%
Total	**1538**	

Labour Duration	Number	%
0 - 2 hrs	88	5.7%
2 - 4 hrs	114	7.4%
4 - 6 hrs	218	14.2%
6 - 8 hrs	223	14.5%
8 - 10 hrs	186	12.1%
10 - 12 hrs	116	7.5%
> 12 hrs	59	3.8%
Unrecorded	534	34.7%
Total	**1538**	

Group 2b

Pre labour caesarean section in single cephalic nulliparous pregnancies at greater than or equal to 37 weeks gestation 288/2782 (10.4%)

Maternal request	126/2782	4.5%
Fetal reason	79/2782	2.8%
Maternal medical reason/pains	67/2782	2.4%
PET/Hypertension	10/2782	0.4%
SROM	4/2782	0.1%
Postdates	1/2782	0.0%
Previous caesarean section	1/2782	0.0%

Comment: More detailed information is needed in pre-labour indications

Group 2b Outcomes

Group 2b	2024		2023	2022	2021	2020
Spinal	94.8%	273/288	94.7%	89.4%	-	-
GA	3.1%	9/288	1.6%	5.0%	-	-
Apgars <7 at 5 mins	0.7%	2/288	2.0%	1.1%	-	-
Cord pH < 7.0	0.7%	2/288	0.4%	0.0%	-	-
Admitted to Neonatal Unit	19.4%	56/288	10.9%	15.1%	-	-
Babies >=4.0kg	13.2%	38/288	13.4%	14.0%	-	-
Aged >=35	60.8%	175/288	58.7%	62.6%	-	-
BMI >=30	25.0%	72/288	34.8%	18.4%	-	-
PPH >= 1000mls	6.9%	20/288	5.7%	8.4%	-	-
HIE	0.7%	2/288	0.0%	1.1%	-	-
Blood transfusion	1.0%	3/288	0.8%	1.7%	-	-

Comment: *The 2 cases of HIE in Group 2b were Grade 3*

Age Range	Number	%
<20	0	0.0%
20 - 24	5	1.7%
25 - 29	19	6.6%
30 - 34	89	30.9%
35 - 39	105	36.5%
>=40	70	24.3%
Unrecorded	0	0.0%
Total	**288**	

Body Mass Index	Number	%
Underweight: <18.5	2	0.7%
Healthy: 18.5 - 24.9	138	47.9%
Overweight: 25 - 29.9	81	28.1%
Obese class 1: 30 - 34.9	30	10.4%
Obese class 2: 35 - 39.9	15	5.2%
Obese class 3: >40	2	0.7%
Unrecorded	20	6.9%
Total	**288**	

Birthweight Range	Number	%
500 - 999 g	0	0.0%
1000 - 1499 g	0	0.0%
1,500 - 1,999 g	0	0.0%
2,000 - 2,499 g	11	3.8%
2,500 - 2,999 g	50	17.4%
3,000 - 3,499 g	99	34.4%
3,500 - 3,999 g	90	31.3%
4,000 - 4,449 g	34	11.8%
4,500 - 4,999 g	4	1.4%
>= 5,000 g	0	0.0%
Total	**288**	

Labour Duration	Number	%
0 - 2 hrs	0	0.0%
2 - 4 hrs	0	0.0%
4 - 6 hrs	0	0.0%
6 - 8 hrs	0	0.0%
8 - 10 hrs	0	0.0%
10 - 12 hrs	0	0.0%
> 12 hrs	0	0.0%
Unrecorded	288	100.0%
Total	**288**	

Group 3 and 4

Total single cephalic multiparous pregnancies at greater than or equal to 37 weeks gestation (n=2119)

Spontaneous labour	Induced labour	Pre labour C/S
1028/2119 (48.5%)	995/2119 (47%)	96/2119 (4.5%)

Caesarean section contribution according to onset of delivery of single cephalic multiparous pregnancies without a previous section at greater than or equal to 37 weeks' gestation 170/2119 (8.0%)

Spontaneous labour	16/2119	0.8%
Induced labour	58/2119	2.7%
Pre labour C/S	96/2119	4.5%

Group 3

Caesarean section rate of single cephalic multiparous pregnancies without a previous caesarean section at greater than or equal to 37 weeks gestation in spontaneous labour 12/1028 (1.2%)

Fetal reason (no oxytocin)	4/1028	0.4%
IUA - Inability to treat fetal intolerance	2/1028	0.2%
IUA - Inability to treat over contracting	0/1028	0.0%
IUA - Poor response	2/1028	0.2%
IUA - No oxytocin given	1/1028	0.1%
EUA - Persistent malposition	3/1028	0.3%
EUA - Cephalopelvic disproportion	0/1028	0.0%

Group 3
Single cephalic multiparous pregnancies without a previous caesarean section at greater than or equal to 37 weeks' gestation in spontaneous labour

Group 3 Outcomes

Group 3	2024		2023	2022	2021	2020
ARM	45.4%	467/1028	47.0%	46.4%	51.8%	53.2%
Prostaglandin/Propess	0.1%	1/1028	0.0%	-	-	-
Oxytocin	4.8%	49/1028	3.6%	3.8%	3.6%	2.7%
Epidural	49.2%	506/1028	46.1%	37.9%	39.8%	34.1%
Electronic monitoring	81.2%	835/1028	78.2%	74.4%	77.6%	73.6%
Fetal blood sample	0.9%	9/1028	0.9%	0.8%	2.1%	3.2%
Vaginal operative delivery	3.4%	35/1028	3.6%	3.7%	3.3%	3.5%
Apgars <7 at 5 mins	0.1%	1/1028	0.2%	0.3%	1.5%	0.3%
Cord pH < 7.0	0.2%	2/1028	0.2%	-	0.0%	0.2%
Overall caesarean section	1.6%	16/1028	1.1%	1.4%	1.7%	1.3%
Caesarean section at VE=10	0.2%	2/1028	0.2%	0.2%	0.0%	0.3%
Admitted to Neonatal Unit	4.7%	48/1028	4.4%	4.7%	6.1%	8.8%
Episiotomy	7.8%	80/1028	8.6%	10.2%	8.1%	6.2%
*OASIS	0.9%	9/1028	1.6%	1.1%	1.0%	0.2%
Length of labour >12 hrs	0.5%	5/1028	0.6%	0.4%	1.2%	0.3%
Babies >=4.0kg	16.5%	170/1028	19.1%	20.1%	21.1%	23.9%
Aged >=35	52.7%	542/1028	54.4%	56.5%	59.9%	53.1%
BMI >=30	23.2%	239/1028	16.0%	11.9%	12.6%	10.7%
PPH >= 1000mls	3.0%	31/1028	3.2%	2.0%	1.2%	1.6%
HIE	0.0%	0/1028	0.1%	0.1%	0.0%	0.0%
Blood transfusion	0.7%	7/1028	0.4%	0.4%	0.7%	0.4%

**includes Episiotomy and Sphincter Damage (n=1)*

Age Range	Number	%
<20	1	0.1%
20 - 24	23	2.2%
25 - 29	134	13.0%
30 - 34	328	31.9%
35 - 39	455	44.3%
>=40	87	8.5%
Unrecorded	0	0.0%
Total	**1028**	

Body Mass Index	Number	%
Underweight: <18.5	15	1.5%
Healthy: 18.5 - 24.9	552	53.7%
Overweight: 25 - 29.9	298	29.0%
Obese class 1: 30 - 34.9	112	10.9%
Obese class 2: 35 - 39.9	26	2.5%
Obese class 3: >40	4	0.4%
Unrecorded	21	2.0%
Total	**1028**	

Birthweight Range	Number	%
500 - 999 g	0	0.0%
1000 - 1499 g	0	0.0%
1,500 - 1,999 g	0	0.0%
2,000 - 2,499 g	4	0.4%
2,500 - 2,999 g	94	9.1%
3,000 - 3,499 g	337	32.8%
3,500 - 3,999 g	423	41.1%
4,000 - 4,449 g	145	14.1%
4,500 - 4,999 g	22	2.1%
>= 5,000 g	3	0.3%
Unrecorded	0	0.0%
Total	**1028**	

Labour Duration	Number	%
0 - 2 hrs	482	46.9%
2 - 4 hrs	274	26.7%
4 - 6 hrs	136	13.2%
6 - 8 hrs	36	3.5%
8 - 10 hrs	10	1.0%
10 - 12 hrs	5	0.5%
> 12 hrs	5	0.5%
Unrecorded	80	7.8%
Total	**1028**	

Group 4a

Single cephalic multiparous pregnancies section at greater than or equal to 37 weeks' gestation. Indications for induction of labour 995/2119 (47.0%). (Group 3 and 4 as the denominator)

Fetal	444/2119	21.0%
Maternal	141/2119	6.7%
SROM not in labour	139/2119	6.6%
Postdates (>40 and less than 42 weeks)	136/2119	6.4%
Maternal Request	62/2119	2.9%
PET/Hypertension	61/2119	2.9%
Postterm (>= 42 weeks)	12/2119	0.6%
Total	995/2119	47.0%

Comment: Many of maternal indications when reviewed are actually really fetal. This requires continuous validation..

Group 4a

Caesarean section rates according to indication for induction in single cephalic multiparous pregnancies without a previous caesarean section at greater than or equal to 37 weeks' gestation 58/995 (5.8%)

	Fetal reason (no oxytocin)		IUA - Inability to treat fetal intolerance		IUA - Inability to treat over contracting		IUA - Poor response		IUA - No oxytocin given		EUA - Cephalopelvic disproportion		EUA - Persistent malposition	
Fetal 29/444 (6.5%)	11/444	2.5%	8/444	1.8%	0/444	0.0%	6/444	1.4%	1/444	0.2%	1/444	0.2%	2/444	0.5%
Maternal 7/139 (5%)	2/139	1.4%	2/139	1.4%	0/139	0.0%	3/139	2.2%	0/139	0.0%	0/139	0.0%	0/139	0.0%
SROM not in labour 6/141 (4.3%)	0/141	0.0%	5/141	3.5%	0/141	0.0%	0/141	0.0%	0/141	0.0%	0/141	0.0%	1/141	0.7%
Postdates (>40 and less than 42 weeks) 8/136 (5.9%)	2/136	1.5%	2/136	1.5%	1/136	0.7%	1/136	0.7%	1/136	0.7%	0/136	0.0%	1/136	0.7%
Postterm (>= 42 weeks) 1/12 (8.3%)	0/12	0.0%	1/12	8.3%	0/12	0.0%	0/12	0.0%	0/12	0.0%	0/12	0.0%	0/12	0.0%
Maternal request 1/62 (1.6%)	0/62	0.0%	1/62	1.6%	0/62	0.0%	0/62	0.0%	0/62	0.0%	0/62	0.0%	0/62	0.0%
PET/ Hypertension 6/61 (9.8%)	4/61	6.6%	0/61	0.0%	1/61	1.6%	0/61	0.0%	1/61	1.6%	0/61	0.0%	0/61	0.0%
Total 58/995 (5.8%)	**19/995**	**1.9%**	**19/995**	**1.9%**	**2/995**	**0.2%**	**10/995**	**1.0%**	**3/995**	**0.3%**	**1/995**	**0.1%**	**4/995**	**0.4%**

Group 4a Outcomes

Group 4a	2024		2023	2022	2021	2020
ARM	76.7%	763/995	78.2%	65.7%	77.1%	75.6%
Prostaglandin/Propess	43.5%	433/995	43.5%	36.8%	-	45.8%
Oxytocin	54.7%	544/995	57.8%	44.3%	49.1%	32.5%
Epidural	72.7%	723/995	71.0%	57.7%	60.7%	52.0%
Electronic monitoring	97.9%	974/995	98.1%	87.0%	98.7%	92.5%
Fetal blood sample	1.7%	17/995	1.5%	2.4%	5.7%	8.0%
Vaginal operative delivery	5.0%	50/995	5.8%	6.6%	5.8%	5.5%
Apgars <7 at 5 mins	1.1%	11/995	0.2%	0.5%	0.7%	0.7%
Cord pH < 7.0	0.2%	2/995	0.1%	-	0.0%	0.5%
Overall caesarean section	5.8%	58/995	7.5%	5.0%	5.1%	4.8%
Caesarean section at VE=10	0.6%	6/995	0.8%	0.3%	0.2%	0.4%
Admitted to Neonatal Unit	9.2%	92/995	10.0%	9.4%	11.1%	16.7%
Episiotomy	9.6%	96/995	9.4%	12.5%	10.3%	7.9%
*OASIS	0.5%	5/995	0.8%	0.6%	0.6%	0.5%
Length of labour >12 hrs	1.1%	11/995	1.0%	0.7%	1.3%	0.6%
Babies >=4.0kg	20.7%	206/995	19.4%	25.7%	25.1%	25.6%
Aged >=35	63.8%	635/995	62.6%	62.6%	64.4%	53.4%
BMI >=30	32.1%	319/995	28.1%	20.0%	22.2%	14.6%
PPH >= 1000mls	5.9%	59/995	5.5%	2.5%	2.1%	2.7%
HIE	0.0%	0/995	0.0%	0.0%	0.0%	0.1%
Blood transfusion	0.8%	8/995	1.0%	0.3%	0.6%	1.1%

**includes Episiotomy and Sphincter Damage (n=1)*
Comment: *increase in oxytocin over the years.*

Age Range	Number	%
<20	1	0.1%
20 - 24	17	1.7%
25 - 29	77	7.7%
30 - 34	265	26.6%
35 - 39	458	46.0%
>=40	177	17.8%
Unrecorded	0	0.0%
Total	**995**	

Body Mass Index	Number	%
Underweight: <18.5	10	1.0%
Healthy: 18.5 - 24.9	439	44.1%
Overweight: 25 - 29.9	290	29.1%
Obese class 1: 30 - 34.9	142	14.3%
Obese class 2: 35 - 39.9	44	4.4%
Obese class 3: >40	32	3.2%
Unrecorded	38	3.8%
Total	**995**	

Birthweight Range	Number	%
500 - 999 g	0	0.0%
1000 - 1499 g	0	0.0%
1,500 - 1,999 g	0	0.0%
2,000 - 2,499 g	11	1.1%
2,500 - 2,999 g	82	8.2%
3,000 - 3,499 g	300	30.2%
3,500 - 3,999 g	396	39.8%
4,000 - 4,449 g	179	18.0%
4,500 - 4,999 g	26	2.6%
>= 5,000 g	1	0.1%
Total	**995**	

Labour Duration	Number	%
0 - 2 hrs	253	25.4%
2 - 4 hrs	250	25.1%
4 - 6 hrs	223	22.4%
6 - 8 hrs	94	9.4%
8 - 10 hrs	57	5.7%
10 - 12 hrs	16	1.6%
> 12 hrs	11	1.1%
Unrecorded	91	9.1%
Total	**995**	

Group 4b

Pre labour caesarean section in single cephalic multiparous pregnancies at greater than or equal to 37 weeks without a previous caesarean section 96/2119 (4.5%). (Group 3 and 4 as the denominator)

Maternal medical reason/pains	47/2119	2.2%
Maternal request	30/2119	1.4%
Fetal reason	15/2119	0.7%
PET/Hypertension	2/2119	0.1%
Previous caesarean section	1/2119	0.0%
SROM	1/2119	0.0%

Comment: more detailed information on pre-labour indications is needed.

Group 4b Outcomes

Group 4b	2024		2023	2022	2021	2020
Spinal	95.8%	92/96	98.0%	97.2%	-	-
GA	0.0%	0/96	2.0%	1.9%	-	-
Apgars <7 at 5 mins	0.0%	0/96	1.0%	1.9%	-	-
Cord pH < 7.0	0.0%	0/96	0.0%	0.0%	-	-
Admitted to Neonatal Unit	16.7%	16/96	17.3%	17.8%	-	-
Babies >=4.0kg	22.9%	22/96	21.4%	17.8%	-	-
Aged >=35	72.9%	70/96	66.3%	69.2%	-	-
BMI >=30	25.0%	24/96	28.6%	22.4%	-	-
PPH >= 1000mls	5.2%	5/96	8.2%	12.1%	-	-
HIE	0.0%	0/96	0.0%	0.0%	-	-
Blood transfusion	0.0%	0/96	1.0%	0.9%	-	-

Age Range	Number	%
<20	0	0.0%
20 - 24	1	1.1%
25 - 29	5	5.2%
30 - 34	20	20.8%
35 - 39	50	52.1%
>=40	20	20.8%
Unrecorded	0	0.0%
Total	**96**	

Body Mass Index	Number	%
Underweight: <18.5	1	1.0%
Healthy: 18.5 - 24.9	38	39.6%
Overweight: 25 - 29.9	35	36.5%
Obese class 1: 30 - 34.9	9	9.4%
Obese class 2: 35 - 39.9	3	3.1%
Obese class 3: >40	1	1.0%
Unrecorded	9	9.4%
Total	**96**	

Birthweight Range	Number	%
500 - 999 g	0	0.0%
1000 - 1499 g	0	0.0%
1,500 - 1,999 g	0	0.0%
2,000 - 2,499 g	1	1.0%
2,500 - 2,999 g	10	10.4%
3,000 - 3,499 g	28	29.2%
3,500 - 3,999 g	35	36.5%
4,000 - 4,449 g	19	19.8%
4,500 - 4,999 g	2	2.1%
>= 5,000 g	1	1.0%
Total	**96**	

Labour Duration	Number	%
0 - 2 hrs	0	0.0%
2 - 4 hrs	0	0.0%
4 - 6 hrs	0	0.0%
6 - 8 hrs	0	0.0%
8 - 10 hrs	0	0.0%
10 - 12 hrs	0	0.0%
> 12 hrs	0	0.0%
Unrecorded	96	100.0%
Total	**96**	

Group 5

Single cephalic multiparous pregnancies (with at least one previous caesarean section) at greater than or equal to 37 weeks' gestation (n=1003)

Spontaneous labour	Induced labour	Pre labour C/S
131/1003 (13.1%)	55/1003 (5.4%)	817/1003 (81.5%)

Caesarean Section contribution according to onset of delivery in single cephalic multiparous pregnancies with at least one previous section at greater than or equal to 37 weeks' gestation: (871/1003) (86.8%)

Spontaneous labour	22/1003	2.2%
Induced labour	32/1003	3.1%
Pre labour C/S	817/1003	81.5%

Group 5 All Outcomes

Group 5 Overall	2024		2023	2022	2021	2020
ARM	10.2%	102/1003	9.5%	10.5%	15.6%	31.7%
Prostaglandin/Propess	0.0%	0/1003	0.1%	0.0%	0.0%	0.0%
Oxytocin	2.3%	23/1003	2.2%	2.6%	3.4%	2.1%
Epidural	13.2%	132/1003	13.1%	14.1%	16.5%	17.8%
Electronic monitoring	35.1%	352/1003	33.4%	36.4%	46.0%	31.5%
Fetal blood sample	0.1%	1/1003	0.2%	0.1%	0.3%	1.6%
Vaginal operative delivery	3.4%	34/1003	4.0%	4.3%	5.3%	5.8%
Apgars <7 at 5 mins	0.7%	7/1003	0.4%	0.2%	1.1%	0.8%
Cord pH < 7.0	0.2%	2/1003	0.2%	-	0.0%	0.3%
Overall caesarean section	86.8%	871/1003	85.6%	82.4%	80.9%	75.9%
Caesarean section at VE=10	0.3%	3/1003	0.2%	0.2%	0.4%	0.4%
Admitted to Neonatal Unit	9.2%	92/1003	8.1%	8.8%	11.3%	13.6%
Episiotomy	5.4%	54/1003	5.5%	6.7%	9.0%	9.0%
OASIS	0.4%	4/1003	0.3%	0.5%	0.3%	0.5%
Length of labour >12 hrs	0.4%	4/1003	0.1%	0.2%	0.2%	0.9%
Babies >=4.0kg	17.8%	179/1003	14.4%	16.9%	19.5%	19.9%
Aged >=35	65.1%	653/1003	66.3%	66.6%	67.5%	66.0%
BMI >=30	35.8%	359/1003	31.0%	26.7%	21.2%	20.3%
PPH >= 1000mls	4.1%	41/1003	3.6%	2.7%	2.2%	2.3%
HIE	0.0%	0/1003	0.0%	0.0%	0.0%	0.0%
Blood transfusion	1.1%	11/1003	0.5%	0.9%	4.2%	2.0%

*includes Episiotomy and Sphincter Damage (n=2)

Age Range	Number	%
<20	1	0.1%
20 - 24	10	1.0%
25 - 29	71	7.1%
30 - 34	268	26.7%
35 - 39	464	46.3%
>=40	189	18.8%
Unrecorded	0	0.0%
Total	**1003**	

Body Mass Index	Number	%
Underweight: <18.5	11	1.1%
Healthy: 18.5 - 24.9	403	40.2%
Overweight: 25 - 29.9	274	27.3%
Obese class 1: 30 - 34.9	168	16.7%
Obese class 2: 35 - 39.9	72	7.2%
Obese class 3: >40	29	2.9%
Unrecorded	46	4.6%
Total	**1003**	

Birthweight Range	Number	%
500 - 999 g	0	0.0%
1000 - 1499 g	0	0.0%
1,500 - 1,999 g	1	0.1%
2,000 - 2,499 g	15	1.5%
2,500 - 2,999 g	103	10.3%
3,000 - 3,499 g	333	33.2%
3,500 - 3,999 g	372	37.1%
4,000 - 4,449 g	149	14.9%
4,500 - 4,999 g	28	2.8%
>= 5,000 g	2	0.2%
Total	**1003**	

Labour Duration	Number	%
0 - 2 hrs	38	3.8%
2 - 4 hrs	38	3.8%
4 - 6 hrs	31	3.1%
6 - 8 hrs	15	1.5%
8 - 10 hrs	4	0.4%
10 - 12 hrs	3	0.3%
> 12 hrs	4	0.4%
Unrecorded	870	86.7%
Total	**1003**	

Group 5a

Caesarean section rate of single cephalic pregnancies with only one previous caesarean section, at greater than or equal to 37 weeks gestation in spontaneous labour 21/126 (16.7%)*

Fetal reason (no oxytocin)	8/126	6.3%
IUA - Inability to treat fetal intolerance	0/126	0.0%
IUA - Inability to treat over contracting	0/126	0.0%
IUA - Poor response	2/126	1.6%
IUA - No oxytocin given	9/126	7.1%
EUA - Persistent malposition	1/126	0.8%
EUA - Cephalopelvic disproportion	1/126	0.8%

** Does not include 5 pregnancies that had more than one previous caesarean section*

Group 5a Spontaneous Labour Outcomes

	2024		2023	2022	2021	2020
ARM	47.3%	62/131	39.9%	39.0%	49.7%	48.4%
Prostaglandin/Propess	0.0%	0/131	0.0%	-	0.5%	0.0%
Oxytocin	5.3%	7/131	2.9%	4.8%	2.7%	3.9%
Epidural	62.6%	82/131	58.7%	55.1%	56.2%	51.2%
Electronic monitoring	91.6%	120/131	89.1%	82.4%	91.9%	94.5%
Fetal blood sample	0.0%	0/131	1.4%	0.5%	0.5%	5.1%
Vaginal operative delivery	22.1%	29/131	23.9%	19.8%	22.7%	18.8%
Apgars <7 at 5 mins	0.0%	0/131	0.0%	0.0%	0.5%	2.3%
Cord pH < 7.0	0.8%	1/131	0.0%	-	0.0%	0.4%
Overall caesarean section	16.8%	22/131	18.8%	18.2%	18.9%	21.1%
Caesarean section at VE=10	2.3%	3/131	1.4%	1.1%	2.2%	1.2%
Admitted to Neonatal Unit	6.1%	8/131	5.8%	10.7%	9.7%	17.6%
Episiotomy	32.1%	42/131	34.1%	33.7%	38.9%	29.3%
OASIS	3.1%	4/131	0.7%	-	1.6%	2.0%
Length of labour > 12 hrs	2.3%	3/131	0.7%	0.5%	0.5%	1.6%
Babies >= 4.0kg	22.9%	30/131	14.5%	15.0%	18.9%	21.9%
Aged >= 35	53.4%	70/131	55.8%	61.0%	60.5%	57.4%
BMI >= 30	26.7%	35/131	19.6%	14.4%	16.8%	16.0%
PPH >= 1000mls	6.9%	9/131	4.3%	3.7%	3.8%	5.5%
HIE	0.0%	0/131	0.0%	0.0%	0.0%	0.0%
Blood transfusion	3.8%	5/131	0.7%	1.6%	2.7%	4.3%

**includes Episiotomy and Sphincter Damage (n=2)*

Age Range	Number	%
< 20	0	0.0%
20 - 24	4	3.1%
25 - 29	9	6.9%
30 - 34	48	36.6%
35 - 39	53	40.5%
>= 40	17	13.0%
Unrecorded	0	0.0%
Total	**131**	

Body Mass Index	Number	%
Underweight: <18.5	3	2.3%
Healthy: 18.5 - 24.9	67	51.1%
Overweight: 25 - 29.9	36	27.5%
Obese class 1: 30 - 34.9	17	13.0%
Obese class 2: 35 - 39.9	5	3.8%
Obese class 3: >40	1	0.8%
Unrecorded	2	1.5%
Total	**131**	

Birthweight Range	Number	%
500 - 999 g	0	0.0%
1000 - 1499 g	0	0.0%
1,500 - 1,999 g	0	0.0%
2,000 - 2,499 g	1	0.8%
2,500 - 2,999 g	12	9.2%
3,000 - 3,499 g	49	37.4%
3,500 - 3,999 g	39	29.8%
4,000 - 4,449 g	23	17.6%
4,500 - 4,999 g	7	5.3%
>= 5,000 g	0	0.0%
Total	**131**	

Labour Duration	Number	%
0 - 2 hrs	34	26.0%
2 - 4 hrs	29	22.1%
4 - 6 hrs	23	17.6%
6 - 8 hrs	13	9.9%
8 - 10 hrs	2	1.5%
10 - 12 hrs	2	1.5%
> 12 hrs	3	2.3%
Unrecorded	25	19.1%
Total	**131**	

Group 5b

Single cephalic multiparous pregnancies with only one previous caesarean section at greater than or equal to 37 weeks gestation. Indications for induction of labour 54/1003 (5.4%)* (Group 5 as denominator)

Maternal	24/1003	2.4%
Postdates (>40 and less than 42 weeks)	14/1003	1.4%
SROM not in labour	9/1003	0.9%
Fetal	6/1003	0.6%
Maternal Request	1/1003	0.1%
PET/Hypertension	0/1003	0.0%
Postterm (>= 42 weeks)	0/1003	0.0%

* Does not include 1 pregnancy that had more than one previous caesarean section.

Group 5b

Caesarean section rates according to indication for induction in single cephalic multiparous pregnancies with a previous caesarean section at greater than or equal to 37 weeks' gestation 32/55 (58.2%).

	Fetal reason (no oxytocin)		IUA - Inability to treat fetal intolerance		IUA - Inability to treat over contracting		IUA - Poor response		IUA - No oxytocin given		EUA - Cephalopelvic disproportion		EUA - Persistent malposition	
Maternal 14/25 (56%)	2/25	8.0%	1/25	4.0%	0/25	0.0%	3/25	12.0%	7/25	28.0%	1/25	4.0%	0/25	0.0%
SROM not in labour 12/14 (85.7%)	2/14	14.3%	3/14	21.4%	0/14	0.0%	1/14	7.1%	6/14	42.9%	0/14	0.0%	0/14	0.0%
Fetal 4/9 (44.4%)	4/9	44.4%	0/9	0.0%	0/9	0.0%	0/9	0.0%	0/9	0.0%	0/9	0.0%	0/9	0.0%
Postdates (>40 and less than 42 weeks) 2/6 (33.3%)	2/6	33.3%	0/6	0.0%	0/6	0.0%	0/6	0.0%	0/6	0.0%	0/6	0.0%	0/6	0.0%
PET/ Hypertension 0/1 (0%)	0/1	0.0%	0/1	0.0%	0/1	0.0%	0/1	0.0%	0/1	0.0%	0/1	0.0%	0/1	0.0%
Maternal request 0/0 (0%)	0/0	0.0%	0/0	0.0%	0/0	0.0%	0/0	0.0%	0/0	0.0%	0/0	0.0%	0/0	0.0%
Postterm (>= 42 weeks) 0/0 (0%)	0/0	0.0%	0/0	0.0%	0/0	0.0%	0/0	0.0%	0/0	0.0%	0/0	0.0%	0/0	0.0%
Total 32/55 (58.2%)	**10/55**	**18.2%**	**4/55**	**7.3%**	**0/55**	**0.0%**	**4/55**	**7.3%**	**13/55**	**23.6%**	**1/55**	**1.8%**	**0/55**	**0.0%**

Group 5c

Pre labour caesarean sections in single cephalic multiparous pregnancies (with at least one previous section at greater than or equal to 37 weeks gestation), 817/1003 (81.5%).

74.7% (610/817) of the pre labour caesarean section group had only one previous caesarean section.
25.3% (207/817) of the pre labour caesarean sections had two or more caesarean sections prior to the index pregnancy.
84.1% (513/610) of the pre labour caesarean section group with only one previous caesarean section had a repeat procedure with no specific medical or obstetric reason recorded.
15.9% (97/610) of the pre labour caesarean section group with only one previous caesarean section had a repeat procedure for a specific medical or obstetric reason recorded.
The overall caesarean section rate in all single cephalic multiparous pregnancies with only one previous caesarean section was 83.3% (663/796), [(21+32+610) / (1003-207)]

Group 5c Outcomes

Group 5c	2024		2023	2022	2021	2020
Spinal	10.7%	14/131	8.0%	11.0%	-	-
GA	3.8%	5/131	0.7%	2.6%	-	-
Apgars <7 at 5 mins	0.0%	0/131	0.0%	0.6%	-	-
Cord pH < 7.0	0.8%	1/131	0.0%	0.6%	-	-
Admitted to Neonatal Unit	6.1%	8/131	5.8%	7.7%	-	-
Babies >=4.0kg	22.9%	30/131	14.5%	17.4%	-	-
Aged >=35	53.4%	70/131	55.8%	54.2%	-	-
BMI >=30	26.7%	35/131	19.6%	20.0%	-	-
PPH >= 1000mls	6.9%	9/131	4.3%	8.4%	-	-
HIE	0.0%	0/131	0.0%	0.0%	-	-
Blood transfusion	3.8%	5/131	0.7%	3.2%	-	-

Age Range	Number	%
< 20	0	0.0%
20 - 24	4	3.0%
25 - 29	9	6.9%
30 - 34	48	36.6%
35 - 39	53	40.5%
>= 40	17	13.0%
Unrecorded	0	0.0%
Total	**131**	

Body Mass Index	Number	%
Underweight: <18.5	3	2.3%
Healthy: 18.5 - 24.9	67	51.1%
Overweight: 25 - 29.9	36	27.5%
Obese class 1: 30 - 34.9	17	13.0%
Obese class 2: 35 - 39.9	5	3.8%
Obese class 3: >40	1	0.8%
Unrecorded	2	1.5%
Total	**131**	

Birthweight Range	Number	%
500 - 999 g	0	0.0%
1000 - 1499 g	0	0.0%
1,500 - 1,999 g	0	0.0%
2,000 - 2,499 g	1	0.8%
2,500 - 2,999 g	12	9.2%
3,000 - 3,499 g	49	37.4%
3,500 - 3,999 g	39	29.8%
4,000 - 4,449 g	23	17.5%
4,500 - 4,999 g	7	5.3%
>= 5,000 g	0	0.0%
Total	**131**	

Labour Duration	Number	%
0 - 2 hrs	34	26.0%
2 - 4 hrs	29	22.1%
4 - 6 hrs	23	17.6%
6 - 8 hrs	13	9.9%
8 - 10 hrs	2	1.5%
10 - 12 hrs	2	1.5%
> 12 hrs	3	2.3%
Unrecorded	25	19.1%
Total	**131**	

Pre labour caesarean sections in single cephalic multiparous pregnancies with only one previous caesarean section at greater than or equal to 37 weeks gestation (n=610).

Maternal medical reason/pains	21/610	3.4%
Maternal Request	33/610	5.4%
Fetal reason	40/610	6.6%
PET/Hypertension	8/610	1.3%
SROM	28/610	4.6%
Postdates	0/610	0.0%
Previous caesarean section	480/610	78.7%

Repeat pre labour caesarean section in single cephalic multiparous pregnancies, with only one previous caesarean section, for a specific medical, obstetrical, or maternal reason by gestation in completed weeks (n=130)

GA (weeks)	Total
37	24
38	49
39	41
40	9
41	7
Totals	**130**

Repeat pre labour caesarean section in single cephalic multiparous pregnancies, with only one previous caesarean section and no specific medical, obstetrical, or maternal reason, other than one previous caesarean section by gestation in completed weeks (n=480)

GA (weeks)	Total
37	16
38	112
39	273
40	61
41	18
42	0
Totals	**480**

Comment: *Deliveries at 39 weeks or less should have another indication recorded apart from one previous C-Section.*

Group 6

All nulliparous pregnancies with a breech presentation (n=170)

	Number in group	Number of C/S	Contribution to total population	% C/S
Spontaneous labour	11	9	11/170 (6.5%)	9/170 (5.3%)
Induced labour	3	1	3/170 (1.8%)	1/170 (0.6%)
Pre labour c-section	156	156	156/170 (91.8%)	156/170 (91.8%)
Totals	**170**	**166**		**166/170 (97.6%)**

Group 7

All multiparous pregnancies with a breech presentation (including pregnancies with previous caesarean sections) (n=78)

	Number in group	Number of C/S	Contribution to total population	% C/S
Spontaneous labour	4	3	4/78 (5.1%)	3/78 (3.8%)
Induced labour	1	0	1/78 (1.3%)	0/78 (0%)
Pre labour c-section	73	73	73/78 (93.6%)	73/78 (93.6%)
Totals	**78**	**76**		**76/78 (97.4%)**

Group 8

All multiple pregnancies including pregnancies with previous caesarean sections (n=117)

	Number in group	Number of C/S	Contribution to total population	% C/S
Spontaneous labour	21	6	21/117 (17.9%)	6/117 (5.1%)
Induced labour	21	9	21/117 (17.9%)	9/117 (7.7%)
Pre labour c-section	75	75	75/117 (64.1%)	75/117 (64.1%)
Totals	**117**	**90**		**90/117 (76.9%)**

Group 9

All pregnancies with abnormal lies (including previous caesarean section) (n=38)

	Number in group	Number of C/S	Contribution to total population	% C/S
Spontaneous labour	1	1	1/38 (2.6%)	1/38 (2.6%)
Induced labour	0	0	0/38 (0%)	0/38 (0%)
Pre labour c-section	37	37	37/38 (97.4%)	37/38 (97.4%)
Totals	**38**	**38**		**38/38 (100%)**

Group 10

Total single cephalic pregnancies at less than or equal to 36 weeks gestation (including pregnancies with previous caesarean sections) (n=291)

	Number in group	Number of C/S	Contribution to total population	% C/S
Spontaneous labour	114	7	114/291 (39.2%)	7/291 (2.4%)
Induced labour	56	7	56/291 (19.2%)	7/291 (2.4%)
Pre labour c-section	121	121	121/291 (41.6%)	121/291 (41.6%)
Totals	**291**	**135**		**135/291 (46.4%)**

Groups 6-10 Outcomes

	Group 6		Group 7		Group 8		Group 9		Group 10		Groups 6-10 Total	
Apgars <7 at 5 mins	7	4.1%	4	5.0%	14	6.0%	1	2.6%	33	11.2%	59	7.2%
Cord pH <7.0	1	0.6%	0	0.0%	0	0.0%	0	0.0%	1	0.3%	2	0.2%
Total	**170**		**80**		**233**		**38**		**295**		**816**	

Group 10 by Onset and Gestation

GA (weeks)	Spontaneous labour	Induced labour	Pre labour C-section	Total
21	0	0	0	0
22	1	0	0	1
23	1	0	0	1
24	2	2	3	7
25	2	5	0	7
26	3	0	2	5
27	1	2	4	7
28	3	0	3	6
29	2	1	5	8
30	1	1	6	8
31	6	0	5	11
32	4	0	6	10
33	10	1	15	26
34	13	2	10	25
35	22	3	20	45
36	43	39	42	124
Total	**114**	**56**	**121**	**291**

All deliveries equal to or less than 36 weeks gestational age by onset and gestation

GA (weeks)	Spontaneous labour	Induced labour	Pre labour C-section	Total
21	0	0	0	0
22	1	1	0	2
23	1	0	0	1
24	2	2	3	7
25	3	6	0	9
26	3	1	2	6
27	1	2	9	12
28	3	1	3	7
29	8	1	8	17
30	2	1	10	13
31	8	0	6	14
32	5	0	10	15
33	14	1	22	37
34	15	3	23	41
35	24	3	33	60
36	46	44	67	157
Total	**136**	**66**	**196**	**398**

Incidence of preterm delivery <37 weeks = 398/6598 (6.0%)
Incidence of preterm delivery <=34 weeks = 181/6598 (2.7%)
Incidence of preterm delivery <34 weeks = 140/6598 (2.1%)
Incidence of preterm spontaneous labour <37 weeks = 136/6598 (2.1%)
Incidence of preterm spontaneous labour <=34 weeks = 66/6598 (1.0%)
Incidence of preterm spontaneous labour <34 weeks = 51/6598 (0.8%)

Age Range by Group

	Group 1		Group 2a		Group 3		Group 4a		Group 5 Overall		Group 5a	
<20	15	1.6%	11	0.7%	1	0.1%	1	0.1%	1	0.1%	0	0.0%
20 - 24	70	7.3%	90	5.9%	23	2.2%	17	1.7%	10	1.0%	4	3.1%
25 - 29	162	16.9%	248	16.1%	134	13.0%	77	7.7%	71	7.1%	9	6.9%
30 -34	447	46.8%	651	42.3%	328	31.9%	265	26.6%	268	26.7%	48	36.6%
35 - 39	242	25.3%	433	28.2%	455	44.3%	458	46.0%	464	46.3%	53	40.5%
>=40	20	2.1%	105	6.8%	87	8.5%	177	17.8%	189	18.8%	17	13.0%
Total	**956**		**1538**		**1028**		**995**		**1003**		**131**	

Body Mass Index Range by Group

	Group 1		Group 2a		Group 3		Group 4a		Group 5 Overall		Group 5a	
< 18.5	24	2.5%	22	1.4%	15	1.5%	10	1.0%	11	1.1%	2	1.5%
18.5-24.9	568	59.4%	712	46.3%	552	53.7%	439	44.1%	403	40.2%	3	2.3%
25-29.9	250	26.2%	472	30.7%	298	29.0%	290	29.1%	274	27.3%	1	0.8%
30-34.9	69	7.2%	202	13.1%	112	10.9%	142	14.3%	168	16.7%	67	51.1%
35-39.9	20	2.1%	66	4.3%	26	2.5%	44	4.4%	72	7.2%	36	27.5%
>=40	4	0.4%	30	2.0%	4	0.4%	32	3.2%	29	2.9%	17	13.0%
Unrecorded	21	2.2%	34	2.2%	21	2.0%	38	3.8%	46	4.6%	5	3.8%
Total	**956**		**1538**		**1028**		**995**		**1003**		**131**	

Birthweight Range by Group

	Group 1		Group 2a		Group 3		Group 4a		Group 5 Overall		Group 5a	
500 - 999 g	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
1,000 - 1,499 g	0	0.0%	0	0.0%	0	0.0%	1	0.1%	0	0.0%	0	0.0%
1,500 - 1,999 g	0	0.0%	1	0.1%	0	0.0%	0	0.0%	1	0.1%	0	0.0%
2,000 - 2,499 g	5	0.5%	38	2.5%	4	0.4%	11	1.1%	15	1.5%	1	0.8%
2,500 - 2,999 g	134	14.0%	206	13.4%	94	9.1%	82	8.2%	103	10.3%	12	9.2%
3,000 - 3,499 g	406	42.5%	530	34.5%	337	32.8%	300	30.2%	333	33.2%	49	37.4%
3,500 - 3,999 g	330	34.5%	558	36.3%	423	41.1%	396	39.8%	372	37.1%	39	29.8%
4,000 - 4,499 g	76	7.9%	175	11.4%	145	14.1%	179	18.0%	149	14.9%	23	17.6%
4,500 - 4,999 g	5	0.5%	28	1.8%	22	2.1%	26	2.6%	28	2.8%	7	5.3%
>= 5,000 g	0	0.0%	2	0.1%	3	0.3%	1	0.1%	2	0.2%	0	0.0%
Total	**956**		**1538**		**1028**		**995**		**1003**		**131**	

Labour Duration Range by Group

	Group 1		Group 2a		Group 3		Group 4a		Group 5 Overall		Group 5a	
0 - 2hrs	107	11.2%	88	5.7%	482	46.9%	253	25.4%	38	3.8%	34	26.0%
2 - 4hrs	156	16.3%	114	7.4%	274	26.7%	250	25.1%	38	3.8%	29	22.1%
4 - 6hrs	200	20.9%	218	14.2%	136	13.2%	223	22.4%	31	3.1%	23	17.6%
6 - 8hrs	192	20.1%	223	14.5%	36	3.5%	94	9.4%	15	1.5%	13	9.9%
8 - 10hrs	131	13.7%	186	12.1%	10	1.0%	57	5.7%	4	0.4%	2	1.5%
10 - 12hrs	49	5.1%	116	7.5%	5	0.5%	16	1.6%	3	0.3%	2	1.5%
>12hrs	18	1.9%	59	3.8%	5	0.5%	11	1.1%	4	0.4%	3	2.3%
Not Recorded	103	10.8%	534	34.7%	80	7.8%	91	9.1%	870	86.7%	25	19.1%
Total	**956**		**1538**		**1028**		**995**		**1003**		**131**	

Episiotomy Rate by Group

Group 1	Group 2a	Group 3	Group 4a	Group 5 Overall	Group 5a
429/956	559/1538	80/1028	96/995	54/1003	42/131
44.9%	36.3%	7.8%	9.6%	5.4%	32.1%

Perinatal Deaths per Robson Ten Group

Group	No. of Antepartum Still births	Per '000 births	No. of Intrapartum Stillbirths	Per '000 births	No. of Early Neonatal Deaths	Per '000 births	Total No. of Perinatal Deaths*	Per '000 births	Contribution of each Group %
Groups 1 & 2	2/2782	0.7	0/2782	0.0	1/2782	0.4	3/2782	1.1	41.4%
Groups 3 & 4	4/2121	1.9	0/2121	0.0	0/2121	0.0	4/2121	1.9	31.5%
Group 5	0/1003	0.0	0/1003	0.0	0/1003	0.0	0/1003	0.0	14.9%
Group 8	4/233	17.2	0/233	0.0	4/233	17.2	8/233	34.3	3.5%
Groups 6, 7, 9 & 10	8/583	13.7	0/583	0.0	4/583	6.9	12/583	20.6	8.7%
Total	**18/6722**	**2.7**	**0/6722**	**0.0**	**9/6722**	**1.3**	**27/6722**	**4.0**	

*excludes Congenital Anomaly (n=17)

HIE Cases per Robson Ten Group

Group	No. of HIE Cases	Per '000 births	No. of Infants Cooled	Per '000 births
Groups 1 & 2	6/2782	2.2	8/2782	2.9
Groups 3 & 4	0/2121	0.0	0/2121	0.0
Group 5	0/1003	0.0	0/1003	0.0
Group 8	0/233	0.0	0/233	0.0
Groups 6, 7, 9 & 10	1/583	1.7	1/583	1.7
Total	**7/6722**	**1.0**	**9/6722**	**1.3**

The 6 cases of HIE in groups 1 and 2 were Grade 2 (n=4) and Grade 3 (n=2), The 1 case of HIE in group 10 was Grade 3,
There were 2 cases of Neonatal Encephalopathy with seizures from Group 1 who were cooled.
For more information please refer to the Hypoxic Ischaemic Encephalopathy, Neonatal Encephalopathy & Seizures chapter

Ten Groups by Estimated Blood Loss >= 1000mls

	EBL >= 1000mls / Deliveries (462 / 6598)	Size of Group % (100%)	EBL >= 1000mls rate in Group %	Contribution of each Group % (7.0%)
1. Nulliparous, single cephalic, >=37 weeks, in spontaneous labour	61 / 956	14.5%	6.4%	0.9%
2. Nulliparous, single cephalic, >=37 weeks, induced and CS before labour	197 / 1826	27.7%	10.8%	3.0%
2a. Induced labour	*177 / 1538*	*23.3%*	*11.5%*	*2.7%*
2b.CS before labour	*20 / 288*	*4.4%*	*6.9%*	*0.3%*
3. Multiparous (excluding prev. CS), single cephalic, >=37 weeks, in spontaneous labour	31 / 1028	15.6%	3.0%	0.5%
4. Multiparous (excluding prev. CS), single cephalic, >=37 weeks, induced and CS before labour *	64 / 1091	16.5%	5.9%	1.0%
4a. Induced labour	*59 / 995*	*15.1%*	*5.9%*	*0.9%*
4b.CS before labour	*5 / 96*	*1.5%*	*5.2%*	*0.1%*
5. Previous CS, single cephalic, >= 37 weeks	41 / 1003	15.2%	4.1%	0.6%
5a. Spontaneous labour	*9 / 131*	*2.0%*	*6.9%*	*0.1%*
5b. Induced labour	*9 / 55*	*0.8%*	*16.4%*	*0.1%*
5c.CS before labour	*23 / 817*	*12.4%*	*2.8%*	*0.3%*
6. All nulliparous breeches	7 / 170	2.6%	4.1%	0.1%
7. All multiparous breeches (including prev. CS)	4 / 78	1.2%	5.1%	0.1%
8. All multiple pregnancies (including prev. CS)	31 / 117	1.8%	26.5%	0.5%
9. All abnormal lies (including prev. CS)	1 / 38	0.6%	2.6%	0.0%
10. All single cephalic,<=36 weeks (including prev. CS)	25 / 291	4.4%	8.6%	0.4%
Total	**462 / 6598**		**7.0%**	**7.0%**

Ten Groups Estimated Blood Loss > = 1500mls

	EBL >= 1500mls / Deliveries (143 / 6598)	Size of Group % (100%)	EBL >= 1500mls rate in Group %	Contribution of each Group % (2.2%)
1. Nulliparous, single cephalic, >=37 weeks, in spontaneous labour	15 / 956	14.5%	1.6%	0.2%
2. Nulliparous, single cephalic, >=37 weeks, induced and CS before labour	54 / 1826	27.7%	3.0%	0.8%
2a. Induced labour	*48 / 1538*	*23.3%*	*3.1%*	*0.7%*
2b.CS before labour	*6 / 288*	*4.4%*	*2.1%*	*0.1%*
3. Multiparous (excluding prev. CS), single cephalic, >=37 weeks, in spontaneous labour	14 / 1028	15.6%	1.4%	0.2%
4. Multiparous (excluding prev. CS), single cephalic, >=37 weeks, induced and CS before labour *	17 / 1091	16.5%	1.6%	0.3%
4a. Induced labour	*16 / 995*	*15.1%*	*1.6%*	*0.2%*
4b.CS before labour	*1 / 96*	*1.5%*	*1.0%*	*0.0%*
5. Previous CS, single cephalic, >= 37 weeks	14 / 1003	15.2%	1.4%	0.2%
5a. Spontaneous labour	*6 / 131*	*2.0%*	*4.6%*	*0.1%*
5b. Induced labour	*4 / 55*	*0.8%*	*7.3%*	*0.1%*
5c.CS before labour	*4 / 817*	*12.4%*	*0.5%*	*0.1%*
6. All nulliparous breeches	1 / 170	2.6%	0.6%	0.0%
7. All multiparous breeches (including prev. CS)	1 / 78	1.2%	1.3%	0.0%
8. All multiple pregnancies (including prev. CS)	12 / 117	1.8%	10.3%	0.2%
9. All abnormal lies (including prev. CS)	0 / 38	0.6%	0.0%	0.0%
10. All single cephalic,<=36 weeks (including prev. CS)	15 / 291	4.4%	5.2%	0.2%
Total	**143 / 6598**		**2.2%**	**2.2%**

Ten Groups by Transfusion Rate

	Number Transfused / Deliveries (117 / 6598)	Size of Group % (100%)	Transfusion rate in Group (per '000 dels)	Contribution of each Group (per '000 dels)
1. Nulliparous, single cephalic, >=37 weeks, in spontaneous labour	9 / 956	14.5%	9.4	1.4
2. Nulliparous, single cephalic, >=37 weeks, induced and CS before labour	63 / 1826	27.7%	34.5	9.5
2a. Induced labour	*60 / 1538*	*23.3%*	*39.0*	*9.1*
2b.CS before labour	*3 / 288*	*4.4%*	*10.4*	*0.5*
3. Multiparous (excluding prev. CS), single cephalic, >=37 weeks, in spontaneous labour	7 / 1028	15.6%	6.8	1.1
4. Multiparous (excluding prev. CS), single cephalic, >=37 weeks, induced and CS before labour *	8 / 1091	16.5%	7.3	1.2
4a. Induced labour	*8 / 995*	*15.1%*	*8.0*	*1.2*
4b.CS before labour	*0 / 96*	*1.5%*	*0.0*	*0.0*
5. Previous CS, single cephalic, >= 37 weeks	11 / 1003	15.2%	11.0	1.7
5a. Spontaneous labour	*5 / 131*	*2.0%*	*38.2*	*0.8*
5b. Induced labour	*3 / 55*	*0.8%*	*54.5*	*0.5*
5c.CS before labour	*3 / 817*	*12.4%*	*3.7*	*0.5*
6. All nulliparous breeches	0 / 170	2.6%	0.0	0.0
7. All multiparous breeches (including prev. CS)	3 / 78	1.2%	38.5	0.5
8. All multiple pregnancies (including prev. CS)	6 / 117	1.8%	51.3	0.9
9. All abnormal lies (including prev. CS)	2 / 38	0.6%	52.6	0.3
10. All single cephalic,<=36 weeks (including prev. CS)	8 / 291	4.4%	27.5	1.2
Total	**117 / 6598**		**17.7**	**17.7**

Transfusion Rates per Robson Ten Group

Group	1	2a	2b	3	4a	4b	5a	5b	5c	6	7	8	9	10	Total
Total in Group	**956**	**1538**	**288**	**1028**	**995**	**96**	**131**	**55**	**817**	**170**	**78**	**117**	**38**	**291**	**6598**
Number Transfused	9	60	3	7	8	0	5	3	3	0	3	6	2	8	117
% Transfused	**0.9%**	**3.9%**	**1.0%**	**0.7%**	**0.8%**	**0.0%**	**3.8%**	**5.5%**	**0.4%**	**0.0%**	**3.8%**	**5.1%**	**5.3%**	**2.7%**	**1.8%**
Units crossmatched	**22**	**168**	**8**	**27**	**41**	**0**	**25**	**11**	**15**	**0**	**22**	**38**	**7**	**34**	**418**
Units Transfused	16	92	4	12	31	0	13	3	5	0	4	17	2	12	211
Patients transfused 4 or more units	1	1	0	1	1	0	1	0	0	0	0	1	0	0	6
% Patients transfused 4 or more units (group)	0.1%	0.1%	0.0%	0.1%	0.1%	0.0%	0.8%	0.0%	0.0%	0.0%	0.0%	0.9%	0.0%	0.0%	0.1%
% Patients transfused who received 4 or more units	11.1%	1.7%	0.0%	14.3%	12.5%	0.0%	20.0%	0.0%	0.0%	0.0%	0.0%	16.7%	0.0%	0.0%	5.1%

Transfusion Rates per Robson Ten Group where EBL >= 1000mls

Group	1	2a	2b	3	4a	4b	5a	5b	5c	6	7	8	9	10	Total
EBL >= 1000 mls	**61**	**177**	**20**	**31**	**59**	**5**	**9**	**9**	**23**	**7**	**4**	**31**	**1**	**25**	**462**
Number Transfused	4	43	1	6	6	0	3	3	0	0	2	5	0	5	78
% Transfused	**6.6%**	**24.3%**	**5.0%**	**19.4%**	**10.2%**	**0.0%**	**33.3%**	**33.3%**	**0.0%**	**0.0%**	**50.0%**	**16.1%**	**0.0%**	**20.0%**	**16.9%**
Units crossmatched	**15**	**135**	**4**	**26**	**18**	**0**	**22**	**11**	**0**	**0**	**20**	**26**	**0**	**22**	**299**
Units Transfused	10	70	2	11	10	0	10	3	0	0	2	13	0	8	139
Patients transfused 4 or more units	1	1	0	1	0	0	1	0	0	0	0	1	0	0	5
% Patients transfused 4 or more units (group)	1.6%	0.6%	0.0%	3.2%	0.0%	0.0%	11.1%	0.0%	0.0%	0.0%	0.0%	3.2%	0.0%	0.0%	1.1%
% Patients transfused who received 4 or more units	25.0%	2.3%	0.0%	16.7%	0.0%	0.0%	33.3%	0.0%	0.0%	0.0%	0.0%	20.0%	0.0%	0.0%	6.4%

Transfusion Rates per Robson Ten Group where EBL >= 1500mls

Group	1	2a	2b	3	4a	4b	5a	5b	5c	6	7	8	9	10	Total
EBL >= 1500 mls	**15**	**48**	**6**	**14**	**16**	**1**	**6**	**4**	**4**	**1**	**1**	**12**	**0**	**15**	**143**
Number Transfused	3	23	0	3	5	0	3	3	0	0	1	4	0	5	50
% Transfused	**20.0%**	**47.9%**	**0.0%**	**21.4%**	**31.3%**	**0.0%**	**50.0%**	**75.0%**	**0.0%**	**0.0%**	**100.0%**	**33.3%**	**0.0%**	**33.3%**	**35.0%**
Units crossmatched	**13**	**103**	**0**	**7**	**16**	**0**	**22**	**11**	**0**	**0**	**17**	**24**	**0**	**22**	**235**
Units Transfused	8	46	0	3	9	0	10	3	0	0	1	12	0	8	100
Patients transfused 4 or more units	1	1	0	0	0	0	1	0	0	0	0	1	0	0	4
% Patients transfused 4 or more units (group)	6.7%	2.1%	0.0%	0.0%	0.0%	0.0%	16.7%	0.0%	0.0%	0.0%	0.0%	8.3%	0.0%	0.0%	2.8%
% Patients transfused who received 4 or more units	33.3%	4.3%	0.0%	0.0%	0.0%	0.0%	33.3%	0.0%	0.0%	0.0%	0.0%	25.0%	0.0%	0.0%	8.0%

Severe Maternal Morbidity & Mortality

Multidisciplinary team training (mega drill simulation) occurs regularly focusing on major obstetric haemorrhage and unexpected intraoperative bleeding..

In keeping with changes to reporting of information, vignettes will no longer be included in this chapter.

Maternal Mortality

There were two late maternal deaths in 2024 (>42 days postnatal, <1 year postnatal). Our thoughts are with their families.

Severe Maternal Morbidity

Data is compiled from a number of sources including the High Dependency Unit Record, Pathology Department, Accreta Group, Haematology team, Maternal Medicine Clinic, Microbiology Department as well as referral Intensive Care Units and Interventional Radiology teams. I wish to acknowledge the work of Dr Helena Bartels, Dr Eoghan Mooney, Dr Paul Downey, Dr Susan Knowles, Ms Ann Marie Murphy Cruse, Ms Celine O'Brien, Ms Caroline Brophy and Ms Fionnuala Byrne in compiling and confirming the validity of this information.

The NMH reports all SMM to the National Perinatal Epidemiology Centre (NPEC) for inclusion in a National SMM report. Prof Mary Higgins is the Institute of Obstetricians and Gynaecologists representative on the NPEC SMM Advisory Group.

Themes to highlight this year are the number of women who experienced a uterine rupture (highlighted at maternal medicine rounds and education provided) and the continuing high rate of ICU admissions, showing the complexity of care provided. Two patients were reported to NPEC but are not included in this report for NMH as they were originally booked/delivered in other units however, NMH hospital staff aided in their care in St Vincent's Hospital.

Prof Mary Higgins, Consultant Obstetrician & Gynaecologist.

Morbidity 2024	
Major Obstetric Haemorrhage	15
Uterine Rupture	5
Peripartum Hysterectomy	2
Eclampsia	0
Renal / Liver Dysfunction	9
Pulmonary Oedema	0
Acute Respiratory Dysfunction	0
Pulmonary Embolism	1
Cardiac Arrest	0
Coma	0
Cerebral Vascular Accident	2
Status Epilepticus	0
Septic Shock	1
Anaesthetic Problems	0
ICU/CCU admission	9
Interventional Radiology	2
TOTAL	**40 women**

* Data from January 1st 2024 to December 31st 2024; some women had more than one SMM

Maternal Medicine Service

There is a weekly multidisciplinary clinic for women with medical disorders led by Prof Fionnuala McAuliffe, Prof Mary Higgins, Dr Siobhan Corcoran, and clinic midwives Ms Celine O'Brien, Ms Annabel Murphy, Ms Valerie Seymour and Ms AnnMarie Cruse (Haematology Midwife). Ms. Victoire Hurley, Drug Liaison nurse, advises on women with drug addiction. We were delighted that Dr Shauna Callaghan joined the team as the second maternal medicine midwife.

There is a monthly combined obstetric – Anaesthetic review of patients at the clinic with Consultant Anaesthetists Dr Roger McMorrow, Dr Nikki Higgins and their team. Pharmacy provides advice on the safety of maternal medications during pregnancy and breastfeeding with weekly attendance from Benedetta Soldati. Clinical Dietician Dr Sarah Louise Killeen joined our clinic during the year, to review women with inflammatory bowel disease and those requiring dietetics (included patients with severe hyperemesis, bariatric surgery and high BMI).

Specialist Services

Rheumatology: in 2017 we established a monthly Reproductive Rheumatology Health Service the ROSE clinic. Prof Doug Veale, Dr Aine Gorman (SpR) and Ms Louise Moore attend and women are seen for pre-pregnancy counselling and for pregnancy management. Outputs from the clinic have formed the basis for Dr Kieran Murray's PhD and two clinical research papers from this clinic were published in 2019 and 2020. Our unique care pathway has been presented at national and international meetings and has formed the basis of a national HSE guideline 'Management of rheumatic diseases in the preconception, antenatal and postnatal periods' which was launched in 2023. We sadly acknowledge the passing of Prof Doug Veale during the year and our thoughts are with his wife Ursula and family.

Hepatology: Prof Omar El-Sherif attend on a monthly basis for a joint hepatology clinic.

Clinical Genetics: Dr Samantha Doyle and her team provide a service of our patients who may be have a genetic disorder for counselling and genetic testing as appropriate, and where requested.

Epilepsy: There is a fortnightly clinic to review pregnant women with epilepsy run by Ms Sinead Murphy, Clinical Midwife Specialist in Epilepsy which is funded by Brainwave. Each woman is seen at least three times during the antenatal period and also receives a postnatal telemedicine check. All women receive written information regarding their medication, and are invited to a newly established 'Women With Epilepsy (WWE)' private Facebook group.

Cardiology: Dr Carla Canniffe was jointly appointed to NMH and St Vincent's University Hospital to provide a service for women with cardiology problems, before, during and after pregnancy in 2021. She reviews patients at a monthly joint obstetric clinic at NMH and weekly at SVUH in a dedicated woman's cardiology clinic. We have established a National Maternal Cardiac database with NPEC, and are grateful to Dr Aoibhinn Smyth for assisting with database set up and data entry. Results from our service were presented at national meetings in 2024.

Renal Medicine: Dr Colin Lenihan was appointed and has embraced our monthly renal clinic with enthusiasm. In addition to patients with renal disease, we are also reviewing those with complex essential hypertension. We are very grateful to Dr John Holian for his work in establishing our joint obstetric renal clinic in 2021 to review women with renal disease.

Obstetric Haematology Service: comprises Consultant Haematologists Dr Karen Murphy, Dr Maryse Power and Dr Joan Fitzgerald, a 0.5 WTE Haematology Registrar and the Haematology Midwife AnnMarie Cruse. There is a weekly Haematology clinic shared with Maternal Medicine colleagues which provides for women with thrombotic and bleeding problems. This blended team ensures provision of high quality care for this complex group of patients during pregnancy.

In addition to the numbers recorded below AnnMarie Cruse had approximately 2,500 visits in our service with a weekly iron deficiency anemia clinic where the following groups of women were reviewed: family history of venous thromboembolism, women with thrombocytopenia, family history of haemoglobulinopathy, and VTE risk assessment. She also collaborates with other services including the National Coagulation Centre.

Maternal Medicine Midwife Clinic: In 2024 Celine O'Brien and Dr Shauna Callaghan had 205 visits at this clinic which is a service for women in conjunction with the maternal medicine clinic to review women with stable medical conditions. This gives women access to midwifery care.

The weekly Maternal Medicine MDT meeting (organised by Dr Gillian Corbett, Ms Celine O'Brien and Dr Shauna Callaghan) continues to be very successful facilitating the development of multidisciplinary individualised patient plans.

In 2024 there were 585 new patients seen in the maternal medical service. Some patients presented with more than one problem. The main diagnoses and indications for referral to the clinic in 2024 are recorded below (one diagnosis per patient).

In our pre-pregnancy service we saw 50 women and their partners / family members in 2024, in addition

to the numbers below. This is service is becoming increasingly popular for women with medical disorders, and we often counsel women and their partners together with the relevant physician. Our collaboration with Merrion Fertility Clinic with pre-pregnancy counselling has strengthened and our joint fertility – maternal medicine service receives referrals from many fertility clinics throughout Ireland.

Prof Fionnuala McAuliffe, Consultant Obstetrician & Gynaecologist.

Haematology	Medical Reason	169
	Previous venous thrombo-embolism	44
	VTE current pregnancy	9
	Anti-phospholipid syndrome	22
	Factor V Leiden mutation	4
	Protein S deficiency	3
	Pai-1 MTHFR	3
	PT mutation	4
	Von Willebrand's Disease	7
	Immune thrombocytopenic purpura	15
	Platelet dysfunction	1
	Essential Thrombocytosis	4
	VTE risk assessments in clinic	33
	Severe anaemia	4
	Bleeding disorder of unknown aetiology	9
	Spherocytosis	1
	Chronic myeloid leukemia	2
	May Turner syndrome	1
	Hypofibrinogenemia	1
	Eosinophilic granulomatosis	1
	Myeloproliferative disorder	1
	Blood refusal	2

Infection (excluding COVID-19)		13
	HIV	7
	Hepatitis B	4
	Hepatitis C	2

Drug dependency (no hepatitis C)		4
	Methadone in pregnancy	3
	Cannibas in pregnancy	1

Cardiac		57
	Aortic coarctation	1
	Aortic stenosis repaired	1
	Unicuspid aortic valve	1
	ASD diagnosed in pregnancy	1
	Mitral stenosis	1
	Mitral valve prolapse with mild-mod MR	3
	Pulmonary valve stenosis	2
	Bicuspid aortic valve with dilated aorta/ aortopathy	2
	Dilated ascending aorta	1
	PFO not repaired	2
	PDA closed	1
	Long QT syndrome	5
	PVCs	4
	SVT	11
	Atrial fibrillation pre pregnancy	1
	AVNRT ablated	1
	Wolf Parkinson White	4
	Cardiac fibrosis	1
	Pacemaker in situ	3
	Prior postpartum cardiomyopathy	1
	Dilated cardiomyopathy	2
	Myocarditis	1
	Takotsubo cardiomyopathy	1
	Noonan's syndrome maternal	2
	POTS	4

GIT		37
	Ulcerative colitis	9
	Crohn's disease	10
	Bariatric surgery	16
	Subtotal gastrectomy in pregnancy	1
	Pancreatitis in pregnancy	1

Liver		13
	MASLD	2
	Autoimmune hepatitis	2
	Cirrhosis and varices	1
	Primary Biliary cirrhosis	1
	Primary Sclerosing Cholangitis	1
	Prior severe HELLP	1
	Severe obstetric cholestasis	2
	Prior acute fatty liver in pregnancy	1
	Liver transplant	2

CNS		131
	Epilepsy	86
	Multiple sclerosis	15
	T3 and T3 spinal injury (wheelchair users)	2
	Cerebral palsy wheelchair user	2
	Idiopathic intracranial hypertension	4
	Arnold Chiara Malformation	3
	Cauda equina syndrome	3
	Myasthenia Gravis	3
	Cavernous angioma	1
	Coiled cerebral aneurysm	1
	Encephalomyelitis	1
	Subarachnoid haemorrhage prepregnancy	2
	Cerebellar Cavernoma	1
	CVST	7

Vascular		38
	Essential hypertension	27
	TIA in early pregnancy	2
	Splenic artery aneurysm	1
	CVA in pregnancy	1
	CVA pre-pregnancy	7

Connective tissue disorders		65
	Rheumatoid Arthritis	21
	Juvenile rheumatoid arthritis	9
	Inflammatory Arthritis	2
	SLE	7
	Urticarial vasculitis	1
	Sjögren's disease	4
	Ankylosing Spondylitis	5
	Psoriatic Arthritis	9
	Undifferentiated & mixed Connective Tissue Disease	4
	Ehlers Danlos syndrome	3

Respiratory		10
	Cystic fibrosis	4
	Sleep Apnoea requiring night time treatment	2
	Severe asthma	3
	Bronchiectasis	1

Renal		20
	Renal transplant	4
	Lupus nephritis	2
	Adult polycystic kidney disease	2
	IgA nephropathy	3
	SIADH	1
	New severe proteinuria in pregnancy	2
	Renal Calculi	1
	Reflux nephropathy	3
	Glomerulonephritis	1
	Nephrostomy tube for hydronephrosis in pregnancy	1

Oncology		10
	Nasopharyngeal cancer pre-pregnancy	1
	Sarcoma pre pregnancy	1
	Breast cancer in pregnancy	1
	Brain tumour in pregnancy	1
	Hodgkins pre-pregnancy	2
	Non Hodgkins Lymphoma pre-pregnancy	1
	Pseudopapillary tumour tail of pancreas	1
	Colon cancer pre-pregnancy	1
	Wilms tumour in childhood	1

Endocrine		9
	Maternal PKU	1
	Adrenal insufficiency	1
	Pituitary macroadenoma	3
	Pituitary microadenoma	1
	Graves disease	1
	Maternal CAH	1
	Pituitary cyst	1

Miscellaneous		
	Bipolar disorder	2
	Alpha 1 anti trypsin deficiency	1
	Chronic urticaria	1
	Familial Mediterranean Fever	1
	Kawasaki disease	1
	Pelvic fracture post RTA	1
	Sturge weber	1
	BMI 63	1

Overall Total	585

Maternity Outpatient Clinic

Lisa Courtney, CMM1 with expectant mother Helen Silva, in the Fitzwilliam Outpatient Clinic.

The public Holles Clinic and semi-private Fitzwilliam Maternity Clinic continue to provide a wonderful well rounded service to women choosing to attend The National Maternity Hospital, offering a model of combined care during their pregnancy, and where appropriate, in conjunction with their own GP.

Holles Outpatient Clinic

We are delighted to offer supportive, assisted and specialised care clinics at the Holles Clinic throughout the week. We continue to identify the appropriate pathways of care for each woman through these Model of Care pathways. The current Midwifery-led clinics account for 13% of the appointments which comes under the Supportive Care Model of Care Pathway. To meet the demand, there are up to two Midwifery clinics running every day with increasing demand for more.

The Public antenatal clinic continues to operate six Obstetric booking and follow-up clinics, four Midwifery booking clinics and five to six follow-up Midwifery clinics every week in addition to the specialist antenatal clinics: Preterm Birth, Maternal Medicine, Diabetes and Endocrinology. Two of the Midwifery booking clinics operate out of the Pearse St Primary Care Centre with their follow up organised in the outpatient department under either supportive, assisted or specialist care as required. One of our Midwifery follow-up clinics, under CMS Celine O'Brien offers midwifery-led care to women attending the Maternal Medicine Clinic, something which was not always available to this group of patients.

Virtual histories have continued to be a part of our booking appointment and account for about 45% of our first booking visits. This has proven to be a very popular way of making contact with the patients prior to them coming into the clinic.

The Midwifery, Obstetric, Administrative and Support Staff continue to provide patient-centred care while also striving to improve the services offered through consultation and innovation. The most significant initiative of the past year has been the introduction of first trimester scan for all women attending for their first visit in the Outpatient Clinic. This includes both Obstetric and Midwifery

led booking clinics. This has been a hugely important step in improving the patient experience in the ANC and will be covered in more detail in the Ultrasound Department section.

Midwifery led clinics are now a key part of our antenatal service offering with demand growing exponentially in the past year thanks to a concerted team effort to promote the benefits of attending these clinics. We have two dedicated clinics daily in the clinic led by Senior Midwifery staff and are constantly trying to meet the demand for these clinics. Last year the clinics showed a 63.7% spontaneous vaginal birth mode rate and 14.5% operative vaginal birth rate amongst these low risk women who meet the criteria of the supportive group pathway. The Did Not Attend (DNA) rate in these clinics is also lower than the Obstetric led clinics at just 3%.

Our Daisy Clinic, under the guidance of Staff Midwife Anna Lyons and facilitated by Dr Mohammed El Sheikh weekly, continues to be a popular clinic for our younger parents to attend. It has facilitated the building of strong relationships between the parents and the multidisciplinary team, made up of dieticians, social workers and education midwives, all working together to ensure a successful pregnancy and outcome for this patient group.

The TLC Clinic provides an invaluable service to women requiring additional practical and psychological support in their 1st trimester following recurrent miscarriages. This clinic is led by Valerie Seymour, CMM2 under the guidance of Prof Cathy Allen and in partnership with the NMH Bereavement Team. The clinic has supported over 400 couples and continues to grow from strength to strength.

With increasing numbers of women with complex histories attending the hospital, the variety of specialist clinics offered continues to grow. Specialist clinics include Maternal Medicine, Haematology, Preterm Birth, Endocrine and Diabetes. Joint clinics between the Obstetric team and Consultants from St Vincent's University Hospital are offered including Cardiology, Neurology, Rheumatology, Respiratory, Hepatology and Gastroenterology. As part of the multidisciplinary approach offered by the Hospital, the Departments of Medical Social Work, Dietetics, Mental Health and Physiotherapy, work collaboratively to meet the needs of the increasing number of mothers with complex medical, mental health and social issues. Our close working relationship with the Medical Social Work Department allows for a comprehensive service being made available to many women who face extraordinary challenges. Access to the support of a Drug Liaison Midwife also provides invaluable support for some of our most vulnerable women. As part of the assisted care pathways, we have dedicated midwifery-led clinics offering patients midwifery-led care and support, in conjunction with their medical teams.

Our postnatal Poppy Clinic offers quality and continuity of care to patients who experience complications during the pregnancy and in the postnatal period. There are 3 clinics per week in total with 2 led by Caroline Brophy, Assisted Midwife Practitioner and one by Dr Laoise O'Brien, Consultant Obstetrician and Gynaecologist. Referrals are from within the Hospital, GPs, PHNs and other maternity hospitals. Further information can be found in The Postnatal Poppy Clinic section.

Fitzwilliam Maternity Clinic

Located at the Merrion Square entrance of the Hospital, the Fitzwilliam Maternity Clinic (semi-private package) offers antenatal Consultant-led care. There were almost 8,000 new and follow up attendances at the clinic during the year. With an initial midwifery booking clinic and a first trimester ultrasound scan, the follow-up consultant clinics are held in the afternoons. The semi-private package offers women a combined care scheme with antenatal visits alternating between the patients' GP and their clinic consultant.

Annabel Murphy, CMM2 Antenatal Clinic.

Summary of Obstetric Clinic Attendances (Virtual appointments = 1,170)

	Consultant led clinics	Midwives Clinics	Pearse St Clinics	Specialist Clinics*	Fitzwilliam Clinics	Total
(New) First Visits	3,50	583	373	993	2557	7470
Follow-up Visits	11485	998	0	2989	4679	20151
Total Attendances	**14706**	**1315**	**373**	**4029**	**7236**	**27621**

Multiple Pregnancy

Dr Stephen Carroll with expectant Mother Lisa Henry in the Consultant's Outpatient Clinic.

Total Births	6598	
Total Babies Born	6722	

Multiple Pregnancies per '00 Deliveries	1.86	(n=123/6598)

Type	No. of Cases	No. of Births*
Twins	121	241
Triplets	2	6
Quads	0	0
Totals	**123**	**247**

**Babies born >=24 wks / >=500g*

	Spontaneous Labour	Induction of Labour	Elective Caesarean Section	Total
Dichorionic Diamniotic	21	21	44	86
% Caesarean Section	4/21 (19%)	8/21 (38.1%)	44/44 (100%)	56/86 (65.1%)
Monochorionic Diamniotic	3	2	27	32
% Caesarean Section	2/3 (66.7%)	1/2 (50%)	27/27 (100%)	30/32 (93.8%)
Monochorionic Monoamniotic	0	1	2	3
% Caesarean Section	0/0 (0%)	0/1 (0%)	2/2 (100%)	2/3 (66.7%)
All Twins	**24**	**24**	**73**	**121**
% Caesarean Section	6/24 (25%)	9/24 (37.5%)	73/73 (100%)	88/121 (72.7%)

Corrected perinatal rate per '000 twin births	33.2	(n=8/241)

Perinatal Deaths	Number
Antepartum Deaths	4
Early Neonatal Deaths	4
Congenital Anomalies	1
Total	**9**

Delivery Method of Perinatal Deaths	Number
Caesarean Sections	6
Spontaneous Vaginal	3
Totals	**9**

Perinatal Deaths by Chorionicity*	Number	
Dichorionic Diamniotic	3	(n=172)
Perinatal mortality rate per '000 DCDA babies	17.4	
Monochorionic Diamniotic	5	(n=64)
Perinatal mortality rate per '000 MCDA babies	78.1	
Monochorionic Monoamniotic	1	(n=5)
Perinatal mortality rate per '000 MCMA babies	200.0	

Nulliparous Deliveries	57	(n=3171)
Incidence per '00 nullip dels	140.4	
Perinatal Deaths	8	
Caesarean Sections	5	
Neonatal Encephalopathy/HIE	0	
Multiparous Deliveries	64	(n=3427)
Incidence per '00 multip dels	15.6	
Perinatal Deaths	1	
Caesarean Sections	1	
Neonatal Encephalopathy/HIE	0	

5 Year Table: TWINS	2020	2021	2022	2023	2024
Number of Cases	134	149	126	106	121
Twin Babies	266	298	251	212	241
Incidence per '00 deliveries	1.9	2.2	1.9	1.6	1.9
Perinatal Deaths	5	11	4	9	9
Perinatal rate per '000 twin babies	18.8	36.9	15.9	42.5	37.3
Caesarean Section	100	100	97	76	88
Caesarean Section Rate	75%	67%	77%	72%	73%

Early Neonatal Deaths (4)

Case No.	EGA	BW	Gender	Delivery mode	Apgars	Day of death	Place of death	IUGR	Placental histology	Cause of death	PM
1	22+5	570	Male	Vaginal	5, 4	1	NMH LBU	No	DCDA. MIR and FIR.	Extreme prematurity secondary to ascending infection.	No
2	22+5	595	Male	Vaginal	7, 7	1	NMH LBU	No	DCDA.	Extreme prematurity secondary to ascending infection.	No
3	27+1	885	Female	C-Section	0, 0, 1	1	Theatre		MCDA. TTTS.	TTTS.	No
4	29+1	760	Female	C-Section	6, 7	2	NMH NICU	N/A	MCDA. Low grade FVM. Moderate MVM.	Complications of prematurity and extremely low birth weight; twin to twin transfusion syndrome.	No

Antepartum Stillbirth (4)

Case No.	EGA	BW	Gender	Delivery mode	Placental Histology	IUGR	Cause of death	External Referral	PM
1	29+4	1310	Female	C-Section	MCDA.	No	TTTS.	No	No
2	29+4	1200	Female	C-Section	MCDA, Low grade MVM.	No	TTTS.	No	No
3	26+5	805	Male	Vaginal	MCMA.	n/a	TRAP sequence.	No	No
4	27+1	181	Female	C-Section	MCDA. TTTS.	n/a	TTTS.	No	No

Congenital Anomaly (1)

Case No.	EGA	BW	Gender	Delivery mode	Apgars	Day of death	Place of death	Placental histology	Cause of death	PM
1	35+5	1995	Male	C-Section	2, 1	1	NMH LBU	DCDA. SUA. Small placenta with abnormal maturation.	Limb body wall complex.	No

Comment: There is a dedicated Twin Clinic at the National Maternity Hospital which is Consultant led. The perinatal mortality in multiple pregnancies at the NMH is influenced by the complexity of the case mix where complicated cases from other hospitals are referred to out tertiary referral centre. Excluding congenital anomalies, there was eight perinatal deaths in 2024. The corrected perinatal mortality rate was 33 per 1000.

There were four neonatal deaths (NND). Two of the early neonatal deaths were due to extreme prematurity where spontaneous vaginal delivery occurred at 22 weeks' gestation (NND Cases 1 & 2). In another case (NND Case 4) the baby died as a result of prematurity related complications following caesarean section at 29 weeks' gestation for severe fetal growth restriction. In another case (NND Case 3) there was an early neonatal death following caesarean section at 27 weeks where early second trimester Laser Ablation for TTTS had previously been carried out.

There were four antepartum stillbirth (AS) deaths. In two cases the fetal heart beats were not detected at 29 weeks' gestation due to acute TTTS (AS Cases 1 & 2). In another case (AS Case 3) intrauterine death occurred in the pump twin at 26 weeks' gestation following Interstitial Laser Therapy for TRAP at 14 weeks' gestation. In another case (AS Case 4) intrauterine death occurred at 22 weeks' gestation following Laser Ablation for TTTS.

Dr Stephen Carroll, Consultant Obstetrician & Gynaecologist.

Perinatal Genetics and Genomics

The Department of Perinatal Genetics and Genomics continued to grow in 2024 with the support of a multi-disciplinary team within The National Maternity Hospital (NMH).

The Perinatal Genetics and Genomics Service is for women who:

- Receive news that their baby may have abnormalities on scan (Fetal Medicine Department referral).
- Are at risk of their baby inheriting a genetic condition.
- Have a genetic condition and are attending the Maternal Medicine Clinic at The NMH.
- Lose a baby in pregnancy which may have been caused by a genetic condition.
- Suffer recurrent pregnancy losses.

Care is delivered in a holistic and integrated way. The Perinatal Genetics and Genomics Team attends joint clinics with the Fetal Medicine Department and provides multidisciplinary team (MDT) input into:

- Recurrent miscarriage specialist cases every second week
- Fetal medicine MDTs, which occur weekly (the Perinatal Genetic and Genomics Team attend fetal medicine MDTs outside the Hospital also)
- Maternal Medicine MDTs when complex cases are being discussed
- Radiology discussions of cases likely to be genetic where close collaboration facilitates a diagnosis in some situations
- Pathology cases which are likely genetic and a collaborative approach allows for expedited testing.
- Neonatal Intensive Care Unit consultations

In addition to providing care to patients attending The NMH, the Perinatal Genetics Department receive referrals from all over the country. Women are seen in-person and virtually, and the team aim to provide a service that works for patients. 883 consultations took place in 2024.

The service has developed particularly strong links with the Saolta Hospital Group and from September 2024, the South/Southwest Hospital Group. The Department of Perinatal Genetics and Genomics received referrals from fetal medicine colleagues in these hospital groups. Since September 2024, the team also attends the Weekly Fetal Medicine MDT virtually with the team at Cork University Maternity Hospital along with the perinatal pathology meeting where required. This has strengthened the collaborative relationship with the teams there enhancing patient care.

Staffing

Thanks to additional funding secured from the Royal College of Physicians to employ an Aspire Fellow in Perinatal Genetics and Genomics, Dr Tara Rigney successfully completed the fellowship and took up a permanent Consultant post in The Saolta Hospital Group.

Dr Gabriela Mc Mahon will take up a one year fellowship in Perinatal Genetics in Genomics in January 2025.

Ms Melissa Murphy continues to provide the administrative support to the team and acts as the first point of contact for the patients attending the service.

Ms Heather Hughes was appointed the first Clinical Midwife Specialist in Perinatal Genetics and Genomics and will take up her post in January 2025.

Dr Doyle was appointed co-chair of the Prenatal Genetics Group of The British Society of Genetic Medicine in July 2024. The role is important in developing collaborative links with other Perinatal Genetics specialists across the UK and Europe. In addition, Dr Doyle will play a leadership role in the strategic development of education resources and guideline and policy development across the UK.

Research and Education

Dr Rigney continues to perform qualitative research on patient experiences accessing the service and receiving a genetic diagnosis during pregnancy.

Dr Mc Mahon is will develop the database for the service along with performing research on Deep phenotyping and the use of Fetal MRI in conjunction with prenatal exome sequencing.

The Department continues to contribute to education within the Hospital, including laboratory teaching, neonatal teaching, fetal medicine, and recurrent miscarriage. In addition, Dr Doyle contributes to curricula at UCD and RCSI at all levels.

Dr Doyle gave Grand Rounds at Cork University Maternity Hospital in September 2024.

Future

The Department of Perinatal Genetics and Genomics continues to expand with the vision of developing an equitable service that provides timely access to clinical genetics for people planning families. We await the funding of the National Perinatal Genetics and Genomics Framework and the improved collaboration with colleagues nationwide that this funding will facilitate.

Dr Sam Doyle, Consultant Clinical and Biochemical Geneticist with a special interest in Perinatal Genomics.

Perineal Clinic

The Perineal Clinic is a weekly clinic, providing care to women who have sustained an anal sphincter injury following vaginal delivery. It also assesses antenatal patients and provides advice regarding future mode of delivery. Other referrals include faecal incontinence of presumed obstetric origin and cases of pudendal neuropathy, resulting in pelvic floor dysfunction. Patients undergo a thorough assessment in terms of history and examination, with every patient having an endoanal ultrasound. If deemed necessary, patients will also undergo manometry and nerve conduction studies. This latter service is provided by Dr Conor O'Brien, Consultant Neurophysiologist.

The majority of our patients are postnatal and will have been previously assessed in the Postnatal 'Poppy' Clinic at 6 weeks postnatal if they have delivered in the NMH. Appointments for assessment in the Perineal Clinic are generally issued for 4 to 6 months postnatal, allowing time for recovery and strengthening of the anal sphincter. Persistence of symptoms of faecal incontinence at this stage and weak anal sphincter strength necessitate further intervention, which will always include physiotherapy. The importance of the physiotherapy services in managing these women cannot be overstated.

113 of the 149 new referrals seen were for assessment of an obstetric anal sphincter tear of varying grades (3a, 3b, 3c, 4th, recurrent). Reassuringly, we only saw one patient in 2024 with a recurrent third degree tear. Our experience in the Perineal Clinic suggests that the recurrence risk of such tears, in women who undergo vaginal delivery, is lower than the quoted recurrence risk of 6 -8%. This provides a degree of reassurance to doctors and patients alike when counselling regarding future mode of delivery.

Of the 113 patients assessed for Obstetric Anal Sphincter Injury (OASIS), 7 sustained a 4th degree tear. This mirrors the 2023 findings. 4th degree tears are increasing and the incidence is higher than the quoted 0.1%. They require a skilled operator to ensure the optimal repair and to minimise potential complications, in particular fistula formation. We would reiterate the importance of referring all patients who have sustained an OASIS to the perineal clinic. It is a vital service which can flag up issues and very importantly allow discussion of events that lead to the occurrence of such a tear. The recent participation of urogynaecology fellows in the clinic is a welcome and vital development in terms of succession planning.

We remain the primary tertiary referral centre for OASIS assessment although there are other similar clinics in Cork, Galway and Rotunda. We are the only dedicated Perineal Clinic offering a comprehensive assessment which includes imaging of the sphincter and for this reason almost half of our referrals are from external sources. Of the 149 new attendances, 67 (45%) were from other units. There is a recommendation in the National Maternity Strategy to provide a specialist perineal clinic within each maternity network. This is something we would welcome and with our long established history, we would be in a position to help other units in the establishment of such a service.

Reassuringly the vast majority of patients attending the Perineal Clinic for assessment are asymptomatic or have mild symptoms of faecal incontinence. This is a yearly finding and it is evidence that the quality of repairs being undertaken is good. This is reflected on endoanal ultrasound findings, which are generally good. We would encourage the practice of transferring patients to theatre for repair of OASIS, as it does lead to a better outcome, particularly in terms of repair of the internal anal sphincter.

Dr Myra Fitzpatrick, Consultant Obstetrician & Gynaecologist.
Linda Kelly, AMP Women's Health & Urodynamics.

Indication for New Referrals [n=149]
3A – 49
3B – 47
3C – 9
4TH – 7
Recurrent OASIS – 1
Antenatal Assessment – 18
Faecal Incontinence – 14
Miscellaneous – 4

Source of New Referrals [n=149]
NMH - 82
Other units - 67 [45%]

	2017	2018	2019	2020	2021	2022	2023	2024
Appointments offered	440	391	375	310	300	330	282	272
Attendances	343	301	282	241	256	235	237	222
New referrals	238 (69%)	213 (71%)	198 (70%)	175 (73%)	175 (68%)	187 (67%)	159 (67%)	149 (67%)
Follow-ups	105 (31%)	88 (29%)	84 (30%)	66 (27%)	81 (32%)	74 (31%)	78 (33%)	73 (33%)
Did Not Attend	97 (28%)	90 (23%)	93 (25%)	69 (22%)	44 (15%)	67 (28%)	45/282 (16%)	50 (23%)

The Poppy Clinic – Postnatal Maternal Morbidity Clinic

Annabel Murphy, CMM2 Holles Clinic with Tina Moley, Medical Social Worker.

The Postnatal Maternal Morbidity Clinic (The Poppy Clinic) is led by Consultant Obstetrician & Gynaecologist Dr Laoise O Brien and Advanced Midwife Practitioner (AMP) Ms Caroline Brophy.

The Poppy clinic is a model of care unique to The National Maternity Hospital and was established in 2014. The clinic provides a service that bridges the gap in postnatal follow up for women who experience morbidity during the antenatal, intrapartum or postnatal periods. Over 900 new mothers attended the service last year with a DNA rate of 8.1%. The service offers 3 clinics per week: a Consultant-led clinic on Friday, an AMP Clinic on Thursday and an urgent review AMP clinic on Monday.

The service continues to evolve with the introduction of new sub clinics during the year:
Placenta Pathology Clinic: established by Dr Ann McHugh, Consultant Obstetrician & Gynecologist, providing timely discussion on abnormal results and future pregnancy planning.

Socially vulnerable women including those seeking international protection: postnatal review as required, including a 6-week postnatal check-up, Cervical screening & administration of long acting, reversible contraception.

The Postnatal Clinic and ward rounds are provided with advice and guidance from Dr Susan Knowles, Consultant Microbiologist.

All non-routine referrals are reviewed and triaged by the Advanced Midwife Practitioner. Timely appointments are arranged for the appropriate clinic.

Referral Source

NMH
- Midwives (Midwives, CMMs, CMWs CMSs, AMPs)
- Obstetricians (SHOs to Consultants)
- Social Work, Perinatal Mental Health, Physiotherapy

Community
- GPs
- Community physiotherapy
- Publin Health Nurse

External Hospital: The Poppy clinic accepts referrals from all hospitals within the HSE Dublin South East Hospital group. Reasons for referrals are protracted perineal pain and hyper granulation tissue.

Self-referral: as the clinic is becoming more visible women are self-referring to the clinic.

The service has a close working relationship with members of the hospitals multidisciplinary teams and external support services
- Perinatal Mental Health
- Consultant Microbiologist
- Social Work
- Physiotherapy
- Perineal Clinic
- Urogynacology Service
- General Gynae,
- Anaesthetics
- Psychosexual Counsellor

External: Public Health Nurses, Wound Clinic St Michaels Hospital, Radiology at St Vincent's Private Hospital & Colorectal Surgeon St Michaels

Education & Research

The Poppy Clinic is a dynamic model of Outpatient Postnatal Care unique to the National Maternity Hospital, providing holistic and time-sensitive care to women. Education is an integral part of the Poppy Service providing Midwives, PHNs, GPs and Obstetricians the awareness and tools to offer timely and relevant care to this vulnerable group of new mothers. Research and audit continue as the service evolves.

Caroline Brophy, Advanced Midwife Practitioner.

Referral Criteria

Indication	Appointment
PPH > 1.5 L	6 weeks
Hb < 8.gldl	2 weeks
OASIS (3rd & 4th degree tears)	6 weeks
Perineal Wound	As required
Protracted Perineal Pain	Up to 6 months
Dyspareunia	Up to 6 months postnatal
Previous Perineal Trauma	Antenatal Review
Caesarean Section Wounds	As required
Obstetric Complication – severe PET, Hypertension	As required
Placenta Pathology	As required
Other PN Concerns	Referral reviewed
Away from Home	Within 2 weeks
Debriefing – focused, morbidity related:	6 weeks to 1yr
Postnatal Readmission	Seen as outpatient and followed up in clinic
Postnatal Ward Rounds	Weekly on Friday, daily review as required

Numbers Attending Poppy Service

Despite the reduction in births within the hospital the numbers attending the Poppy Clinic continue to increase. The initial attendance was 1.3% of deliveries rising to 14.7% in 2024.

Table. 1: Poppy Attendance 2013 - 2024

	Attended	DNA	DNA Rate	Total Deliveries	% Attend Poppy
2013	122	30	19.70%	8755	1.30%
2014	425	160	20%	9106	4.60%
2015	411	96	18.90%	9186	4.47%
2016	505	107	17.50%	8851	5.70%
2017	544	171	23.40%	8433	6.40%
2018	621	148	19.20%	7795	7.90%
2019	667	125	15.80%	7795	8.55%
2020	720	89	11.60%	7263	9.90%
2021	856	116	11.90%	7694	11.10%
2022	786	69	8.10%	6818	11.50%
2023	917	75	8.10%	6765	13.50%
2024	975	58	5.6%	6598	14.7%

Preterm Birth Clinic

The Preterm Birth (PTB) Clinic is led by Consultant Obstetrician and Gynaecologists, Dr Siobhan Corcoran and Dr Donal O'Brien, Specialist Midwife; Dr Larissa Luethe and PTB Fellow Dr Gillian Corbett.

Referral Criteria and Care Pathway

Women are referred for antenatal care in the PTB clinic if they have previously had a preterm birth (<34 weeks) or have risk factors for sPTB (spontaneous Preterm Birth) such as two or more LLETZ procedures or a Cone Biopsy. Frequent consultations every 2-3 weeks, a dedicated specialist midwife, microbiological screening, cervical length surveillance and interventions such as vaginal progesterone and cervical cerclage where indicated, are employed in this high risk group.

Service Developments

An increasing number of women are seen annually in the Clinic for pre-conceptual counselling since this service was introduced 2020. In 2024, 40 women at high risk of spontaneous preterm birth, either due to past history or extensive cervical surgery, availed of pre-conceptual counselling prior to pregnancy.

Following on from the feedback received from the Preterm Birth Patient Advisory Council, we have developed patient information resources for those attending the clinic in pregnancy and also those planning a pregnancy. These booklets were produced with support from The NMH Foundation and are available on Hospital website under the Preterm Birth Clinic page.

Obstetric Outcomes

In 2024, 150 women had their antenatal care at the Preterm Birth. Three woman had a mid-trimester loss <23+0.

Clinical Audit and Research

The Preterm Birth Service has a very active academic and research portfolio for 2024. This includes: research from the NMH Preterm Birth Advisory Group, our novel surgical approach to laparoscopic abdominal cerclage and the protocol for the randomised controlled trial ongoing at the clinic, examining a treatment to improve the vaginal microbiome for women at risk of spontaneous preterm birth (the PrePOP Study). This randomised trial was awarded competitive research grants by both the NMH Foundation and Science Foundation Ireland, led by Dr Gillian Corbett, Dr Siobhan Corcoran and Professor Fionnuala McAuliffe.

Dr Siobhan Corcoran, Consultant Obstetrician & Gynaecologist.

Total	**150**
Livebirths >=23 wks EGA	146/150 (96.7%)
Stillbirths >=23 wks EGA	1/150 (0.7%)
Mid-trimester Losses 14 - 22+6 wks	3/150 (2%)
EGA at delivery of livebirths - range	26+5 - 41+2 wks
Nullip	39/150 (26%)
Multip	111/150 (74%)
Caesarean section rate	84/146 (57.5%)
Operative vaginal delivery	12/146 (8.2%)
Spontaneous vaginal delivery	50/146 (34.2%)
Livebirths delivery <=34 wks	6/146 (4.1%)
Livebirths delivery 34+1 - 36+6 wks	7/146 (4.8%)
Livebirths delivery 37+0 - 42/40 wks	133/146 (91.1%)

Women that delivered in 2023 with McDonald/Shirodkar Cerclage placed & removed in pregnancy	**22**
Mid-trimester losses in this group	1 (IUD)
Livebirths in this group	20
Livebirths <28 weeks	1
Livebirths <36+6 weeks	2
Livebirths >37 weeks	17
Range of GA of Livebirths in this group	26-40
Women that delivered in 2024 with Abdominal Cerclage in situ	**6**
Mid-trimester losses in this group	**0**
Livebirths in this group	6
Range of GA of Livebirths in this group	37+5 – 38+3
Women that had a pre-pregnancy abdominal cerclage placed for PTB prevention in 2024	**9**
Arabin pessary	**6**
Mid-trimester losses in this group	0
Livebirths in this group	6
PPROM in this group	2
Range of GA of Livebirths in this group	28-39 weeks

Shoulder Dystocia

Definition: Shoulder dystocia is diagnosed in the NMH at vaginal delivery when the anterior shoulder fails to deliver on the first attempt with routine axial traction. Included also are the deliveries that proceed to either internal manoeuvres or delivery of the posterior arm without an attempt at routine axial traction.

Shoulder Dystocia	Nullips	Multips	Total
No. of Cases	**32**	**24**	**56**
Incidence in Spontaneous and Operative vaginal deliveries	32/1905 1.7%	24/2164 1.1%	56/4069 1.4%
Spontaneous labour	16	11	27
Induction of labour	16	13	29
Spontaneous vaginal delivery	6	13	19
Operative vaginal delivery	26	11	37
Birthweight >= 4Kg	10	16	26

Single Cephalic Vaginal Deliveries Birthweight >= 4Kg	Nullips	Multips	Total
Spontaneous Vaginal	102	361	463
Operative Vaginal	65	36	101
C-Section	171	188	359
	338	585	923
Incidence in Single Cephalic Vaginal Deliveries Birthweight >= 4Kg	**10/167 6.0%**	**16/397 4.0%**	**26/564 4.6%**

Procedures to Assist Delivery of Shoulders	Nullips	Multips	Total
McRoberts	2	4	6
McRoberts & Suprapubic Pressure	17	16	33
McRoberts & Suprapubic Pressure & Internal Rotation	4	2	6
McRoberts & Suprapubic Pressure & Delivery of Posterior Arm	2	0	2
McRoberts & Suprapubic Pressure & Internal Rotation & Delivery of Posterior Arm	6	1	7
McRoberts & Internal Rotation	0	0	0
McRoberts & Posterior Arm	0	0	0
McRoberts & Internal Rotation & Delivery of Posterior Arm	1	1	2
Total	**32**	**24**	**56**

Position of Head at Delivery	Nullips	Multips	Total
ROT	11	9	20
LOT	21	15	36
Total	**32**	**24**	**56**

Maternal Complications	Nullips	Multips	Total
PPH >= 1000ml	9	3	12
Third or fourth degree tear	2	0	2

Neonate Complications	Nullips	Multips	Total
Apgars < 7 @ 5 mins	8	1	9
Encephalopathy	2	0	2
Brachial Plexus Injury	4	4	8
Right Clavicular Fracture	1	2	3

Comment:
The incidence of shoulder dystocia overall is 1.4% (1.7% in nulliparous women and 1.1% in multiparous women).
The incidence of shoulder dystocia in babies delivered vaginally weighing ≥ 4.0kg is 4.6% (6.0% in nulliparous women and 4.0% in multiparous women).

All Brachial Plexus Injuries in the Baby

BPI	Nullips	Multips	Total
No. of Cases	**6**	**7**	**13**
Incidence Per Overall Deliveries	6/3171 0.2%	7/3427 0.2%	13/6598 0.2%
Associated with Shoulder Dystocia	4	4	8
Birthweight >= 4Kg	1	1	2

Pathway to Delivery	Nullips	Multips	Total
Spontaneous labour	1	2	3
Induction of labour	5	4	9
Pre labour c-section	0	1	1

Method of Delivery	Nullips	Multips	Total
Spontaneous vaginal delivery	0	1	1
Operative vaginal delivery	6	5	11
C-Section (post-instrumental)	0	1	1

Incidence in Single Cephalic Vaginal Deliveries	Nullips	Multips	Total
All vaginal deliveries	6/1905 0.05%	7/2164 0.14%	13/4069 0.10%
Vaginal deliveries birthweight >= 4Kg	1/167 0.6%	1/397 0.3%	2/564 0.4%

Outcomes	Nullips	Multips	Total
Cases Resolved at 2 weeks	3	5	8
Cases Associated with Shoulder Dystocia Resolved at 2 weeks	2	3	5

Comment:

Brachial plexus injuries (BPI) are reported as any case identified prior to discharge. BPIs at or after 6 months are not always easy to identify due to incomplete reporting systems to verify the continual presence of a BPI. The reporting of BPIs should be standardised as most of them resolve. Of the BPIs recorded in 2024 8 cases had resolved by 2 weeks.

Dr Michael Robson, Consultant Obstetrician & Gynaecologist

All Fractures in the Baby

Fractures	Nullips	Multips	Total
No. of Cases	**1**	**3**	**4**
Incidence Per Overall Deliveries	1/3171 0.03%	3/3427 0.09%	4/6598 0.06%
Associated with Shoulder Dystocia	1	2	3
Birthweight >= 4Kg	1	2	3

Location of Fracture	Nullips	Multips	Total
Right humeral fracture	0	0	0
Left clavicular fracture	0	0	0
Right clavicular fracture	1	3	4

Pathway to Delivery	Nullips	Multips	Total
Spontaneous labour	1	1	2
Induction of labour	0	1	1
Pre labour c-section	0	1	1

Method of Delivery	Nullips	Multips	Total
Spontaneous vaginal delivery	1	1	2
Operative vaginal delivery	0	1	1
C-Section (post-instrumental)	0	1	1

Incidence in Single Cephalic Vaginal Deliveries	Nullips	Multips	Total
All vaginal deliveries	1/1905 0.05%	3/2164 0.14%	4/4069 0.10%
Vaginal deliveries birthweight >= 4Kg	1/167 0.6%	2/397 0.5%	3/564 0.5%

Smoking Cessation Service

The Smoking Cessation Service began in 2020 when the HSE Tobacco Free Ireland Programme and the National Women and Infants Health Programme received funding from Sláintecare Integration Funding for a one-year pilot 'Smoke Free Start' – to establish a midwifery-led, intensive smoking cessation service at The National Maternity Hospital to routinely treat tobacco addiction as a care issue in pregnancy and promote the health and wellbeing of the unborn child.

Due to the success of the project, the hospital was awarded funding from the HSE to make this a permanent service to support women to quit and stay quit. The service now also includes women attending gynaecology services and staff.

The main aims of the service are to effectively support smoking cessation and improve pregnancy and birth outcomes, physical and psychological health and quality of life for women and their families and reduce health inequalities. Education is also an important role of the service including continuous education of staff and promotion of the HSE's health promotion programme Making Every Contact Count, and delivering student midwife education in collaboration with UCD.

Lisa Courtney CMM1 and Orla Bowe CMS Smoking Cessation. The Smoking Cessation Service was lucky enough to have Lisa Courtney running it from Sept 2023-Oct 2024. Thank you to Lisa for all her passion, hard work and dedication to the Smoking Cessation Service.

Smoking during pregnancy is the leading cause of adverse pregnancy outcomes and carries high risk for both the mother and child (See Table 1). Supporting pregnant women to stop smoking and addressing second-hand smoke exposure are two of the most significant interventions that can be employed by midwives in order to lower the risk of adverse birth outcomes and promote the health and wellbeing of society. Stopping smoking is the single most important thing pregnant women can do to protect their health and the health of their baby and families[1].

Quitting smoking is difficult for everybody, and unfortunately, it is no easier for women trying to quit during pregnancy. The Smoking Cessation Service offers women the HSE's 1- year National Standard Treatment Programme to quit. This programme includes the Smoking Cessation midwife working collaboratively with women throughout their pregnancy and beyond to develop and implement a plan to quit smoking. Providing intensive support and nicotine replacement therapy increases the chance of successfully quitting by 4 times.

National Clinical Guidelines

In 2022, the Department of Health launched new National Clinical Guidelines to Help People Stop Smoking. Importantly, pregnant women were identified as a priority group. These new guidelines describe an improved model of stop smoking care for women who are pregnant, which reflects the best available current evidence and for the first time recommends safe, effective behavioural and pharmacological supports that can be offered to women who want to quit smoking when pregnant.

Breath Carbon Monoxide Testing

In line with the National Clinical Guidelines and international best practice, Breath Carbon Monoxide (BCO) testing has now been introduced at booking visits for all women attending public, semi-private or community clinics with opt-out referral to the Smoking Cessation Service for all women who smoke, use e-cigarettes, have recently quit or have a BCO reading of ≥4ppm.

Thanks to the hard work and dedication of the management and staff in public, semi-private and community clinics, the BCO testing has been effectively implemented and been well received by women attending the departments. There has been over a 30% increase in referrals to the service since the introduction of BCO testing. This ensures that pregnant tobacco users are routinely identified, offered brief interventions and referred to the dedicated intensive smoking cessation service.

E-cigarette use in Pregnancy

There has been a noticeable increase in the number of woman using e-cigarettes during pregnancy. Over 100 women were referred to the service for e-cigarette use last year. The HSE do not recommend e-cigarette use in pregnancy or as a stop smoking aid. More research is greatly needed in this area to provide effective and evidence-based care.

The ECHO Study

The NMH is currently participating in The ECHO Study which is a national study to evaluate the impact of E-cigarettes during pregnancy on childhood health outcomes. Lynn Rubbathan is the research midwife for the study in the NMH. The research is concluding in the NMH in March 2025. The women and babies will be followed up for two years. All babies will have growth and nutritional assessment and respiratory evaluation performed and a smaller number will be invited to participate in behavioural and developmental checks.

The results from this research will help inform practice and provide much needed evidence-based information for us to be better able to inform women of the effects of e-cigarette use in pregnancy.

Clinic Activity

2024 has been the services busiest year to date with a 26% increase in referrals from 2023.

Other Service Activities

- Working closely with Tobacco Free Ireland in reporting KPIs, supporting service advancements and improving QuitManager (electronic client management system).
- Supporting implementation of maternity hospital smoking cessation services nationally. Specifically, training and education for the effective implementation of BCO testing in Portlaoise maternity hospital.
- Active member of Tobacco Stakeholder Engagement Group – engaging with local Community and Acute Sector Stop Smoking Advisors for continuous education and improvement of services.

Orla Bowe, Smoking Cessation Midwife CMM2.

[1]*Chamberlain, C., et al. (2017) 'Psychosocial interventions for supporting women to stop smoking in pregnancy', Cochrane Database of Systematic Reviews, 2017(2), pp. 1-55.*

Referral Numbers

2020	2021	2022	2023	2024
115	179	146	403	550

Type of Referrals

Obstetric	Gynaecology	Staff	Total
449	94	7	550

Reasons for Referrals

Smoking	E-cigarette use	Recently Quit
67%	11%	22%

Appointments

Appointments Offered	Attended	Did Not Attend	Did Not Attend Rate
2167	1467	700	33.5%

Termination of Pregnancy Service

The National Maternity Hospital was one of the first units nationally to provide termination of pregnancy (TOP) service after expansion of the service in 2019. The hospital provides care under each of the four legal provisions for TOP care (<12 weeks gestation, Maternal, Maternal Emergency and Fetal). Options for surgical and medical TOP care is given to all women <12 weeks estimated gestational age and, gestation dependent, to those with maternal or fetal issues.

The majority of people attending for TOP care remain those less than 12 week's gestation (80%), followed by fetal indication (16%), maternal (3%) and emergency (1%). These rates have remained consistent over the five years that expanded TOP care has been provided in the hospital

Over half (57%, mostly <12 weeks) underwent a surgical TOP and the remainder (43%, including the majority of Section 9 and 10 indications) were medical. For both, extensive multidisciplinary input is required to provide safe, respectful, compassionate care to the women and their families. Teams involved include Obstetrics, Maternal Fetal Medicine, Midwifery, Nursing, Anaesthesiology, Bereavement, Chaplaincy and Perinatal Mental Health (Psychology and Psychiatry).

First Trimester Service: <12 weeks gestation

In 2024, as per previous years, most women had only one visit to clinic. Of these, some women chose to continue in their pregnancy following attendance in the clinic, often requiring many hours of discussion with clinic staff members. Some women attended whom on examination and ultrasound investigation, were over 12 week's gestation and unable to avail of a TOP under Section 12 of the act.

Women under the age of legal consent are also seen by the medical social work team; mandatory referrals have been made to Tusla. Some women have also required the input of the Sexual Assault Unit, the Gardai (if allegations of assault, or need for forensic examination of products of conception) or the Genito-urinary medicine teams (if positive for sexually transmitted infections).

Women attending for first trimester TOP are given the option between medical (MTOP) and surgical (STOP) based on woman's preference and medical need. Over half will complete the TOP within six hours and the remainder require an overnight stay to complete. Most are discharged post procedure within six hours of admission.

Many (over half of the clinic attenders) attended the Clinic following 'unsuccessful' community TOP – that is, that they had a persistent positive pregnancy test after the community TOP. Many of these women had a positive pregnancy test due to retained products of conception and many underwent ERPC. A small minority had an ongoing pregnancy and attended the clinic for consideration of repeat TOP (usually choosing surgical).

TOP for Maternal Medical Conditions

Four women underwent TOP due to a maternal medical condition that met the criteria for the Act. Most were seen in either the Maternal Medicine or the designated clinic, and all were seen by consultants in Maternal Fetal Medicine. Planning for TOP due to maternal medical conditions involves the input of multiple specialities to provide safe and respectful care. We continue to be grateful to our General Medical and Speciality colleagues in St Vincent's University Hospital for their input into the care of this complex group.

TOP for Fetal Abnormalities

Eighteen women underwent TOP in NMH in 2024 where Section 11 criteria were met. Please see the Fetal Medicine chapter for further details.

Research and Audit

Mr Brendan Dempsey, National Maternity Hospital/UCD Perinatal Centre, submitted and successfully defended this PhD thesis in December 2022, exploring the experience of healthcare providers following the expansion of the termination of pregnancy care. Brendan has published papers that are listed in the publications section.

Celine Dignam and Aine Jones completed an audit of the service from January 2018 to July 2024 showing a lower complication rate than quoted in the National Guidelines and won a medical student research prize for their work at the JOGS (Junior Obstetrics and Gynaecology meeting) in November 2024.

Prof Mary Higgins, Consultant Obstetrician & Gynaecologist.

Fetal Medicine

Esther Groarke CMM1, scanning in the Emergency Room.

The National Maternity Hospital Fetal Medicine Department receives referrals from all over Ireland and provides a comprehensive service for early pregnancy assessment, ultrasound scans throughout pregnancy, fetal medicine consultations, genetics consultations and gynaecology ultrasound examinations.

FETAL ASSESSMENT UNIT

In 2024, the Fetal Assessment Unit workload remained extremely busy with a total of 34,802 (inc 8,680 Merrion Ultrasound scans, 32,328 in 2023) official NMH pregnancy ultrasound scans performed and recorded on the Viewpoint Ultrasound system. Included in the above are gynaecology scans however, this does not include the additional gynaecology scans performed by the Consultant Radiology service in the Department.

The Unit provides a daily early pregnancy assessment service for patients referred with pain or bleeding in the first trimester, and for those with a history of pregnancy loss.

All antenatal patients are offered a fetal anatomy scan at 20-22 weeks and a detailed patient information leaflet is provided for this assessment. In 2024, this clinic was restructured to implement the recommendations from the National Clinical Practice Guideline for The Fetal Anatomy Ultrasound published by NWIHP in 2023, increasing the appointment times and the recording of standard images within the limitations of such examinations.

The scheduled obstetric ultrasound workload, including scans across all trimesters of pregnancy, the postnatal period and for consultation with our fetal medicine midwives, accounted for >16,000 ultrasound examinations in 2024 (see Table 1). In addition to the scheduled workload, the Department takes pride in endeavouring to provide a same day scan service for inpatients admitted to antenatal, postnatal and gynaecology wards and those attending outpatients, satellite clinics and the emergency room, when an ultrasound scan is required. This accounts for an average of 80 additional scans per week.

The outpatient gynaecology services at the NMH are expanding and as a result, there is an increasing demand for ultrasound imaging. We are planning to develop and restructure this gynaecology ultrasound service to meet the protocols for seeing this patient group. During 2024, our sonographer-led service performed 2,196 gynaecology scans.

Table 1: Overview of the Sonographer-led Services

Fetal Assessment Unit: Midwife & Radiographer-led Services		Number of Ultrasound Scans
Obstetric Ultrasound Examinations	Reassurance scans in the first trimester for previous history, dating, fetal anatomy, growth and fetal wellbeing scans, Dopplers, placental location, fetal presentation and post-dates.	16200
Early Pregnancy Assessment	Ultrasound Scans, serial HCG monitoring] Virtual telemed appointments.	4332
Gynaecology Ultrasound Examinations	Diagnostic workup for gynaecology outpatients & inpatients, recurrent miscarriage clinic patients, pre-conceptual counselling for high-risk obstetric patients, and patients with postnatal morbidity.	2196
Fetal Medicine Midwives Clinic	Care of women with a diagnosis of a fetal abnormality/complex pregnancy, memory making, counselling, coordinating care for high-risk fetal medicine patients, follow-up post termination of pregnancy and supportive care in a subsequent pregnancy.	834
	Total	**23562**

As well as ultrasound scans, other services provided in the fetal assessment unit include CTG monitoring, phlebotomy, assistance at invasive procedures, patient counselling, departmental audits, clinical guideline development, bereavement counselling and liaising with ancillary services.

The team includes midwife sonographers, radiographers, health care assistants and administrative staff. Despite the busy workload and staffing challenges, we are very grateful to be able to provide an excellent ultrasound service in a timely manner with a strong patient-centred approach.

Teaching and education is an integral part of our work within the Department for both midwifery and medical staff and students. The FAU continues to play an active role in teaching for UCD and RSCI undergraduates. NCHDs and Midwives learn ultrasound through observation and hands-on practical skills training in our unit. We contribute to the clinical and theoretical components of the MSc and Professional Certificate Ultrasound Programmes in association with UCD.

We sponsor one candidate on UCDs MSc Ultrasound Programme every year and Niamh Cummins, Midwife is our 2024/2025 student sonographer. Elaine Radford, Midwife and Ella Connaughton, Midwife are undertaking the Professional Certificate in Ultrasound and 11 other clinicians (NCHDs, Midwives and Nurses) were supervised undertaking early pregnancy, fetal biometry or ambulatory gynaecology professional certificates. Valerie Spillane CMM3 continues to provide teaching and training for the NMH Point-of-care Ultrasound Course for Midwives.

Valerie Spillane, CMM3 Antenatal Outpatient & Ultrasound Service.

FETAL MEDICINE

The Fetal Medicine Department provides care for those pregnancies at high risk for fetal complications. This includes diagnosis, counselling and management of pregnancies complicated by fetal abnormalities, disorders of intrauterine growth, and pregnancies affected by fetal infection or maternal antibodies. It also includes the screening and management of pregnancies at risk for fetal disorders due to a background history, such as prior pregnancy complications, or known or suspected genetic predispositions.

The service is provided by 8 sub-specialists in Maternal and Fetal Medicine and 3 Clinical Midwife Specialists in Fetal Medicine. In 2024 there were 12 dedicated Fetal Medicine sessions attended by a fetal medicine specialist weekly; as a result, patients can be seen within 1-2 working days of referral as required and we are delighted to receive referrals from every obstetric department in the country. Our specialised fetal medicine midwives are a key part of the multidisciplinary team (MDT) involved in the patient pathway, and work in partnership with the fetal medicine consultants to co-ordinate care for the patients. They are often the direct contact provided to the patients with complex pregnancies where the fetus has a confirmed or suspected disorder. They are involved in pre and post assessment counselling, assist at fetal procedures, and are key co-ordinators of the patient pathway, particularly where liaison with bereavement and loss services or termination of pregnancy for fetal anomaly options are appropriate.

The services provided by the Fetal Medicine MDT in 2024 included:

- High Risk Early Pregnancy Assessment
- Prenatal Screening
- Prenatal diagnosis including Amniocentesis, Chorion Villus Sampling, Cordocentesis
- Fetal echocardiography
- Paediatric Cardiology (Prof Colin McMahon and Cecelia Mulcahy CMS)
- Fetal MRI (Prof Gabrielle Colleran, and Dr Niamh Adams)
- Fetal Neurosurgery Service (Mr John Caird, Mr Darach Cummins and Ms Tafadzwa Mandiwanza)
- Antenatal Neonatology Consultations
- Perinatal Genetic and Genomics Service
- Fetal Therapy: Chest shunts / Fetal blood transfusion
- Rhesus Disease Management
- Management of complicated multiple pregnancy, including laser ablation for TTTS
- Placental insufficiency assessment
- Assessment of Placenta Accreta Spectrum disorders
- Fetal Medicine Therapy for psychological support (Dr Clare Flahavan)

In total in 2024, there were 427 fetal medicine clinics, with 3,464 appointments attended. In addition, there were 258 specialised fetal medicine midwifery clinics where a further 839 scans were performed. There were also 162 neonatology counselling appointments and 38 paediatric cardiology clinics with 293 appointments.

The number of prenatal diagnostic procedures carried out was 182, with 67 CVS's and 115 amniocentesis performed.

The majority of prenatal diagnostic testing was carried out when there was an ultrasound suspicion of an abnormality. Table 2 outlines the indications for amniocentesis/CVS over the past ten years and Table 3 outlines the various abnormalities detected by these procedures. In total 61 out of 182 (34%) of those undergoing diagnostic yielded abnormal results.

Table 4 outlines the ultrasound anomalies diagnosed using the RCOG/RCR classification for the last 10 years. There were a total of 358 abnormalities detected by ultrasound. In addition, there were 61 anomalies diagnosed on prenatal testing giving a total of 419 congenital abnormalities for the year. The majority of diagnoses within the hospital population are made by midwife sonographers/radiographers and are usually seen within 24 hrs by a fetal

medicine consultant where appropriate. We continue to see an increase in the number of external referrals and if these are deemed urgent they can usually be seen within 24 – 48 hours. There is a daily high risk clinic which is staffed by a consultant in which these patients can be seen. Where appropriate genetic testing, surgical, neonatal and genetic counselling is arranged pre-delivery and the patient usually attends the fetal medicine unit for the remainder of the pregnancy.

2024 saw continued expansion of our dedicated neonatology consult service providing a daily service for patients with fetal anomalies, allowing for same day fetal medicine and neonatology appointments. This has not only enhanced the service provided for the patients and their families, but also the communication between the MDT and the referring centres.

Our Perinatal Genetics team with Dr Sam Doyle, Consultant Clinical and Biochemical Geneticist is an increasingly integral part of the fetal medicine MDT. They provide pre and post pregnancy counselling in cases of confirmed or suspected hereditary genetic disorders and develop future pregnancy testing pathways.

Our weekly Perinatal Meeting co-ordinated by our Fetal Medicine Subspecialty training fellow continues to be an excellent forum for MDT discussion of fetal and neonatal cases.

This year our monthly Rhesus meeting continued in collaboration with Dr Joan Fitzgerald, Consultant Haematologist, and our colleagues at the Irish Blood Transfusion Service, to discuss all cases of red cell or platelet antibodies with the potential to cause fetal or neonatal anaemia or thrombocytopenia.

Fetal Therapy Programme *(Prof Fionnuala McAuliffe, Dr Stephen Carroll)*
Since 2010, the fetal therapy teams at the National Maternity Hospital, Dublin, and the Rotunda Hospital Dublin have collaborated jointly for the management of all cases of twin-to-twin transfusion syndrome referred to either centre. This has resulted in a single team approach to all such cases, regardless of which of the two hospital locations at which such patients are seen.

By the end of 2023, the group had treated 328 fetuses with laser surgery for severe TTTS, with at least one survivor occurring in 78% of pregnancies (128/164). These results are consistent with the results at the major international centres providing this advanced fetal therapy. This approach to a complex but relatively rare fetal problem is an excellent example of a joint collaborative management strategy that successfully optimises care for these patients. The results from our national fetal therapy programme were recently published. In 2024 NMH had three cases of TTTS requiring laser treatment with 4/6 neonatal survivals.

NMH Midwife Sonographers and Radiographers: Kristina Cuenca, Lucy McShane, Valerie Spillane, Margaret Daly, Lucy Collender, Ella Connaughton, Cecelia Mulcahy, Elaine Radford and Anitha Baby..

National Fetal Neurosurgery Programme *(Prof Fionnuala McAuliffe, Dr Clare O'Connor)*
This unique national service receives referrals from all maternity hospitals. There are weekly fetal neurosurgical clinics with **Mr Darach Crimmins, Mr John Caird, Ms Tafadzwa Mandiwanza**, the Neurosurgery Specialist Nurses from Children's University Hospital, Temple St as well as Heather Hughes, Barbara Cathcart and Michelle Greene, Fetal Medicine Midwives. Cases are presented to a multidisciplinary team at our weekly perinatal meeting, with ultrasound and fetal MRI images presented and discussed. Following MDT the patients are seen and jointly counselled by the neurosurgery and fetal medicine teams. Women with pregnancies with fetal spina bifida are offered referral to Leuven, Belgium to explore the option of fetal NTD repair, where appropriate.

Mr Crimmins, Mr Caird and Ms Tafadzwa request that all fetal cases in Ireland being referred to Leuven, Belgium for consideration for fetal spina bifida repair be referred to this clinic to facilitate the postnatal care and request also to see all cases to ensure comprehensive counselling is offered to the parents.

Dr Gabrielle Colleran and Dr Niamh Adams review the fetal MRI images and provide an excellent service.

In 2024, 30 individual cases were seen in person and assessed at the clinic, and a number of other cases were discussed at the fetal neurosurgery multidisciplinary rounds, without the patient being seen in clinic.

Details of cases seen in the joint clinic with one diagnosis per patient are: fifteen fetal spina bifida, one occipital encephalocele, eight severe ventriculomegaly (Vp> 15mm), once absence of corpus callosum with ventriculomegaly, one closed spinal dysraphism, one closed spinal defect, one case of porencephaly, one case of porencephalic cyst and one case of vein of Galen malformation.

This service is coordinated by Heather Hughes and Barbra Cathcart and Michelle Greene. The programme receives referrals from all over Ireland and is the only clinic of its kind in Ireland.

Termination of Pregnancy from Fatal Fetal Abnormalities/Life Limiting Conditions
2024 was the sixth year since the Health (Regulation of Termination of Pregnancy) Act 2018 was passed into law and permitted access to abortion in Ireland. There were 18 patients seen at The National Maternity Hospital who met the criteria for FFA/LLC under Section 11 of the Act and underwent termination of pregnancy.

Whilst the absolute numbers are not large, the time and workload that each of these sensitive cases entails is considerable. There are often multiple visits involving screening, ultrasound diagnosis, discussion of diagnostic procedures, interpreting results, genetic or other specialist consultation, informing patient of results, neonatal input and consideration of options before further visits and their admission. Information is given in a clear balanced manner about their options and that they will be fully supported in whatever path they choose. Not all couples with FFA/ LLC choose termination of pregnancy and these couples are followed up in the Fetal Medicine Unit with a care pathway outlined for the remainder of the pregnancy and delivery with appropriate psychological, bereavement and chaplaincy support. We also continue to care for at least as many women who receive a diagnosis of a condition that is likely to result in severe disability who choose to travel outside of the jurisdiction for termination of pregnancy. We are indebted to Barbara Cathcart, Heather Hughes and Michelle Greene, who coordinate all of the above in a very calm, sensitive and efficient manner. Dr Claire Flahavan, Perinatal Therapist, continues to offer a much needed and valuable support service for couples who find themselves in these very distressing situations with excellent patient feedback.

In 2024 we were delighted to welcome Dr Ann McHugh, Consultant Obstetrician and Gynaecologist and Maternal and Fetal Medicine Subspecialist to the team. Dr McHugh completed her subspecialty training at the Rotunda and Coombe Hospitals and Columbia University at NYP in New York and has been a fantastic addition to the NMH Fetal Medicine team.

Congratulations to Michelle Greene, one of our dedicated fetal medicine midwives, who completed her MSc in ultrasound.

At the end of 2024 we said goodbye to Heather Hughes, CMS, who provided an exceptional service to the team since 2011. Heather has been promoted to a CMS in Prenatal Genetics and Genomics and will continue to work closely with her fetal medicine colleagues. We wish her the very best in this new and exciting role.

The workload of the unit remains busy in terms of both volume and complexity. The tables below summarise the level of activity over recent years. We continue to be recognised for full sub-specialty training in Maternal Fetal Medicine by the RCOG making this the only centre in Ireland for full training and this year Dr Fiona O'Toole continued her training.

Publications from the Department are listed in the publications section in the Appendix.

As always, I would like to acknowledge the stewardship and contribution to ongoing development by Valerie Spillane (CMM3) and to all the team who every day go above and beyond to provide a safe, high quality and compassionate service to women and families.

Prof Jennifer Walsh, Consultant Obstetrician & Gynaecology and Fetal Medicine Department Director.

Table 1: Prenatal Screening and invasive diagnostic procedures

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
First trimester screening	822	478	380	340	275	199	177	184	99	46
NIPT (Harmony)	526	783	1183	1519	1818	2127	2159	2246	2281	2250
Amniocentesis	101	91	90	105	126	118	126	93	127	115
Chorionic Villus Sampling	44	56	58	64	49	49	53	54	64	67
Total	**1493**	**1408**	**1711**	**2028**	**2268**	**2493**	**2515**	**2577**	**2571**	**2478**

Table 2: Indication for Prenatal Diagnosis (Amniocentesis and CVS)

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Maternal age	3	3	0	1	2	0	0	0	2	1
Abnormal fetal ultrasound	83	74	79	103	113	106	108	100	121	125
Positive screening test	31	37	45	37	36	44	37	21	35	31
Previous chromosomal abnormality/ carrier of translocation	11	16	10	6	9	3	13	2	15	10
Previous non-chromosomal genetic syndrome	12	13	12	9	8	8	7	13	12	13
Miscellaneous	5	4	2	13	7	6	10	11	6	2
Total	**145**	**147**	**148**	**169**	**175**	**167**	**175**	**147**	**191**	**182**

Table 3: Abnormalities Detected by Prenatal Testing

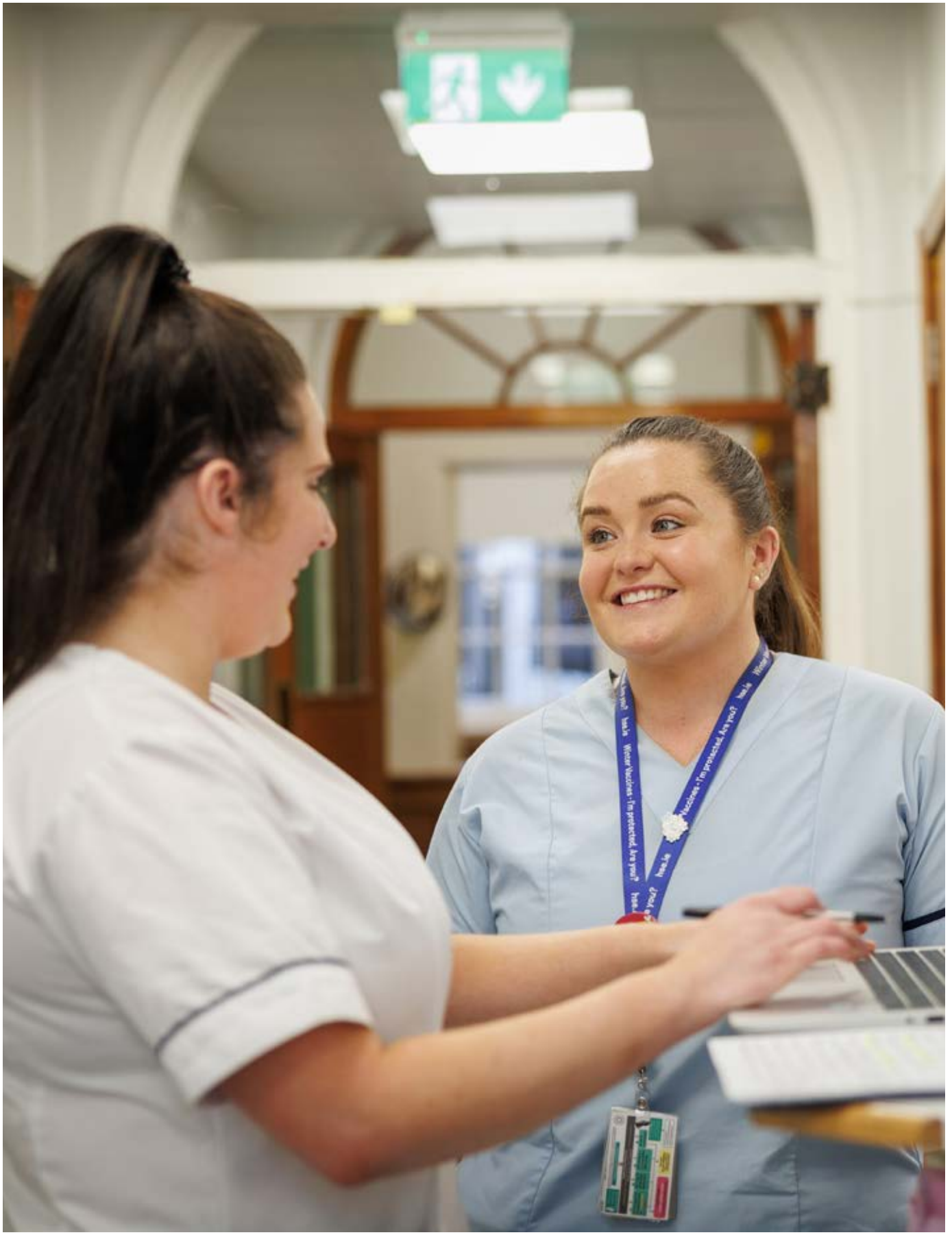
	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Trisomy 21	23	28	33	28	39	39	31	22	36	26
Trisomy 18	18	17	18	15	23	22	16	25	20	17
Trisomy 13	4	5	1	8	8	9	8	2	5	6
Other aneuploidies	16	6	10	17	19	9	12	19	14	10
Non chromosomal genetic abnormality	3	8	3	2	0	4	1	8	4	2
Total	**64**	**64**	**65**	**70**	**89**	**83**	**68**	**76**	**79**	**61**

Table 4: Abnormalities Detected based on RCOG/RCR classification

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
CNS (excluding choroids plexus cyst)	66	52	47	89	87	77	62	58	55	57
Head and Neck (including hygromata)	36	58	42	51	48	58	58	58	53	61
Cardiovascular system (excluding echogenic foci and untreated arrythmias)	94	78	73	50	62	82	79	66	66	67
Renal (excluding pelvic dilatation of <10mms)	45	36	46	34	45	35	46	45	61	61
Abdominal contents (including anterior abdominal wall defects and excluding echogenic bowel)	33	41	37	24	25	24	30	34	33	30
Skeletal	26	24	23	26	23	25	23	34	30	31
Thoracic (excluding cardiac abnormalities)	7	14	15	16	5	1	11	12	13	15
Others	27	40	42	49	40	42	34	15	34	32
Total	**334**	**343**	**325**	**339**	**335**	**354**	**343**	**322**	**345**	**358**

Table 5: Intrauterine Transfusions (IUT)

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
No. of patients requiring IUTs	4	7	8	4	5	6	2	4	2	4
No. of IUTs	8	14	13	5	6	7	2	9	3	6



Aisling Mc Mullen, Staff Nurse and Laura Duggan, CNM1 Gynaecology Clinic.

Gynaecology Outpatient Clinics

Helen Thompson, CMM3 Gynaecology Clinic was awarded the Declan Meagher Innovation Medal by Pat McCann, Deputy Chairman. This medal is awarded to Helen for her presentation entitled "Transforming Scheduled Outpatient Care; Centralizing Benign Gynaecology Referrals"

The Gynaecology Outpatient Department provides an extensive range of general and specialised gynaecology services including benign gynaecology care, urogynaecology, fertility, complex menopause, premature ovarian insufficiency, adolescent care, oncology, rapid access menorrhagia, perineal, transgender services, colposcopy, hysteroscopy, recurrent miscarriage, pessary clinic and DES clinic.

Clinics run from 0800-1830hrs with 3 sessions per day: this has proven an efficient way of delivering a service, maximising clinic numbers within current infrastructural constraints. A total of 10,653 patients (excluding Colposcopy) attended the Department in 2024. The number of virtual appointments equated to 21% of all appointments, continuing an upward trend of offering greater convenience to patients while enhancing operational efficiency. 1,169 outpatient appointments were lost to those who 'Did Not Attend' (DNA) in 2024, 254 less than that lost in 2023. The number of new patient DNAs equated to 5% which is well below the National Outpatient Protocol KPI set at 10%,

A Central Referrals Office for all benign gynae referrals for the Dublin South Southeast region has now been established. This office located at The National Maternity Hospital oversees the initial management and coordination of benign gynaecology referrals across 4 hospital sites: The National Maternity Hospital, St. Vincent's University Hospital, St. Michael's Hospital and St. Columcille's Hospital. The benefits include a more streamlined pathway for patients, reduction in referral duplication, equity in appointment scheduling and reduced DNA rates. The primary aim to ensure right care-right place-right time.

Timely access to pelvic ultrasound scans has been a challenge in 2024, leading to delay in gynaecology appointments. The NMH are looking at a number of possibilities to try and resolve this issue. On a positive note pelvic MRIs are now facilitated in the Hospital, leading to faster access for patients referred from gynae services.

Work has begun on the new Ambulatory Gynaecology Suite with completion planned in quarter 2, 2025. This new suite should further increase access to service and also provide an enhanced patient environment.

A pilot project for Outpatient Cystoscopy/ Botox was completed in 2024, a total of 26 patients attended. This clinic was very successful, unfortunately due to resource constraints could not be continued.

The Fertility Hub continued to see a rise in the number of referrals throughout the year due to public funding for Assisted Human Reproduction which has impacted on the waiting times for appointments. In an effort to increase capacity in clinic sessions, a nurse led history clinic was introduced to reduce time of in-person appointments.

Patients diagnosed with a molar pregnancy continue to be referred to the National Gestational Trophoblastic Disease Treatment and Advisory Centre at Cork University Maternity Hospital (CUMH) for ongoing management. A total of 20 new patients were referred, one patient required a repeat ERPC, and one patient was referred to St. James Hospital for chemotherapy. This shared care agreement is a valuable resource for both patients and staff. Access to patient information via MN-CMS on both sites is of benefit in supporting this arrangement.

The Women's Health section of the National Maternity Website has been updated, providing comprehensive information for patients regarding clinics and appointment information. Nursing staff continued to meet with the Patient Voice Group to give updates on services, their feedback is appreciated.

We would like to acknowledge the support and commitment of Dr Orla Sheil to both the adolescent service and overall delivery of gynae services, as she retired from clinical practice in December 2024.

Nursing and administrative staffing levels continue to be a challenge in delivering a Gynaecology Outpatient service. Acknowledgment must be given to all staff involved in providing gynaecology outpatients services, including administration, nurses/midwives, doctors and allied health services.

Helen Thompson CMM3,
Gynaecology Outpatient Services
& Emergency Room.

Colposcopy

2024 was another busy year within the Colposcopy Department at The National Maternity Hospital. The Department is one of the largest in Ireland. In total 7,273 patients were seen or treated within the service in 2024: 2,916 new patients and 4,357 follow up patients.

This extensive service is smoothly run by a team of highly trained, qualified accredited Nurses and Doctors of the British Society for Colposcopy and Cervical Pathology (BSCCP), Health Care Assistants and Administration staff.

September 2024 saw the Cervical Check audit completed within the Department. This is a national audit of all Colposcopy Departments performed on a three yearly basis. The service in the National Maternity Hospital was recognised as one of the largest and highest-performing Colposcopy Departments in Ireland. Over the years, it has maintained a high standard of quality as defined in Cervical Check quality assurance standards. The visiting team commended the efficient and well developed clinical and administrative processes in place. The Cervical Check team noted the challenges the Colposcopy Department shares with the wider hospital community of working within the current hospital infrastructure.

The service runs all day Monday to Friday, with a total of 13 colposcopy clinics per week. 2024 continued to build on the additional clinics added in 2023 with evening clinics held on held Monday, Tuesday, and Wednesdays.

Of the 2,916 new attendances, 806 were referred with low grade or normal cytology and HPV positivity. 157 were referred with high grade cytology and 48 were referred for clinical reasons. The Suspicious Cervical Review Clinic has continued to facilitate the reduction in the number of women with clinical symptoms being referred to colposcopy, thus freeing up clinic slots for abnormal cytology.

Appointments are allocated according to the grade of cytological abnormality, aiming to work within the timeframes suggested by the Cervical Check quality standards. During the year, all (100%) of the women with high grade cytology were offered appointments within the recommended four weeks after the receipt of the referral letter. All women with low grade or normal cytology and HPV were offered appointments within the recommended eight weeks. This is a remarkable achievement and testament to the huge work by the administrative staff. This has been aided by the addition of three extra evening clinics run by the Nurse Colposcopists.

Due to the dedication of our administrative team in sending letters and phoning patients the day before their clinic, our overall Did Not Attend (DNA) rate is low. This requires considerable administrative input and is vital to maintaining a low DNA rate. Our overall DNA rate of 6.92% is well within the Cervical Check recommended standard of 10%. The DNA rate for new appointments is 5.73% and for return appointments is 7.71%.

The unit remains busy, evident with the 2,514 punch biopsies performed. However, consistent with the trend seen last year (2023), the number of treatments performed is decreasing. The total number of treatments performed in 2024 stood at 764. The only other year which was lower was during the Covid-19 pandemic in 2020. We can hypothesise that the HPV vaccination programme is having a real impact on the presence of abnormal pathology in vaccinated women. The number of LLETZ excisions in young women has dropped significantly. The unit continues to adopt a conservative management in selected cases of Cervical Intraepithelial Neoplasia (CIN) 2, both in the vaccinated and unvaccinated population. This has led to a reduction in treatments in this cohort.

However, as seen in recent years, the more sensitive HPV test in use by cervical check has contributed to an increase in the number of women aged >50 years referred to the service. This proves a diagnostic challenge with this cohort. The nature of the cervical appearances in this population makes the examination unsatisfactory and uncomfortable for the patient. It has also become apparent that many of this cohort continue to exhibit HPV positivity, often in the absence of any CIN changes. There is currently no exit strategy for them, either out of the colposcopy service or out of more intensive screening. Research is ongoing to enable us to better stratify these women into low and high risk, but a definitive clinical algorithm remains some time away.

.

The Histopathology Department are vital to the efficient running of the service. Each punch biopsy and excision must be examined and reported. In addition, the Histopathology Department play an active and vital role within the multidisciplinary team (MDT) discussion of complex cases. A breakdown of histology results are recorded in the table below.

1,422 histology samples recorded a diagnosis of high-grade abnormalities, including 8 cervical cancers and 20 cases of adenocarcinoma in-situ. The rate of cervix cancer diagnosed is down on 2023 (n=15). The Colposcopy Department works closely with our colleagues in the Gynaecology Oncology Unit in St Vincent's University Hospital, where the cancer patients are referred for MDT discussion and treatment.

Clinico-pathological conference review meetings are scheduled monthly with review of the cytology, colposcopy and histology findings and these continue as a valuable addition to our service. We hold quarterly quality assurance meetings where the operational aspects of our service are assessed and scrutinised against Cervical Check standards.

Structured training continued to be provided for trainees. This included regular web-based tutorials and a BSCCP course run by Prof Grainne Flannelly in preparation for the BSCCP Objective Structured Clinical Examination (OSCE) examination. In addition, there is a new fellowship position for an Obstetrics and Gynaecology trainee commencing in 2025. This will be a joint position with the Sexual Assault Treatment Unit in the Rotunda and the Colposcopy Department in the National Maternity Hospital.
We anticipate the fellow will have an invaluable training experience within the department.

Dr Kate Glennon, Consultant Obstetrician & Gynecologist.

Histology Result	Overall (Diagnostic biopsy/ LLETZ /Cone) 2023	Overall (Diagnostic biopsy/ LLETZ /Cone) 2024
Cervical Cancer	15	8
AIS/CGIN	20	20
CIN3	504	458
CIN2	883	821
CIN1	1604	1199
CIN – Uncertain grade	32	15
VAIN 3	5	9
VAIN 2	13	10
VAIN 1	16	14
VIN 3	2	3
VIN 1	1	4
Normal	471	545
Inadequate	54	32
Other	21	34
Total	**3641**	**3132**

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
New attendances	2147	2154	2304	2317	2307	2294	1384	2506	2864	3108	2916
Return attendances	6042	6784	6406	5677	5652	5173	4174	3842	4395	4384	4357
Total attendances	**8189**	**8938**	**8710**	**7994**	**7959**	**7467**	**5558**	**6348**	**7259**	**7492**	**7273**

Administrative Standards CervicalCheck

Administrative Standards Cervical Check	NMH	Target
Proportion of patients referred with high grade smear seen within four weeks	100%	>90%
Proportion of patients referred with a low-grade smear seen within eight weeks	100%	>90%

Colposcopy Attendances

Colposcopy	7273
Smear	1436
Totals	**8709**

Treatments

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
LLETZ	875	858	921	795	709	691	443	654	754	700	627
Knife Cone	36	33	49	41	24	29	10	17	15	5	7
Ablation	5	28	232	253	271	294	142	264	269	166	130
Total	**916**	**919**	**1202**	**1089**	**1081**	**1014**	**595**	**941**	**1138**	**871**	**764**

**Number of biopsies performed, and number of biopsies analyzed by pathology are not the same in any given time. As in previous years, the most severe abnormality is used for coding - a minority of cases have both squamous and glandular lesions present.*

Complex Menopause Service

Anna Stachowiak, CNN2 Hysteroscopy, Lauryn Gough, Patient Services, Anne Beirne, CNM2 Gynaecology Clinic.

The Complex Menopause Service continues to be a busy and evolving service since opening in 2021. The service provides care to patients from Kildare, Wicklow, Westmeath, Kilkenny, Wexford and South Dublin. We are staffed by GP Menopause Specialists and Trainers, Drs Nicola Cochrane and Deirdre Lundy, with help from other colleagues including Dr Helen Ryan and Dr Niamh Joyce. In addition, we often have candidates for Menopause Specialist accreditation working alongside and are grateful for their assistance. We are continuing to limit our consultations to people who have serious medical issues that make it challenging for menopause to be managed in primary care - mainly breast and gynaecology cancers, people with known clotting issues and people with cardiovascular diagnoses.

We have been managing the National Maternity Hospital Premature Ovarian Insufficiency (POI) service which we hope to incorporate into the NWHIP funded Complex Menopause Service in the near future.

Our full time Advanced Nurse Practitioner and Prescriber Claire McElroy has advanced her qualifications and accreditations in recent times and now runs her own service in parallel with the Doctor-led work. Claire is an Advanced Nurse Prescriber and is experienced in initiating and renewing prescriptions and triages as many of the 'New' patients as possible so as to minimise the need for information gathering when they attend initially. This allows us spend most of our in-person time listening to our patients concerns, having time for thorough discussion and hopefully being better equipped to address their needs. Claire deals with patient communication which is essential to our service and we are fortunate to have Sandra Lyons in position as our part-time administrative assistant whom is another pivotal part of the clinical team.

In 2024, we received and processed a total of 724 referrals in the Complex Menopause Service (CMS) and an additional 35 POI referrals. These numbers are reduced compared to previous years due to the expansion of the other five NWHIP funded clinics. Of the 724 CMS requests 469 were deemed unsuitable mainly as they were outside of the catchment area, but also because many really just needed some support and advice. Many of these requests for advice were responded to and bespoke letters were sent to the referring GPs in these cases; this is all done outside of NWHIP funded clinic time and we hope to expand this service officially in the future.

First visits to our Complex Menopause Clinic are in-person and as most of these patients are followed up within 3-4 months and again 3-6 months later, we had 275 patient doctor/nurse-doctor encounters in 2024. We had 693 patients attending for follow up up appointments in 2024.

Of the patients seen, the overwhelming majority are patients with a breast cancer diagnosis whom need individualised advice and assessment as generally hormone therapy is not recommended. The next most common interaction is for people with thrombosis risk or diagnosis for whom the majority are offered hormone therapy if they choose to use the British Menopause Society guidelines.

Waiting times have been kept to a minimum with an average wait of 2-4 months before a first time appointment can be offered. Our feedback is overwhelmingly positive and in many cases, we do not actually provide medication as such for the patients but just a supportive ear and some information and referral to other additional supportive services.

Dr Deirdre Lundy, Clinical Lead, Complex Menopause Service.

Gynaecology Oncology

Gynaecology Oncology Advanced Nurse Practitioner Sarah Belton and Dr Donal O'Brien, Consultant Obstetrician and Gynaecologist.

The gynaecological oncology service continued to develop during another busy year. The service is based between St Vincent's University Hospital (SVUH) and The National Maternity Hospital (NMH) and is part of the UCD Gynaecological Oncology Group (UCD-GOG). This group, incorporating UCD, the Mater Misericordiae University Hospital (MMUH) and St Vincent's University Hospital is the largest Gynaecological Oncology Group in the country serving over two million people.

There were 259 patients referred to the service this year and 169 new cancers diagnosed. This is an increase from 2023 (216 referred, 160 new cancers).The complexity of the cases remained high. The bed crisis continued to affect the health service in general but thankfully our elective cancer surgery admissions to SVUH were transferred to beds in St Vincent's Private Hospital (SVPH) post-operatively. This was essential as without access to the private hospital beds, we would not have been able to care for all patients. It is a model of care that serves the campus and the patients very well. Another positive development was a monthly gynaecology list that was made available to the gynae-oncology team. We were able to perform 55 gynaecology operations there in 2024. Unfortunately access to this list has been halted for unclear reasons but hopefully will resume in the future. The team was boosted by the addition of a new gynae-oncologist and medical oncologist during the year when Dr Kate Gleeson and Dr Lynda Mc Sorley were welcomed to the team. We are already benefitting from their expertise and enthusiasm.

The work of our specialist nurses is essential in providing a quality experience for our patients. Sarah Belton ANP Gynae Oncology continues to be involved with the International Gynaecologic Cancer Society (IGCS). The IGCS have produced a comprehensive nursing curriculum to enable nurses in low and middle

income countries to complete an online certificate program, improving the quality of care delivered to patient with gynaecological malignancies internationally. This programme was launched at the IGCS meeting in Korea in November 2023. So far, over 100 nurses around the globe have enrolled.

Treatment Services

Almost all major surgery is now carried out at SVUH and diagnostic surgeries are carried out at NMH. Radiotherapy is provided mainly at St Luke's Hospital as well as SVUH. Medical oncology services are provided at SVUH. A limited number of patients who are suitable for peritonectomy and HIPEC (heated intraperitoneal chemotherapy) are treated in the Mater Hospital. The UCD-GOG group delivers the largest publically funded robotic surgery program in Ireland.

Multidisciplinary Structure

Every woman with a new diagnosis of gynaecological cancer is discussed at a multidisciplinary team (MDT) meeting. There were 26 MDT meetings in 2024 at which 538 women were discussed. This is an increase from 2023, reflecting the increasing complexity of the cases.

Results

Endometrial cancer remains our most common cancer and 70 patients were treated during the year. The vast majority by minimally invasive surgery. The DaVinci robot system and the expertise of Mr Ruaidhri McVey and Dr Michael Wilkinson have really helped treat the patients with higher BMIs.

Unfortunately, ovarian cancer continues to be the biggest challenge for the unit. The numbers continue to rise with 52 people diagnosed this year. This is a big increase from 32 diagnosed in 2023. These patients need a MDT approach and we get great support from Dr McSorley and Dr Fennelly and the medical oncology team in SVUH.

Cervical cancer was diagnosed in 21 women and 9 cases of new primary malignant vulval cancer were diagnosed in 2023.

In October 2024, Dublin hosted the annual meeting of the International Gynaecologic Cancer Society (IGCS). Over 2,000 delegates attended and it was a great success with the exchange of insights, shared research findings and discussing best practice. The NMH was well represented on the scientific committee for the meeting with Prof Donal Brennan and Sarah Belton involved.

Dr Donal O'Brien, Consultant Obstetrician & Gynaecologist and Sarah Belton, ANP Gynae Oncology.

Diagnosis Totals Per Cancer Type

	2023	2024
Cervix	20	21
Endo	72	70
Ovary	32	52
Vulva	6	9
Synchronous	1	1
Borderline	6	16
Total Cancer Diagnosis	**137**	**169**
Benign	47	68
Non-Gynae	17	17
Recurrence	22	17
Second Recurrence	2	4
Unstaged	5	12
Primary Other Site	5	5
Not Yet Confirmed	5	5
Overall Total	**235**	**297**

Ambulatory Gynaecology

The Ambulatory Gynaecology service at NMH has continued to develop in 2024. Patients undergo assessment, investigations and treatment in 1-2 visits. The majority have procedures if needed under local anesthetic. This is a significant change from the traditional care pathway where patients required 4 or more hospital visits and a procedure under general anesthetic. The Ambulatory Gynaecology model of care has led to improved access to care for women.

The service is led by Dr Venita Broderick and the team includes Dr Zara Fonseca Kelly, Dr Nita Adnan, Dr Laoise O' Brien and Dr Zulfiya Mameva. Dr David Crosby and Dr Fiona Martyn run clinics for fertility patients. Ms Niamh Murray is our candidate Advanced Nurse Practitioner (cANP). The service is supported by nursing staff, healthcare assistants, administration, ultrasonographers, radiologists and pathologists.

We provide a rapid access pathway for women presenting with postmenopausal bleeding. On average 80% of these women were seen within 28 days of referral. Our data pertaining to this is returned to the HSE on a quarterly basis. We see and treat women presenting with abnormal uterine bleeding, intrauterine polyps and fibroids. Other indications for referral include retrieval and insertion of intrauterine devices and fertility and miscarriage investigations and evacuation of retained products of conception.

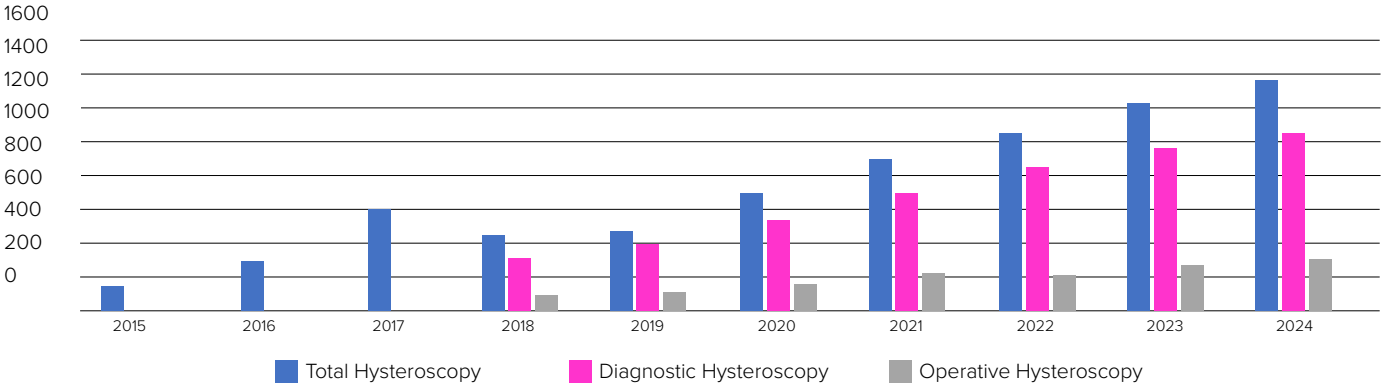
Referrals to the Ambulatory service increased by 6% in 2024. We have continued to expand the service accordingly. 281 clinics were held during the year. A cANP- led clinic was commenced under Consultant supervision. The urogynaecology team commenced outpatient cystoscopy clinics in 2024. The total number of hysteroscopies performed increased by 14% and operative hysteroscopic cases (polypectomy, myomectomy, IUCD retrieval) increased by 9%. 13% of women were referred for treatment under general anaesthetic. We now have a pooled waiting list for urgent cases which has expedited theatre access for these patients. Our DNA (Did Not Attend) rate was extremely low at 2% thanks to the dedication and hard work of our administration and nursing team.

Work is in progress on the development of a purpose-built Ambulatory Gynaecology suite within the hospital and we anticipate this will be open in the second quarter of 2025. This will provide our patients with a modern and comfortable facilities including an accessible bathroom, changing facilities and a recovery area. This will lead to an enhanced patient experience.

Dr Venita Broderick and Ms Niamh Murray together with funding from and the support of NWHIP (National Women & Infants Programme) have developed a novel video animated patient information resource for Ambulatory Gynaecology which will be released nationally in 2025.

Dr Venita Broderick, Consultant Obstetrician & Gynaecologist.

Figure 1: Ambulatory Gynaecology Procedures



	2019	2020	2021	2022	2023	2024
Total no of referrals to ambulatory gynae	640	812	1134	1369	1752	1857
Total no of patients attending hysteroscopy clinic	582	718	1007	1119	1346	1515
Total outpatient hysteroscopy procedures	497	713	914	1041	1213	1386
Diagnostic hysteroscopy	395	563	689	831	971	1124
Operative hysteroscopy	102	150	225	210	242	262
Cases requiring general anaesthetic	6.7%	4.5%	9.5%	13%	12%	13%

Paediatric and Adolescent Gynaecology

The Paediatric and Adolescent Gynaecology (PAG) service at The National Maternity Hospital had a busy year in 2024.Two clinics are held per week where girls aged 12+ are seen. The service represents one of the three specialist PAG clinics in Ireland and young girls travel from all over the country to access these clinics.

There was a 30% increase in the number of patients aged less than 18 years seen in 2024. We saw 87% more new patients under 18 years of age compared to 2023. In April 2024, due to lengthy waiting lists for outpatient appointments, we reduced the upper age limit for the clinic to 18 yrs. We previously saw young women up to age 25. This has been very effective and waiting times have improved significantly.

Referrals are accepted from General Practitioners and Hospital Consultants including Children's Health Ireland (CHI).The majority of referrals received were for menstrual problems. Other common reasons for referral include pelvic pain and ovarian cysts. During the course of our investigations we diagnose rare conditions such as congenital anomalies of the reproductive tract and premature ovarian insufficiency.

Many of the young girls attending the Adolescent Gynaecology clinics, and especially those with congenital anomalies, have complex needs. The impact of these diagnoses both on the adolescent and their families is significant. These patients require frequent appointments and multidisciplinary care. We work closely with paediatric and adult medicine colleagues in radiology, endocrinology, haematology, genetics and other specialties.

We also provide continuity of specialist care for women diagnosed with complex congenital conditions in childhood and in adolescence.

> **"We saw 87% more new patients under 18 years of age compared to 2023. In April 2024, due to lengthy waiting lists for outpatient appointments, we reduced the upper age limit for the clinic to 18 yrs. We previously saw young women up to age 25. This has been very effective and waiting times have improved significantly."**

A nutrition and dietetics clinic runs alongside our PAG clinic where a one stop service is provided.

We are working closely with colleagues at The Merrion Fertility Clinic to develop a fertility preservation service for young people at risk of premature ovarian insufficiency. In 2024, Dr Niamh Joyce, Aspire Fellow in Fertility Preservation attended the clinic on a monthly basis. This was a great addition to the clinic.

We would like to pay tribute to Dr Orla Sheil who retired from clinical practice in December 2024 having established the PAG service at NMH in the 1990s.

We plan to continue to develop our service in 2025.

Dr Venita Broderick, Consultant Obstetrician & Gynaecologist.

Clinic attendances aged <18 yrs

Clinic attendances	New Patients	Return Patients	Virtual Appointments	Total
2024	223	95	111	429
2023	119	87	114	330
2022	196	130	112	438
2021	171	89	95	309
2019	100	81	-	181
2018	77	81	-	159
2017	88	87	-	175

Total Clinic Numbers

Clinic attendances	New Patients	Return Patients	Virtual Appointments	Total
2024	344	312	251	916
2023	320	295	246	861
2022	358	299	198	855
2021	427	316	236	979
2020	374	173	137	823

Reproductive Medicine & Surgery

THE NATIONAL MATERNITY HOSPITAL FERTILITY HUB

The National Maternity Hospital Fertility Hub is one of six Regional Fertility Hubs in Ireland and provides advice, investigation and treatment for eligible couples with infertility.

The Fertility Hub is led by Dr David Crosby, Consultant Obstetrician and Gynaecologist and following their appointments in 2023, Dr Maebh Horan, Consultant Obstetrician and Gynaecologist and Dr. Niamh Joyce, Aspire Fellow in Reproductive Medicine, joined the team. The team is supported by our Clinical Nurse Specialists, Ms Michelle Barry, Ms Jenny O'Donnell and Ms Jess Dowdell and Administrative support, Ms Catherine Dunne and Ms Maria Castro.

The fertility hub caters for couples seeking fertility investigations and treatment. The hub can also refer eligible couples for publicly funded Assisted Human Reproduction (AHR) treatments including Intrauterine Insemination (IUI), In Vitro Fertilisation (IVF), or Intracytoplasmic Sperm Injection (ICSI).

There were 1,256 referrals to the NMH Fertility Hub in 2024 (Figure 1). This is a significant increase in the number of referrals compared with 2023 data (n=722 referrals).

Of these referrals, there were 765 eligible couples referred to the hub in 2024. Table 1 gives a breakdown of the hub clinical activity in 2024.

Publicly funded Assisted Human Reproduction (AHR)

Following the launch of the public AHR programme in September 2023, 46 couples were referred for AHR between September and December 2023. Of these couples, 38 have completed their cycles, with 15 resultant pregnancies.
There were 255 eligible couples who were referred to private providers for AHR treatment in 2024. This figure continues to grow. We will present the 2024 AHR outcome data in the 2025 annual report.

Reproductive Surgery

The number of reproductive surgery procedures performed by our service in 2024 is outlined in Table 2.

> **"The fertility hub caters for couples seeking fertility investigations and treatment. The hub can also refer eligible couples for publicly funded Assisted Human Reproduction (AHR) treatments including Intrauterine Insemination (IUI), In Vitro Fertilisation (IVF), or Intracytoplasmic Sperm Injection (ICSI)."**

The National Maternity Hospital and Merrion Fertility Clinic are the only centres in Ireland who together perform laparoscopic oocyte retrievals. For a small subset of women, it can be the only approach to allow access to the ovary to retrieve eggs, for example in the presence of cervical cancers, a laparoscopic approach can be safer for the patient. There were four laparoscopic oocyte retrievals carried out in 2024.

MERRION FERTILITY CLINIC

The number of referrals to Merrion Fertility Clinic remained strong in 2024, reflected in a 5% increase in the number of oocyte retrievals performed at 973, the highest number to date. The number of fertility preservation cycles, increased by 40%, with 224 egg collections performed for this reason. The demand for diagnostic semen analyses grew by 14%.

Pre-Implantation Genetic Testing

Following the introduction of the pre-implantation genetic testing (PGT) service in late 2023, there was a continued growth in the demand for this service, which made up 17% (n=186) of the cycles performed in 2024. The percentage of biopsied embryos identified as euploid is consistent with international standards, verifying the high standards maintained by our laboratory.

Male Factor Multidisciplinary Meeting

During 2024, Merrion Fertility Clinic established the first national bi-monthly multidisciplinary reproductive andrology meeting. This is attended by our reproductive medicine team and two specialist consultant andrologists. Patients are reviewed and may be referred for a standard surgical sperm retrieval (SSR) at Merrion Fertility or a specialised microsurgical testicular sperm extraction (Micro-TESE) procedure under the care of andrology. This is a newly established service where sperm are removed from the testis with the aid of an operating microscope. Embryology staff are present in theatre to examine the tissue for the presence of sperm. The tissue is then transported back to Merrion Fertility AHR laboratory for cryopreservation and storage.

Fertility Study Day

On the 18th October 2024, we proudly hosted our first Fertility Study Day with speakers from The National Maternity Hospital, Merrion Fertility Clinic and external allied fertility specialists. We were delighted to welcome healthcare professionals both in person and online for a day filled with insightful presentations and engaging discussions. Feedback from attendees has been overwhelmingly positive, with many highlighting how enjoyable and informative the day was. A heartfelt thank you to the team at The National Maternity Hospital, our speakers and our sponsors for their invaluable support in making this event possible.

Figure 1: NMH Fertility Hub Referrals 2024

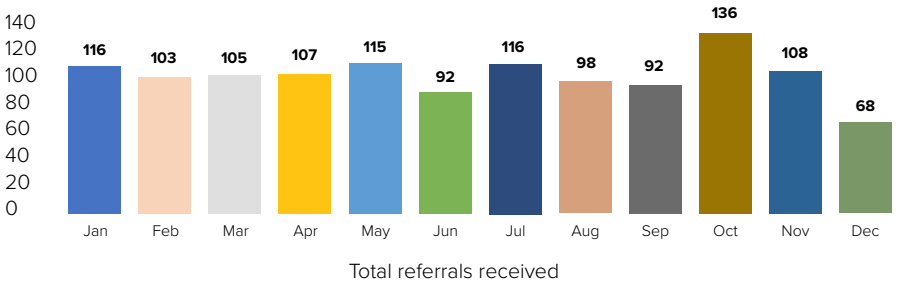
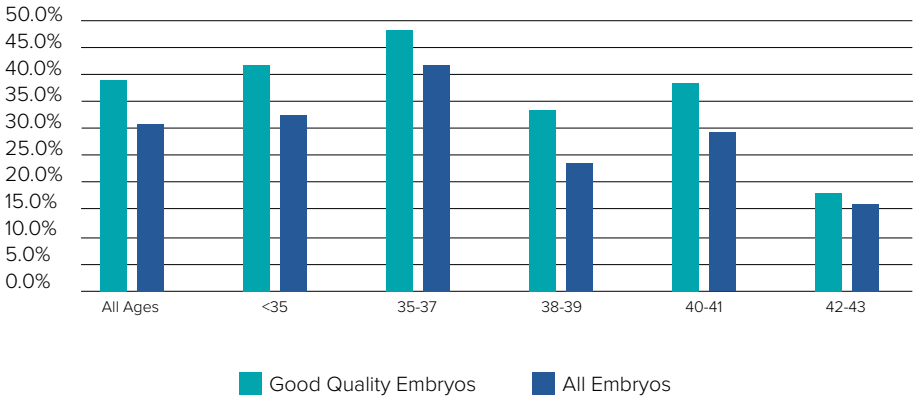


Figure 2: 2024 Clinical Pregnancy Rates per Embryo Transfer by Maternal Age for Fresh IVF and ICSI Cycles



Assisted Reproduction Outcomes, Merrion Fertility Clinic

Fresh embryo transfer cycles
Clinical pregnancy rates (defined by the European Society for Human Reproduction and Embryology (ESHRE 2019) per embryo transfer for patients under 37 years, with a good quality embryo was 45% in 2024. This rate decreased as expected with advancing female age, giving an overall clinical pregnancy rate for all patients having a good quality fresh embryo transferred in 2024 of 38.8% (Figure 2).

Frozen embryo transfer (FET) cycles
An excellent cryopreservation programme is an essential element of an AHR clinic. It allows for the safe preservation and storage of blastocysts in the event that a fresh transfer is not possible. It also supports a successful single embryo transfer programme. The clinical pregnancy rate for patients having a frozen embryo transfer (FET) cycle during 2024 was 47%, with a multiple pregnancy rate of just under 2%. Survival rates for vitrified blastocysts thawed remain excellent at 98%.

Live birth rates
Live birth rates are the best marker of success in AHR but are reported one year later than clinical pregnancy rates. The live birth rate for patients under 37 who had a fresh transfer in 2023 was 30%. Live birth rates for patients who had a FET was 32%. These rates all relate to untested embryos and are in line with the most recent data published by the Human Fertility and Embryology Authority in the UK, HFEA, for the treatment period 2021-2022.

Single embryo transfer
Merrion Fertility Clinic continues to promote a strong single embryo transfer policy. Patients who have a single embryo transferred now make up 81% of fresh transfers. The overall multiple pregnancy rate for the clinic remains very low by international standards, at 2.4%.

> **"We were delighted to welcome healthcare professionals both in person and online for a day filled with insightful presentations and engaging discussions."**

Child, Adolescent and Young Adult (CAYA) Fertility Preservation Services

AYA Males: Twenty-six adolescent males (<18 years of age) were referred in 2024 for sperm cryopreservation services before undergoing gonadotoxic treatment or surgery for cancer or autoimmune disease. Of these 26 males, all 26 attended the clinic at least once, 24 produced a semen sample and 21 had sperm of suitable quality for freezing (mean of 7 straws frozen per patient). Nine AYA males were also referred post-gonadotoxic treatment or post-hematopoietic stem cell transplant (HSCT) as survivors, for routine semen analysis and fertility consultation.

AYA Females: Seven adolescent females (<18 years of age) were referred in 2024 for consideration of oocyte vitrification before undergoing gonadotoxic cancer therapy. Four young women started and completed a successful egg freezing cycle within a mean of 17 days from first visit to the clinic, with a mean of 13 oocytes (range 5-16) per patient cryopreserved for future use.

Female survivors of CAYA cancer, who had previously received gonadotoxic

treatment as part of their cancer therapy, are also eligible for fertility assessment and oocyte vitrification through the Childhood Cancer Fertility Project. Thirty-one female survivors of CAYA cancer attended in 2024 for an initial fertility consultation, while fourteen young women attended for a follow-up fertility consultation and ovarian reserve testing. Twelve female survivors (mean age 21 years) had at least one successful oocyte vitrification cycle, with a mean of seven oocytes cryopreserved for future use.

Research

The Reproductive Medicine Department maintains an active and productive research portfolio, collaborating with scientists in Irish academic institutions and other teaching hospitals, and is a member of the UCD Perinatal Research Centre. Merrion Fertility Clinic employs a full-time Head of Research, and Clinical Research Fellow posts exist for higher training in Reproductive Medicine & Surgery, with fellows undertaking higher degrees. Merrion Fertility Clinic also hosts and mentors a number of MSc students. Research is aimed at improving knowledge, expertise and care pathways in the field of reproductive medicine. Our studies span a range of topics, from basic mechanistic biology to clinical translational research. In 2024, our researchers also worked closely with collaborators at several of Ireland's leading academic research institutions, including University College Dublin and Trinity College Dublin, on the following research projects:

- Innate immune factors, endometrial receptivity and infertility
- Endometrial microbiome and infertility
- Glycome analysis in endometriosis (NIBRT collaboration)
- Follicular microenvironment in low ovarian reserve (Funding: Ferring)
- Ovarian reserve in childhood cancer survivors (Funding: Irish Cancer Society)
- Knowledge and attitudes among patients and healthcare providers towards proposed Irish assisted human reproduction (AHR) legislation

Assisted Human Reproduction Legislation

In June 2024, the Health (Assisted Human Reproduction) Act was signed into law by the President of Ireland, Michael D Higgins. Though it is now part of the legal framework, no part of the Act has commenced meaning none of its provisions are legally in force. To function, the AHR Act 2024 requires the establishment of the Assisted Human Reproduction Regulatory Authority.

Merrion Fertility Clinic has reviewed the provisions of the Act to ensure our practice is in line with the Act. This will prevent any major disruption to service delivery once the Act is commenced.

Future

In 2025, we look forward to continuing to develop the relationship between The National Maternity Hospital and Merrion Fertility Clinic to the benefit of patients. We are very grateful to all the wonderful staff and patients who continuously make this possible, and we are very excited about the next steps in our journey as a leading Irish Reproductive Medicine Service.

Dr David Crosby, Head of Reproductive Medicine Department, NMH & Clinical Director, Merrion Fertility Clinic.

Dr David Crosby, Consultant Obstetrician and Gynaecologist, Head of Department of Reproductive Medicine, NMH & Clinical Director, Merrion Fertility Clinic

Table 1: Clinical Activity

Total referrals to the hub	1256
Total accepted referrals	765
New consultant appointments	433
Follow up consultant appointments	369
Nurse led clinics	346
Fertility outpatient hysteroscopy clinics	26
Ultrasounds performed	188
AMH ovarian reserve tests performed	423

Table 2: Reproductive surgery under General Anaesthesia

	2023	2024
Hysteroscopy – Operative and Diagnostic	318	210
Operative laparoscopy	60	124
Diagnostic laparoscopy	82	65
Myomectomy	8	9

Urogynaecology

The Department experienced another very busy year in 2024 with very high demand for appointments.

The ongoing pause in the use of the Mid-Urethral Sling for the treatment of urinary stress incontinence in the UK and Ireland continues to pose a challenge, although developments late in the year suggest that the Department of Health will consider lifting that pause in 2025. Due to the pause we have the anomalous situation of referring abroad patients who wish to undergo placement of a Mid-Urethral Sling, and this treatment being paid for by the Treatment Abroad Scheme or private insurers. These patients require extensive counselling about their potential journey abroad and reassurance that we will be on hand to provide follow up for them in Ireland on their return. On a positive note, we have been able to treat stress urinary incontinence successfully in a significant portion of patients through the use of Bulking Agents, Pubovaginal Fascial Slings and Burch Colposuspensions.

Our Department's role continued to evolve during 2024 as one of only two centres in the Republic of Ireland designated to investigate and manage patients who may be experiencing a complication related to vaginal mesh surgery. Separate figures for these mesh patients are included in this report. These patients are referred from all over the country and have often had multiple complex procedures and have visited several specialists. They are frequently upset and confused by their symptoms and the treatment they have received to date. This is completely understandable but necessitates Consultants in the Department devoting significant proportions of clinic time to counselling and managing this group of patients. Our work in this endeavour has been strengthened and coordinated significantly by the excellent administrative work of Ms Caroline McMillan. The Department has also been significantly helped by the appointment of Dr Michael Carey as a third (Locum) Urogynaecologist and the appointment of Dr Simon Craven as a Urogynaecology fellow, part funded by an RCPI Aspire award. The appointment of this 3rd Consultant has seen a 38% rise in operative procedures which has helped reduce our surgical waiting list.

The Urodynamics team at the NMH continues to work as an essential part of the Urogynaecology service. In addition to the essential diagnostic tests they perform, they also educate, support and follow up women who present with urinary retention in the antenatal, postnatal and postoperative period. The team have also provided leadership in the establishment of the Doctor-led, Nurse-run pessary clinics. This initiative provides a popular service where patients with a vaginal pessary get to see the same Nurse at each pessary change. This releases availability in the Consultant Urogynaecology clinic for the more complex cases while at the same time allowing rapid access to the Consultant service whenever required.

Looking forward to 2025, it is expected that the demand for Urogynaecology services will continue to grow. We are hoping that the 3rd Consultant Urogynaecologist will be officially appointed and the development of our minimal access theatre suite will lead to more cystoscopic procedures being performed as outpatients.

The biggest change last year was the number of women sent home with an indwelling catheter in situ: there were 18 patients in total and reasons for this are shown below:

5 bladder injuries at caesarean section
3 bladder injuries at gynae surgery
1 due to enlarged fibroids
1 postnatal urinary retention
1 antenatal patient with a large fibroid uterus
1 anterior vaginal wall injury at colposcopy
6 post gynae surgery – urinary retention

Prof Declan Keane, Consultant Urogynaecologist.

Urodynamic Clinic Attendances	2021	2022	2023	2024
Consultant Led				
New	700	656	444	555
Return	817	896	1001	947
Total Attendances	**1517**	**1552**	**1445**	**1502**
DNA Rate	*12%*	*11%*	*11%*	*14%*
Advanced Midwifery Practitioner (AMP) Led				
Total Attendances	**161**	**159**	**152**	**181**
DNA Rate	*14%*	*9%*	*13%*	*6%*
Urodynamics Performed	143	207	166	160
Flow Studies	36	22	26	35
Self Catheterisation	10	12	9	11
Nurse Led Urogynaecology Referrals Source				
Consultant NMH	142	205	204	203
Consultant Elsewhere	1	2	0	3
Total Referrals	**143**	**207**	**204**	**206**
Nurse Led Urodynamics Diagnosis				
Normal Urodynamic Studies	27	19	37	34
Urodynamic Stress Incontinence	43	88	65	51
Mixed Incontinence	16	36	36	48
Hypersensitive Bladder	1	1	0	0
Overactive Bladder	0	50	23	15
Voiding Disorder	0	2	0	2
UTI No UDS – MSU Taken	0	1	5	7
Other	8	10	0	3
Total Diagnosis	**95**	**207**	**166**	**160**

Surgical Procedures

Procedure	No
Anterior repair	92
Botox injection therapy	77
Colpocleisis	4
Colposuspension (open or lap)	8
Cystoscopy	116
Division of septum - vagina	1
Evacuation of vulval haematoma	2
Excision of septum of vagina	1
Injection of urethral bulking agent	81
Labioplasty	1
Mesh removal/explant	22
Pelvic floor repair (A+P)	19
Perineal repair in theatre	15
Posterior repair	89
Pubovaginal Fascia Sling	2
Repair of Fourth Degree Tear	5
Vaginal hysterectomy	50
Vault prolapse repair-vaginal (VAULT SU	3
Total	**588**

Anal Sphincter Repairs

	2021	2022	2023	2024
Third degree tear*	76	66	97	94
Fourth degree tear	5	5	1	5

**includes Episiotomy with sphincter damage*

Anaesthesia, Pain Medicine and High Dependency Care

Prof Fionnuala McAuliffe, Consultant Obstetrician & Gynaecologist, Dr Susan Knowles, Consultant Microbiologist, Dr Orla Sheil, QRPS Director, Dr Laoise O'Brien, Consultant Obstetrician & Gynaecologist and Dr Ingrid Browne, Consultant Anaesthesiologist.

Operating Theatre Activity

The Department of Anaesthesia continued its high level of activity in 2024. The total number of procedures performed in theatre was 5,939, a similar number to the amount of procedures performed in 2023.

Analgesia for Labour and Delivery

A wide range of multi-modal labour analgesic options were utilised by mothers including both non-pharmacologic (relaxation therapy, aromatherapy, TENS, birthing pool) and pharmacologic methods (nitrous oxide inhalation, intramuscular opioids and neuraxial techniques). Intravenous remifentanil PCA during labour was also offered for parturients with contraindications to neuraxial blockade, and those who preferred it over an invasive procedure such as an epidural; 8 mothers availed of this choice which is 2 more than in 2023.

Post-Partum Anaesthesia Review

This service was established in 2021. We perform the post-partum anaesthesia ward round daily, with the intention to review every single postnatal patient who had an anaesthetic intervention. We use this opportunity to ensure each woman experienced high quality anaesthesia care and to arrange appropriate follow up, should it be required. In 2024 we reviewed 4,998 women on the postnatal wards after having an anaesthetic intervention to facilitate their deliveries.

Epidural Rate

MN-CMS recorded a total of 3,533 epidurals. This represents a slight increase on the 2023 figure. Subtracting the number of mothers who had a 'pre-labour' caesarean section (1,208) from total delivered (6,598), gives us the closest approximation of mothers who commenced actual labour and thus potentially had an opportunity to request epidural analgesia.

1,208 caesarean sections (approximately 47% of total) were elective. This is a drop from 65% for the previous year.

Post Dural Puncture Headaches (PDPH) and Epidural Blood Patches

There were 14 patients requiring epidural blood patches in 2024, with 6 requiring a repeat patch.

Not all patients who had accidental dural puncture developed PDPH.
Not all patients who had PDPH required an epidural blood patch.

89 women required an unanticipated general anaesthetic to facilitate delivery of their baby. 62 of these cases occurred in the hours 8pm to 7am during weekdays, or during weekend hours.

High Dependency Unit (HDU)

There were 174 instances of patients requiring admission to HDU in 2024. This is an 11.5% increase on the figure from 2023. The most common reasons for HDU admission were haemorrhage, hypertensive disease of pregnancy and sepsis.

There were 8 patients transferred from our unit to a tertiary referral general hospital for further specialist care. This figure included 2 patients for critical care, 2 patients for specialist medical/surgical team consultation and the remaining 4 for interventional radiological/surgical procedures or imaging.

Gynaecology

We provide anaesthesia for large numbers of patients undergoing major and minor gynaecological procedures. In 2024 approximately 3,000 of our theatre patients were gynaecology patients. The most common procedures performed under general anaesthesia include hysteroscopy with dilatation and curettage, laparoscopic hysterectomy and laparoacopic ovarian cystectomy.

Outpatient Clinics

The Anaesthesia High Risk Clinic is held every Tuesday and Wednesday afternoon. In this clinic we see antenatal patients with complex medical issues, or previous anaesthesia complications. These women are referred to us by our obstetric or midwifery colleagues. We also see postnatal patients who have had unanticipated general anaesthesia to facilitate delivery, failed neuraxial techniques, or complications such a dural puncture headaches. In 2024 a total of 517 women attended these clinics. This is 25% increase on the year before. A further 41 women who required multi-disciplinary (MDT) input were discussed at our Wednesday morning maternal medicine MDT meetings, and then reviewed in one of our MDT clinics which run on the last Wednesday of each month.

Pre-Assessment Clinic

The pre-assessment clinic (PAC) endeavours to pre-operatively assess all gynaecological patients requiring an anaesthetic. It is a nurse-led clinic with strong anaesthesia support. The team consists of CNM2 Niamh Carney, CNM2 Carmel Breen, administration support person Ciara Luckie, and anaesthesia lead Dr Nikki Higgins. See the dedicated summary of the clinic's activity for 2024 in a further section of this report.

Pain Medicine Service

The pain medicine service continued to welcome multidisciplinary referrals from within house, from consultant obstetric and anaesthetic colleagues, physiotherapists, midwives and from primary care physicians in the community.

70 invasive interventions in the form of local anaesthetic, local anaesthetic and steroid injection and radiofrequency neuromodulation were provided by Dr Kirk Levins in the operating theatre in the year 2024.

Data collated from MN-CMS, Theatre Database & Audit Projects.

Dr Nikki Higgins, Consultant Anaesthesiologist.

Epidural Rate

	Total Delivered	Pre-labour C-Section	Epidural	Rate %
Total	6598	1208	3533	65.5% (3533/5390)

Mode of Delivery after Epidural Analgesia

	SVD	Instrumental	C-Section
Nullip	1005 (48%)	554 (26%)	556 (26%)
Multip	1208 (85%)	108 (8%)	100 (7%)
Total	**2213 (63%)**	**662 (19%)**	**656 (19%)**

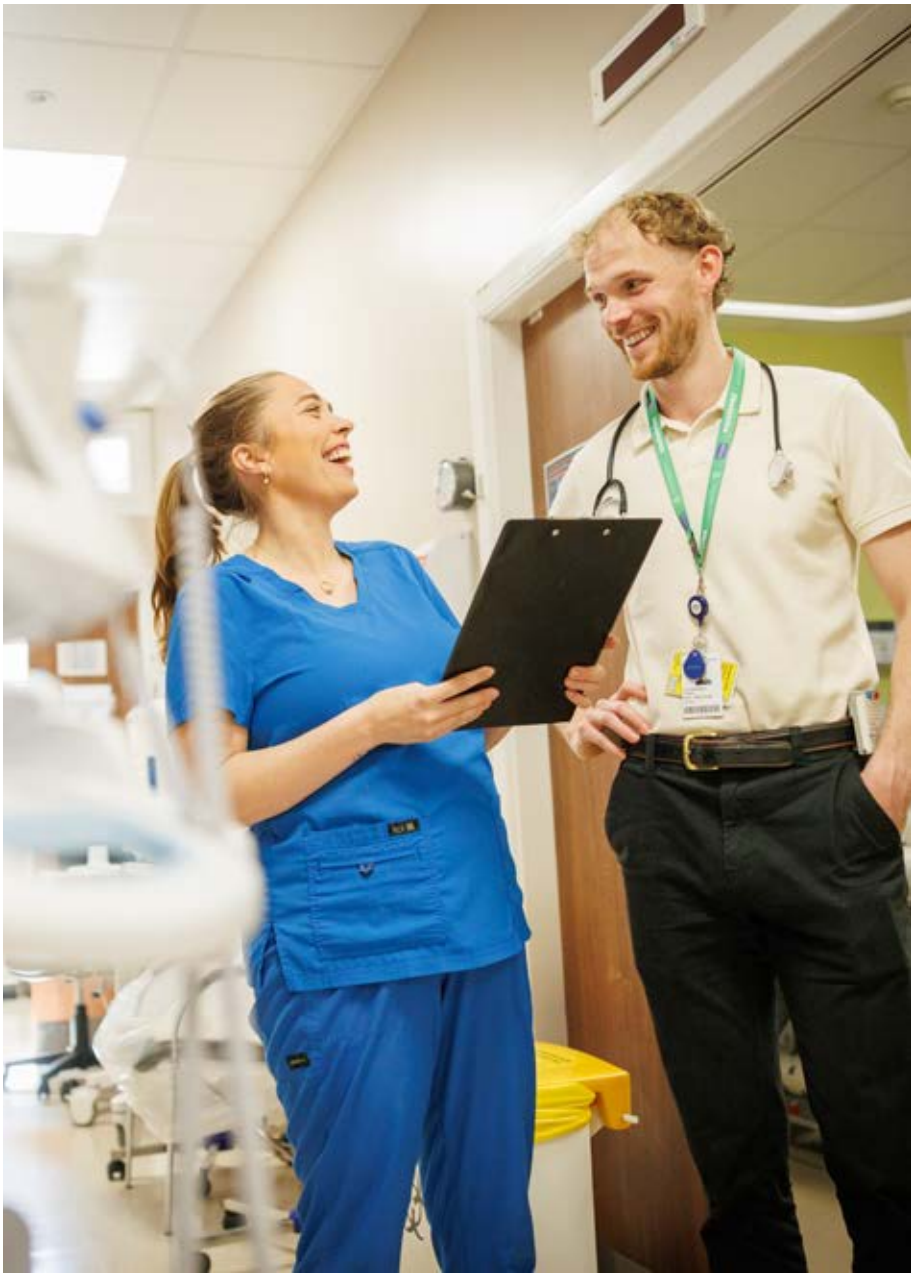
Mode of Anaesthesia for C-Section on MNCMS

	N	%
Spinal	1839	72.3%
Combined Spinal/Epidural	17	0.7%
Epidural	574	22.6%
General	100	3.9%
Not recorded	12	0.5%
Total	**2544**	

Total Rate of Epidural Blood Patches for Epidurals	0.34%
Total Rate of Epidural Blood Patches for Spinals	0.23%

Emergency Room

The Emergency Room provides a dedicated in-person and telephone triage service 24 hrs a day for women requiring urgent pregnancy and gynaecological care. Patients present with a range of conditions during pregnancy including early pregnancy pain, bleeding, hyperemesis, reduced fetal movements, hypertension and postnatal complications such as suspected infection. Gynaecological presentations include pelvic pain, abnormal vaginal bleeding, vaginal discharge, ovarian cysts and prolapse. The Emergency Room also accepts acute benign gynaecology transfers from St Vincent's University Hospital, for example pelvic pain, ovarian cysts.



Dr Fearghal O' Neill, GP Trainee and Nicole Jackson, CMM2 Emergency Room.

Despite a slight reduction in overall births at The National Maternity Hospital, there was a significant increase in attendances to the Emergency Room in 2024. A total of 12,559 patients attended the Emergency Room in 2024 representing a 14% increase from the previous year; there were 9,741 antenatal,1,661 postnatal and 1,157 gynaecological patients. This increase is attributed in part to the number of postnatal attendances, a 16% increase. The establishment of the new postnatal hubs in 2025 may help in reducing this number. Challenges in accessing timely review in primary care and lengthy gynaecology waiting lists continue to put pressure on the Emergency Room. In addition to attendances there are a large number of triage calls that take place daily.

The Emergency Room also supports the Early Pregnancy Assessment Unit at weekends and bank holidays, providing hCG blood tests and follow up to determine outcomes for patients with complications in early pregnancy: there was a total of 507 appointments in 2024 an increase of 30% from 2023.

Staff continue to deliver dedicated care for patients in a timely and supportive manner despite infrastructural constraints and high activity levels. Patient care is provided by experienced Clinical Midwife Managers, Staff Midwives, Healthcare Assistants and NCHDs. The service is overseen by a Consultant Obstetrician and Gynaecologist. A number of midwifery staff are qualified in ultrasound scanning and registered as midwife prescribers thereby providing clinical autonomy in care delivery.

A huge thank you to all the staff in the Emergency Room for their contribution over the last year.

Helen Thompson CMM3, Gynaecology Outpatient Services/Emergency Room.

Specialist Perinatal Mental Health

Dr Catherine Hinds, Consultant Perinatal Psychiatrist.

This was another busy year for the Perinatal Mental Health Service. Owing to the increasing demand on the Specialist Perinatal Mental Health Team and with reduced staffing, we have tightened our acceptance criteria in order to manage waiting times. We are prioritising the more severe, acute mental illness for case management, and the less severe cases are offered a variety of specialist interventions.

We continue to offer a biopsychosocial approach considering the whole family unit, delivered by the multidisciplinary team. Women may be offered individual case management, preconception counselling, group therapy or other specific perinatal therapies. It is largely an outpatient service, but there is also a liaison service for inpatients admitted during pregnancy, birth or postnatally.

The Postnatal Café

In March 2024, following a successful pilot and funding from the NMH Foundation, the Specialist Perinatal Mental Health Team established a Postnatal Cafe. The purpose of the cafe is to explore the experience of adjusting to the mothering role, promote maternal-infant attachment and the impact of the developmental process of matrescence on maternal mental health. All of the mothers invited to the Postnatal Café are individually attending the Perinatal Mental Health Team.

The Postnatal Cafe allows us to deliver a range of psychoeducation sessions in a group setting, making better use of our limited resources. It also enables a valuable opportunity to observe the mother baby interactions, and allows for the education and promotion of Infant Mental Health. The group facilitates peer-to peer support and connection with other mothers, which research has shown can help reduce perinatal mental health difficulties (Rice et al. 2022 and Adlington et al 2023).

In 2024 following the pilot group, three further groups were rolled out in community settings with 33 women attending. Following this, valuable feedback was obtained and women voiced that the space felt safe, non-judgemental and that they were able to confide more than they might in other community led groups. Women told us: “it made me feel seen”, “it has helped my postpartum depression significantly”, “it was the single most helpful thing for my new motherhood journey”.

Our aim is to run this group on a more permanent basis, removing any perceived barriers to accessing peer support and connection in the community to the mothers who are attending The National Maternity Hospital Perinatal Mental Health Service.

Pregnancy After Loss Support (PALS) Group

The PALS group, offering psychoeducation and peer support

to women navigating pregnancy after loss, continued to be run in 2024 in collaboration with the Bereavement Service. The PALS group is a virtual group offered four times a year and is run over four weekly sessions. Feedback from the group continues to be positive, with women noting the benefits of meeting other women who are navigating a similar experience, normalising the psychological experiences of pregnancy after loss and having strategies to manage the anxiety related to pregnancy after loss:

"I found the group a very supportive space for reflecting on all the feelings that come with the experience of pregnancy after loss."

"It was helpful to hear from others who have had similar experiences in terms of feeling less alone with what I've been going through. I also really enjoyed the mindfulness and relaxation activities we did at the end of each session."

"I've come away from them feeling better equipped to handle the weeks and months ahead and reassured from the sessions."

Research and Development

The team is involved in ongoing research, including the Mental Health Impact of Fertility Treatment, Women's experience of Pre-birth Planning in the Management of Severe Mental Illness, and trauma screening in maternity services. Elaine Smyth, Adele Kane and Cat Hinds are working on refreshing the Model of Care for Specialist Perinatal Mental Health Services, which hopes to expand hub and spoke services across Ireland to address the ever increasing demand, as well as the geographical inequality, in services.

The hub service provides support to all women booked at NMH, while the spoke services provide support for women booked in at Wexford, Kilkenny, South Tipperary and Waterford. The implementation of the new Regional Health Areas meant we welcomed Janice O'Donoghue and Mary Frisby, Specialist Perinatal Mental Health Midwives in the new spoke areas of South Tipperary and Waterford into our perinatal network.

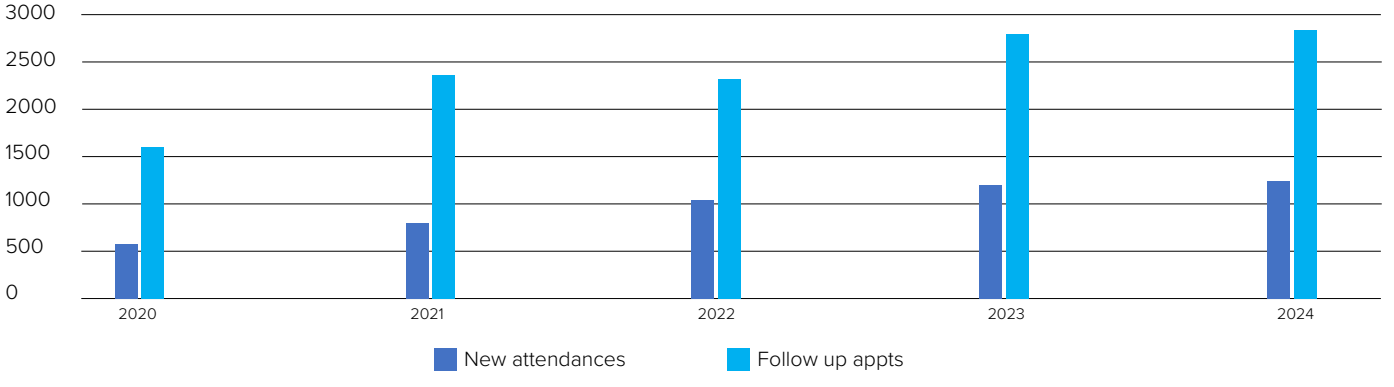
The team continue to raise the profile of Perinatal Mental Health and improve mental healthcare across Ireland. Aoife Menton, Adele Kane, Deirdre Molloy and Georgina Mulligan are part of a local Infant Mental Health Network group and are involved in the growing movement of Infant Mental Health in Ireland. Dr Catherine Hinds sat on the panel at the Irish Association of Infant Mental Health (I-AIMH) conference in April this year. The Perinatal Special Interest Group is raising the profile of Perinatal Psychiatry within the College of Psychiatrists, contributing to conferences and training days, and the College training curriculum.

Irish Association for Infant Mental Health / PSI Perinatal Psychiatry SIG conference – promoting Infant Mental Health and the need for a Mother and Baby Unit in Ireland.

After 28 years as Perinatal Psychiatrist at The National Maternity Hospital, we wished Prof Anthony McCarthy well in his retirement in September; his compassion and wisdom was greatly appreciated by all staff in the Hospital as well as so many patients.

Dr Catherine Hinds, Consultant in Perinatal Psychiatry.

Figure 1: Clinic Attendences



Pathology and Laboratory Medicine

The laboratory service covers the scope of Pathology and Laboratory Medicine with Biochemistry, Blood Transfusion, Haematology, Histology and Microbiology laboratories. The service is provided 24/7 in accordance with clinical need. A microbiology service is provided for the Royal Victoria Eye and Ear Hospital. In addition to tests provided 'in-house', the Department manages specimens referred to reference laboratories.

Constance Young, Senior Medical Scientist, and Ellen MacCourt, Medical Scientist discussing the diagnostic quality of the daily control tissue for the H&E stain in the Histopathology Laboratory. H&E refers to 'Haematoxylin & Eosin' which is a routine staining procedure.

Staff Changes

2024 was another busy year for recruitment. Ms Aine Sally joined the Biochemistry laboratory as a Medical Scientist. In the Haematology laboratory Ms Sinead O'Brien was appointed Chief Medical Scientist and Ms Rebecca Rock and Ms Sophie Delaney started as Medical Scientists. Ms Danielle Stanley started as a Medical Scientist in the Blood Transfusion laboratory. Ms Constance Young progressed to the role of Senior Medical Scientist in the Anatomical Pathology laboratory. The Microbiology laboratory also experienced a reduction in staff: Ms Anna McCormick began a one-year leave of absence in May and Mr Moses Olayonwa and Ms Órla O'Donnell resigned in May and November respectively, reducing staff levels to 50%.

Clinical Activity

2024 was the busiest year on record in the laboratory: there were 199,687 sample requests (6% increase on 2023) for 29,652 individual patients, generating 1.27 million results. The implementation of national guidelines for massive haemorrhage led to an 18% increase in activity in the Blood Transfusion laboratory.

See Figure 1: Laboratory Requests Summary 2015 to 2024

Successes and Achievements

Ms Nikita Kealy completed her MSc in Healthcare Infection from Trinity College Dublin. Mr Declan Ryan and Mr David Mahon completed the Histopathological Dissection training programme at the Technological University of Dublin and progressed to half-time Specialist roles within the Department.

The laboratory retained its ISO 15189 accreditation in 2024 following two inspections: a surveillance inspection and a transition assessment to ISO 15189:2022. Funding has been secured for the upgrade of the WinPath Laboratory Information System.

Challenges

The Department provides a multidisciplinary on-call service staffed by two medical scientists each day. Training new scientists and maintaining competency through ongoing training is challenging, especially with flexible work rosters. The outdated Laboratory Information System (LIS) continues to require significant staff time. The nationwide Medical Scientist shortage, now exacerbated by HSE Pay and Numbers Strategy, has made the hiring of medical scientists even more difficult. Infrastructure and space limitations in the laboratory remain ongoing issues. A business case has been submitted to HSE for a second Consultant Microbiologist for The NMH and Royal Victoria Eye & Ear Hospital.

Plans for 2025

- Advance plans for improved infrastructure in Anatomic Pathology
- Continue the design and verification of a new Laboratory Information System.
- Support the proposed co-location of NMH on the St. Vincent's University Hospital campus at Elm Park.

BIOCHEMISTRY

The Biochemistry laboratory provides a wide range of Biochemistry, Endocrinology and specialised fetal monitoring testing for the NMH and other hospitals.

Clinical Activity

The Endocrinology service continues to support an increase in fertility investigations.

Successes and Achievements

- Reconfiguration of the Biochemistry Laboratory in preparation for new analyser installations.
- Four new Point-of-Care Testing (POCT) Ketone Meters were verified and introduced.
- Upgrade from DataWizard to Roche Infinity middleware IT system for routine biochemistry testing.
- Therapeutic Drug Monitoring (TDM) for anti-seizure medications (ASM) is now centralised at the TDM Unit in the Chalfont Centre for Epilepsy, UK. This has reduced turnaround times and provided access to clinical advice when needed.

Plans for 2025

- Verify and introduce two new biochemistry and endocrinology analysers.
- Expand the in-house biochemistry and endocrinology test repertoire further.
- Begin accreditation process for POCT in the NMH in line with the new ISO15189:2022 standard.

David Mahon, Specialist Medical Scientist, performing daily maintenance checks for the Ventana HE600, an automatic H&E staining platform, in the Histopathology Laboratory. H&E refers to 'Haematoxylin & Eosin' which is a routine staining procedure.

BLOOD TRANSFUSION

The service includes the investigation of blood group and antibodies, provision of blood and blood products, supporting the prevention and management of Haemolytic Disease of Foetus and Newborn through detection and monitoring of antibodies and the provision of routine antenatal Anti-D prophylaxis. Review of fetal RhD screening results analysed by the Irish Blood Transfusion Service (IBTS).

Clinical Activity

The introduction of 28-week Group and Antibody Screen testing for all antenatal patients resulted in an 18% increase in activity in the Blood Transfusion laboratory. Requests rose from 23,711 in 2023 to 28,874 in 2024.

Successes and Achievements

- Implementation of two new blood group and antibody screening analysers.
- Validation of automated antibody titrations on the new blood grouping analysers.
- Laboratory participation in multidisciplinary major haemorrhage skills and drills sessions.
- Introduction of 28-week Group and Antibody Screen testing for all antenatal patients.
- Introduction of new fibrinogen concentrate product (Fibryga).
- Implementation of new back up blood stock fridge, blood issue fridge and reagent fridge
- Ongoing training and re-training of scientists for the on-call service
- Changeover from use of Coombs Anti-IgG only cards to Anti-IgG + C3d cards for antibody screen and identification
- Implementation of the Kelsius temperature monitoring system.
- Ms Aoife Reynolds Awarded 1st Prize on behalf of Blood Transfusion for a presentation on "Increased Blood

Product Use following implementation of the National PPH guidelines" in the research category at RISE 2024.

Plans for 2025

- Ongoing participation in multidisciplinary massive haemorrhage skills and drills training sessions.
- Go live with the use of automated antibody titrations on the IH500 blood grouping analyser.
- Verification of titre score method for patients at 28 weeks gestation who have received prophylactic Anti-D Ig, with the aim of reducing referrals to the IBTS for Anti D Quantitation.
- Continue with provision of training of scientists for the on-call service.
- Implementation of new back up plasma defroster.
- Introduction of the NHSBT Sp-ICE reporting system to allow laboratory access to NHSBT referral reports for fetal genotyping.
- Extension of the validity for neonatal emergency group O Negative red cell concentrate (RCC) in theatre from 5 to 7 days.
- Review and enhancement of the Electronic Crossmatching procedure.
- Investigation into the feasibility of providing Rhesus and Kell matched RCC's for all Rh c negative antenatal and women of childbearing potential at NMH.

HAEMATOLOGY

The haematology laboratory investigates blood disorders and plays a key role in the detection and management of anaemias, sepsis and coagulation disorders. Kleihauer tests are also performed to estimate fetomaternal haemorrhage.

Successes and Achievements

- Expansion of coagulation service to include Lupus anticoagulation testing.
- Procurement, interfacing and verification of an analyser for provision of an improved haemoglobinopathy screening service.
- Ongoing training and re-training of scientists for the on-call service.
- Dr Joan Fitzgerald Consultant Haematologist gave an invited lecture on Maternal Anaemia at the European Haematology Association Meeting, Madrid June 2024.

Plans for 2025

- Introduce in-house testing for haemoglobinopathy screening for adults and neonates.
- Improve haemoglobinopathy screening for antenatal patients to meet guideline requirements.
- Establish in-house HbA1c testing in collaboration with the Biochemistry laboratory.
- Enhance the management and analysis of results from the ROTEM haemostasis POCT analyser.

HISTOLOGY

The histology laboratory provides a diagnostic service in gynaecological and perinatal pathology, examining patient tissue from surgical procedures, outpatients, placentas and post-mortems. The laboratory also offers ancillary testing, including immunohistochemistry and special stains to provide further diagnostic evaluation.

Clinical Activity

During 2024 outpatient activity rose to a record level, impacting on turnaround times.

Successes and Achievements

- Expanded the in-house immunohistochemistry repertoire with the addition of Treponema pallidum, TTF-1, C3d and C4d.
- Introduced HER2/Chromosome 17 dual in-situ hybridisation assay for the classification of molar pregnancies.
- Procured new Leica CM1950 Cryostat for microtomy of frozen samples.
- Improved process flow by revising triaging criteria in placental examination.
- Renovated storage area for patient tissue archives.
- Engagement with Green Lab initiative.
- Continued participation in the NQAIS quality program.
- Continued participation in external EQA programs such as Nordi QC and NEQAS with added participation in the NEQAS Tissue Diagnostic Scheme.
- Contributed to the training of TUD Medical Science students.
- Expanded the role of Medical Scientists to include histodissection.
- Commenced training of Medical Scientists to assist with the perinatal post mortem service.

Plans for 2025

- Continue liaising with the Executive Management Team and the HSE Dublin South East (DSE) health region to seek appropriate facilities.
- Complete the introduction of the in-situ hybridisation assay for HPV detection.
- Expand the available voice recognition services.
- Plan the Regional Perinatal Pathology service for DSE, based in NMH.

MICROBIOLOGY

The Microbiology laboratory provides a routine bacteriology and fungal testing and molecular microbiology service for both The National Maternity and Royal Victoria Eye and Ear Hospitals. Surveillance reporting is provided for both hospitals.

Clinical Activity

Staffing constraints made 2024 a challenging year while maintaining service quality. Several internal process changes were implemented to ensure the continued delivery of a safe service with a reduced workforce. Changes affecting patient testing were kept to a minimum. The dedication of the Microbiology scientists was essential in achieving this, and their hard work and commitment are greatly appreciated. Thanks are also extended to the pathology and executive management teams for their support. Further to this, the ongoing re-evaluation of

Philip Clarke and Clodagh Cuniffe in the Biochemistry Laboratory with the new Analyser.

current testing services provided and updating them to better reflect current requirements continued. Surveillance reports were provided on MRSA colonisation, rectal screening, SARS-CoV-2 rates, influenza rates and blood stream infections to guide infection control.

Successes and Achievements

- Ms Nikita Kealy presented a poster on "Can Umbilical Cord Blood Improve Detection of Early Onset Sepsis in Preterm Neonates <34 Weeks Gestation" at the FIS/HIS conference in Liverpool, UK.
- Ms Anna McCormick and Dr Elaine Houlihan presented a poster on "Longitudinal Carriage of Antimicrobial Resistant Microorganisms in Preterm Neonates Gastrointestinal Tract" at the 2024 ECCMID conference in Barcelona, Spain and the RISE symposium, NMH.
- Ms Gwen Connolly presented a poster on "Introduction of the FilmArray Gastrointestinal Panel for Detection of Faecal Pathogens" at the 2024 RISE symposium, NMH.

Plans for 2025

- Apply for accreditation for a change in agar used for VRE growth and isolation, which will reduce turnaround time by 24 hours. Additionally, accreditation will be pursued for the introduction of Extended-Spectrum β-Lactamases (ESβL) screening in paediatrics.
- Verification of in-house testing for Chlamydia trachomatis, Neisseria gonorrhoeae, Trichomonas vaginalis and Mycoplasma genitalium testing on the Aus Diagnostics platform (currently performed in NVRL), with plans for introduction in 2026.

QUALITY MANAGEMENT

The Department of Pathology and Laboratory Medicine is committed to delivering the highest quality diagnostic and consultative services for all its users and to the implementation of The National Maternity Hospital mission statement. These commitments are defined within the Laboratory Quality Policy. The Department defines and audits the quality management system to ensure compliance with the ISO 15189 2022 standard.

Activity

The Department of Pathology and Laboratory Medicine was successful in transitioning to the updated ISO 15189:2022 standard across all disciplines in addition to being awarded an extension to scope for additional tests. By successfully retaining the flexible scope of accreditation system, the laboratory was able to provide an uninterrupted accredited service as quality improvement initiatives were introduced. The Laboratory submits an Annual Report for Blood Transfusion to the Health Protection Regulatory Agency (HPRA) documenting the activity for the previous year and reports of blood usage, wastage and planned changes within the department. The 2024 report was successfully submitted and accepted by the HPRA.

Successes and Achievements

The Laboratory will use the action plan from the established Annual Management Review, to improve our service to our users and provide better care for the patients of The National Maternity Hospital.

Plans for 2025

A Department of Pathology and Laboratory Medicine user survey will be conducted in Q1 2025 to assess service effectiveness and ensure it meets patient needs. An action plan will be developed based on the responses received.

SUSTAINABILITY

The NMH Laboratory is working towards achieving 'My Green Lab' certification.

Successes and Achievements

- Established a laboratory Green Committee.
- Initiated the process for 'My Green Lab' certification.
- Achieved 'Freezer Challenge' which focuses on energy savings by increasing temperatures of cryogenic freezers from -80 °C to -70°C.

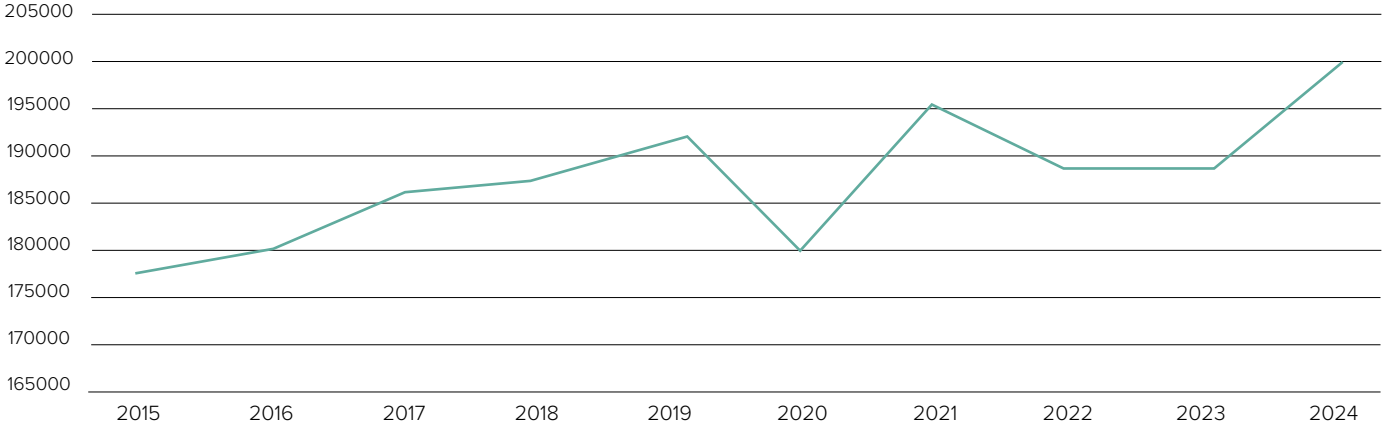
Plans for 2025

- Achieve 'My Green Lab' certification.
- Improving recycling and reduce packaging.
- Continue the 2025 'Freezer Challenge'
- Introduce sustainability training on induction of all new employees.

Damian Lally, Pathology & Laboratory Manager.

Dr Richard Liddy, Pathology Registrar.

Laboratory Requests



Pre-Assessment Clinic

The Pre-Assessment clinic was set up in June 2020. It has greatly improved the efficiency of the theatre service and reduced the number of patients who fail to attend for surgery thus improving cost effectiveness and reducing waiting list times. The nurse-led clinic is run by two Clinical Nurse/ Midwife Managers with support from an Anaesthetic Consultant and an Anaesthetic Registrar. The clinic is open five days per week and also facilitates a Consultant-led Obstetric High Risk Anaesthetic clinic on Tuesday and Wednesday afternoons.

> **"The objective of the pre-assessment clinic is to enhance the clinical care of patients by conducting timely assessments, identifying health issues and arranging prompt treatment."**

The objective of the pre-assessment clinic is to enhance the clinical care of patients by conducting timely assessments, identifying health issues and arranging prompt treatment. This leads to a reduction of cancellations, efficient use of time and resources on day of surgery and an enhanced patient experience.

Timing of appointments is arranged by theatre administrative staff after electronic referral is received and date for surgery is confirmed. Administration staff book a virtual appointment for all patients, ideally 4-6 weeks pre-operatively. The virtual appointment is phone call by a nurse/midwife to a patient to obtain medical, surgical, social, physical health and a medication review. This appointment facilitates a general discussion about their procedure and peri-operative journey. Advice and education is given on adequate preparation for their surgery and planning for the post-operative period. Patient information leaflets regarding surgery and general health information in preparation for surgery is sent to patient to support education. An assessment is made by the nurse at this appointment as to whether the patient needs follow up in the clinic, require other additional correspondence/tests, or to liaise with the multidisciplinary team to ensure that they are suitable and prepared for surgery. This virtual appointment may complete the pre-assessment for some patients, others will go on to have a follow up appointment in the clinic.

At the in-person follow up appointments general checks of blood pressure, temperature, pulse oxygen saturation and respirations are performed. Height and weight are recorded giving a BMI score. Blood tests, infection control screening and ECG tracing of the heart is performed as indicated. The patient can be reviewed by an Anaesthetist as required at this appointment. The telephone assessment and pre-operative advice is revised and any additional patient concerns are dealt with. Appointments in the pre-assessment clinic prepare patients for day of surgery admission, allay patient concerns, provide education and promote patient satisfaction. This ultimately reduces their hospital stay, promote recovery and reduce associated healthcare resources.

2,119 patients were assessed in 2024. On average less than 30% were in-person appointments and more than 70% were virtual appointments. The clinic anticipates that the number of virtual appointments will rise for 2025 in order to hopefully reduce some of the in-person appointments. Over the next year plans are in place to expand the service to include pre-assessment of LSCS with anaesthetic support. There will be a focus on development of patient information material to promote health and wellness for the peri-operative journey. The role of the nurse in the nurse-led clinics is also expected to expand to include nurse prescribing. The clinic has conducted surveys, audits and policy changes cognisant of recommendations made in the recently published 'Model of Care for Preassessment Clinics, 2024' and will endeavour to develop and expand these practices throughout 2025 guided by evidenced based practice.

Niamh Carney and Carmel Breen, Pre-assessment Clinic CMM2.

% Change from 2023 to 2024

Clinic Name	Number of Clinics Held	Attended	Telemed/ Telephone Attended	Total Attended	DNA Rate
Anaesthetic Clinic	+2.3%	+14.1%	+57.4%	**+30.2%**	+0.7%
Theatre Pre-Assessment Clinic	-0.5%	+11.2%	-96.6%	**-39.8%**	-2.5%
Pre-Theatre Telephone Clinic	+105.3%	0.0%	+116.0%	**+116.0%**	+0.8%

Central Decontamination Unit

The Central Decontamination Unit (CDU) is the area within the Hospital that all Reusable Invasive Medical Devices (RIMD) are re-processed. The aim of the CDU is to prevent a Healthcare Associated Infection (HAI) by ensuring patient equipment is available and sterile for use at all times. This is achieved through the following processes: Cleaning, Disinfection and Sterilisation. We are committed to the highest level of quality in the decontamination of RIMD. Sterility assured re-processing of RIMD is achieved through adherence with Decontamination Policies, Procedures and Guidelines.

All decontamination equipment is serviced and validated quarterly by external suitably qualified engineers, and all validation reports are sent to an external Authorised Decontamination Expert for review and sign off.

Activity levels continue to remain high year on year. In total 37,529 packs were sterilised in 2024; the increase is due to extra activity in Theatre, the commencement of an Outpatient Hysteroscopy Clinic and a new service introduce of sterilising Breastfeeding kits. The total number of packs sterilised since 2010 is shown in the graph below.

Quality/Risk

Following a more robust method of reporting, the total non-conformances for the year represented 2.7% of production: each non-conformance is recorded and a follow up action taken.

Chemical and Manual Handling Risk Assessments are reviewed annually.

Audits

The following audits took place during the year:

- Daily quality control audit
- Quarterly environmental monitoring
- Weekly automatic control test
- Monthly key performance indicators
- Monthly hygiene audits

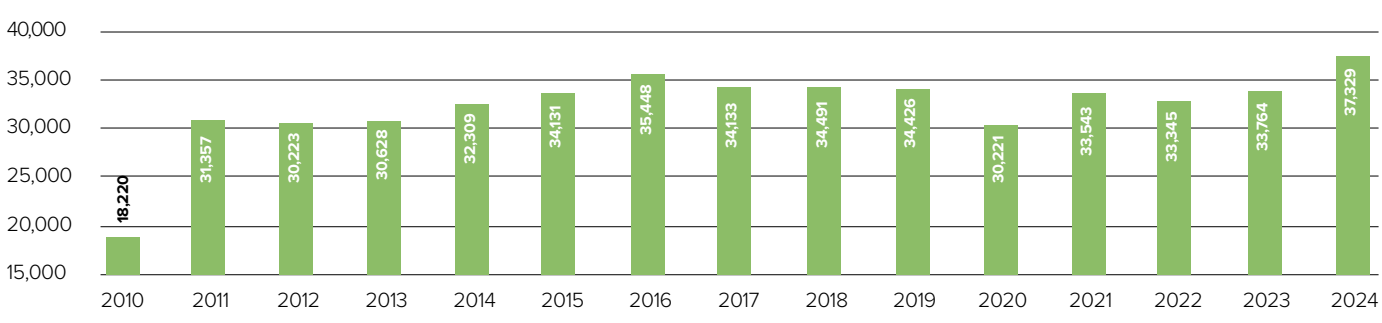
Infection Control

Four Environmental Monitoring audits took place in 2024 where we sampled the air and surfaces from all rooms and water from the reverse osmosis water treatment unit. The results were discussed at the quarterly Infection Control meetings and any remedial actions identified were implemented.

Pam Hutchings, CDU Manager/ Decontamination Lead.

Valentina Netotu, Central Decontamination Unit.

Number of Packs Processed 2019-2023



Quality, Risk and Patient Safety

The Quality, Risk and Patient Safety (QRPS) Department continues to strive to promote the highest standards of care throughout the hospital. 2024 saw several changes and developments.

Dr Anne Twomey, Director, and Laurence Rousseill, Clinical Risk Manager, both retired. We wish them well and thank them for their diligence and dedication. Fidelma Martin, Patient Safety Officer was promoted to CMM3 post. Martin Creagh was appointed as Senior Risk Manager, with responsibility for non-clinical risk management. Kim Ryan continues as Patient Safety Advisor and Vanessa Goldwater as Administrator. Rachel Irwin remains as Quality Manager, assisted by the two Patient Advocates, Jenny McCrea and Roisin Moran. Rachel is now one of the two review officers in the hospital for Level 3 complaints. These were previously referred on to the former Ireland East Hospital Group. Both Jenny and Roisin have also taken on the role of Designated Person, mandated under the HSE Patient Safety (Notifiable Incidents and Open Disclosure) Act 2023. This Act formally commenced on 26th September 2024. Dr Orla Sheil has been seconded to the Department as Director. The Department appreciates the administrative support provided by Patient Services to support Vanessa, particularly with the National Incident Management System (NIMS) reporting.

Clinical Incident Management

Significant development of the QRPS Clinical Incident Management System (CIMS) reporting mechanism on the Zoho platform took place during the year. The results are now becoming evident in terms of more efficient incident reporting and recording. 2025 will see the first full year of records on the new CIMS 3 console which hopefully will allow us to share our data clearly and graphically with both the regulatory agencies, HSE, HIQA, State Claims Agency, Obstetric Event Support Team (OEST) at NWIHP and also hospital staff. The need for onsite Zoho support has been recognised by the Executive Management Team (EMT) and a post has been advertised.

Clinical incidents are categorised and reviewed both within the Department and also at different internal multidisciplinary review meetings, such as Clinical Incident Review Group (CIRG) and the NMH Women and Neonates Serious Incident Management Forum (SIMF), depending on their category. The most significant incidents, Serious Reportable Events (SREs) are also reviewed externally at the HSE Dublin and South East Women and Neonates SIMF. This forum is attended by the OEST. Actions and learnings from these incidents are shared within the Hospital and also with regional and national authorities.

In 2024, 1,691 incidents were reported: 94 Category 1, 1,020 Category 2 and 577 Category 3. This number is similar to the previous year (1,634), though slightly different per category. The type of incidents in each category were reviewed resulting in some re-categorisation. Figure 1 shows the 2024 data compared with the previous two years.

Learnings from these incidents and reviews have resulted in many quality improvement projects and staff education sessions as outlined here:

Sharing the Learning through staff education, liaison and support:

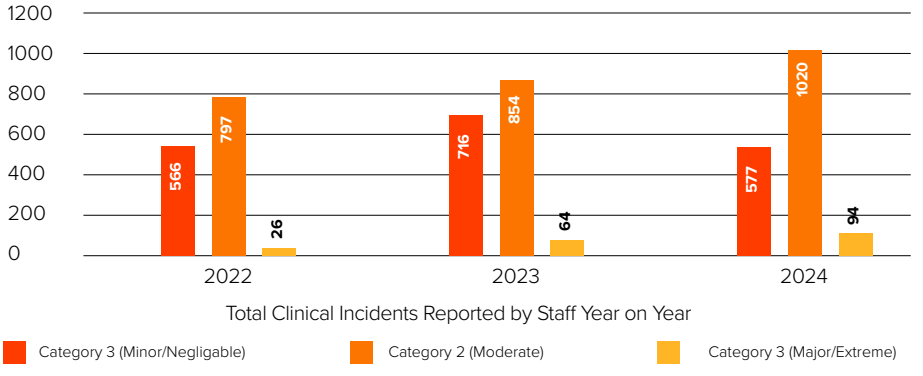
- Monthly 'Druggle' (in collaboration with Pharmacy colleagues)
- BRAVO Award (supported by EMT)
- After Action Review and Staff Debrief
- Antenatal Anaemia Log (pilot in OPD)
- Postnatal Discharge Summary Audit and QI Cards (in collaboration with our postnatal and community midwifery colleagues)
- 'Safety Crosses' (planned for Unit 4 and NICU)
- Monthly 'Learning from Incident Reporting' (across Hospital)
- Patient Safety Alerts (across Hospital)
- Q-Pulse Policies and new Pathways

The Hospital is compliant with the **HSE Patient Safety (Notifiable Incidents and Open Disclosure) Act 2023**. This requires mandatory reporting of, and open disclosure meetings for notifiable incidents as outlined in the legislation. The main requirements are summarised below. This process is coordinated and recorded by the QRPS department. It is a significant additional workload requiring resources which the EMT has supported.

Requirements:

- Notification of Notifiable Incidents to the relevant regulatory body (HIQA) within 7 days from when the health services

Figure 1: Incidents 2022-2024



provider is satisfied that a notifiable incident has occurred in the course of the provision of health services via the National Incident Management System.
- Appointment of a designated person.
- Open Disclosure Meeting.
- Written statement/record of the open disclosure meeting to be provided at the meeting or within 5 calendar days of the meeting.
- Record keeping throughout all stages of the process.

Legal protections apply automatically when open disclosure is managed in accordance with the legislation.

The QRPS Department fosters a strong culture of incident reporting by all staff. They are encouraged to report in a safe environment without fear of blame. The SCA has commended the Hospital for its high level of reporting, achieving a Grade A target.

The Hospital is also engaged with the SCA for its claims review process. The QRPS Department works closely with the Hospital's Claims Coordinator, Nicole Kennedy, who liaises with the SCA and follows each clinical claim from notification to resolution. There are currently 81 active claims. In 2024, 19 claims were resolved and 15 new claims notified.

Risk Registers

In line with the HSE Enterprise Risk Management Policy the hospital risk registers are regularly reviewed. Each department creates its own register and updates it as appropriate. Ownership remains with the head of each department. Where necessary, the more significant risks are escalated to the hospital corporate risk register. The operational risk registers are divided into clinical and nonclinical. A thorough review of the clinical risk register was undertaken throughout the year by Kim Ryan. Beginning in January 2024 the register contained 512 clinical risks. This has now been rationalised to 144 active risks with 35 yet to be reviewed. Martin Creagh has commenced work on the non-clinical register (345 risks) and hopes to rationalise this over the next year. Risk register reporting occurs to the Clinical Governance Executive Committee, Executive Management Team and various committees of The NMH Board.

Quality

The Quality team is responsible for many different work streams which include:
- Patient liaison (Advocacy, Complaints, Meetings, Patient Surveys both local and national)
- Quality Improvement Projects
- Quality and Safety Walk Rounds
- Q Pulse Administration and Support
- Audits (Internal and External e.g. HIQA)

They engage with our community partners and coordinate the GP liaison committee and the Patient Voice Advisory Group. They also convened the Annual NMH GP Study Day held in November 2024.

Patient feedback is essential for us to improve our quality of care. The hospital continues to receive significant positive feedback with a continuing Net Promoter Score (NPS) of 78. The NPS measures patient satisfaction. The hospital goal is to achieve >/= 40. A score of >/= 70 is graded excellent.

Negative feedback is responded to, preventing recurrence. Close liaison with complainants is a vital part of the process. While 2024 showed some increase in both written complaints and review requests, the Department had 99% compliance in dealing with complaints in the designated timeframe, see Table 1.

The quality team work hard to resolve as many of these as expeditiously as possible. The assistance of colleagues across the Hospital, by listening and responding to such patient feedback is essential and appreciated.

Table 1: Patient Feedback 2023-2024

	2023	2024
Complaints received	**93**	**135**
Written Complaints* Stage 2 Stage 1	 **73** **20**	 114 21
General Feedback	**22**	18
Information Requests	**11**	14
Debriefs	**9**	9
Complaints closed		
% closed within 30 days	**97%**	99%
Complaints locally resolved at Unit/ Department/Service level	**43**	33
Patient Meetings held	**15**	**19**
Requests to IEHG for further review incl. Stage 3 Internal Review (since Oct 2024)	5	8
Requests to Ombudsman for further review	2	0

**Stage 2 complaints are formally investigated and the patient is provided with a written response. Stage 1 complaints are resolved at the point of contact with the QRPS Department.*

Dr Eva Hartigan, Senior House Officer in Obstetrics & Gynaecology.

Q Pulse activity remained high. The Q Pulse tracker, recorded a total of 1,589 requests, up from 1,073 in 2023. These include document updates, formatting, passwords, individual training and HR requests for starters and leavers.

Staff Development

The NMH has always promoted and supported staff development and career progression. The QRPS Department teams have undertaken education in many different areas throughout the year. These have included After Action Review, Systems Analysis Review and Open Disclosure training, Risk Management and the SAFE (Situation Awareness For Everyone) programme. Fidelma Martin is in the second year of a Masters in Human Factors in Patient Safety. Martin Creagh is completing a Graduate Diploma in Healthcare (Risk Management and Quality). Rachel Irwin has graduated with a Postgraduate Certificate in Quality Improvement and Leadership in Healthcare. Dr Orla Sheil completed the RCSI Integrated Healthcare Leadership Programme. We are all very grateful to the EMT and HSE Dublin and South East Regional Health Authority for their support in these endeavours.

Finally, I would like to thank each and every member of the QRPS Department for their hard work, professionalism and collegiality. I hope 2025 will bring further progress in the Department and look forward to working with the EMT and the QRPS Committee of The Board of the Hospital in this regard.

Dr Orla Sheil, Director QRPS Department.

Health & Safety

The National Maternity Hospital Health and Safety Department is dedicated to ensuring the safety, health and wellbeing of all our patients, staff, visitors and contractors. This is achieved by promoting a positive and pro-active safety conscious culture to ensure a safe environment and place of work in line with best practice for all our patients, staff and visitors.

Three hundred and twenty-three individuals attended twenty three Health and Safety Training sessions during the year which were favourably received by all. The induction program for staff is further complemented by the mandatory study day which is open to both clinical and non-clinical staff. This runs online regularly throughout the year and ensures all staff have an opportunity to refresh their health, safety and emergency procedures awareness. In addition, online training is also available for staff, through the NMH e-learning platform Totara and HSELand.

Fire Safety Consultants provided training for thirty-seven of our fire wardens in 2024. The Hospital liaises closely with the Dublin Fire Brigade and the Emergency Services during trial evacuations. Staff were involved in the main mock evacuation conducted in July, there were over six hundred and sixty three participants including patients and staff. The emergency stair climbing wheelchair was used to simulate an urgent transfer of patient to Theatre from Triage during this evacuation. Ski sled and patient hoist awareness training is also provided during manual handling sessions.

There were thirty-three Manual Handling training sessions conducted by the manual handling team in 2024 and two hundred and twenty-five staff were recorded as attending. Of these, twenty-three were scheduled and ten additional sessions were organised to facilitate individual key departments/cohorts of staff. The upgrading of the current bed stock has improved the ergonomic environment for nursing staff and is in line with the minimal manual handling policy of the Hospital.

Contractor Management remains a key focus area especially in light of recent developments. Additional minor capital projects undertaken improve site facilities and patient safety in the long term. These additional construction projects require the effective implementation of contractor management controls. Managers and our contractors work together to ensure safe systems are in place and are working effectively.

The Annual Accident Review was conducted and there were a number of initiatives during the year to raise staff awareness of these hazards. All staff are engaged in working proactively with managing these risks to ensure a safe working environment for all our patients, visitors and staff.

Sincere thanks to all employees proactively working as a team to improve the safety culture within the Hospital. Thanks also to all members of the Quality, Risk, Health and Safety Committee which met on nine occasions during 2024 and thanks also to the Safety Representatives, Manual Handling Trainers, Support Services Teams, Nursing & Midwifery and clinical teams.

While 2024 was a busy year, it is likely that 2025 will be more challenging given the current facilities constraints, scheduled projects and current financial environment.

Martin Creagh, Health & Safety Officer.

Baby Gearoid Phelan.

The Maternal and Newborn Clinical Management System

Sive Cassidy, MN-CMS CMM3 with Sofia Danos, Student Midwife.

The Maternal and Newborn Clinical Management System (MN-CMS) is the Electronic Health Record (EHR) in use in the National Maternity Hospital. It is a national EHR covering maternity, newborn and neonatology, gynaecology and colposcopy services thereby providing a paperless EHR for the whole Hospital. The ethos of MN-CMS is 'patient centred, clinically led' and the NMH MN-CMS team work closely with the HSE National MN-CMS Team, HSE Technology and Transformation Team and the other participating maternity hospitals to support, manage and upgrade the system.

Apart from patient documentation, MN-CMS enables medication prescribing and administration, ordering and viewing laboratory investigations and electronic communication with general practitioners. It also interfaces with other specialist systems such as Fetal Cardiotochograms (Fetalink), Theatre (Periop Doc) and Anaesthetic records (SN Anesthesia), Ultrasound (Viewpoint), Colposcopy (Mediscan) and the Patient Management System (IPMS).

The MN-CMS Department, along with Oracle Cerner Application Managed Services (AMS), supports the 24-hour availability and usage of the system and ensures the most efficient use of the electronic chart so both the patient and healthcare providers get the maximum benefit from the system.

Creating and maintaining user access as well as user training are essential functions of the Local Back Office (LBO) in NMH. MN-CMS training is provided in our state-of-the-art computer training facility. All new and returning users require training and in 2024 the team has trained 370 staff, including doctors, midwives, nurses, health and social care professionals, medical scientists, students, healthcare assistants, ICT and administration staff to use MN-CMS.

The system uses role based access, providing users with access only to parts of the chart that are required to fulfil their role. The majority of staff receive training on-site and attend in-person for between 2 and 6 hours, depending on their role. Users who are given read-only access for the purposes of research are required to complete a module on HSELand.

The MN-CMS team provide support by phone and email as well as in-person support which are all essential parts of any large electronic system. Pager, phone and 'at the elbow' support is available Monday to Friday, while phone support, provided by Oracle Cerner AMS available out of hours. The local team also provide cover outside of core working hours for any planned downtime or upgrade to the system.

One of the great challenges of healthcare is routine data collection and a concise but complete record of care. This documentation serves as an integral measure of care quality, and improvement of documentation is a primary focus of the MN-CMS Local Back Office (LBO). Throughout 2024, the team have undertaken detailed daily and monthly data quality monitoring in order to set and maintain good quality standards of documentation.

In 2024, the team continued to release MN-CMS Dashboards in collaboration with the Information Department. The NMH Dashboard is released monthly and shows information about births in the hospital for the previous month, including total births, Mode of Delivery, Patient Category and various other interesting pieces of information. The Dashboard is emailed to all staff and is displayed on information screens in the hospital for all to see. MN-CMS Dashboards allow staff to view high level information about activity levels in the hospital and feedback has been very positive, especially from non-clinical staff members who previously may not have had access to such information. As information collected in MN-CMS is shared more widely, the benefits of electronic data capture and dissemination are being realised. The team also releases additional information dashboards focusing on specific areas within the hospital, such as the NICU, Emergency Department, Antenatal Education and DOMINO care in conjunction with those departments.

"One of the great challenges of healthcare is routine data collection and a concise but complete record of care. This documentation serves as an integral measure of care quality, and improvement of documentation is a primary focus of the MN-CMS Local Back Office (LBO)."

Our Electronic Health Record is constantly being upgraded and improved and in 2024 the Team were involved in planning for a 2025 upgrade to Cloud CareAware iBus® for BMDIs (Bedside Medical Device Interface). Numerous other updates to MN-CMS took place in 2024 to enhance function and usability of the EHR. These included new consults, changes to tracking boards, new Growth Chart for Down Syndrome, facilitating changes to reflect new policies and guidelines, changes to support the national RSV immunisation rollout and many other modifications to the system.

Alongside this, and throughout 2024, extra build and new features have been proposed, agreed, built and tested in preparation to add two new MN-CMS Maternity Hospital sites in 2025. When operational in the new sites, 70% of all births in Ireland will be recorded on MN-CMS.

The MN-CMS Team continue to work at a local level and in collaboration at a national level and look forward to being able to facilitate greater enhancements in the future, dependent on clinical priorities, national agreement and available resources. The MN-CMS Team continues to work with all areas of the hospital to get the most from our electronic health record. Our aim is to support and guide users on every aspect of MN-CMS to achieve the maximum benefit for our patients and us all as healthcare providers.

Sive Cassidy, CMM3 MN-CMS.

Occupational Health

Prof Shane Higgins, Master, Jennifer Fitz Gerald, Occupational Health CNS and Prof Fionnuala McAuliffe, RISE Committee Chair and Consultant Obstetrician & Gynaecologist. Jennifer was awarded second prize for her project titled 'Bone Density Screening.JPG

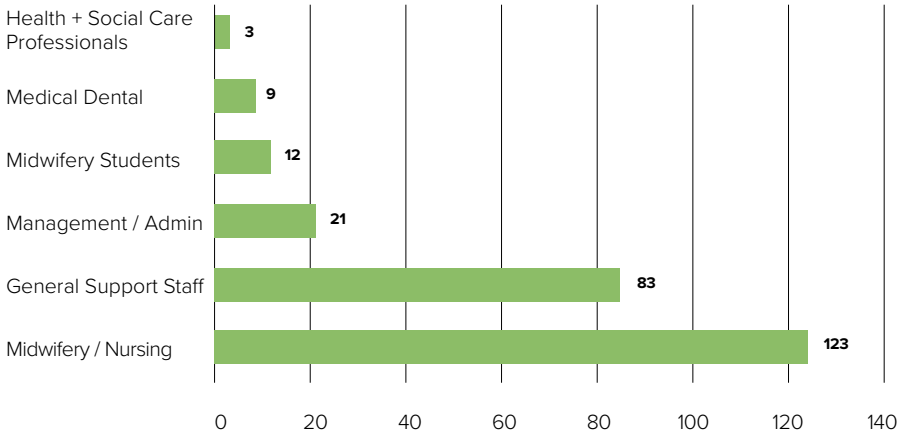
The Occupational Health Department contributes to a safe and healthy environment for both staff and patients at The National Maternity Hospital by providing a proactive service to all staff. The Department is comprised of one full-time Occupational Health Nurse, one Consultant Occupational Health Physician that has one session per week, and one Administrative Support.

The key services provided include pre-employment health assessment, sickness absences review, vaccinations, management of occupational bodily fluid exposure (OBE's), pregnancy risk assessment, skin surveillance, occupation injuries, ergonomics assessment and staff support and counselling.

In June 2023 the Occupational Health Department offered a bone density screening for all female staff over 50 yrs of age and the uptake was high. In April 2024, we presented our findings at the Research and Innovation Symposium Exhibition (RISE) and received 2nd prize in the innovative care pathways. The main findings of this study highlighted that offering Bone Density screening provided a great opportunity to meet staff within the Hospital who may never otherwise engage with the service, and by identifying those staff with osteoporosis and osteopenia, advice can be given early.

There was over 250 appointments with the Occupational Health Physician.

Occupational Health Referrals



Referrals came from all categories within the hospital. See graph below. Many staff have huge challenges both professionally and personally in their lives. The Occupational Health Department provides a confidential service where staff can talk if they need support or help to guide them in the right direction, this helps contribute to keeping staff at work.

It was another busy year with the winter vaccination campaign. NMH staff were offered a joint Flu and Covid-19 vaccinations on a two day roll out in October and weekly flu clinics and occasional Covid-19 vaccination clinics thereafter. The Covid-19 vaccination was received by 35% of staff, placing NMH as the highest hospital for uptake in the Dublin & South East Acute Hospitals and 74% of staff have received Flu vaccination 2nd highest uptake. 197 staff tested positive for Covid-19 seeing a significant drop from the previous year of 312.

Jennifer Fitz-Gerald, CMM2 Occupational Health.

Infection Surveillance, Prevention and Control

The Infection Prevention and Control (IPC) team work alongside other healthcare staff to ensure that all measures are taken to reduce and prevent healthcare associated infection through education, audit, surveillance, consultation, posters, leaflets and the development of policies/ guidelines. Antimicrobial stewardship and minimising development of antimicrobial resistance is a key goal of the IPC team.

The team contributes to multi-disciplinary committees including Infection Prevention and Control Committee, Drug & Therapeutics Committee, Quality Risk & Patient Safety Committee, Decontamination Steering Group, Hygiene Committee, Sepsis & IMEWS Committee, NMH Audit Steering committee, and Clinical Governance Executive.

Clinical Outcomes

Sepsis and Septic Shock
(Maternity and Gynaecology)

- Eight women developed maternal sepsis in 2024 (1.21 per 1000 mothers delivered compared to 0.89 in 2023, 1.03 in 2022, 0.52 in 2021 and 0.83 in 2020).
- One woman developed septic shock and seven had sepsis.
- Two sepsis were intrapartum term deliveries. Six were following deliveries at 12, 33, 37, 38, 39 and 40 weeks. All women survived.
- No gynaecology patient developed sepsis.
- The organisms identified were E. coli (4) and one each of Staphylococcus aureus, S. lugdunensis, polymicrobial infection and no organism identified. Only two were associated with blood stream infection.

Blood Stream Infection (BSI) and Meningitis:
(Neonates)

- The rate of neonatal early onset group B streptococcal (GBS) disease was zero per 1000 births in 2024 compared to 0.87 in 2023, zero in 2022, 0.38 in 2021, and 0.27 in 2020.
- The rate of neonatal laboratory confirmed early-onset sepsis was per 0.44 per 1000 births in 2024, compared to a rate of 1.45 in 2023, 0.57 in 2022, 0.64 in 2021 and 0.27 in 2020.
- There were 12 neonatal healthcare associated, late-onset blood stream infections in 2024; Four coagulase negative Staphylococcus, 7 gram negative bacilli and 1 Bacillus cereus.
- Two infants were diagnosed with meningitis in 2024. Both were late onset; 1 Enterovirus and 1 VAD-associated CONS.

Adults:
There were 24 BSI in 2024, 4 of which occurred during the antenatal period, 6 intrapartum, 13 postnatal and 1 gynaecology patient. Causative organisms were E.coli (10), Streptococcus species (4), E.faecalis (3), Group B Streptococcus (2), Anaerobe (2) and one each of Klebsiella pneumoniae, P. mirabilis and polymicrobial. Nine (37.5%) were healthcare associated infections (HCAI).

Device Associated Infection, Surgical Site Infection and Clostridium difficile

- The central line associated blood stream infection (CLA-BSI) rate in the NICU was 1.04 per 1000 catheter days in 2024 compared to 2.02 in 2023, 2.14 in 2022, 5.37 in 2021 and 2.9 in 2020.
- The ventilator associated pneumonia rate in the NICU was 4.65 per 1000 ventilator days in 2024 compared to a rate of 1.5 in 2023, 1.93 in 2022, 3.45 in 2021 and zero in 2020. (increase possibly due to two chronically extremely premature babies who required a more prolonged period of ventilation)
- The CS-SSI was 6.09% in 2024; 5.15% following elective CS and 6.93% following emergency CS. This compares to 5.57% in 2023; 4.95% following elective CS and 6.12% following emergency CS.
- There was 1 case of Clostridium difficile infection in 2024, which was a community acquired case.

Multi-Drug Resistant Organisms (MDRO)

- There were no MRSA bloodstream infections (BSI) in 2024.
  - MRSA was detected in 9 infants. Of these 9 infants, 2 were acquired from the mother; two were acquired in the NICU and 5 were colonised on admission to NICU.
  - MRSA was detected in 55 adult patients. Eight developed an MRSA infection and 47 patients were colonised. Forty-nine were community-acquired MRSA, 1 was from an undetermined source and 5 were HCAI from other hospitals.
- There were 2,855 CPE screens in 2024. There were 2 CPE cases identified in 2024, 1 in an adult and 1 in a neonate, both of which were colonisation.
- There was no vancomycin-resistant Enterococcus (VRE) BSI in 2024. There was no VRE detected in neonatal patients.
- In the neonatal unit, 8 infants were colonised with gentamicin resistant gram negative bacilli, 19 with ESBL and four with gram negative bacilli that were both ESBL and gentamicin resistant.

Respiratory viruses

- There were 47 cases of Influenza in 2024; 37 Influenza A and 10 Influenza B, all in adult patients. One case of Influenza A was a co-infection with SARS-CoV-2 and one was a co-infection with RSV
- There were 4 cases of RSV in 2024; all in adult patients; one was a co-infection with Influenza A.
- Twenty-one patients tested positive for SARS-CoV-2 in 2024; one was a co-infection with influenza A. All cases were in adults. Three were HCAI.

Dr Susan Knowles, Consultant Microbiologist, Ludmila O'Toole, Administrator, Bronwyn Redmond, CMM Infection Prevention and Control, Shideh Kiafar, Assistant Director of Midwifery & Nursing / Infection Prevention and Control, Louise Delany, Antimicrobial Pharmacist

IPC Audits and Education

- Hand Hygiene
  - 465 of clinical staff (88%) were certified for hand hygiene training. 67% of clinical staff are certified for infection control training for nurses and midwives online module.
  - Hand hygiene audit:
  - The compliance rate for the annual hand hygiene audit in 2024 was 91%. The compliance rate for the barrier to hand hygiene audit was 84%. Barrier to hand hygiene refers to wearing rings, watches, fitbits etc.
  - Compliance rate for Peripheral Vascular Catheter care bundle is 95% and for Urinary Catheter care bundle is 96%.

Annual Audits:

- GBS Flagging: 1,108 patients were positive for GBS. 61% of them were flagged in electronic health record. 26% of the not-flagged charts were categorised as medical which does not trigger the flagging.
- GBS Risk Factor audit: 90 patients were audited. Compliance with asking the history of GBS was 83%. 7% of patients whom the history was asked, were GBS positive in their previous pregnancy.
- GBS Screening for Penicillin Allergy: 6-month audit of practice shows 75% compliance, GBS positivity rate for those screened is 23% of which 22.5% were clindamycin resistant.
- MRSA Audit: 259 pregnant patients who are identified as a Healthcare Worker were included in this audit. 94% of them were screened for MRSA before delivery. 7% of those tested were positive for MRSA.
- *Chlamydia trachomatis* annual screening audit in antenatal women <25 years' old at booking: 399 women were eligible to be tested, 94% were tested and 7% were positive.
- CPE risk factor audit: 222 charts of the patients were randomly audited for CPE risk at the booking assessment. 84% of the patients were assessed for CPE risk. Of 2.7% who were eligible to be tested for CPE, 67% were tested and all were negative for CPE.
- Water outlet usage audit: Weekly flushing regime was reduced from 311 outlets to 25. This reduced water flushing usage by 88-90% with estimated cost savings of €4,156.
- Genital *Herpes simplex* audit of 2023 lab positive cases: 10 adults, 2 neonates. RCOG/BASHH guidance discussed with clinical leads. Antimicrobial app updated. Educational sessions, feedback given to NCHDs, midwives/nurses.
- Obstetric transfers: 74/103 patients who were transferred to NMH from other facilities, required MRSA & CPE screening. Compliance was 67.5%. 3/65 patients who were transferred from NMH to other facilities, required isolation. Compliance with informing the receiving facility was 100%.

- Neonatal transfers: Compliance with MRSA & CPE screening for 72 neonates admitted from other facilities to NICU is 100%. Compliance with patient placement is 93%. 86% of transfers could not be isolated for medical reasons. 10/143 neonates transferred from NICU to other facilities, were positive for a transmissible microorganism. All receiving facilities were informed of isolation requirements in advanced of the transfers.

Antimicrobial Stewardship

The Health Protection Surveillance Centre (HPSC) data collection of antimicrobial consumption was suspended in 2024 due to software issues, data validity concerns and limited resources. The decision on how to proceed/ new system for use will be commenced in 2025. As such, the 2024 data is currently unavailable and this report will focus on consumption data results for 2023, which were not reported in the 2024 report.

Overall, our consumption for 2023 was 35.14DDD/100BDU which was up from a figure of 33.63DDD/100BDU in 2022. These results show a rise of 4% in our overall antibiotic consumption in 2023 compared to the previous year, however consumption is still in line with pre-pandemic usage. DDD: Defined Daily Dose. BDU: Bed Days Used.

The National Point Prevalence Survey (PPS) was conducted in October 2024. The overall prevalence of antimicrobial use for patients on day of survey for 2024 was 21%.

Data review examining prescribing of meropenem in 2024 identified that a total of 27 patients were prescribed meropenem (9 adults and 18 neonates). All prescriptions for carbapenems were approved by microbiology or in line with antimicrobial guidelines.

Five audits or prescribing reviews were conducted to assess adherence to AMS guidelines (Pyrexia in labour audit, Surgical antibiotic prophylaxis prescribing audit, National PPS, Carbapenem prescribing, Sepsis audit).

Achievements

- Infection control audits including management of genital herpes.
- Audit of water outlet flushing and usage – focus on Legionella management and sustainability.
- National point prevalence survey (PPS) on antimicrobial use.
- Surgical antibiotic prophylaxis audit and update of guidance.
- Maintain microbiology laboratory ISO15189 accreditation to revised standards.
- Commence green laboratory accreditation process and complete freezer challenge

Service Development Plans For 2025

- Maintain surveillance, audits, education, training, policies, guidelines, leaflet updates & newsletters.
- Focus on sustainability in infection control, laboratory and pharmacy.
- Participate in national PPS on antimicrobial use.
- Audit of restricted / reserve antimicrobial use.
- Publish research regarding Multi-Drug Resistant Organisms (MDRO) in NICU
- Second consultant microbiologist for NMH/RVEEH - carried forward from 2023 plans
- Introduction of ICNet – carried forward from 2023 plans

Dr Susan Knowles, Consultant Microbiologist.

We won the award for the best poster presentation at the Annual Sepsis Conference 2024! Our colleague Lavanya Lakshmanan, Clinical Skills Facilitator, made the poster and presented it on behalf of the NMH Sepsis & IMEWS Committee.

Haemovigilance

The main aim of Haemovigilance is to promote safe and effective transfusion practice in The National Maternity Hospital. Compliance with Blood Transfusion quality standards is a key performance indicator of transfusion safety for patients. The service participates within the overall Laboratory Quality Management system. There is one whole-time Haemovigilance Officer (HVO) and 0.4 Consultant Haematologist providing the service.

Successes / Achievements / Reports

- INAB (ISO 15189) Accreditation against the new standards achieved for 2024 (Audits/Quality/Guidelines/Education/Reporting/CPD)
- 100% Traceability of blood components and products as required by European Blood Directive 2002/98/EC
- 10 reports were filed to National Haemovigilance Office (NHO) in 2024 (1 Mandatory, 2 non-mandatory and 7 WBIT)
- The root cause analysis of adverse events and implementation of preventative action contributes to safety within the blood transfusion process.
- Continued participation in internal multidisciplinary clinical team in the implementation of the National Clinical Effective Committee (NCEC-29) guideline for life threatening intraoperative haemorrhage and the National Post-partum Haemorrhage (PPH) Guidelines.
- Attendance and participation at the Blood Transfusion Committee & PPH/Anti-D prophylaxis and quality (QMT & QA) committees
- The HVO and Consultant Haematologist participated in education events as part of CPD

Mandatory Haemovigilance Education Programme

- Use of online e-learning platform 'Totara' for NCHD Induction was successfully continued in 2024
- Use of 'NMH guide to Haemovigilance' in Totara and 'Essential Transfusion Practice' in HSE Land was continued for Midwifery/Nursing staff and Midwifery Students.
- Delivery of targeted haemovigilance education to other staff groups (Care Assistants and Portering staff) involved in the transfusion chain process

> **"We receive the necessary data on completion of haemovigilance education by staff from HR, Midwifery/Nursing Education, Administration and Portering services departments. This data is used to assess compliance rates. The use of Totara system has greatly contributed to monitoring haemovigilance education compliance rates."**

We receive the necessary data on completion of haemovigilance education by staff from HR, Midwifery/Nursing Education, Administration and Portering services departments. This data is used to assess compliance rates. The use of Totara system has greatly contributed to monitoring haemovigilance education compliance rates.

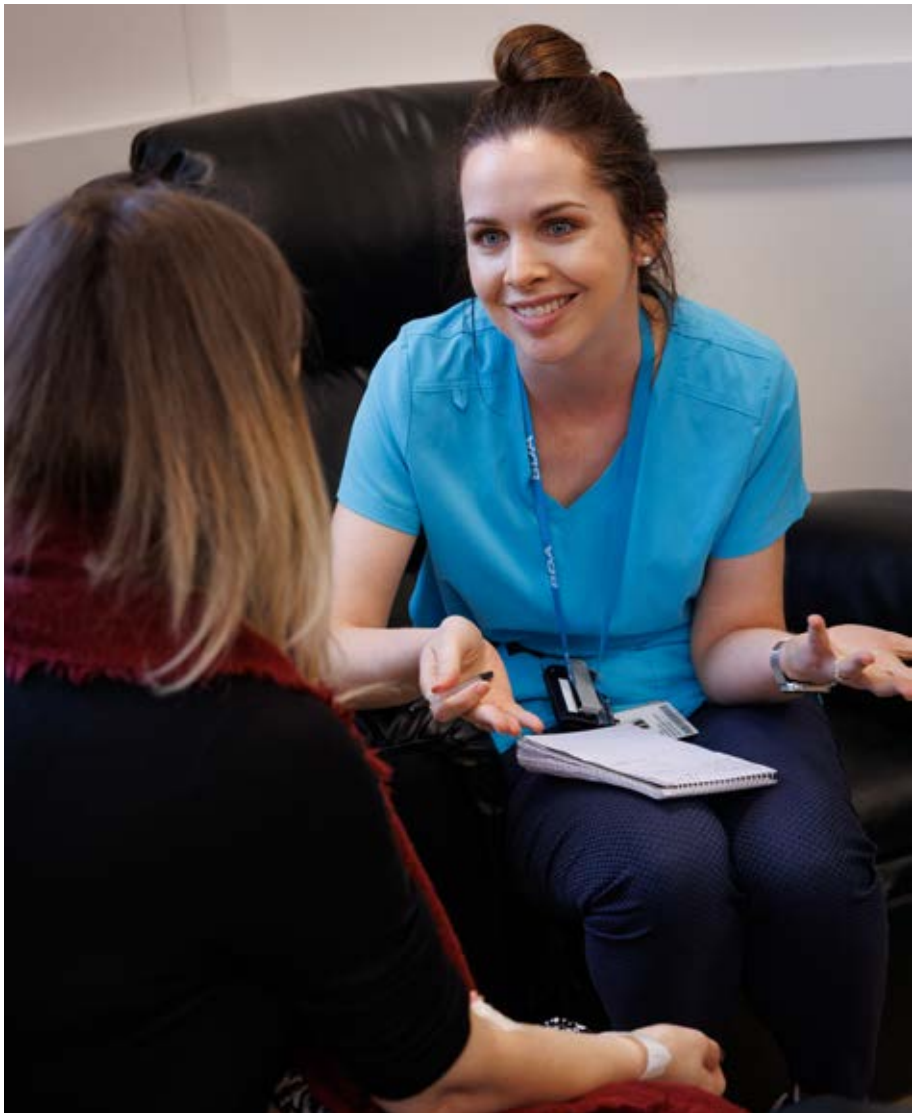
Specific blood track training for blood track users (L1) is continued with thanks to local L2 Trainers (CSF/Senior Midwifery staff) (train the trainer- L2 trained by HVO). Staff are enabled on the database by HVO which allows access to the controlled blood fridges.

Plans for 2025

- Maintain ISO15189 (INAB Accreditation)
- Various policies to be reviewed/written and updated
- Participation in the National Transfusion Advisory Committee (NTAG) working groups (Patient Blood Management, Life Threatening Haemorrhage, Neonatal Components, Regional Transfusion Committees, Haemovigilance Special interest group (HV/SIG)
- Promote the appropriate use of blood and blood products and to continue participation in implementation of the NTAG guidelines
- Continue to monitor transfusion practice
- Continue to monitor mandatory haemovigilance education compliance

Bridget Carew,
Haemovigilance Officer.

Clinical Nutrition and Dietetics



Niamh Gilmartin, Senior Dietitian in the Iris Clinic which supports patients with Hyperemesis Gravidarum.

The Department of Clinical Nutrition and Dietetics provides a dietetic service for patients under the care of maternity, neonatal and gynecology services. This service is delivered using telehealth (phone and video) and in-person consultation and classes as appropriate, and incorporates relevant technology to support a range of nutritional interventions for women and babies.

Our Dietetic Assistant (Sarah Browne) moderates online classes and groups, supports dietetic interventions in multidisciplinary clinics, assists with data management and implements health promotion activities for pregnancy and for NMH staff through Healthy Ireland. Our Administrator, (Helen McCrimmon) also supports the diabetes service and coordinates Healthy Ireland activities.

Our first UCD BSc Human Nutrition students completed their 3rd year 10 month practice placement and research projects with the Department in June (Katie Caffrey and Mia Grehan), and a further 2 began in September (Ailbhe Harrington and Anna Moran). Two MSc Dietetics students were supervised on their clinical practice placement in Oct\ Nov. Sinéad O'Donovan finished her contract as Entry Grade Dietitian in December 2024 and we thank her for her contribution and wish her well in future endeavors.

Maternity, Diabetes, Gynecology

Despite changes in activity overall in recent years, a notable theme for our service in 2024 was the complexity of cases referred and the high proportion of women requiring dietetic input during pregnancy. This resulted in 2,369 unique patients consulting with a dietitian which is comparable with 2023 data (n=2,306) (Chart 1) Complexity increases the intervention rate and activity increased accordingly by 16% over 2023 figures, to 6,671 contacts. (Table 1)

High BMI, obesity or excessive weight gain was a significant reason for referral to our service. (Table 2) Attendance rates improved over 2023 figures, and there was an increase in the numbers of women referred with a BMI >40kg/m2 and >50kg/m2. Pregnancy post bariatric surgery (n=47 new patients) remained a priority alongside other complex conditions such as inflammatory bowel disease. A number of women were referred having conceived while on GLP-1 inhibitors such as semaglutide (Ozempic, Wegovy). This is a new development and the impact of these drugs on pregnancy is as yet unknown. In March, Sarah Louise Killeen co-ordinated a multidisciplinary symposium at the NMH on Caring for Women with Obesity in conjunction with the Association for the Study of Obesity in Ireland (ASOI) and the Irish Coalition for People Living with Obesity (ICPO), with an emphasis on addressing obesity stigma.

We also saw an increased number of women referred due to low BMI or inadequate weight gain (n=105), with a high proportion of those being for weight <50kg (n= 52/105) at time of referral.

Eating disorders such as anorexia nervosa, bulimia nervosa and binge eating disorder doubled as a reason for referral (n=33), separately from referrals for low BMI. These cases require sensitive, timely and comprehensive support, and close collaboration with the Perinatal Mental Health team is essential.

Hyperemesis Gravidarum (HG) support was provided by dietitians through the IRIS Day Clinic, and a successful weekly online group for women with Nausea and Vomiting of Pregnancy (NVP) has helped to manage the numbers of referrals more efficiently. HG remains a significant reason for referral.

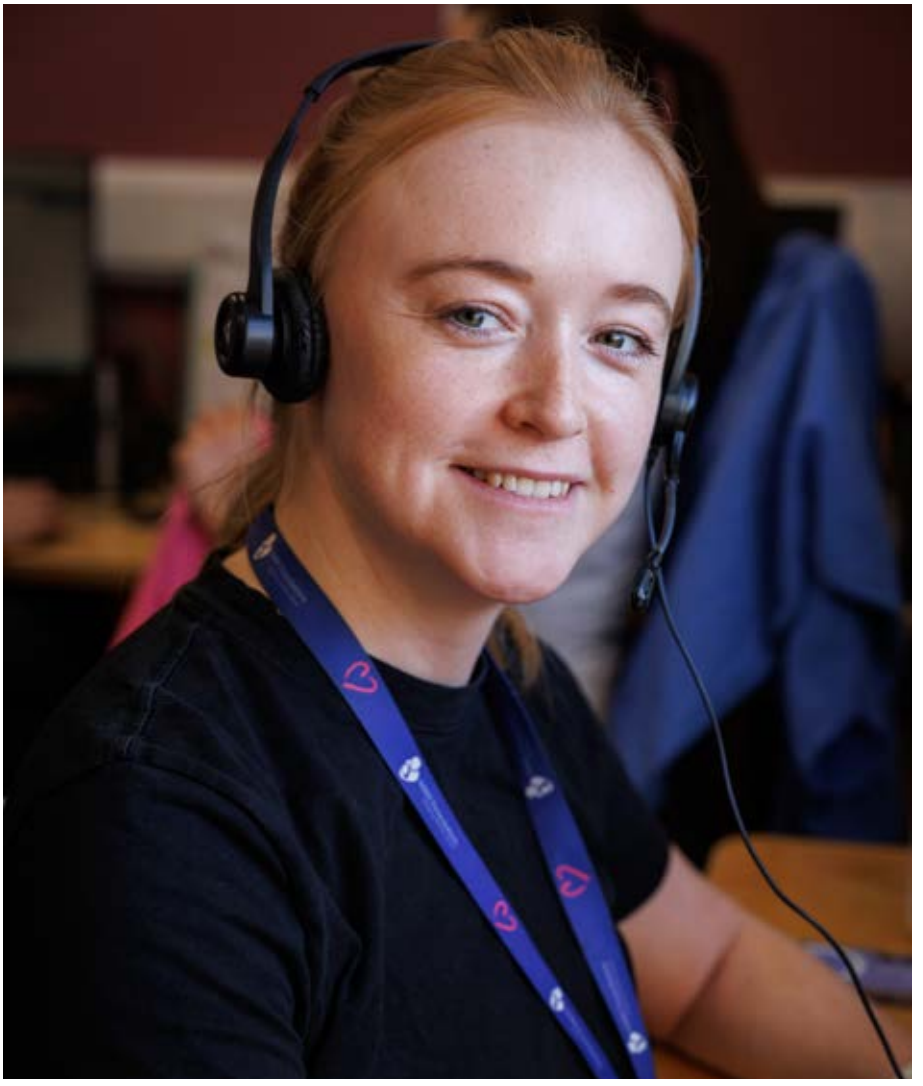
Service to the adolescent gynecology clinic and to adolescents attending the obstetric Daisy Clinic is prioritized due to the nutritional vulnerability of this age group, though numbers remained low. The team also continues to work closely with the Medical Social Work team to support women with complex social situations, such as homelessness, drug addiction those and seeking international protection.

Women who develop Gestational Diabetes (GDM) need advice on dietary modification as their first line of treatment. It remains the most common reason for referral to dietetics (n=505). Evaluation of the service showed that 38% needed pharmacological treatment for GDM (n=195) which is higher than in previous years, and involved more comprehensive dietetic support. Dietetic data suggests that increasing BMI is a factor and an analysis of this will be presented in 2025. A higher number of women with type 2 diabetes booked with NMH than previously, and the use of wearable diabetes management devices increased in 2024, with more pregnant women with type 1 diabetes using advanced glucose monitors and insulin pumps (15/43). This area holds great potential for improvement in management of blood glucose control through appropriate use of technology and dietary interventions, but requires a high degree of professional skill to support. Further data is presented in the Diabetes report.

We continue to work with antenatal education to support maternal nutrition through the Wellbeing in Pregnancy online classes, the NMH e-learning hub on the hospital website, via regular updates on our Instagram page @Hollestic and through our meal planning and recipe app, 'Hollestic', which is available to download free of charge. The app underwent a technical update in 2024 and remains popular, data indicating that it is widely used throughout Ireland, and as far afield as Australia and Canada.

Neonatology

The focus of dietetic attention continued to be on babies with complex nutritional needs in the Neonatal Intensive Care Unit (NICU), the majority of whom were born very preterm or with a very low birth weight or with other clinical issues affecting nutrition, feeding or growth. The total number of admissions to the NICU was 1,242 (1,167 first time admissions) which is an increase from 1,202 (1,028 first time admissions) in 2023. The dietetic team



Sarah Browne, Dietetic Assistant, in the Telehub.

works within the neonatal multidisciplinary team and enjoys close collaboration with our neonatal therapy colleagues. Following the success of our online parent class on the topic of 'Introducing solid foods and textures for babies post discharge from the neonatal unit' which started in 2023, we introduced a second multidisciplinary class on 'Feeding your baby post discharge from the neonatal unit' in June. This is a joint collaboration with our Speech and Language Therapy colleague, Zelda Greene, and Neonatal Lactation Clinical Midwife Manager 2, Ramita Dangol. The class is offered fortnightly online. Over the first 7 months there were 11 classes and 24 parents attended. While the feedback has been positive, attendance has been low (29% of invited parents) and attention is focusing on improving this through a quality improvement model incorporating Plan Do Study Act (PDSA) cycles that will include a parent survey and promotional campaign.

Our PRIME (PReterm Infants need Milk Early) and PRIME-B (-Breastfeeding) multi-disciplinary initiatives supporting maternal milk provision and breastfeeding continued, with attention extended to the post discharge period. Data captured in 2024 for the cohort of babies born ≤31 weeks' gestation or ≤1.5 kg birthweight, showed that the rate of any breastfeeding post-discharge home increased from 33% in 2018 to 66% in 2023; while the rate of breast milk feeding post discharge to home increased from 59% in 2018 to 68% in 2023.

In our audit of nutrition and growth amongst babies born very preterm or VLBW (n=120 in 2024), for the cohort of inborn babies (n=102) who received feeds (n=98), the number who received maternal milk remained high at 99% (n=97); and for those who received oral feeds (n=72), the number who breastfed during their time in the NICU was 71% (n=51). This was a decrease from 74% in 2023, but compares well with the breastfeeding rate reported for the hospital as a whole and reflects the huge effort by all involved.

The use of parenteral nutrition (PN) reduced, with 621 orders through the year (15% reduction from 2023). Individualised PN (IPN) as a proportion of all PN ordered, also reduced to 2% (5% in 2023), with Standardised PN (SPN) accounting for the remaining 98%. Thank you to our Pharmacy colleagues for this data. We expect this continued reduction reflects improvements in enteral feeding also associated with better maternal milk provision, and a considerable cost saving to the Hospital.

We piloted a screening program to ensure the appropriate and timely referral to dietetics for babies in the neonatal unit, and in particular to ensure that babies who meet established criteria for referral are not missed. This was carried out by our Dietitian Assistant, Sarah Browne, over 6 weeks, and concluded that our current referral system together with attendance on daily ward rounds is working efficiently and so this additional screening was discontinued.

We continued to contribute to the therapy-led multidisciplinary ACoRN (Allied Care of at Risk Newborn) program focusing on activities to optimise the development of babies in the NICU and post-discharge, details of which are published in the Neonatology chapter.

Further details on nutrition and growth amongst babies in the NICU are available from the Department of Clinical Nutrition and Dietetics.

Other Activities

- Education: BSc Midwifery (UCD), MSc Nutrition & Dietetics (UCD), Public Health Nurse training (NMH). Caring for Women with Obesity – a multidisciplinary symposium in conjunction with ICPO and ASOI March 2024. NMH Neonatal Study Day for Public Health Nurse and Community Partners on 1 March, the Health and Social Care Professionals in Neonatal Care in Ireland Study Day on 17 May (hosted at NMH).
- Professional Groups: Diabetes Interest Group (INDI), Neonatal Dietitians Ireland Group, Maternity Dietitians Ireland, Irish Nutrition and Dietetic Institute.
- National Groups: HSE Neonatal and Paediatric Parenteral Nutrition Advisory Group (RMC), HSE Infant Feeding Oversight Group (RMC), HSE Neonatal and Paediatric Parenteral Nutrition Operational Oversight Group (RMC), HSE Clinical Guidelines Expert Advisory Group (SC), HSE Neonatal Expert Advisory Group (RMC), HSE Model of Care for Neonatal Services in Ireland Review Group (RMC).
- Hospital Committees: Healthy Ireland Group (SC, HMC, SB), Strategy Group (SC), Infant Feeding Steering Committee (RMC), Infant Feeding Committee (RMC), Nutrition and Hydration Committee (SC, RMC, LH, CC), Partnership Committee (SC)
- National Reports and Resources: HSE booklet 'Breastfeeding and expressing for your premature or sick baby' 2024 update (RMC).
- National and International Events: Health and Social Care Professionals (HSCP) Day 17 Apr; International Kangaroo Care Day on May 15th; British Dietetic Association PENG 40th Anniversary Conference invited presentation 'Nutrition Support in Pregnancy' (SC) 26-27 Sept; National Breastfeeding Week 1-7th Oct.

Sinéad Curran, Manager (Maternity), Head of Department 2024.
Roberta McCarthy, Manager (Neonatology).

Table 1. Dietitian Consults - Adults

Primary Reason for Consult- Adults	2023	2024
Adolescent	31	19
Therapeutic diet e.g. IBD, PKU etc.	26	22
Eating disorder	15	33
Bariatric surgery	47	47
DM Type 1 or 2 consult	58	69
Low BMI /poor weight gain/weight loss	84	105
Hyperemesis gravidarum	375	304
Obesity / excessive weight gain	317	437
GDM consult	525	505
Uncategorized consults	108	29
Total Consults	**1649**	**1622**

Table 2 Maternity/Diabetes/Gynaecology Dietitian Activity

Location	2022	2023	2024
Inpatient contacts	665	567	639
Outpatient contacts	4134	4771	5615
Antenatal Nutrition in Pregnancy Class	-	407	417
Total Activity	**4799***	**5745**	**6671**

** 2022 does not include Antenatal Nutrition in Pregnancy classes*
Data sources: MNCMS, iPMS

Neonatal Dietitian Activity

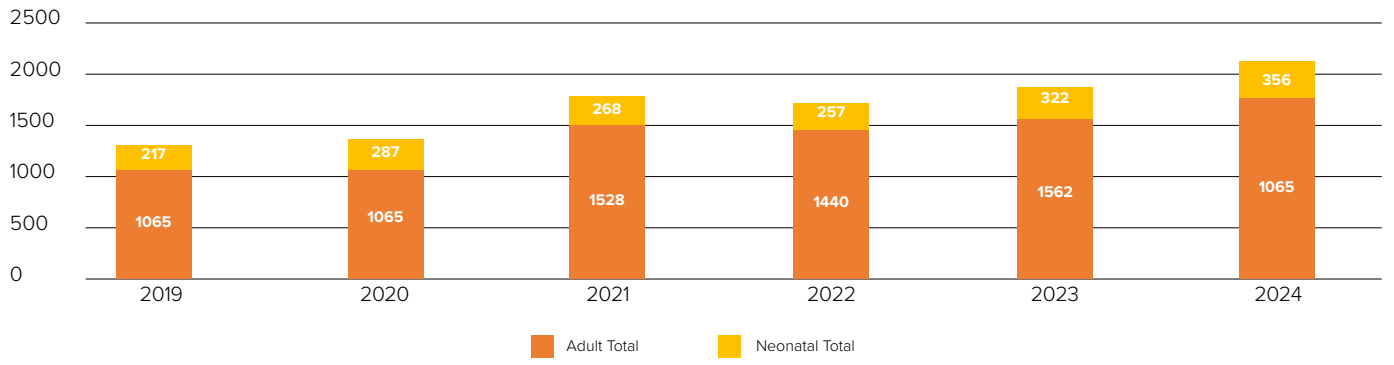
	2020	2021	2022	2023	2024
Babies with birth weight ≤1.5 kg or ≤31/40 weeks gestation - based on year of birth[a]	**151**	**149**	**136**	**124**	**120**
Patient contacts					
Inpatients[b]	1243	1532	2108	1606	1494
Outpatients	199c	410c	390c	456b	654b
Total patient contacts	**1442**	**1942**	**2498**	**2062**	**2148**
Unique patients seen[b]					
Inpatients	264	218	214	243	228b
Outpatients	59	95	92	133	220b
Total unique patients seen	**287**	**268**	**257**	**322**	**356**

The neonatal outpatient non-attendance rate was 11% (11.1% in 2023)[c].
Data source: [a]Dietitian records; [b]MNCMS (direct and indirect patient contacts); [c]iPMS (direct patient contacts).

Note
The total number of unique patients seen does not equal the combined total of unique inpatients and outpatients; this is because patients may appear as both a unique inpatient and a unique outpatient, but will only be counted as a single unique patient for that year.

There was a printing error in the Maternity Dietitian Activity and Neonatal Dietitian Activity tables in the 2023 Annual Report which has been corrected here.

Chart 1: Unique Patients Total



Clinical Engineering

The Clinical Engineering Department play a vital role in supporting patient care and operational efficiency. As a critical unit within the Hospital, the Department focuses on the management, maintenance, and safety of medical equipment across all departments, ensuring uninterrupted healthcare services. The Department's key objective is to ensure a safe, high quality service for its service users to enable better outcomes for patients.

Over the past year, the Department managed a total inventory of 3,170 medical devices, including imaging systems, patient monitors, infusion pumps, and ventilators. Preventive maintenance schedules were successfully completed for 80% of equipment, exceeding the Department's 75% target. Corrective maintenance response times improved, with 85% of repairs completed within 24 hours of request, thanks to streamlined workflow processes and enhanced technician training.

A key achievement in 2024 was the successful implementation of an upgraded computerized maintenance management system (AIMS), which improved asset tracking, documentation, and maintenance scheduling. The system also facilitates better compliance with regulatory standards and internal audits.

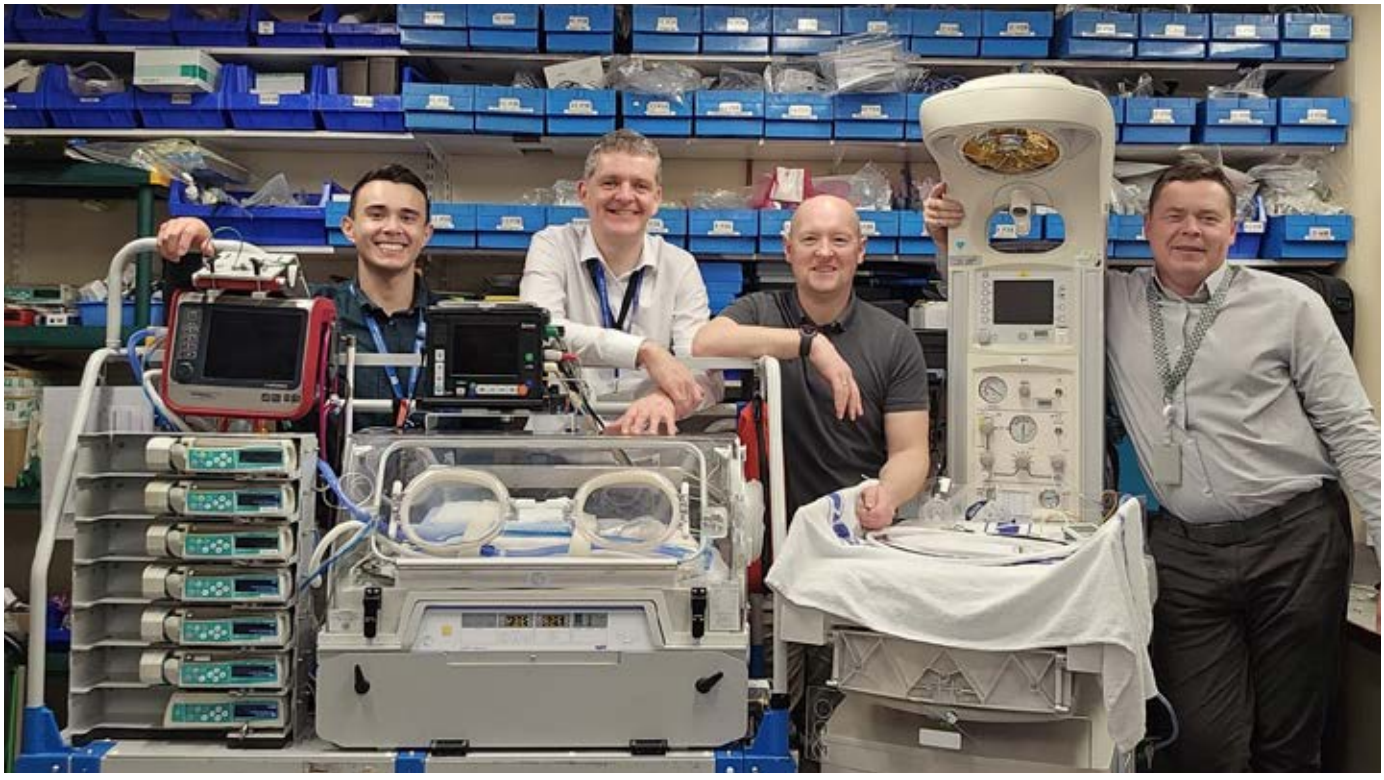
The Department supported several capital equipment procurement projects, participating in technical evaluations, installation supervision, and clinical training. Notably, we assisted with the evaluation of new operating theatre tables and portable ultrasound devices for the maternity and emergency departments.

Continuous professional development remained a priority, with team members completing over 100 hours of training collectively in areas such as biomedical cybersecurity, medical device risk management, and emerging technologies.

Looking ahead, the Clinical Engineering Department aims to further enhance equipment lifecycle management, promote sustainable practices, and support the hospital's digital transformation strategy through the integration of smart medical technologies whilst maintaining clinical safety.

I would like to take this opportunity to thank Mr Oleg Shrolik, Mr Mark Power and Mr. Ryan Suen for their ongoing commitment and dedication to the NMH and its service users.

Eoghan Hayden, Head of Clinical Engineering.



Clinical Engineering staff, Ryan Suen, Mark Power, Eoghan Hayden and Oleg Shrolik.

Medical Social Work

The Medical Social Work (MSW) Department began 2024 with 352 active social work cases and received a further 940 new referrals throughout the year. Medical Social Workers had 4,398 direct patient contacts throughout 2024. The 'Breakdown of Referrals for Specialist Areas' is detailed in the table below. Outside of the main specialist areas of casework, the Department receives referrals for a variety of areas including crisis pregnancy, relationship difficulties, poor attendance for antenatal care, limited supports, mental health, bereavement and information and tracing in relation to historic adoptions.

The largest volume of referrals to MSW during 2024 was for patients attending the Inclusion Health service which comprises homeless families and families from the Roma and Traveller communities, Ukrainian families and other families seeking international protection. Almost one third of all direct patient contacts provided during 2024 related to supporting parents of babies who are inpatients in the Neonatal Unit. The Medical Social Worker completes a psychosocial assessment and offers intensive emotional support to these families.

Greater Accessibility

MSW offers a very accessible service for patients and their families, opening twelve hours a day, six days a week. We are available to support hospital staff in dealing with high risk situations that can arise outside of normal working hours.

Support to Maternity Units of the Ireland East Hospital Group (IEHG) / Dublin South East Hospital Group (DSE)

A MSW service was offered to 84 families who attended from maternity units within our Ireland East/Dublin South East Hospital Group: Wexford (38), Mullingar (25), Kilkenny (15) and Waterford (6). In 2024, MSW offered formal support and supervision to the new MSW maternity service in Wexford and Kilkenny. This service enables continuity of care for families whose care is transferred to the NMH. The referrals are mainly for parents whose babies are admitted to the Neonatal Intensive Care Unit or to families who receive an antenatal diagnosis of a fetal anomaly. They often require not only intensive emotional support, but also significant practical support when travelling from a long distance for hospital care.

High Risk Caseloads

MSW offers a specialist service to women experiencing domestic violence in pregnancy. In 2024, 108 women and their children were supported by this service. The Department made 48 new referrals to Tusla due to child protection concerns. Of the 106 families: 7 were already known to Tusla due to the level of risk to their children, 18 experienced homelessness as a direct result of their experience of domestic violence and Gardaí were actively involved in supporting 48 of these families in relation to their experiences of violence. MSW supported 15 families in accessing refuge accommodation. MSW continued to work closely with the Women's Aid Maternity Project and referred 42 women directly to their Outreach Support Service.

MSW offers a specialist service for women with substance use issues and in 2024, 114 women were supported by this service. Due to the level of risk, 31 of these families were referred to Tusla. Children from 9 families were listed on the Child Protection Notification System. Women received intensive support and as a result most babies were discharged home with their parents with a robust safety plan in place however 4 babies were placed in alternative care.

Overall in 2024, eight babies were discharged to alternative care. Six babies were placed in alternative care due to child protection concerns and two of these were discharged to pre-adoptive foster care.

Inclusion Health

In 2024, MSW offered a specialist service to 231 women who met the criteria for support in relation to 'Inclusion Health', an initiative that commenced in the three Dublin Maternity Hospitals in 2021 which to recognise the impact of homelessness and inadequate housing on children's health. The aim is to deliver an integrated health care approach to homeless pregnant women. Of the 231 women, 59 were homeless, 32 were at risk of homelessness, 30 were Ukrainian families and 71 were seeking International Protection from other countries. The Inclusion Health service provided a series of Traveller Maternal Health Sessions.

Laura Harrington, Head Medical Social Worker.

Breakdown of Workload	2024
Neonatal Unit Admission	198
Fetal Anomaly Diagnosis	102
Domestic Violence	106
Substance Use	114
Inclusion Health	231
Gynaecology	48
Teen Pregnancy	49

Pharmacy

Pharmacists from The Coombe and UMHL receiving MN-CMS training from NMH pharmacists in advance of their MN-CMS "Go-Live" dates.

The overall aim of the Pharmacy Department is to ensure safe, effective and economical use of medicines and to support education, training and research in The NMH. The Department purchases, supplies and dispenses medicines for inpatient and outpatient use. Pharmacists, pharmacy technicians and an intern pharmacist work together to ensure patients receive the highest quality pharmaceutical care possible. Pharmacists provide a clinical pharmacy service for the NICU, maternal medicines clinic and antimicrobial stewardship and where possible the gynaecology, antenatal and postnatal wards, ensuring safe and effective use of medications. This is achieved through review of patients' charts using the Maternal Newborn Clinical Management System (MN-CMS) along with the performance of medication history checks and reconciliation at ward level.

Pharmacists play a central role in the continuing development and optimisation of the electronic prescribing functionality of the MN-CMS, devoting a significant amount of resources to the provision of induction and ongoing training for clinical staff, whilst contributing to the National MN-CMS Medications Workstream.

The Pharmacist Executive Manager (PEM), in liaison with pharmacy, nursing, medical and financial colleagues, plays a central role in the work of the hospital's Drugs and Therapeutics Committee, optimising governance of the introduction of new medicines as well as the safe and economic use of all medicines, within a medicines budget. This includes audit and monitoring of new medicines and related technologies and monitoring of prescribing against evidence based standards. The PEM has clinical management responsibility, ensuring a high standard of hospital pharmacy services aligned to best international practice, ensuring innovation, adopting national initiatives and guidelines, producing demonstrable improvements in service delivery.

The NMH Medication Safety Programme is led by the Deputy Pharmacist Executive Manager who chairs the multidisciplinary Medication Safety Committee. This committee is responsible for developing and implementing a 5-year strategy, with an aligned annual workplan. Activities include dissemination of medication safety newsletters and alerts, oversight of medication-related audits, policies and quality improvement initiatives, along with an extensive programme of induction and ongoing training for all clinicians. Senior pharmacists are members of multi-disciplinary teams in the Maternal Medicine Clinic, NICU, Infection Control and the National MN-CMS Medications Workstream.

Pharmacy Activity

Despite multiple staff changeovers due to maternity leave, pharmacy dispensed 25,241 medications in 2024, which is in-line with recent overall trends (see Figure 1). While the level of clinical pharmacy activity was maintained to a similar degree as previous years (see Table 1), it has continued to be a challenge to provide a regular medicines history and reconciliation service in general antenatal, gynaecology and postnatal areas. To address this, a senior pharmacy technician began an accredited training course in order to establish a Medicines Management Pharmacy Technician (MMPT) service in clinical areas. It is expected this accreditation will be complete in 2025 and will allow for a more comprehensive medication history taking and reconciliation service.

As a member of the RSV Immunisation Pathfinder Programme Steering Group, the Pharmacist Executive Manager provided leadership at a national level throughout

the introduction of a new monoclonal antibody called Nirsevimab which was offered to all infants born during the RSV season between 1st September 2024 to 28th February 2025. This programme has drastically reduced hospitalisations due to RSV in infants aged less than 6 months throughout Ireland. Upon request from the Department of Health to facilitate advanced data analysis of determinants of Nirsevimab uptake, the HSE allocated NMH with a temporary Informatics Pharmacist post in order to analyse data from MN-CMS as part of the wider programme evaluation report. This was a major achievement for the Department, who since 2021 had been seeking external funding for such a post to cover cross-site informatics duties as part of the National MN-CMS Medications Workstream. Another major achievement and challenge in 2024 was the introduction of an Automated Dispensing Cabinet (ADC) in Theatre. While initial teething issues were experienced during the changeover, the ADC has enhanced safety and security of medication storage, while greatly improving pharmacy and midwifery/nursing workflow. Introduction of this ADC and its associated workflow was the first step in the upgrade to automated dispensing processes at both pharmacy and ward level for the co-location of The NMH at Elm Park.

The exceptional contribution and dedication to patient care that the NMH Pharmacy Team have displayed over the years was recognized in September when our team were nominated for Hospital Pharmacy Team of the Year at the 2024 Hospital Professional Honours in the Dublin Royal Convention Centre at the Radisson Blu Royal Hotel and again in November at the 2024 Pharmacy Excellence Awards in the Mansion House where NMH Pharmacy won Bronze Medal in the same category.

In line with continuing implementation of the new hospital pharmacist career structure, the former Chief 2 Pharmacist was promoted to the role of Deputy Pharmacist Executive Manager (DPEM). Applications from Senior Pharmacists to be re-graded as Advanced Specialist Pharmacists (ASPs) were submitted to the HSE and were still under review at the end of the year. For the 4th year running the Department provided an eight-month training placement for a 5th year pharmacy intern. The Department welcomed back our first pharmacy intern from 2021, who covered a maternity leave post for the Antimicrobial Pharmacist, while a new Pharmaceutical Technician started in November, covering another maternity leave post.

Drugs and Therapeutics / Medication Safety Committees

Medication Safety

The Medication Safety Programme completed a review of the previous 5-year (2019-2023) medication safety strategy and launched the new 5-year (2024-2028) strategy.

Twelve medication safety or medication-related audits were conducted in 2024:

- Pyrexia in labour administration audit
- Sepsis audit (part of Sepsis Committee work)
- National Point Prevalence Survey (PPS) of Antibiotic Prescribing
- Surgical antibiotic prophylaxis prescribing audit
- Carbapenem prescribing review
- Group B Streptococcus Management in Penicillin-allergic Pregnant Women
- Re-audit of Administration of Anti-Seizure Medications by Clinicians
- Midwife Prescribers Audit
- VTE assessment documentation and compliance audit using the MEG app VTE audit tool
- IV Ferinject administration for severe anaemia following post-partum haemorrhage
- To assess completion of the checklist for Neonatal Crash Trolleys
- Adult Emergency Trolley Audit

Medication safety training was delivered using a combination of learning formats such as HSELand courses, MN-CMS classroom training, NCHD induction training and HR coordinated classroom-based mandatory training,

Medication policies, procedures, protocols, guidelines: no new ones were approved and 22 were updated.

Antimicrobial Stewardship

The Health Protection Surveillance Centre (HPSC) data collection of antimicrobial consumption was suspended in 2024 due to software issues, data validity concerns and limited resources. The decision on how to proceed will be commenced in 2025. As such, the 2024 data is currently unavailable and this report will focus on consumption data results for 2023, which were not reported in the 2024 report.

Overall, our consumption for 2023 was 35.14DDD/100BDU which was up from a figure of 33.63DDD/100BDU in 2022 (Figure 1). These results show a rise of 4% in our overall antibiotic consumption in 2023 compared to the previous year, however consumption is still in line with pre-pandemic usage. (Figures from HSE-HPSC report 2023 full year – published October 2024).
(DDD: Defined Daily Dose, BDU: Bed Days Used)

- The National Point Prevalence Survey (PPS) was conducted in October 2024. The overall prevalence of antimicrobial use for patients on day of survey for 2024 was 21%
- Data review examining prescribing of meropenem in 2024 identified that a total of 27 patients were prescribed meropenem (9 adults and 18 neonates). All prescriptions for carbapenems were approved by microbiology or in line with antimicrobial guidelines.
- Five audits or prescribing reviews were conducted to assess adherence to AMS guidelines (Pyrexia in labour audit, Surgical antibiotic prophylaxis prescribing audit, National PPS, Carbapenem prescribing, Sepsis audit).

Medication Incident Reporting

The reporting of incidents is of value as the data collected can be analysed to identify trends or patterns in relation to risk, and resulting recommendations for improvement can be shared with frontline staff. The "Druggle" Ward-Based Medication Safety Huddle initiative was launched in 2024 with the objective of learning from incidents and celebrating what went right in terms of medication incident reporting and medication safety. In 2024 there were 127 medication incident reports submitted compared to 137 in 2023; see Figure 2 below. Again in 2024, the majority of reports were completed by midwifery/nursing staff (59%), with 39% coming from pharmacy staff. A slight decrease in the proportion of reports coming from medical staff was observed (2% in 2024 compared to 4% in 2023). There is a need to both raise awareness of the importance of medication incident reporting among medical staff and facilitate ease of reporting. The proportion of incident reports defined as "near miss" increased slightly to 10% in 2024 compared to 9% in the previous year.

Analysis of incident reports found that:

- Incidents most commonly occurred at the point of administration (61%) followed by prescribing (25%), storage (10%) and admission/discharge reconciliation (4%)
- 'Dose incorrect' was the most common reason for a report at 19%, followed by 'administration not documented' at (14%), 'admission/discharge reconciliation not performed' (9%), 'timing of administration incorrect' (8%) and 'duplicate dose administered' (7%)
- Antimicrobials accounted for the highest percentage of reports (25%), followed by tinzaparin (18%), paracetamol (8%), insulin (6%), with anti-hypertensives, NSAIDs and Vitamin K all at 5% each

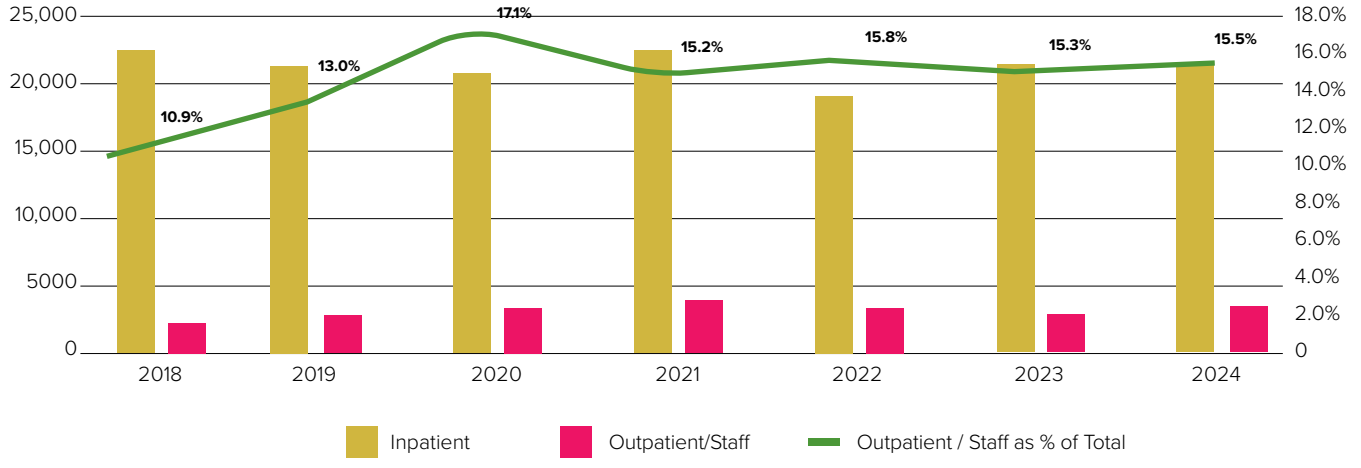
Table 1: Clinical Pharmacy Reviews Performed 2019-2024	2019	2020	2021	2022	2023	2024
Total	13548	21232*	15134	15227	14641	14214

**The figure for clinical pharmacy reviews in 2020 was inflated due to absence of other duties for clinical pharmacists. At the height of the pandemic there was very little scope for projects, quality improvements, audits, and limited changes/updates to policies. Due to this, pharmacists had significantly more time to perform clinical reviews of patients' charts. The figures for 2021 to 2024 represent the normal baseline level of activity.*

Table 2: Clinical Pharmacy Activity by Area 2024 vs 2023	2024	2023
Antenatal Ward	2634	2,400
Gynae Ward	367	206
Postnatal Ward 1	611	2,271
Postnatal Ward 2	268	171
Postnatal Ward 3	338	372
Maternal Medicine Clinic	648	682
NICU	5386	5,907
Antimicrobial Stewardship	2335	2,284
MN-CMS Prioritisation Review	37	242
Pre-assessment Clinic (PAC)	234	106
MMPT	832	0
Pharmacy Student	524	0
	14214	**14641**

David Fitzgerald, Pharmacist Executive Manager.

Figure 1: Medication Dispensing 2024



Louise Delany, Antimicrobial Pharmacist and David Fitzgerald, Pharmacist Executive Manager, with the new Automated Dispensing Cabinet (ADC) in Theatre.

Figure 2: Clinical Pharmacy Reviews Performed

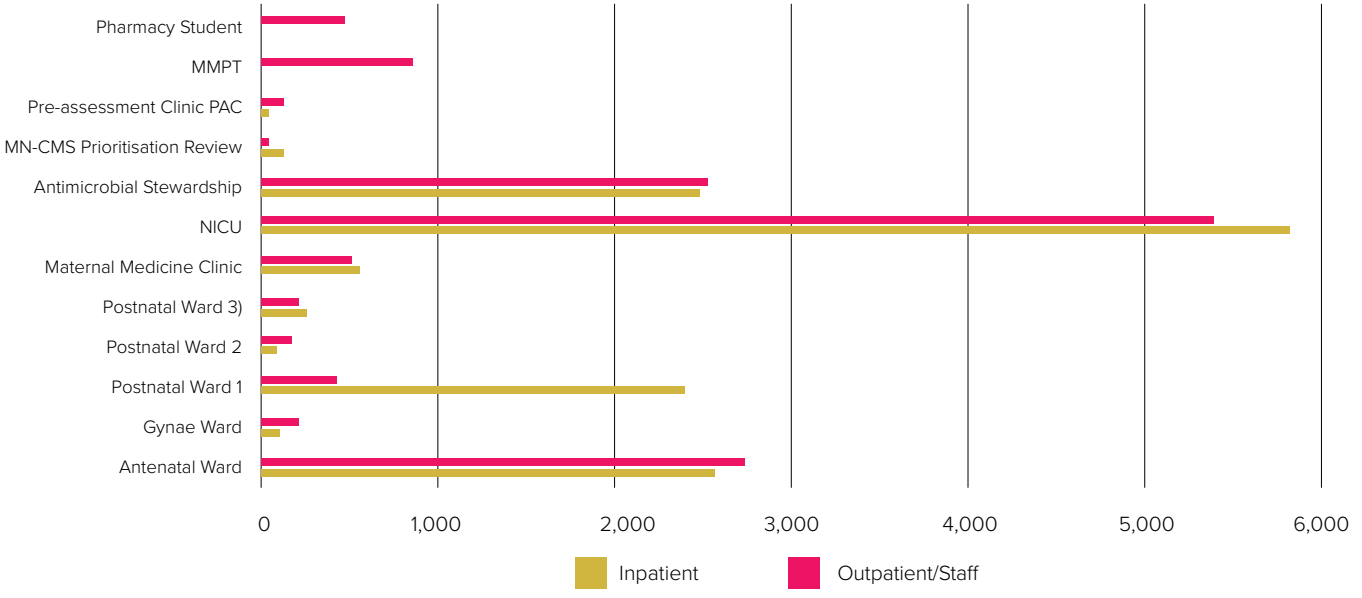
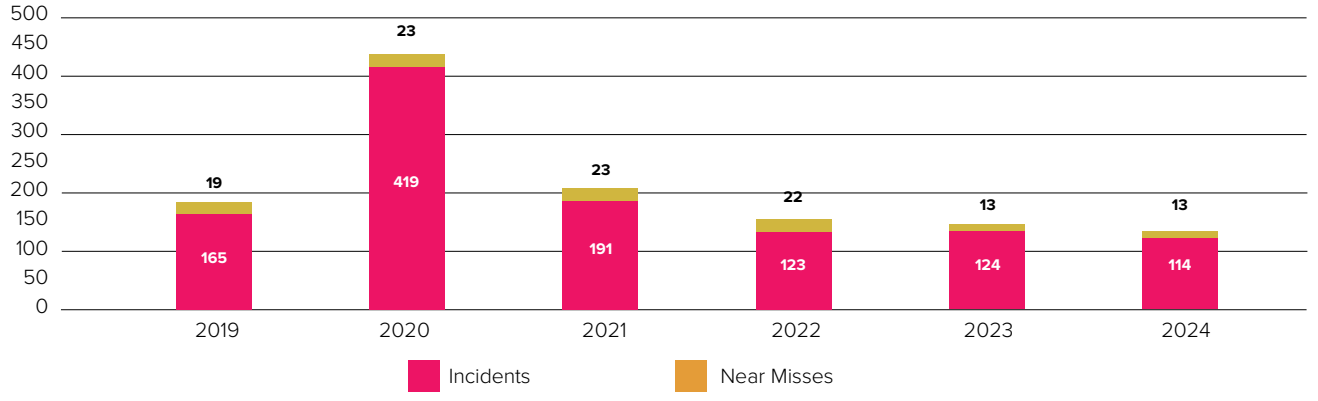


Figure 3: Medication Incident Reports 2019 – 2024



Physiotherapy

The Physiotherapy Team.

The Physiotherapy Department had its busiest year in 2024 with over 4,441 new patient referrals. Our referral activity remains consistently high since the introduction of MN-CMS with a two-fold increase. This demand drives the shape of our service leading to our increased provision of group classes to try and reach our service users in a timely way. We began the year with 6.7 Whole Time Equivalents (WTEs). We welcomed Erin Griffin onto the Neonatal Team in April 2024 to assist with the caseload due to the added demands of the 'Early Detection of Cerebral Palsy Project'; the Cerebral Palsy Foundation are funding a 0.5 physio post to assist with the delivery of this project from Neonatal Intensive Care Unit (NICU). In September, Aoife Cullen and Ciara Ryan returned from maternity leave bringing our WTE to 8.5. We continue to provide a 0.5 WTE to the Pelvic Floor Centre located in St. Michael's Hospital led by Lesley-Anne Ross who works alongside 2 NWIPH funded Pelvic Health Specialist Physiotherapists.

The Physiotherapy Team provide:

- A referral based service to all inpatients weekdays.
- An outpatient clinic offering appointments on weekdays for musculoskeletal conditions and issues relating to pelvic floor dysfunction for antenatal and postnatal patients
- A neonatal service within the Neonatal Intensive Care Unit and an outpatient service on weekdays.
- Ongoing delivery of the Hospital's antenatal and postnatal education programmes alongside NMH colleagues
- Undergraduate placements for UCD Physiotherapy Students.
- A range of education sessions to facilitate early assessment and timely access to physiotherapy services e.g. Pelvic Girdle Pain Class, Pelvic Floor Care Class, Little Feet, Big Steps Class & Healthy Bodies after Birth Class
- A service to the multidisciplinary Pelvic Floor Centre team based in St Michael's Hospital every Monday and Wednesday.

We continue to initiate all adult referrals with a telehealth assessment to complete all subjective information gathering and dissemination of first line advice and guidance having a library of NMH resources at our disposal.

Department activity is reviewed under 3 headings: Obstetrics, Gynaecology and Neonatology. Patients are seen either as inpatients, on the obstetric (pre and postnatal), gynaecology or neonatal units, or as outpatients in the Physiotherapy Department. Some patients may require just one visit; most will require a number of treatment sessions. Our Physiotherapy Department is located on the 2nd floor of 65 Mount St.

Physiotherapy in Obstetrics

We offer outpatient and inpatient physiotherapy to all obstetric patients. We treat a range of musculoskeletal and pelvic floor conditions during pregnancy and postnatally. The Physiotherapy in Obstetrics table below shows that bulk of obstetric patients are referred with back and pelvic pain. In order to facilitate reaching these patients in a timely way, we run virtual Back & Pelvic Care Information Sessions every Friday from 14-15.30. We run a monthly virtual Pregnancy Wellbeing Class focusing on physical care during pregnancy on the 2nd Friday of every month We also run a weekly virtual postnatal class every Friday at 11-12.30 titled Health Bodies After Birth

Class to reach our postnatal Mums. The attendance at these classes surpasses the numbers we reached when they were held in person.

Physiotherapy in Gynaecology

We run an outpatient gynaecology physiotherapy clinic treating patients with pelvic floor dysfunction. We also review those in-patients admitted for major gynae surgery. We run a virtual Pelvic Health Class as a first-line for all triaged referrals to the Urogynae clinic to improve our timely reach to women referred to this service.

Physiotherapy in Neonates

2024 saw Eithne Lennon appointed as a Clinical Specialist Neonatal Physiotherapist. Erin Griffin joined the team as a Senior Neonatal Physiotherapist to assist with the neonatal outpatient caseload which has seen an increase with the involvement in the Early CP detection project.

Physiotherapy in Education

- Lecture RCSI and UCD Medical Students
- Lecture UCD Physiotherapy BSc Programme
- Lecture Postgraduate Diploma Neonatal Nurses
- Teaching sessions with Neonatal NCHDs

Judith Nalty, Physiotherapy Manager.

Judith Nalty, Physiotherapy Manager and Mary Brosnan, Director of Midwifery & Nursing at an event celebrating Health and Social Care Professionals Day.

Year	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Total Referrals	2331	2686	2500	4116	3836	3370	4148	4010	4364	4441

Reasons for Consult	ObstetricNew Patients	% breakdown
Pelvic Girdle Pain	1438	47%
Other	1097	32%
Urinary Incontinence	224	7%
DRAM	93	3%
Coccyx pain	104	3%
OASIS	81	2%
Carpal tunnel syndrome	177	4%
Respiratory	10	-
Pelvic floor pain/ dyspareunia	39	1%
Urinary Urgency	15	-
Pelvic Organ Prolapse	48	1%
Faecal Incontinence	13	-
C-section complications	8	-
Thoracic/rib pain	15	-
Faecal Urgency	4	-
Urinary Retention	5	-
Prev OASIS symptomatic	1	-
Prev OASIS asymptomatic	1	-
Total	**3373**	

Reasons for Consult	Gynaecology New Patients	% breakdown
Bladder Dysfunction	144	26%
Bowel Dysfunction	12	2%
Pelvic Floor Dysfunction	63	12%
Prolapse	63	12%
Routine Post Op Advice	216	40%
Pelvic Pain/Dyspareunia	40	7%
Respiratory Assessment	2	-
Pain	2	-
Previous OASIS	4	1%
Total	546	

Reasons for Consult	Neonatal Inpatients	Neonatal Outpatients
Neurodevelopmental	173	113
Talipes	41	41
Reduced Upper Limb Mvt	5	5
Clavicular fractures	4	4
Developmental Dysplasia of Hip – requiring Pavlik harness	14	Paediatric Hospital Follow-up
Other	39	24
Head & neck assessment	7	52
Total	**283**	**239**

Psychosexual Therapy

The Psychosexual Therapy Clinic continues to be very busy with referrals received from General Practitioners, clinics from the Dublin South East Hospital Group and a variety of clinics within The National Maternity Hospital including gynaecology, fertility, postnatal, physiotherapy, complex menopause, social work, perinatal mental health, adolescent gynaecology, oncology and consultant clinics.

As in previous years, there remains a lengthy waiting list for women with vaginismus continuing to be the primary concern for women referred for assessment and treatment. There was also an increase in the number of men being referred to the clinic via their GPs with erectile dysfunction being the main concern.

Similar to last year, there was a significant amount of women referred who had a history of cancer treatment, as well as women who had reported past sexual abuse or harm leading to fear/anxiety/trauma around being sexual.

Corinne Henry-Bezy qualified as a Registered Psychosexual Therapist in February and was successful in securing a permanent part-time position in the Department in August. Much of the focus in the Department has been on trying to reduce the waiting list but also upgrading the technical side of the work, updating website information and liaising with other clinics in the Hospital with education/information sessions. It is envisaged that the results of this will be noticeable in 2025.

Trainee Psychosexual Therapist, Julia Daly started her placement in March when she began seeing clients under supervision. Julia is a Clinical Nurse Specialist in Perinatal Mental Health working in the Rotunda Hospital and started psychosexual and relationship therapy counselling training with the London Diploma in Relationship and Psychosexual Therapy in 2023. She hopes to be fully qualified by the end of 2025 and to set up a clinic in the Rotunda.

Meg Fitzgerald, Department Head, continued to provide lectures to Medical Students throughout the year as well as participating in the ICGP Community Gynaecology Course in March.

Corinne Henry-Bezy was invited to speak at the Endometriosis Association Ireland Annual Endo Conference in March giving a talk on 'Psychosexual Therapy' and also at the Merrion Fertility Clinic-Fertility Study Day in October presenting on 'The Impact of Fertility Treatment on Sexual Relationships'.

In December, the Department hosted a guest speaker, Dr Maria McEvoy, who gave a presentation entitled, 'Vaginismus in Ireland: A Biopsychosocial Approach' which was based on research undertaken for her PHD in 2018-2021. This was the first research on vaginismus taken in Ireland in over forty years and her presentation provided much discussion with NMH staff who attended on the day.

A blended approach to counselling work continued throughout the year. Clients are seen for initial assessments in-person and if suitable are offered the option to attend online or in-person in the clinic for further counselling sessions.

138 new referrals were received in 2024: 88 referrals came from a 2023 waiting list from and 18 cases continued therapy from 2023.

Meg Fitzgerald, Psychosexual Therapist.

Dysfunctions Presenting in 2024	
Female	
Vaginismus	120
Dyspareunia	58
Inhibited sexual desire	29
Anorgasmia	9
Male	
Erectile dysfunction	9
Premature ejaculation	3
Delayed ejaculation	2
Unconfirmed	14
Total	**244**

Referral Sources	
Consultant/NMH Staff	103
General practitioners	77
Other agencies/hospitals	47
Self-enquiries	17
Total	**244**

Outcome	
Engaged in weekly/fortnightly therapy or brief intervention	80
Reviewed but did not avail of contact	46
Placed on waiting list for 2024	85
Referred to private clinic	15
Referred to external/local PST services	18
Total	**244**

Radiology

The Radiology Department at NMH is equipped with a range of state-of-the-art equipment enabling provision of a high quality clinical service delivered by a specialised clinical team and dedicated support team. The Department provides diagnostic services to both adult and neonatal patients. It is equipped with general radiography, a fluoroscopy suite, ultrasound, MRI and a portable X-ray and ultrasound service (adult and neonatal).

The main Radiology Department is located on the ground floor with a state of the art fluoroscopy suite and digital radiography.

Sheila Fronda, Staff Nurse, Dr Freya McGuinness, Specialist Registrar in Neonatology and Lhily De Fiesta, Staff Nurse in the Neonatal Unit with the Mobilett. The Mobilett is a high-end digital mobile X-ray system that provides high-quality images suitable for a broad range of examinations. These images offer fast and secure integration into the hospitals Radiology information system, facilitating more efficient workflows. It is painted like a giraffe to appear more friendly in the Neonatal Intensive Care Unit.

Magnetic Resonance Imaging Unit

In October 2024, the Gynae Magnetic Resonance Imaging (MRI) service commenced with 5 patients scanned per week referred from the Gynaecology Outpatient clinic: there were 49 scans performed.

The National Fetal MRI service, which is an all-island service since May 2022, continues to grow in numbers greater than 350 studies performed in 2024.

We plan to reinstate the MR Sedation Service for our patients under a year that are no longer suitable for a feed and wrap study.

There was exciting news for the MRI Department as funding has been approved for a Doppler Ultrasound Gating device used for Fetal Cardiac Imaging which is compatible with the MRI scanner. It will be beneficial towards our patients with an unclear prenatal diagnosis by Fetal Echocardiogram with the aim of improved neonatal outcomes. It will be a complementary tool to Fetal Echo and will be most beneficial with increased gestational age.

Radiology Ultrasound

Within the Radiology Department, Katie Campbell was appointed as our new Ultrasound Clinical Specialist Sonographer. Katie has been making very positive changes and has introduced quality improvements initiatives for our adult gynae patients. We hope to grow and improve this service going into 2025.

The National Hip programme continues to grow with timely access for our neonatal patients for hip screening.

Portable ultrasound within the Neonatal Intensive Care Unit continues to be busy with portable ultrasounds performed daily to help care for our precious tiny patients.

Updates

On November 8th 2024, the Hospital officially celebrated World Radiography Day for the first time. It was a fun day with a quiz, treats and information on the Department displayed outside the canteen.

We had our biggest upgrade to date with our AGFA Imaging and Archive System with successful migration of all our previous imaging and reports with minimal disruption to services provided.

2024 was the year that the Radiology Department became more sustainable by doing our bit for the environment by going paperless! All our Radiology referrals are now sent via our AGFA Radiology System with paper requests no longer accepted. Intensive training and support have been provided to the relevant departments that place radiology requests.

Overall 2024 was another busy and productive year for the department and we look forward with enthusiasm to further developments for 2025.

Laura Moyles Radiographic Services Manager and Prof Gabrielle Colleran, Head of Department.

Investigation performed on adults	Investigation performed on neonates
Hysterosalpingogram and general radiography	General radiography
Fluoroscopy studies: Cystograms	Fluoroscopy studies: Barium swallow/meal, contrast enemas
MRI imaging: Fetal, placental and gynae	Ultrasound imaging
	MRI neonatal imaging

Compliance & Data Protection

Compliance

The National Maternity Hospital is a Section 38 hospital and therefore the regulatory environment is complex. Annual compliance reporting is required both to our main funder, the HSE, as well as to the Charities Regulator among other authorities. Compliance and governance are essential elements of the dealings of the Executive Committee (The Board) of the Hospital. Together with staff members, the sub-committees are following compliance and governance issues closely and reporting on a regular basis to the Executive Committee making sure that we are compliant with all relevant rules and regulations.

For the fourth year, we reported our compliance in relation to the Charities Regulator's Code of Governance. In addition, corporate governance procedures, including Board arrangements and responsibilities, are mapped against the Code of Practice for the Governance of State Bodies and the HSE Code of Governance. Members of the Board are invited annually to participate in refresher seminars on corporate governance issues. A report of the external review of governance procedures was published during the year.

In an Annual Compliance Statement, we furnish our compliance status to the HSE in areas such as governance, finance, procurement, risk management, taxation and remuneration. We also report our compliance with the provisions of the Service Level Agreement with the HSE (an extensive document covering services of the Hospital contracted to the HSE).

Data Protection

The Data Protection Officer (DPO) is responsible for implementing and maintaining a Data Protection Management System with a framework for ensuring that the Hospital meets its obligations under the General Data Protection Regulation (GDPR) and associated national legislation. We have a Data Protection Management System in place that is in compliance with GDPR and our staff are 'data privacy/GDPR' aware with knowledge and understanding of how it affects their day-to-day role as well as the need to ensure that data protection is considered in all our planning.

A big project started with the aim of reducing our off-site storage of reports from hospital departments. In relation to this we have also reviewed our retention policy and created a more robust process for sending material off-site. This project will also make us fully compliant with data protection legislation.

Starting from scratch a few years ago, our register of data protection contracts and agreements have been established and is now covering all known ones. In addition, a third-party vendor contract register has been put in place to give us full overview of our renewal dates and procurement needs.

Policies, Guidelines and Forms are constantly being reviewed and updated.

Patient chart requests

An individual has the right to access any electronic or manual information that the Hospital holds about them. The Hospital will provide them with a copy of their personal data held by the Hospital on request free of charge within 30 days from the date the request is made. A system is in place to ensure that all requests are actioned, quality checked and sent out within the 30 days' period allowed by the law. The number of requests have been steady over recent years. During the year we responded to more than 1,100 requests, the majority being from patients requesting information directly. We continued our project (From Request to Report) to provide all records digitally to requesters which is a safer and more cost-effective way of handling the requests. The shift to digital has been very well received by patients/clients.

Training

Staff training is a crucial part of protecting data privacy and is required under GDPR. Data protection training is mandatory for all staff bi-annually, in addition to data protection training for all incoming staff. The data protection training is done in person or online. In addition, awareness-raising of data protection is an integral part of the induction scheme. We regularly send out notes to staff on specific topics to constantly maintain and improve awareness on data protection and confidentiality matters.

Breaches

Most of the internal data breaches reported are as a result of increased awareness of what constitutes data breaches and the various data protection courses available to staff. NMH staff are well aware of the need for transparency and the need to ensure due process in reporting and in dealing with data breaches. There is an internal on-line system to report data breaches to make it easy and transparent. Last year we had 32 reported data breaches in the Hospital, which is a drop from previous year by 10 breaches. Significant breaches are reported to the Data Protection Commission and reviewed and if need be, internal practices are improved to minimise future breaches.

Carl Alfvag, Compliance and Operations Manager / Data Protection Officer.

Hospital Inpatient Enquiry

Alexandra and Alma Reilly.

The HIPE system collects information on hospital day cases and inpatient activities in Ireland. The HIPE system and associated coding will determine the invoicing and future budget of the Hospital.

In 2024, there were a total of 16,318 discharges recorded on HIPE. HIPE staff review the electronic patient record and extract principal diagnosis and procedures. Medical classification codes are then assigned as per ICD-10-AM 12th Edition or Turbo Coder (e-book). A principal diagnosis and up to 29 additional diagnosis as well as a principle procedure and up to 19 additional procedures. These are then grouped into a DRG (Diagnostic Related Group) which categorises patients into groups based on clinical similarities and resource consumption. They are then exported monthly to the Healthcare Pricing Office (HPO) with a strict 30 day deadline. The hospital budget will be set based on agreed/commissioned Activity Based Funding target levels and monies will only be provided when activity is carried out and invoiced i.e. coded. See table below for 2024.

Liz Mahon, HIPE Coordinator.

Description	Total	%	ALOS	Inpatient Bed Days	Day Case	Average Age (yrs)	Inpatient WU	Day Case WU
Obstetrics	13625	83.50	2.39	26775.50	2416	33.45	12896.78	398.01
Gynaecology	1450	8.89	2.04	1084.00	918	46.11	1007.83	614.39
Neonatology	1179	7.23	8.03	9454.50	0	0.03	5242.15	0.00
Anaesthetics	64	0.39	0.75	1.50	62	45.78	3.42	15.85
Total	**16318**	**100**	**2.89**	**37315.5**	**4688**	**33.43**	**19150.18**	**1028.31**

WU = weight unit

Human Resources

The Human Resources Department (HR) provide the Human Resources and Pension Management functions for the Hospital.

HR is involved in a number of corporate and strategic initiatives across the Hospital. The HR team supports the Executive Management Team and Department Heads by providing employment advice and guidance on employment best practices, talent aquisition and retention, optimising employee relations and other issues. The Department continue to uphold the principles of accountability, confidentiality and trust. We currently have 9.5 Whole Time Equivalent (WTE) staff in HR (1.5 WTE staff dedicated to Pensions)

Figure 1: Overview of the functions and the Services of the HR Team. Typically HR is made up of a number of core HR and subsidiary activities

Talent Retention

The biggest challenge for HR professionals continues to be people related, particularly within the current the backdrop of the wider National Pay and Numbers strategy. The recruitment, retention, succession planning, completion of mandatory training and provision of opportunities for further development continues to be challenging. Monitoring and analysing employee turnover helps in identifying areas for improvement. HR lead out on how best to enhance the Hospital Employee Value Proposition and ensure it is well communicated. HR provide quarterly reports on HR Activity to the People and Organisation Committee and The EMT. The Hospital has received approval for a number of development posts in areas such as Fetal MRI, Fertility, Mesh, Colposcopy and other aspects of the Maternity Strategy.

Recruitment

The NMH was impacted by a National Recruitment Embargo, followed by a

Dearbhla Benson with her newborn son Senan.

Figure 1: Overview of the functions and the Services of the HR Team. Typically HR is made up of a number of core HR and subsidiary activities

National Pay and Numbers Strategy effective from July 2024, which limits our ability to attract talent, fill open posts and further develop services introduced in line with the Maternity Strategy in areas such as Menopause, Fertility, Genetics, Mesh, Perinatal Mental Health, Dietetics and Physiotherapy. The Hospital has sought the additional staff required and supporting funding from the National Women and Infant's Health Programme in an effort to continue to grow our service delivery.

The Hospital has encountered some challenges in recruiting, particular categories of staff with the relevant skill requirements within Midwifery & Nursing and Allied Health Professionals. The Hospital is continuing to look at creative ways of attracting staff. Although a national taskforce was set up in 2023 to assist with the shortages in the Midwifery & Nursing area, the output of this taskforce have not been received as of yet. Accommodation costs in Dublin has proven to be an ongoing barrier for recruitment.

Throughout 2024, HR continued to create new links with other countries to attract staff to the Hospital. The Hospital engages with the HSE national framework for international recruitment of Midwifery & Nursing staff. There is also support provided to aid candidates in achieving NMBI registration. Our people, culture and alumni are our greatest asset and we plan to leverage our reputation to attract and retain staff.

Pensions Management in HR

The NMH as an organisation is fully compliant with the Single Public Service Pension Scheme (SPSPS) across the three key areas of statutory responsibility (Section 43 of the Act). The National Maternity Hospital was requested to be represented on the Single Scheme Compliance Forum Group to assist other Hospitals with compliance. This is a very positive development for the Hospital as all Hospitals are trustees of this scheme. The Hospital relies on the HSE as pension administrators which was challenging over 2023 as there was a wait time of up to 8 months delay for the processing of pensions claims for retiree's. However, this seems to have improved over 2024 following the intervention of the pension's ombudsman.

SUCCESSES AND ACHIEVEMENTS

Long Serving Staff Members

The following two staff members celebrated 40 years or more service with the Hospital in 2024. Lorraine McLoughlin and Linda Mulligan, Purchasing Managers.

HR Information Systems

HR has continued to evolve its HR system (Softworks) and e-learning systems (Totara). Since the Totara upgrade in 2023 and 2024 the HR team have continued to review and assure data. Automated reporting of training records was introduced in 2024. The integration of all e-learning training records within Totara, was of particular importance in respect to providing evidence of compliance during a HIQA audit which took place in 2024.

Training for Staff

In-person mandatory training was re-introduced for all staff in 2024. In addition, a number of staff attended a People Leader fundamentals refresher programme, facilitated through an external provider, designed especially for those in supervisory roles.

Staff Retention Initiatives

Staff at the Hospital who reach 25 years' service were awarded 5 extra day's holidays as a once off recognition of their dedication and loyal service to the Hospital. A ceremony was also held in recognition of this in December 2024.

People and Organisation Sub-Committee of the Board

This Committee completed its 2nd full year in 2024, during which time it provided strategic oversight and advice on matters to support the people ambitions of the NMH Strategy and provide assurance to the NMH Executive Committee (The Board) in respect to HR Operational Risk. The Committee consists of members of the Executive Committee and other members with specific expertise; HR attend this meeting with members of the EMT. The committee have set out a plan for 2025 with a focus on recruitment challenges as well as ensuring HR policy is reflective of best practice, and they will input in relation to the roll out of the Hospital Strategy which was refreshed in 2024.

CHALLENGES EXPERIENCED

Industrial Action

Unsettled industrial relations continued across 2024 due to national issues including the implementation of Phase IV of the Job Evaluation Scheme for Support Staff (2023) and the implementation of a National Pay and Numbers strategy as well as a review in respect to the progression career pathways for Health and Social Care Profession (HSCP) grade. Various sectors voted for industrial action across quarter 4 2024. Forsa commenced work-to-rule action in Q1 2024 which subsequently was stood down. The Hospital and staff co-operated well together during these periods with a steering group in place to respond to any issues as they arise.

New pay arrangements were introduced at a national level applicable to all staff during the year including the extension of the Building Momentum National Agreement and publication of the Public Sector Pay Agreement 2024-2026; salaries were increased accordingly.

HR Quarterly Report Updates

HR provide a quarterly HR performance report to the Finance Committee. The highlights of the key performance indicators (KPI's) for 2024 are given in the table at the end.

Vikas and Sandhya Chalasani in the Fetal Ultrasound Unit.

Absenteeism

The average absenteeism rate for the hospital in 2024 was 4.47% at year-end; this was still acerbated by absence due to the Covid-19 pandemic (0.2%). The HSE national target for absenteeism in normal circumstances is 4%. Our overall sick leave figure continues to be in line with the HSE average when absence due to the Covid-19 pandemic is omitted.

Retirements

Seventeen members of staff retired in 2024 and each and every one of those staff is missed by their colleagues and friends. The Hospital will also miss the expertise and knowledge these staff take with them. We wish them all a long, healthy and happy retirement.

Employee Assistance Programme (EAP)

This is an independent confidential service provided by VHI for the Hospital; 89 employees used the EAP service in 2024, availing of advice on personal and legal matters, counselling sessions etc. This service has proved to be a valuable contribution to staff wellbeing.

Social Activities/Wellbeing

Hospital Quiz, Summer Staff BBQ, Pride Celebrations in the Canteen, Occupational Health walk-in clinic, Wellbeing Days (arranged by HR in conjunction with Healthy Ireland Committee), Christmas Dinner and the traditional Christmas Pantomime.

Deaths

During the year three of our retired staff died and we send sincere condolences to their families. Dr Edward Gallagher, Consultant Anaesthetist, Dr Dougles Veale, visiting Honorary Consultant in Rheumatology Medicine and Veero Douglas, Midwife

Caoimhe de Brun,
HR Manager (Acting).

HR Performance Highlights	2021	2022	2023	2024
Recruitment Competitions (Interviews held)	107	188	167	164
Staff Headcount (average for the year)	1058	1059	1086	1113
Average Absence Covid-19/Non Covid-19	3.7%	4.8%	4.4%	4.5%
Retirements (includes 4 staff who have preserved benefits in each year)	25	24	14	17

Information Technology

Just like in 2023, the year started with 20 new HP EliteBook Laptops being delivered on 11th January. In keeping with the Blended Working Policy that is being adopted, these laptops were assigned to users as their primary machine which has helped reduce the number of PCs throughout the Hospital. A further 10 Laptops were delivered in September. We also acquired 50 PCs spread over two deliveries in February and November and these new PCs were used to replace older models that were due to be upgraded. The acquisition of the Laptops and PCs has further reduced the number of Windows 7 PCs from 250 at the end of 2020 to 20 (out of a total of 530) at the end of 2024. The acquisition of most of these Laptops and PCs was funded from the NMH budget.

Members of the IT Department, Saju George, Con Grimes, IT Manager and Declan Corrigan.

The Virtual Private Network (VPN) System that was installed in September 2021 started to show problems in January and after extensive investigations and testing, it was eventually replaced in April with an update solution from Palo Alto with higher capacity. There are approximately 200 users who can access the system. The number of Laptops being used now stands at approximately 280.

The Department continues to provide updates on our cyber security status to auditors like PwC, the HSE CISO Department and NCSC (National Cyber Security Centre). The introduction of NIS2 will meant continuous work on updating policies and adhering to any new requirements. A follow up meeting with a HSE representative was held in September to check on the status of the Mandiant recommendations.

NMH was designated as an Operator of Essential Services (OES) by the National Cyber Security Centre in late 2022. Several meetings were held with representatives from the National Centre for Cybersecurity (NCSC) with Con Grimes, IT Manager, who is the designated point of contact for NMH. Following on from the submission of the cyber resilience self-assessment report, two more meetings with the NCSC were held where they outlined the reporting mechanism that will come in to use in late 2024.

The three main systems that continue to protect the NMH Infrastructure are monitored and kept up to date by Declan Corrigan and Saju George.

1. Juniper Firewalls with SKY ATP (Anti-threat Protection). Firmware updated 04/07/24
2. Cisco Ironport for email scanning and filtering.
3. McAfee Anti-Virus Software (now Trellix) was extended out to all PCs, Laptops and Servers as funding was provided by the HSE for Cyber Security initiatives.

In February 2023, the Telephony Upgrade Project was commenced and throughout 2024 many new Avaya handsets were added so by the end of 2024 370 IP Phones had been installed. There are still some other areas that will

be looked at in 2025 but the main focus this year will be to migrate the remaining analogue lines from the old Nortel System over to the Avaya System. It is hoped that this work will be completed by the end of Q2.

The Network Upgrade Project funded by the HSE started in August 2024. 30 new Juniper switches were delivered in September 2024 and 17 of these were installed by the end of 2024. The upgrade work will see areas where the new switches are installed connect to the core switches at a speed of 10gpbs.

The other main projects that involved resources from the IT Department were the Single Sign-on Project (SSO), preparation for the Viewpoint Upgrade (Version 5 to 6), preparation for the installation of Winpath Enterprise (Cloud based solution) to replace Winpath V5 and preparation for the adoption of Microsoft 365 by the NMH.

The SSO Project was eventually rolled out in Fitzwillian Wing as a UAT environment and has since been rolled out in other areas where EVIEW Carts are being used. The IT Department worked with the HSE, Imprivata and Martin Keane and Sarah McCourt from the Project Office.

The replacement of the old generators in October / November highlighted a problem with the UPS units in our Main Computer Room. During the first phase of this work, the Computer Room lost power as the units were defective. All systems in the Computer Room were brought back online after a couple of hours. A new temporary UPS was installed before the subsequent phases were commenced. A new UPS was ordered to replace the temporary unit.

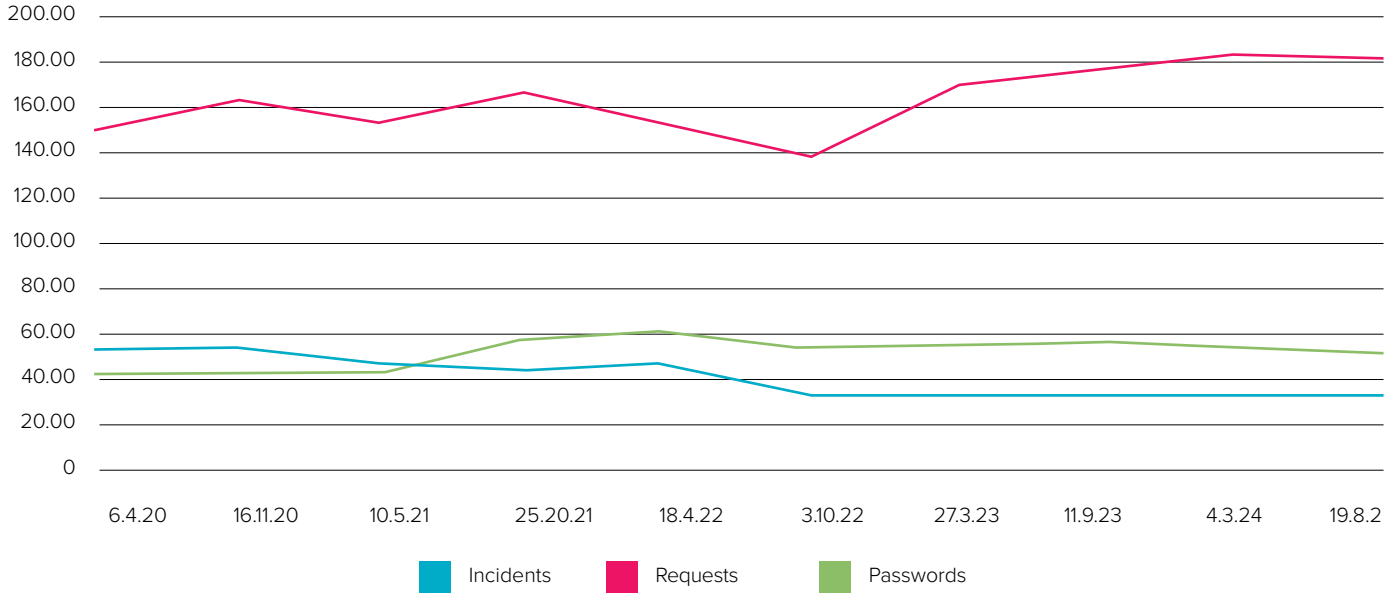
The graph below shows the workload trends for the Department since April 2020:

- Blue line represents Category 1 (break/fix) items.
- Green line represents Category 2 (password reset) items.
- Red line represents Category 3 (requests for assistance) items.

The drop in Requests logged (red line) during 2022 probably reflects a return of more stable operations after the effects of Covid-19 pandemic in 2020 and the cyber-attack in May 2021.

Con Grimes, IT Manager.

IT Event Logs 2019-2023



Information Management

Cillian Power, NMH Data Analyst.

Health Information Management is an important and essential resource: hospital data from various clinical and administrative systems is validated and analysed in order to produce meaningful reports to support and improve decision making, for national returns, clinical audit, research publications and presentations, medical coding and billing.

The main source of data is from the electronic patient record that each patient across all specialties holds on the national Maternal and Newborn Clinical Management System (MN-CMS) and the national Patient Management System iPMS. MN-CMS reporting revolutionised clinical data analytics in The NMH and ongoing challenges in developing and rolling out reports have eased over the years. Where clinical systems are not available, local measures are taken to ensure essential data is captured and audited. During the year, a data insights report was developed locally for Postpartum Haemorrhage and Breastfeeding report visualisation.

Improving information management practices is a key focus for many organisations across both public and private sectors and we are no exception. Generating interest in reporting and outcomes plays a significant role in improving practices and can provide motivation to ensure high quality data is recorded in order to return high quality reporting. However, it is not always simple: daily, weekly, monthly and annual validation checks undertaken on data across many systems takes time and requires the expertise of busy staff in particular the MN-CMS Team, Quality, Risk and Patient Safety Department, Labour & Birthing Unit Staff, Clinic Supervisors and iPMS Administrators. Efforts become all the more worthwhile as the benefits of high quality reporting are seen.

The Information Management Department consists of Fionnuala Byrne, Information Officer and Cillian Power, Data Analyst. The Department works closely with all staff across all areas of the Hospital. The main functions of the Department are to:

- Extract and analyse information from hospital information systems to assist local management decisions and highlight changing/emerging trends across all departments.
- Organise Health Service Executive returns including Outpatient Cancellations, Bed Closures, Monthly Data Returns and Waiting Lists.
- Produce hospital activity reports for the Scheduled Care Committee, Clinical Governance Executive Committee, Executive Management Team, Finance Committee, Quality Risk and Safety Patient sub-committee of The Board as well as the Executive Committee (The Board).
- Coordinate the NMH Irish Maternity Indicator System (IMIS) returns.
- Prepare and publish the monthly NMH Maternity Safety Statement online.
- Coordinate the completion and submission of all eligible perinatal death notification forms to National Perinatal Epidemiological Centre (NPEC).
- Project manage the Hospital Annual Report.
- Manage the submission of all eligible babies to the Vermont Oxford Network led by Breda Coronella.
- Fulfil ad-hoc, activity, audit and research requests for staff and students.

In response to increasing demand for timely and relevant data, Cillian Power, with the assistance of Shirley Moore, ANP Neonatology, released the Neonatal Intensive Care Unit (NICU) Dashboard. This NICU Dashboard provides key insights into monthly neonatal activity and assists in supporting clinical and operational decisions. In addition to this new Dashboard, a full redesign of the main dashboards was undertaken, incorporating feedback from the Communications Team, to enhance clarity, visual appeal and usability.

Fionnuala Byrne, Information Officer.

Patient Services and Freedom of Information

The Patient Services Department is a source of information and channels service users' queries in relation to Hospital services to the relevant areas. Service users' needs and care pathways are constantly changing and we are determined to meet these needs and challenges.

The Patient Services Department aims to support other departments by providing effective and efficient support to both clinical and non-clinical areas throughout the Hospital.

In 2024, the Department continued to provide administrative services across the Hospital in all our frontline patient areas such as Admissions, Clinics and Inpatient Wards.

In 2025, we will have two scheduled upgrades to the IPMS administration computer system so letters can be generated automatically and two way SMS text messaging can be facilitated. These upgrades will allow interfacing with the new HSE Patient App. We are members of the HSE National Office Committee for the introduction of the Patient App.

Towards the end of the year we started a six month Scheduled Care Project. The trial involves collaboration between four hospitals for Gynaecology patient referrals. The project is ongoing and the goal is to create a Central Referrals Office in 2025.

Freedom of Information

In 2024, there were 1,698 written requests in total received under Freedom of Information, Administrative Access and Data Protection. This was an increase of 153 requests on the previous year. 22 FOI requests received were corporate non-personal requests.85% of the personal requests were for copies of medical charts.

I would like to thank the Patient Services Team for their dedication to Patient and Service Users care in 2024.

Finally, I would also like to thank the Executive Management Team for their support throughout the year and look forward to another rewarding year ahead.

Alan McNamara,
Patient Services & FOI Officer.

Helen McCrimmon and Amanda O'Connor, Patient Services Department and Sarah McCourt, Project Office at the NMH Staff Olympics event held during the summer!

Purchasing and Supplies

Anne Lopez, CMM2 Gynaecology Ward and Celine Graham, Purchasing Department.

2024 was again another challenging year for all staff in the Purchasing and Supplies Department. Activity throughout the Hospital remained at a very high level. We continue to face immense challenges to the supply chain as a result of huge increases in shipping issues/costs, a worldwide shortage of raw materials and the ongoing war in Ukraine. The Medical Device Regulations continue to present challenges resulting in product withdrawal, inability to supply and various other issues impacting the supply chain. We were forced on an increasing number of occasions to seek alternative products for stock/non stock items. The flexibility, understanding and support of Department Managers throughout the Hospital in relation to these issues was very much appreciated. At all times during this year, we remained focused on the requirements of our Hospital Departments and Clinics whilst mitigating the impact of these market conditions.

Audits including the annual audit took place in 2024 and as always our full co-operation was provided. These audits are an essential part of what we do in the Department to ensure best practice is adhered to at all times.

Some of the projects initiated within our Department in 2024 include invoice reconciliation review, the revision, updating and uploading of our stock and non-stock requisitions to the extranet and a full overhaul of our local purchasing and supplies documents. We have noted the very positive results from these local projects undertaken by our team and will continue to monitor on an ongoing basis thus ensuring we deliver as efficient a service as possible.

In September our Financial System was upgraded with downtime kept to a minimum and a seamless transition. Our team are now benefitting from the additional features of this upgraded version. We would like to express our thanks to all involved.

We continue to work closely with the Tendering Department, holding monthly meetings where we receive contract updates and exchange relevant information. We thank them for all their assistance and support throughout the year.

The business of the Department is to provide maximum service with minimum risk whilst at all times striving to provide a high quality patient focused service. This would not be achieved without the continued dedication and commitment of all members of the Purchasing and Supplies Team. We would like to thank every member of the Department for their hard work and support and we look forward to a successful 2025 and all the challenges it will bring.

Lorraine McLoughlin & Linda Mulligan, Purchasing Managers.

Tendering

The objective of the Tendering Department, which works collaboratively with The Coombe Women & Infants University Hospital, is to ensure compliance with National and European procurement guidelines for expenditure throughout The National Maternity Hospital (NMH).

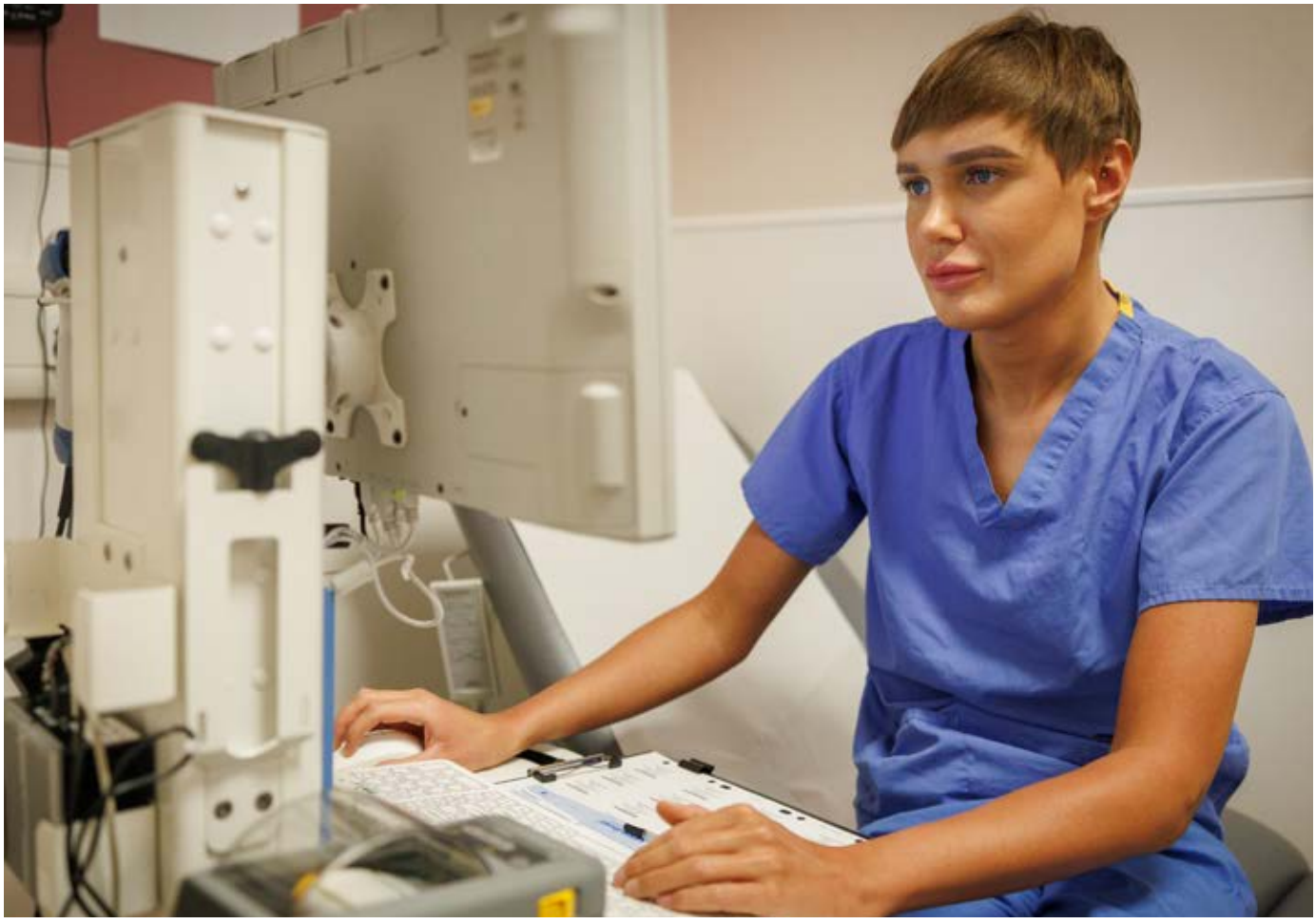
Activity and interaction between NMH, Health Business Services (HBS) and the Office of Government Procurement (OGP) continued and when financially advantageous, we benefited by utilising the national frameworks and contracts. A number of significant projects ran through 2024, none of which could have been achieved without the involvement of staff in many departments and we are grateful to all those who participated.

2024 was another challenging year in NMH as activity in the Hospital continued at a high level. The focus for the year was to increase the hospitals compliance with Public Procurement rules; this was done by running compliant competitions resulting in more medical and surgical consumables being covered under formal contracts. This was achieved because of the support and cooperation of all departments across the Hospital. The success that we had in 2024 could not have been met without the dedicated hard work of our colleagues in the Purchasing and Supplies Departments who supported us wholly throughout the year.

With the continued support of the Executive Management Team, we have been provided with new systems to enable us to collate more comprehensive plans and we are looking forward to working with our all of our colleagues during 2025.

We wish to thank all the team for their continued commitment and hard work over the past year and look forward collaborating again for a successful 2025 and all the challenges it will bring.

James Byrne, Tendering Manager.



Eryk Nowicki, Staff Midwife in the Emergency Room.

Development Project Office: NMH at Elm Park

Advanced enabling works are progressing well on the site of St Vincent's University Hospital Campus to prepare it for the new National Maternity Hospital at Elm Park.

The main contract tenders were issued on 26th April 2024 marking a significant milestone for the project. It is hoped that the tender evaluation will be completed in 2025. The advanced enabling works will proceed concurrently with the tendering process for the main development

The NMH continue to provide support in revising and updating the Final Business Case (FBC) document, aligning it with government infrastructure guideline requirements. This includes reviewing and updating the objectives, scope, costs and expected benefits, and incorporating lessons learned from other relevant projects. The tenders for the main works will allow for further updates to the FBC, including final costs and timelines. Once reviewed and updated the FBC will be brought to the government for 'approval to proceed' (Approval Gate 3), under the guidelines of the updated Public Spending Code (2023).

Digital Health Steering Group (DHSG)

The DHSG continue to work closely with the Design Team and HSE Estates to review and update the Digital Health Implementation Plan (The 'ICT Chapter' of FBC). The NMH Information and Communication (ICT) teams worked with the National eHealth teams to review and update ICT infrastructure (clinical and non-clinical) and timelines, and to revalidate information and costs for the FBC.

The DHSG direct involvement with the Elm Park project was paused but the group continue to work on various ICT work streams of the project, as required. Members of the team, with enormous input from the NMH IT Department, are currently leading the rollout of the first ICT enabling project in preparation for the move: the Single Sign On (SSO). This a national initiative which facilitates clinicians quicker access to the electronic patient record, and promises to both save clinicians time, and improve security of patient information. The NMH is one of the first hospitals to roll this out.

The team are also engaged in, and supporting other ICT enabling projects in the NMH.

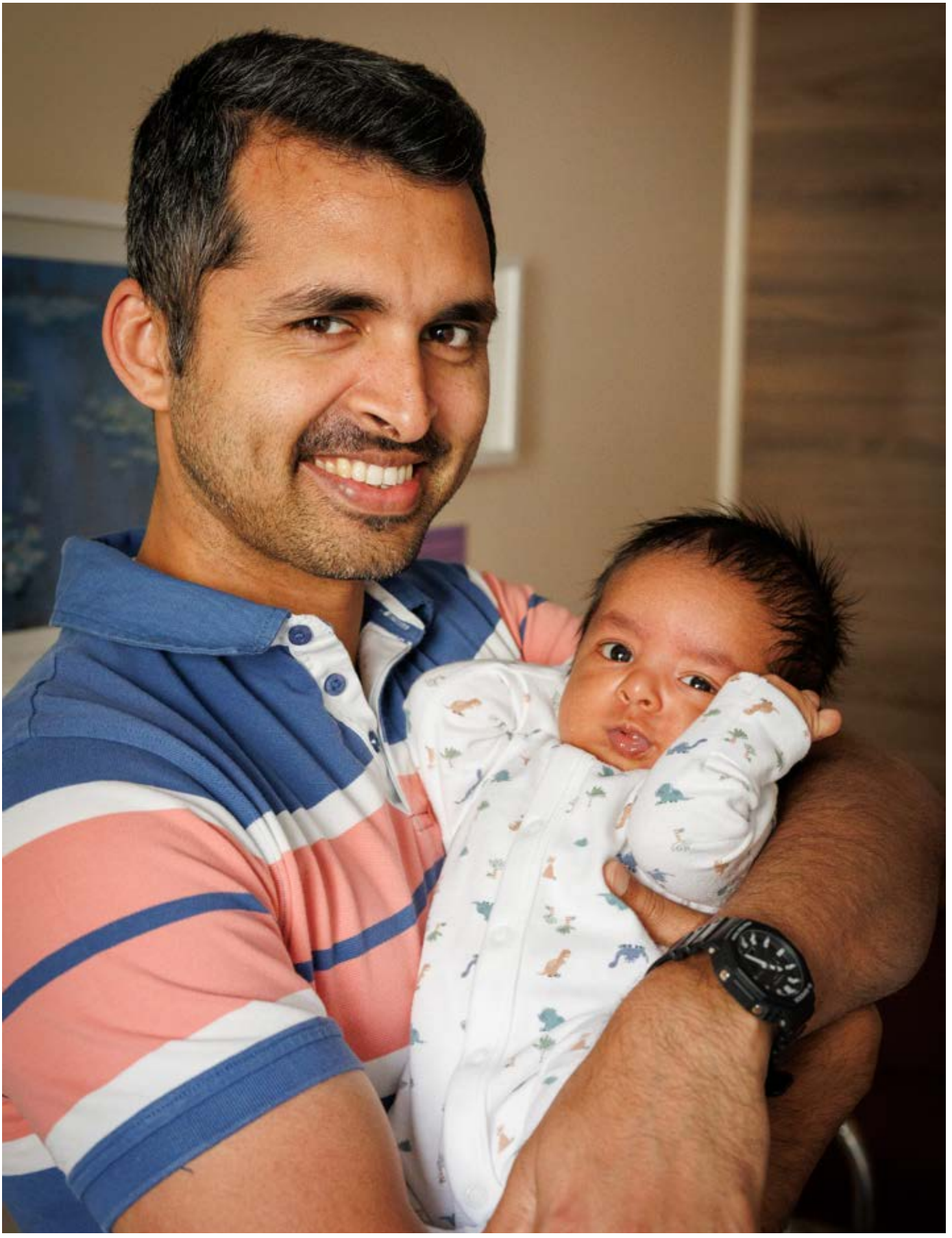
Members of the NMH at Elm Park Development Team

The internal NMH PMO continue to work on various aspects of the project, as required.

The members of the PMO Team are: Prof Shane Higgins, Ronan Gavin, Mary Brosnan, Alistair Holland, Dr Orla Sheil, Prof Jennifer Walsh, Martin Keane (IEHG), Damian McKeown, Eoghan Hayden, Gillian Canty, Martin Creagh, Geraldine Duffy, Sarah McCourt, Shay Moriarty

Sarah McCourt,
Project Administrator.

An aerial view of the proposed co-location of The NMH to the St Vincent's University Hospital Campus.



Melbit Joseph and his newborn son Ruben.

Catering

Chefs Hany Hakim, Raj Mungal , Muireann McColgan, Paul Humphreys, Vuyo Sukwana and Patrick Lacy.

The NMH Catering Department plays a pivotal role in ensuring the well-being of patients, staff, and visitors by providing fresh, nutritious, and high-quality meals. In 2024, the Department achieved significant milestones, strengthening its commitment to food safety, quality, and service excellence. This report highlights key achievements, initiatives, and improvements that have contributed to the hospital's overarching mission of delivering outstanding healthcare services.

Successes & Achievements

Commitment to Food Safety & Quality

The Catering Department at NMH has been committed to building a strong, positive food safety culture for several years. Our team is passionate about serving nutritious food that meets the expectations of both patients and staff by using locally sourced ingredients, cooked by talented chefs, and delivered with care.

This dedication has led to multiple achievements in 2024:

- Retention of ISO 22000:2018 Food Safety Management Systems certification, reinforcing our commitment to continuous improvement in food safety.
- Achievement of a perfect 100% score in the Food Safety Assurance of Ireland Award audit-upholding the highest hygiene and food safety standards.

Enhancing Patient Meal Services

Understanding the critical role of nutrition, particularly for expectant mothers, the Department introduced an expanded diabetic snack menu featuring high-protein, low-sugar options such as nut bars, protein-enhanced treats, and popcorn. These additions provide a greater sense of normalcy and choice while managing dietary needs of expecting mothers.

Food Safety Training & Workforce Development

Training and professional development remain key pillars of the NMH Catering Department. We utilize online tools such as the NMH e-learning portal Totara, HSELand, and face-to-face training to continuously upskill our staff. All catering staff have successfully completed at least Food Safety Level 2 certification, while all chefs have achieved Food Safety Level 5 QQI certification. A number of team members engaged in QQI Level 6 Team Leadership Training, focusing on people management, organizational skills, and communication.

These training initiatives are driven by the principles of ISO 22000, ensuring a systematic approach to food safety and continuous improvement.

Enhancing the Staff Canteen Experience
The staff canteen remains an essential space for fostering a positive work environment. Throughout the year, several initiatives were introduced to boost morale, including themed meal days and special events. The highlight of the year was the annual Christmas Lunch, which served approximately 750 meals, bringing together staff from all departments to celebrate the festive season. Additionally, the Department collaborated with various Hospital teams to promote well-being initiatives, support smoking cessation efforts, and raise awareness about antimicrobial resistance during World Medication Day.

Infrastructure & Equipment Upgrades
To improve efficiency and safety, several key infrastructure projects were completed in 2024. The Unit kitchen underwent a refurbishment to optimize workflow, ensuring seamless meal service in one of the hospital's busiest areas. Additionally, the main kitchen flooring was replaced in autumn, creating a safer and more comfortable workspace for the catering team.

Patient & Customer Feedback

We love receiving feedback, whether it's about a meal that made someone's day or a suggestion for improvement. While we are thrilled with the positive responses, we also recognize the challenges of our operation, including space constraints and the ongoing effort to provide a diverse range of meal options for patients.

We don't just bask in the glory of compliments; we take constructive feedback seriously and act on it to enhance our services. One recent change, inspired by patient and visitor input, ensures that all wards now have an overnight option for fresh tea, coffee, and light biscuits. So, for parents enduring a long night or those feeling a little peckish at 2 a.m., we've got you covered, because sometimes, a simple biscuit can make all the difference!

Future

The NMH Catering Department remains an integral part of the Hospital's operations contributing not only to nourishment, but also to the overall atmosphere of care and support. The successes of 2024 provide a strong foundation for continued improvements, ensuring excellence in service and patient experience for years to come.

We sincerely appreciate the collaboration and support of all NMH departments throughout the year. We acknowledge that the Catering Department relies on the invaluable contributions of various NMH teams, both clinical and non-clinical, to operate efficiently. This collective effort enables us to address risks, support the health team, and foster strong relationships that enhance our operations and create a lasting positive impact.

Liz Byrne, Catering Manager.

POSITIVE FEEDBACK FROM PATIENTS AND STAFF HIGHLIGHTS THE DEPARTMENT'S IMPACT:

"The Thai Yellow Fish Curry was incredible! I came back for a second serving—hope to see it on the menu again soon."

"The Cottage Pie and Profiteroles were Bellissimo today, thank you!"

"The Meatball Masala Curry was amazing... thanks a mill!"

"Thank you for a beautiful Christmas dinner; it was amazing as always. The catering staff were fantastic and made sure everyone was well fed."

"Your kindness and delicious meals made a difference while we waited for our son, Lorenzo. We are deeply grateful for your support."

Chaplaincy

The Chaplaincy Department provide spiritual, emotional, grief and bereavement support to bereaved patients / families who have experienced early miscarriage, mid trimester loss, stillbirth, neonatal death and compassionate induction of labour.

Spiritual/Religious and Practical Support

The Chaplaincy Department recognises and values all belief systems in a developing multi-cultural society through co-ordination of appropriate chaplaincy services with representatives and ministers of all faiths and those of none. All services being led by the Chaplaincy Department are viewed through a broad lens therefore delivering a 21st century model of spirituality through providing appropriate support.

Mortuary / Chapel of Rest

The Chaplaincy Department take full responsibility for the management / co-ordination of the mortuary chapel of rest services.

Activity

Table 1 below shows the areas where support has been provided. The chaplaincy office is used as a quiet space providing spiritual, emotional, grief and bereavement support to bereaved families and to staff members. There is also 'other' unspecified and unplanned support provided: this support often occurs informally with staff, patients and their families throughout the hospital. Also included in the 'other' support, is support provided to families whose baby's death had not been acknowledged in any way in the past. Many years ago the type of bereavement support which we have today, was not available to bereaved families. In some cases, the loss was never spoken about or acknowledged. Sometimes we are contacted by families (NMH patients) who are stuck in their grief work and journey, or siblings who have only learned about their mothers and fathers unspoken loss in their advancing years. In these situations, we offer the bereaved family appropriate emotional, spiritual, sociological support. We also offer the bereaved family an opportunity to attend our Remembrance Service, including having their baby's details entered into our remembrance book. In some circumstances we have led a very gentle private ritual or prayer service for the bereaved family if we feel it would help them to become unstuck in their grief work and journey forward.

Remembrance

The Chaplaincy Department organized and led liturgies throughout the year in the Hospital. This year's Remembrance Service took place in St Andrews Church Westland Row which was very well attended.

Helen Miley, Chaplain.

Table 1: Activity

	2020	2021	2022	2023	2024
Services - naming / Baptisms/ removals	213	141	143	121	77
Stillbirth / IUD	113	113	103	148	113
Other support	70	72	75	80	81
Early miscarriage	10	7	10	4	2
Neonatal death	30	35	38	38	24
Termination of pregnancy	14	19	18	23	7

Refers to support offered and not actual cases. Bereavement CMS now care for patients following a loss <16 weeks estimated gestational age resulting in a decrease in numbers in 2024.

Facilities Engineering

Freddy Byrne, retired Maintenance Supervisor and Caitríona Sullivan, retired CMM2, Theatre at the Charter Day celebrations.

The Facilities Engineering Department (FED) have had a number of staff changes during 2024. We would like to thank all our staff for their continued efforts during 2024 and wish those joining us in new positions the very best. Like most departments, 2024 brought challenges with the recruitment ban and we wish to recognise and thank the entire FED team for bridging gaps during this challenging period.

Maintenance

2024 has been challenging in maintaining the existing aging assets and infrastructure throughout the campus. In Quarter 3, we welcomed Nicholas Kinevane, Electrician, to the Department. Our thanks to the HR Team who have supported us through numerous recruitment processes.

The Department continues to carry out repairs and replacement of flooring throughout the campus. Major roof preventive maintenance commenced this year and will continue in 2025.

The FED team continues to work on key projects throughout the organisation including an upgrade to the modern access controlled automated door in the Theatre and the conversion of the former utility room to a pharmacy drug store. Substantial light upgrades were also undertaken with a move to more efficient LED lighting bringing both environmental and financial benefit. We continued painting works around the Hospital which will also extend in 2025 and beyond.

The FED Maintenance Team completed 4,205 work requisitions during 2024 (gREQs). gREQs are rising year on year as the buildings and systems age.

NMH Projects

The FED team played a crucial role in planning and coordinating the upgrade of the hospital's electrical infrastructure, a significant safety endeavour designed to improve the reliability and efficiency of our main power supply system. This upgrade not only aims to meet the increasing demands for power but also addresses the resilience of the emergency backup generators which are used in the event of ESB failure.

The replacement of the existing 1000 kVA transformer with a new 1.6 mVA transformer represents a substantial increase in capacity, which is crucial for meeting the hospital's growing power

demands. Additionally, the upgrade to an N+1 redundancy for the backup generators is a critical safety improvement. This configuration ensures that there is always at least one functional generator available, which is especially important for a facility such as The National Maternity Hospital that requires continuous power for critical patient care and essential services.

The logistical efforts to maintain power during the transformer replacement, utilising three temporary generator sets with the support of old generators and a steady supply of diesel, required careful planning and coordination. This approach minimised disruption to hospital operations, allowing for the transition to the new systems while the new transformer was being installed.

With the new generator delivered, installed, tested, and signed off by the ESB the hospital is fully equipped with upgraded power and power generation capabilities. This will enhance safety, reliability and operational efficiency, ultimately leading to improved service for patients and hospital staff.

The internal FED team has made significant improvements to the hot water services by upgrading to high-efficiency gas boilers. The installation of the new 630 kW boilers, along with enhanced flue systems and upgraded power and control mechanisms, will provide considerable gains in environmental performance, efficiency and reliability.

Projects progressed in 2024

- Anatomical labs (concept stage)
- Bereavement services (concept stage)
- New lift core (planning approved - HSE lead)
- New ambulatory gynae facility (project started late 2024 - HSE lead)
- Development of Central Decontamination Unit service (concept stage)
- NCHD project (planning stage)
- Front hall (planning stage)

Some projects completed by FED team in 2024

- Postnatal 1 bathroom and showers refurbishment
- Gynaecology Ward single room refurbishment
- Medical Social Work Department ventilation project
- Main carpark entrance resurfacing works
- Colposcopy waiting area refurbishment
- Theatre entrance upgrade
- Ground floor corridor painting and lighting upgrade
- Main stairs flooring and nosings
- Main kitchen flooring and minor refurbishment

Environmental

The main driver for the FED Environmental Department is to ensure the continual improvement and prevention of unnecessary environmental direct and indirect pollutions meeting national, international, and self-established targets.

The Environmental Department sets performance targets each year across a broad range of environmental factors which drives environmental objectives and targets to improve the hospitals environmental performance in key areas such as Energy Management, Waste Management, Water Consumption, Discharge to Drain, Green Procurement Management, Training and Awareness and General Environment Management.

All waste produced, energy consumed and water used within the hospital is monitored on a continuous basis and reported to the Executive Management Team.

The Hospital's total energy consumption (electricity and natural gas) in 2024 was 7,257,237kWh which represent an average increase of +4.5% when compare to 2023's energy consumption. Deeper analysis of this increase is being undertaken and corrective measures identified will be developed. And whereas the cost of energy is still increasing, consumption is relatively static. Based on 'Degree Days' 2024 was slightly cooler than 2023 which has a corresponding in increased gas consumption for heating.

In 2024, the Hospital produced a total of 421.7 tonnes of waste from all areas which include healthcare risk waste, domestic wastes, chemical wastes, recyclable and hazardous wastes which represent an average decrease of -0.90% when compare to 2023 and 30,560 litres of waste such as chemical, grease, cooking oil and shows average increase of +3.64% when compare to 2023. If we compare figure to 2020 (5 year period) then we could see our waste tonnes is decreasing by -5.21% but our litres waste increased by +18.27% and mainly this increase caused by increase a Grease Trap cleaning from monthly to every 3 weeks.

Neil Farrington, Facilities Engineering Manager.

General Services

Nicholas Gailland, Portering Services.

Hygiene Services

The Hygiene Services Department is responsible for the environmental cleanliness of all patient, visitor and staff areas of the Hospital, and contributes to the cleaning of patient-use equipment. We draw upon international best practices for our operating procedures and cleaning methods, and pair these with the latest cleaning technologies.

Over the past year, the Department contributed to the hospital's quality improvement initiatives through its participation in Quality and Safety 'Walk-Arounds', its involvement in both the Hygiene and the Infection Control Committees, and through its management of the Hospital's multi-disciplinary hygiene audits. These audits measured the compliance of the Hospital's clinical and non-clinical hygiene activities against the infection control requirements of the Health Protection and Surveillance Centre, and identified opportunities for improvement to our facilities, processes, and training programs across many departments. The Department also liaised closely with the members of the House Committee, who regularly conduct independent and unannounced reviews of the hospital's hygiene activities. Many thanks are extended to the members of this Committee for their time and valuable contributions.

Uniquely among non-clinical departments, HIQA include the training compliance of Hygiene Services within their inspection criteria because of the role we play in maintaining the hospital's safety and quality standards. Many of our training programs were moved online during the year, providing easier access and consistency of delivery and as a result, compliance remained high in 2024.

Over the course of the year, we welcomed Ms Rodica Mascautanu to the team, and wished Ms Elizabeth Watson a wonderful retirement after many years of service. We also congratulated Mr Calin Buie and Ms Luminita Bocut on their successful transfers to other hospital departments.

The Department's unprecedented staffing shortages in 2024 resulted in unavoidable challenges, but these were overcome through the incredible efforts and dedication of the Hygiene Services staff, as they continued to maintain exceptional service levels for our patients and colleagues throughout the year.

Mark Anderson, Hygiene Services Manager.

Portering Services

The Portering Services Department provides an essential frontline service throughout The National Maternity Hospital including dedicated services to the Labour and Birthing Unit, Theatre, Laboratories, Laundry, Front Hall and Stores. These services can be categorized into patient-centred services and facilities-based services, both of which are provided on

a 24-hour basis. Patient-centred services involve direct engagement with our patients, staff and visitors in terms of patient transportation, communication and general assistance. The facility-based services undertaken by Portering Services include daily operational tasks such as waste disposal, curtain hygiene maintenance, transportation of furniture and equipment, exchanges of medical gas cylinders and groundskeeping.

The Department has continued to support education and training programmes including mandatory training when required, as well as developing a new essential 'Emergency Skills Training' course in conjunction with the Labour and Birthing Unit. The Department is represented on several committees such as Manual Handling Trainers, Communications Group and Green Committee.

The Portering Services Department in conjunction with the Postnatal CMM3 and our suppliers Coffey Healthcare, worked closely with the arrival of new upgraded electrical beds. We are currently 90% of the way through this programme.

I would like to thank all Portering staff for their contribution and professionalism during this period.

We would like to wish our colleague Derek Doody a Happy Retirement after years of services at The National Maternity Hospital.

As Hospital services continue to expand, it is expected that Portering Services Department meet the demand and continue to provide the highest standards.

Claudiu Zselemi, Portering Services Manager.

Switch/Reception

Reception / Switch is based in 65/66 Lower Mount St. in a very busy building, where on any given day, there could be interviews, clinics, meetings, patients coming for a specific appointment.

We pride ourselves on greeting each person with a welcoming smile, to be courteous and pleasant while delivering an efficient service. Always on hand to direct patients/visitors to their relevant area and of course assist new Mothers navigate the lift with their buggies, as they attend the lactation clinic.

In our role as operators, each call is answered in a swift, friendly and competent manner whilst ensuring the highest level of confidentiality, compassion and empathy. As a part of being a Telephonist, we use good communication and listening skills, including having a friendly, helpful and patient manner.

In our Reception area, we also have responsibility for the fire alarm system and wheelchair alarm, should any of these go off, we are responsible for contacting our Maintenance team as soon as possible.

The Switch team also has responsibility for the Internal Paging System. We are happy to be of assistance to our colleagues in navigating this system. Either by explaining how they work, changing batteries or issuing a temporary pager, if their pager should be in need of repair. An emergency test call is sent out daily to ensure all emergency pagers are in perfect working order.

We look forward to offering our continued support to our patients and colleagues in the coming year.

Kathleen Maguire, Switch/Reception Manager.

Sabrina Cleary, Hygiene Services Department.

Medical Education

Multidisciplinary team training (mega drill simulation) occurs regularly focusing on major obstetric haemorrhage and unexpected intraoperative bleeding

NMH is a busy clinical unit with a strong and proud history as a teaching hospital for both undergraduate and postgraduate students in all disciplines: medical, midwifery, nursing, physiotherapy, social work, laboratory science, dietetics, and paramedics. As a teaching hospital for both University College Dublin and the Royal College of Surgeons of Ireland, nearly four hundred medical and midwifery students are trained here every year; these range from lectures, tutorials and introduction to clinical practice for Clinical One medical students, six-week placement in Clinical Two medicine, the eighteen-month Postgraduate Midwifery Programme and the four-year Bachelor of Midwifery degree students. There is ongoing training and support for students in the Masters in Ultrasound and Graduate Certificate in Professional Ultrasound. Dietetics, nutrition, and physiotherapy students are smaller in numbers in trainees, but no less welcome for their contribution and learning within the hospital environment. There are also multiple Masters and Doctorate students (MD/PhD) working on research projects within the hospital.

NCHD Training and Fellowships

Most of the Non-Consultant Hospital Doctors (NCHDs) are registered for training either under the auspices of the Royal College of Physicians (Pathology/ Paediatrics/Obstetrics and Gynaecology/ Microbiology), the College of Anaesthetists or the Irish College of General Practitioners. The NMH provides training to fulfill the criteria for basic and specialist training in the specialties of obstetrics and gynaecology, anaesthesia, paediatrics and pathology.

Our fellowship programmes in Maternal Fetal Medicine, Labour Ward Management, Maternal Medicine, Placenta Accreta Spectrum, Neonatology, Obstetric Anaesthesia and Advanced Medical Education continue to be popular choices for highly trained and motivated trainees. Dr Shahad Al Tikriti has joined as the NMH Advanced Medical Education Fellow from July 2023 and will be completing a MD in medical education. Dr Clare Kennedy joined as a UCD tutor and is one of two fellows in the pilot Irish Clinician Educator Training Programme in the RCPI. Dr Lorcan O'Carroll is an Anesthesiology SpR who is completing a MD programme on education in communication at emergency caesarean under the supervision of Dr Robert Ffrench O'Carrroll.

Multidisciplinary Major Emergency Simulations

We continue to regularly run two major simulations in the operating theatre, the first on vascular injury at laproscopic surgery and the second on the national postpartum haemorrhage/major obstetric haemorrhage guideline. Both include mock phone calls to colleagues in St Vincent's University Hospital and both are highly successful and stimulated extensive discussion within the multidisciplinary team including medical scientists.

Ongoing Training

Extensive ongoing staff training for the MN-CMS system, staff health and wellbeing, medication safety, medication reconciliation and continuing professional development are ongoing. The annual Charter Day Symposium was held in January 2024. The annual study day for General Practitioners was held in November 2024. The Labour and Birth Unit (LBU) hold multidisciplinary weekly skills teaching and "LBU Topic of the month" and there is ongoing training within the antenatal, postnatal and gynaecology wards and the antenatal clinic appropriate to their work.

Site specific training

Different departments and wards offer training specific to their scope of practice. For example, in the Fetal Medicine Department, Valerie Spillane CMM 3 offers a 'NMH Basic Ultrasound Skills Programme' to the Community Midwives. The programme teaches how to perform point-of-care ultrasound in their community clinics. In the Operating Theatre, some of the education trainings they do range from technical use of different machines used and short education sessions / mini simulations on the following: difficult airway simulation training, capnography, malignant hyperthermia, ROTEM guided management pathway, uteretonics and safe skin to skin

Education weeks

Similar to previous years, we provided inter-professional and multidisciplinary training weeks in sepsis, neonatal resuscitation and medication safety.

Mandatory training

The hospital comply with all mandatory and statutory training requirements as part of workplace effectiveness and safety for all (e.g. Manual Handling, CTG/ K2, Basic Life Support, Hand Hygiene etc.)

PROMPT – Practical Obstetric Multi-professional Training

It can be challenging to provide regular PROMPT training sessions while also providing clinical care. We are very grateful to both the former Ireland East Hospital Group training grant and the NMH Foundation who have jointly funded two pieces of essential simulation equipment to the cost of 33K which will benefit training in emergency care.

Staff education and qualifications

Aoife Lennon (Simulation) and Lavanya Lakshmanan (Medical Education) are completing Masters in Education at the University of Galway.

Staff research and innovation

As ever, the popular and well attended RISE meeting (Research and Innovation Symposium Exhibition) has highlighted quality improvements, research, and innovation across all staff members in the hospital, both clinical and non-clinical, highlighting why for many this is a place to be proud to work, despite ongoing challenges.

Multidisciplinary medical education committee

S Al-Tikriti, N Adnan, V Broderick, C Brophy, I Browne, A Calnan, P Calpin, L Crowley, R Ffrench O'Carroll, A Hickey, M Higgins (Chair), N Higgins, S Knowles, L Lakshmanan, A Lennon, N O'Riordan, C Pugh, I Shanahan, L Sheehy – the NMH MDT Education Group.

Prof Mary Higgins, Consultant Obstetrician & Gynecologist.

Table 1: Weekly multidisciplinary teaching programme

MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
Handover and MDT discussion twice a day on Labour ward, every weekday and weekend day				
Monthly: Accreta **Monthly:** Rhesus	Fetal Medicine	Maternal Medicine	Emergency care	Labour ward care
Theatre Education			**Grand Rounds** **Monthly:** Morbidity and Mortality	"Fetal Friday" training

Midwifery and Nursing Education and Practice Development

Lucille Sheehy, Clinical Practice Development Coordinator / Assistant Director of Midwifery & Nursing, with Sarah Fogarty who was one of 17 midwives that graduated during the year with a BSc. Midwifery Degree, and Prof Shane Higgins, Master, at the graduation ceremony. Sarah now works in the Hospital as a Staff Midwife

The Education and Practice Development Department is responsible for organizing and coordinating ongoing education and professional development for both qualified staff and student midwives and nurses. Its primary goal is to equip midwives and nurses with the knowledge and skills needed to deliver high-quality, evidence-based, patient-centred care in an ever-evolving healthcare environment. The department fosters a culture of lifelong learning, encouraging staff to engage in educational programs, conferences, seminars, and study days, both internally and externally. Many staff members are furthering their education at postgraduate, MSc, and PhD levels. We are deeply grateful to the Nursing and Midwifery Planning and Development Unit for their continued support of our education and research initiatives.

In collaboration with the Centre of Midwifery Education, The National Maternity Hospital (NMH) provides a continuous professional development program for nurses and midwives.

In partnership with Higher Education Institutions, the NMH remains committed to maintaining excellence in Midwifery and Nursing education for both students and qualified staff. The objective is to uphold high standards in professional education, training, and practice while ensuring professional conduct among nurses and midwives, ultimately safeguarding public health. In 2024, the NMH continued to offer education and clinical placements for BSc and Higher Diploma Midwifery programs. Additionally, the NMH facilitated maternity care placements for approximately 200 UCD General, Children's & General Nursing, and Public Health Nursing students.

Sixteen Higher Diploma Student Midwives graduated in June 2024 and the BSc Midwifery Graduation was held in December. Congratulations to the following midwifery students who will be awarded prizes at the 2025 Charter Day Ceremony.

Gold Medal recipients: Emma Donohoe (Higher Diploma) and Ann Nwagwu (BSc).

Elizabeth O Farrell Medal recipients: Katie White (Higher Diploma) and Alexandra Novotna (BSc).

Lucille Sheehy, Assisted Director of Midwifery & Nursing, Education & Practice Development.

Royal College of Surgeons in Ireland

Thirty-four undergraduates from the Royal College of Surgeons in Ireland (RCSI) attended The National Maternity Hospital (NMH) in 2023 for their six weeks rotation in Obstetrics, Gynaecology and Neonatology; 18 students in January/February and 16 in February/March.

The programme was co-ordinated by Professor Declan Keane and Dr Catherine O'Regan, the tutor. Erica Gongora provided invaluable administrative support to the students. Teaching was provided by Consultants and various other members of hospital staff. In addition to the obligatory e-learning programmes, the students rotate through all areas of the hospital, including the Labour and Birthing Unit, Postnatal Wards, Antenatal Ward, Theatre, Gynae Clinics and also receive lectures, tutorials and bedside demonstrations.

Sixteen students achieved honours in their final Obstetrics and Gynaecology examination at the RCSI. Five of these achieved first class honours. Ms. Renitha Reddi was awarded the RCSI/NMH Medal for achieving the highest marks amongst the RCSI students who attended The National Maternity Hospital.

On the postgraduate front, Dr Nicola O'Riordan successfully completed her PhD entitled 'Labour dystocia: Increasing insights through proteomics, pharmacology and perinatal audit'. Dr Ellen McMahon will now be following Nicola looking further at dystocia trends and at-risk nulliparous patient.

Prof Declan Keane, Department of Obstetrics and Gynaecology, Royal College of Surgeons and Consultant Obstetrician & Gynaecologist.

Renitha Reddi Bathuni, RCSI/NMH medical student, Prof Declan Keane, Consultant Obstetrican & Gynaecologist and RCSI Associate Professor of Obstetrics & Gynaecology and Prof Shane Higgins, Master. Renitha was awarded the RCSI / NMH Medal for obtaining the highest marks in their final Obs/Gynae exam.

University College Dublin Obstetrics & Gynaecology

UCD Obstetrics & Gynaecology at National Maternity Hospital has a large and vibrant teaching programme delivered by Prof Fionnuala McAuliffe, Prof. Mary Higgins, Prof Donal Brennan, Prof Colm O'Herlihy, and organised by Ms Stephanie Begley and Ms Vaniya Patil. Tutors Dr Clare Kennedy, Dr Kristyn Dunlop, Dr Bernard Kennedy, Dr Nicola Whelan, Dr Roisin McConnell and Dr Rachel O'Keeffe provided excellence in teaching throughout the year.

The John F. Cunningham Medal was awarded to Dr Isabel Dwyer, the Kieran O'Driscoll Prize to Ms Eoghan Culligan and the Edward Smith Medal to Ms Louise Murphy.

We are delighted to announce that Prof David Crosby was appointed as UCD Associate Professor of Reproductive Medicine during the year, which will further develop our academic and research programme in Reproductive Health.

We have an energetic and enthusiastic team of researchers ranging from research assistants to MD/PhD students who are working on a wide variety of projects spanning all aspects of obstetrics and gynaecology.

Orlagh Meyer, Jack Kennedy, Emma Sheridan and Berkeley Scott, UCD Medical Students.

Submission of MD/PhDs

Dr Niamh Keating was awarded MD on diabetes research.

Dr Anna Delahunt was awarded PhD for thesis entitled Determinants of appetitive traits in children aged 5 and 9-11 years old: Findings from the ROLO longitudinal birth cohort study

Dr Cathy McNestry was awarded MD for thesis entitled breastfeeding to prevent chronic disease.

MDs were awarded to Dr Kate Glennon, Dr Fionan Donohoe.

Dr Clare Kennedy was awarded MSc and Claire O'Rourke MSc Ultrasound.

Dr Sophie Callanan was awarded her PhD entitled Cardiometabolic outcomes in ROLO preteens.

Dr Fiona O'Toole submitted her MD thesis on Iron deficiency anaemia in pregnancy.

Dr Helena Bartels was awarded PhD for thesis on Placenta Accreta

UCD Perinatal Research Centre (www.ucd.ie/medicine/perinatal, X @UCDPerinatal, instagram @ucd_perinatal)

The centre's work aim is excellence in reproductive health and perinatal

research to improve clinical outcomes for mothers and their infants.

Hollestic nutrition smart phone app
We are delighted that a smart phone app developed by the centre in collaboration with Dr Eileen O'Brien and Ms Sinead Curran at Dept of Dietetics at NMH was launched in 2021 for all pregnant women at NMH, nationally and internationally under name Hollestic, available on app store and free to download. It is based on the PEARS randomised controlled trial that found that an m-health lifestyle supported intervention resulted in less gestational weight gain, better sugar levels in mothers and less large for gestational infants.

To date it has > 150,000 downloads, with the majority from outside Ireland. This is an excellent example of translation of research into a clinically useful tool for women attending National Maternity Hospital and globally.

Research funding
Science Foundation Ireland Frontiers for Future. PrePop, €978,000 Fionnuala McAuliffe PI

EU Transforming health and Care systems. Bump2Baby and Me plus: €613.832 Fionnuala McAuliffe co PI

Research Ireland Personalised mHealth Maternal Nutritional Education for Equitable Nutritional Access and Improved Maternal and Offspring Health Outcomes in Sub-Saharan Africa (AMEN), €299,828. Fionnuala McAuliffe co PI

Health Research Board Ireland, The role of protein glycosylation in the pathogenesis of endometriosis and association with microbiome, €329,818 Fionnuala McAuliffe co PI

Welcome Leap Fetal movement monitor, €3,000,000 Fionnuala McAuliffe co PI

National Children's Research centre ROLO pre-teens, €271,847 Fionnuala McAuliffe PI

HRB UCD Clinical Trials Centre, €5,339,121 Fionnuala McAuliffe co-PI

NMH Foundation, €70,000 Prepop, Siobhan Corcoran PI

NMH Foundation, €50,000 ROLO Mothers long term health, Fionnuala McAuliffe PI

EU Impact Diabetes Bump2Baby, M-Health supported intervention for women at risk of gestational diabetes €4,000,000 Fionnuala McAuliffe co-PI

AI-PREMie Science Foundation Ireland: €500,000 Mary Higgins

AI PREMie Science Foundation Ireland (Role: Society Champion) Seed Phase: €200,000 Mary Higgins
Science Foundation Ireland AI for Societal Good Challenge €1,000,000 Mary Higgins

Enterprise Ireland Commercialisation Fund €741,000 Mary Higgins

Irish Medical Council/Irish Network of Healthcare Educators 2024 Research in Medical Education (with Shahad Al Tikriti) €5,000 Mary Higgins

Irish Cancer Society Womens Health Initiative 2020 "Women's Health Initiative Cancer Survivorship Project" - (€400,000 direct costs). Subsequent cost extension €200,000 to extend project to 2024. Principal Investigator Donal Brennan

Science Foundation Ireland -Precision Oncology Ireland "Dynamic Modelling of T cell response to immune checkpoint inhibitors in high grade serous ovarian cancer" (€1,265,908 direct costs) Donal Brennan Co-PI with Prof. Walter Kolch

Irish Cancer Society Immuno-oncology Award "The Role of TIGIT in ovarian Cancer" (€350,000 direct costs) Donal Brennan Co-PI with Prof. Lydia Lynch

National Covid Biobank 2022 – Donal Brennan Co Applicant (€2m direct costs)

Irish Cancer Society "Comparing group-based Compassion Focused Therapy and breathing pattern retraining with Treatment As Usual on the psychological functioning of patients diagnosed with cancer recurrence during COVID: a randomised control trial" (€73,000 direct costs) Donal Brennan PI

Awards / Prizes
Third prize, Oral Presentation, Junior Obstetrics and Gynaecology Society, November 2024 A preterm birth story: medical students' reflections on the parent narrative: a qualitative study C Kennedy, M Higgins

First prize, Medical Student, Junior Obstetrics and Gynaecology Society Oral Presentation, November 2024 Complications following Termination of Pregnancy. C Dignam, A Jones, R O'Keeffe, R McConnell, Higgins MF.

UCD College of Health and Agricultural Sciences Teaching Award University College Dublin 2023-2024

National Maternity Hospital Research Innovation Symposium: Best student Innovation presentation Lucy Murphy for dietary intakes of FIGO nutrition checklist amongst pregnant women, Best medical student Research Presentation Saoirse Kennedy and Orla Breen

Professor Fionnuala McAuliffe, was elected as FIGO Division Direct Elect of Maternal and Newborn Health, and onto the executive council of the International Federation of Gynecology and Obstetrics (FIGO) for 2023-2025. FIGO, with member societies in 139 countries/ territories, is the only organisation that brings together professional societies of obstetricians and gynecologists on a global basis. Ireland will contribute though the development of clinically relevant guidelines and easy to use

clinical toolkits, and through the promotion of optimal nutrition in high, middle and low income countries.

Prof Mary Higgins was successful in establishing the first ASPIRE Education fellowship and also in the first Irish Clinical Education Training ICET fellowship and received UCD College of Health and Agricultural Sciences Teaching Award University College Dublin 2023-2024 and UCD Nominee for the U21 Teaching Excellence award 2024.

Prof Donal Brennan was appointed National Clinical Lead for Cancer Research in Ireland at the National Cancer Control Program and is also Chairperson of the National Clinical Trials Oversight Group in the Department of Health.

Researchers working in Obstetrics & Gynaecology in 2024

Dr Sarah Louise Killeen, Postdoctoral Fellow
Dr Ellen Greene, Postdoctoral Fellow B2B
Dr Gillian Corbett PhD student
Dr Fiona O'Toole MD student
Dr Kristyn Dunlop, MD student
Dr May Loong Tang, PhD student
Dr Helena Bartels, PhD student
Ms Sophie Callanan, PhD student
Ms Grace Mealy, research coordinator
Ms Emma Hokey, research assistant
Ms Lucy Murphy, research assistant
Ms Caroline Ryan, research midwife
Ms Liz McGovern, PhD student
Ms Aoife Davis, PhD student
Dr Clare Kennedy, ICET and MD student
Dr Shahad Al-Tikriti, ASPIRE education Fellow
Ms Karima Abubakr, PhD student
Dr Lorcan O'Carroll, MD student (Anaesthesiology)
Dr Laura Ryan, MD student (Neonatology)
Dr Elizabeth Murphy, MD student (Neonatology)
Martina Kriedal – PhD student– SBI
Donagh Egan - PhD Student – SBI
Dr Vadim Zhernovkov – Assistant Professor – SBI
Ms Yvonne O'Meara – Project Manager – Survivorship
Ms Aedin Roberts – CNS survivorship
Dr Helen Ryan – Clinical Associate

Research projects

UCD Perinatal Research Centre www.ucd.ie/medicine/perinatal, Twitter @UCDPerinatal was established in 2014 in recognition of the significant size, output and impact of the group. Ongoing research projects are listed below.

ROLO kids

This is a follow-up study at age 2, 5 and 9-10 years of mothers and infants from the ROLO study Randomised control trial of low glycaemic index diet to reduce recurrence of macrosomia. This includes ROLO families advisory group and ROLO Young Persons advisory group

Collaborators

Dr Sharleen O'Reilly, UCD School of Agricultural and Food Science
Dr Ciara McDonnell, Paediatric Endocrinology, Tallaght Hospital
Prof Cecily Kelleher, Dr Catherine Phillips, UCD School of Public health, Physiotherapy and Population Science
Dr Declan Cody, Paediatric Endocrinology, Crumlin Hospital

Microbiome Mum – role of maternal microbiome in influencing neonatal microbiome and impact of a probiotic on maternal and fetal health

This study examines the inter-relation between mother and baby microbiome and whether a probiotic given to Mum can have positive impacts on maternal and infant health

Collaborators

Dr Paul Cotter Teagasc
Dr Douwe Van Sinderen, University College Cork
Dr Radka Soldova, NIBRT, UCD

Prepop

This is a randomised controlled trial of probiotic vs placebo in the prevention of preterm birth.

Collaborators

Dr Paul Cotter Teagasc
Dr Conor Feehily, University of Glasgow
Prof David McIntyre, Imperial College London
Dr Siobhan Corcoran, NMH

Perinatal Endocrinology Research Group

A number of studies have been performed examining the interaction of vitamin D and lipids on maternal and fetal health

Collaborators

Dr Patrick Twomey, Pathology, St Vincent's Hospital, Dublin
Dr Rachel Crowley, Endocrinology, St Vincent's Hospital, Dublin
Dr Ciara McDonnell, Paediatric Endocrinology, Tallaght Hospital

Latch-On: Multicentre RCT across 5 Hospitals in Ireland East

This is an ambitious multicentre randomised controlled trial to support breastfeeding amongst women with BMI > 25 with includes intensive antenatal and postnatal support

Collaborators

Prof Sharleen O'Reilly, UCD Institute of Food and Health
Prof Mary Brosnan, Ms Lucille Sheely National Maternity Hospital
Dr Denise McGuinness, Dr Barbra Coughlan, Dr Denise O'Brien, UCD School of Nursing, Midwifery and Health Systems

Bump to Baby and me B2B

A multifaceted m health and health coach supported intervention to reduce GDM in at risk women at NMH, Bristol, Granada and Melbourne continued recruitment, PI Prof Sharleen O'Reilly

FIGO Pregnancy Nutrition and Obesity Initiative
We are developing clinical guidelines and a FIGO nutrition checklist that can be used globally to assist healthcare professionals caring for pregnancy women to advise them about appropriate nutrition before, during and after pregnancy

Collaborators
Prof Mark Hanson, University of Southampton
Prof Hema Divakar, Divakars Speciality Hospital, Bengaluru, India.

Breastfeeding friendly city indicators
Study ongoing in Penang and Dublin developing indicators that a city is breastfeeding friendly

Collaborators
Dr Jacqueline Ho, Penang
Amal Omer-Salim, World Alliance Breastfeeding Action

VR baby and VR Bakri balloon
We are developing a virtual reality model of pregnancy to enhance medical and midwifery students and trainees experience of learning and also a VR Bakri balloon insertion model

Collaborators
Prof Eleni Mangina, UCD School of Computer Science
Dr Aoife McEvoy

FeMo Fetal movement monitor
In collaboration with Prof Niamh Nowlan, UCD Prof Biomedical Engineering, NMH is trialling a novel fetal movement monitor. We completed the first study during 2024 and are planning the next study for 2025.

IronMother
This is UCD Clinical Research Centre supported RCT of treatment of iron deficiency anaemia in pregnancy, run by multidisciplinary team at NMH led by Prof Jennifer Walsh

Collaborators
Dr Joan Fitzgerald, Ms Benedetta Soldati, Dr Karen Murphy, Ms AnnMarie Cruse

Alcohol screening in pregnancy
This anonymous study continued in 2023 in collaboration with Prof Aiden McCormick and Dr Ciara McCormick, Dr Liz Dunn Wexford and Dr Alfonso Rodriguez Herrera, Kilkenny

National Maternity Cardiac database (A Smyth, C Canniffe, FMcAuliffe, NPEC) established the first national cardiac in pregnancy database

IRELAND study
Multicentre RCT in aspirin use to prevent pre-eclampsia in women with pre-gestational diabetes. This study was published in AJOG MFM in 2024.

AI Premie
This is a multidisciplinary study examining the role of AI in the prediction of pre-eclampsia.

Healthcare training
One Safe Act in the Labour and Birthing Unit, and Communication in Obstetric Emergency Birth are ongoing studies

Ovarian Cancer Immunology
Prof Brennan co-leads a group of 7 scientists (4 PhD Students, 3 post-doctoral scientists) with Prof Walter Kolch in Systems Biology Ireland, UCD School of Medicine, which focuses on cancer immunology with a particular focus on the impact of aberrant intracellular signalling on T-cell activity. He also actively collaborates with Prof Lydia Lynch, Harvard Medical School, with whom he co-supervises a PhD student and post-doctoral scientist also working on ovarian cancer immune response.

Women's Health Initiative – The GO Cancer Centre
The GO Cancer Centre at the Mater Hospital funded by the Irish Cancer Society supports the delivery of numerous projects in the cancer survivorship arena and is coordinating numerous clinical trials in this area and led the development of the web portal www.thisisgo.ie . The GO Cancer Centre is managed by Ms Yvonne O'Meara and currently includes two MD students, two survivorship nurses. The Centre collaborates with many disciplines including oncology nurse specialists, dietietics, physiotherapy and psycho-oncology

Placenta Accreta Spectrum
The placenta accreta spectrum service is coordinated by a clinical fellow, Dr Helena Bartels who is also completing a PhD focused on multi-omic technology to predict severity of disease. We collaborate with Placenta Accreta Ireland and have been to the forefront of documenting the patient story and lived experience on both a national and international level.

Medical Education ("MedEd") Electives Prof Mary Higgins
We run highly successful electives in Medical Education with medical student participants. As well as students gaining increased knowledge in MedEd theories, student output includes the following:

A 100-page handbook for final year students reviewing Obstetrics and Gynaecology

"Obscast" podcast
Multiple MedEd infographics on subject's that students identified as relevant and under resourced in the standard curriculum Presentations at the INHED, AMEE and ASME meetings
Development of a module on peer assisted learning

Medical education
Prof Mary Higgins is spear heading research into the transition from clinical to research work for healthcare workers, patients as educators, transition to specialist training.

Ongoing Gynaecology Clinical Trials

OVHIPEC-2 - stage III epithelial ovarian cancer randomizing between primary cytoreductive surgery with or without hyperthermic intraperitoneal chemotherapy (https://clinicaltrials.gov/ct2/show/NCT03772028) – recruitment ongoing

Menopause after Cancer (MAC) Study – single arm phase 2 examining if the addition of psycho-social support and digital cognitive behavioral therapy (CBT) for insomnia to standard non-hormonal pharmacotherapy can improve quality of life in woen women with menopause and a prior cancer diagnosis (https://clinicaltrials.gov/ct2/show/NCT04766229) – recruitment complete

COMFORT Trial – investigation of the effectiveness of a compassion focused therapy and breathing pattern retraining in reducing psychological distress for people who were diagnosed with cancer 'recurrence' since the beginning of the COVID pandemic. (https://clinicaltrials.gov/ct2/show/NCT05518591) – recruitment ongoing

OASIS-4 – Placebo controlled double blind phase 3 study examing the effectiveness of Elinzanetant for treatment of vasomotor symptoms caused by anti-endocrine therapy in women with, or at high risk for developing hormone-receptor positive breast cancer. (https://clinicaltrials.gov/ct2/show/NCT05587296) – recruitment ongoing

Publications from UCD Obstetrics & Gynaecology in 2024, 57 in total, are listed in the Published Research Section under UCD Obstetrics & Gynaecology.

Prof Fionnuala McAuliffe, UCD Full Academid Professor of Obstetrics and Gynaecology, Consultant Obstetrician and GYnaecologist.

Dr Ciara McCormick, NMH Fellow in Medical Education, with her newborn baby girl Aoibh born in The NMH during the year.

Research Ethics Committee

The National Maternity Hospital Research Ethics Committee is both a Local and National Ethics Committee. It is approved by the Department of Health to review National Perinatal Studies. It reviews Obstetric, Neonatal, Anaesthetic, Gynaecology and Perinatal Pathology research.

Monthly meetings are held with the exception of August. There is one quarter lay attendance and a quorum is required at each meeting.

Generally, the applications are approved at each meeting; if not approved the Chairman will request clarification on a particular issue. A final decision is always made at the second review of the Committee. The average length of time between receipt of an application and a final decision by the Committee is 4-8 weeks.

In 2024 the Research Ethics Committee received 52 new research application proposals, this was an increase from 2023 when we received 44.

42 of the applications were approved at first review, 6 needed further clarification. 4 were Deferred with no further submission.

Prof John Murphy, Research Ethics Committee Chair.

Jean Clarisse L. Benito and Kelvin B. Claro with their children, newborn daughter Ceana Kelsey B. Claro and son Cade Kyle B. Claro who was born in The NMH in 2022.

Research and Innovation Symposium Exhibition - RISE

Prof Fionnuala McAuliffe, RISE Committee Chair and Consultant Obstetrician & Gynaecologist, Carly Keegan, Senior Medical Scientist and Prof Shane Higgins, Master. Carly was awarded The Research Colm O'Herlihy medal for the best research presentation for her study 'Increased Blood Product Requirements Associated with Compliance with the National PPH Guidelines at The National Maternity Hospital.

The fourth Research and Innovation Symposium Exhibition (RISE) was held at The National Maternity Hospital, Dublin on Friday 19th April 2024. We had an energetic, multidisciplinary and enthusiastic committee coordinating the event. We are grateful to the Executive Management Team for their support for this annual event which commenced in 2020, to showcase NMH based research and innovation across all areas of the hospital.

RISE Committee

Prof Fionnuala McAuliffe (chair), Lucille Sheehy, Dr Eoin O'Currain, David Fitzgerald, Dr Ingrid Browne, Grace Mealy, Jenny Stokes, Ionana Sirbu, Michael Horgan, Nicole Naidoo, Sorcha Lynch, Dr Gillian Corbett.

Seventy-nine abstracts were submitted, including 40 research projects and 39 innovation projects. 24 were selected for oral presentations, and the remainder of the abstracts were presented as posters. A panel of judges worked hard to score the poster and oral presentations and awarded the following prizes. We received submissions from all parts of the hospital, which reflects our dynamic and vibrant workplace.

Oral Presentation Awards

Research Category

The Research Colm O'Herlihy medal for the best research presentation was awarded to Ms Carly Keegan, Senior Scientist, for her study 'Increased Blood Product Requirements Associated with Compliance with the National PPH Guidelines at the National Maternity Hospital.'

Second place was awarded to Dr Caitriona Ni Chathasaigh, Neonatology Fellow, for her study titled "Routine or selective application of a facemask for breathing support of preterm infants at birth: a randomized clinical trial".

Third place was awarded to Dr Sophie Callanan, postdoctoral researcher, for her study "Low glycaemic index diet in pregnancy and child asthma: findings from follow-up of the ROLO trial".

Innovation Category

The Innovation Declan Meagher medal was awarded to Ms Helen Thompson, CMM3, for her project titled 'Transforming Scheduled Outpatient Care; Centralizing Benign Gynaecology Referrals'.

Second prize was awarded to Ms Jennifer Fitzgerald, Clinical Nurse Manager, for her project titled 'Bone Density Screening for the National Maternity Hospital Staff'.

Third prize was awarded to Dr Nicole Naidoo, Anaesthetic Registrar, for her audit titled "Audit on recovery times pre and post introduction of new recovery guidelines for elective LSCS patients under spinal anaesthesia".

Poster Presentation Awards

Research Category

First prize was awarded to Dr Claire Flahavan, perinatal therapist, with ''Grief Vessels': an art-based exploration of therapeutic work in contexts of pregnancy loss'.

Second Prize was awarded to Ms Roberta McCarthy, dietician manager, & Ms Katie Caffrey, placement student, with 'Growth in moderate to late preterm infants post discharge warrants attention'.

Third Prize was awarded to Dr Lucy Geraghty, specialist registrar,

with 'A randomised trial of indirect videolaryngoscopy or direct laryngosocopy for endotracheal intubation of newborns: The VODE Trial'.

Innovation Category
First prize was awarded Ms Doireann Kavanagh, Ms Tina Moley, Ms Sinead Stakelum, and Ms Laura Harrington from the Medical Social work Department, with 'Women in Substance Use; A Medical Social Work Retrospective Study to Improve Future Responses to Service Delivery'.

Second prize was awarded to Ms Caroline Brophy, advanced midwife practitioner, with 'Postnatal Anaemic Surveillance Clinic – The POPPY Clinic Experience'.

Third prize was awarded to Claire Daisy O'Reilly with 'Breastfeeding at Birth in Theatre'.

Best Audit Award
Best Audit was awarded to Dr Sarah Petch, clinical research fellow, with 'Awareness of and attitudes towards fertility investigations and management amongst General Practitioners'.

BEST STUDENT PRESENTATION AWARDS

Research Category
The award for best student research presentation was given to Ms Saoirse Kennedy and Ms Orla Breen, UCD School of Medicine, with 'Risk Factors for Postnatal Urinary Tract Infections in The National Maternity Hospital'

Innovation Category
The award for best student innovation presentation was given to Ms Lucy Murphy with 'Dietary intakes and acceptability of the FIGO Nutrition Checklist among pregnant women in an outpatient department'

Guest Speaker
Our fourth RISE symposium featured an insightful talk by guest speaker Prof Peter Doran, Director of the UCD Clinical Research Centre (CRC). He discussed the vital role of clinical trials in advancing medical research and highlighted the range of services the UCD CRC provides to support investigators in conducting clinical research.

Prof Fionnuala McAuliffe Consultant Obstetrician & Gynaecologist and Grace Mealy, Research Coordinator.

Prof Shane HIggins with the members of the RISE Committee.

The Joint Research Network

Jean Doherty, Sarah Cullen, Lucille Sheehy, Assoc. Prof Barbara Coughlan, Caroline Brophy Joint Research Network.

The Joint Research Network was established by the Director of Midwifery and Nursing, Mary Brosnan and Prof Michelle Butler (UCD) to develop a research culture for midwives, student midwives and nurses. As part of on-going development of maternity care services within The National Maternity Hospital, Mary Brosnan recognised that research links between the NMH and their education partners, UCD School of Nursing Midwifery and Health Systems should be formalised. The vision and goals of the group are to translate evidence-based midwifery and nursing knowledge into practice. Since 2007, the group has expanded and evolved to include our Dublin South East Hospital Group partners.

- Twitter: @JRNNMHUCD
- Website: Joint Research Network (nmh.ie)
- JRN Philosophy: Midwives, Nurses, Academics and Students Working Together in a Community of Practice and Research.
- Membership:
- Academics from UCD School of Nursing Midwifery and Health Systems.
- Midwifery and nursing staff and students in the Ireland East Hospital Group.
- National Maternity Hospital, Chair: Lucille Sheehy
- University College Dublin, Chair: Dr Denise O'Brien
- National Maternity Hospital, Vice Chair: Jean Doherty
- University College Dublin, Vice Chair: Assoc. Prof. Barbara Coughlan
- Midwives & Nurses working on research 2024:
- Lucille Sheehy, ADOM/Clinical Professional Development Co-ordinator
- Jean Doherty, Staff/Research Midwife
- Ciara Coveney, Advanced Midwife Practitioner, Diabetes
- Helen McHale, CMM2 Antenatal
- Melanie Bennett, Staff Midwife, Antenatal
- Caroline Brophy, Advanced Midwife Practitioner, Assisted Care
- Sinead Thompson, Community Midwife
- Teresa McCreery, ADOM, Community Midwifery Services
- Martina Cronin, CMM3, Labour & Birthing Suite and Antenatal services

- Heather Hughes, Advanced Midwife Practitioner, Fetal Medicine Clinic
- Barbara Cathcart, Advanced Midwife Practitioner, Fetal Medicine Clinic
- Mary Brosnan, Director of Midwifery & Nursing

RESEARCH PROJECTS

Completed studies:

- The EMER (Early Motherhood Expectations versus Reality) study
  Research team: The National Maternity Hospital: Jean Doherty, Lucille Sheehy, Caroline Brophy. University College Dublin: Assoc. Prof. Barbara Coughlan. Midlands Regional Hospital, Mullingar: Aoife O'Donoghue, CMM. St. Luke's Hospital, Kilkenny: Leona Gill, CMM.
- Conference presentations, 2024
- RCSI 43rd Annual International Nursing & Midwifery Research & Education Conference, February 2024. Poster presented by Jean Doherty
- RISE (Research & Innovation Symposium Exhibition), May 2024. Poster presented by Jean Doherty
- UCD School of Nursing, Midwifery and Health Systems 2nd International Research Conference, August 2024, presented by Jean Doherty
- Gestational Diabetes Mellitus RAMP Led Virtual Clinic: An evaluation of treatment and of maternal and neonate outcomes.
  Research team: The National Maternity Hospital: Ciara Coveney, Dr Shauna Callaghan, Eimear Rutter, Hannah Rooney, Prof Mensud Hatunic.
- Hyperemesis Gravidarum Hydration Clinic: An evaluation of the symptoms, assessments, treatment and support.
  Research team: The National Maternity Hospital: Jean Doherty, Lucille Sheehy, Sinead Curran, Dr. Sarah-Louise Killeen, Melanie Bennett, Helen McHale, Lillian Murtagh. Public/patient representative: Dr Suzanne Murphy. Technological University Dublin: Dr Eileen O'Brien

Publications to date:

- Doherty, J., McHale, H., Killeen, S.-L., Curran, S., Bennett, M., Sheehy, L., Murphy, S., Murtagh, L., O'Brien, E., 2023. Women's experiences of Hyperemesis Gravidarum (HG) and of attending a dedicated multi-disciplinary hydration clinic. Women Birth S1871519223000999. https://doi.org/10.1016/j.wombi.2023.06.005

- O'Brien, E.C., Doherty, J., Killeen, S.L., Bennett, M., Murtagh, L., Curran, S., Murphy, S., McHale, H., Sheehy, L., 2024. The IRIS clinic: A Protocol for a mixed-methods study evaluating the management of Hyperemesis Gravidarum. Contemp. Clin. Trials Commun. 101227. https://doi.org/10.1016/j.conctc.2023.101227

> **"The vision and goals of the group are to translate evidence-based midwifery and nursing knowledge into practice. Since 2007, the group has expanded and evolved to include our Ireland East Hospital Group partners."**

- Conference presentations, 2024
  RCSI 43rd Annual International Nursing & Midwifery Research & Education Conference, February 2024. Poster presented by Jean Doherty
- RISE (Research & Innovation Symposium Exhibition), May 2024. Poster presented by Jean Doherty

Ongoing studies:

- Labour Hopscotch 2 Project: Evaluation of Labour Hopscotch across the IEHG and the development of the Labour Hopscotch App.
  Research Team: NMH: Sinead Thompson, Jean Doherty, Teresa McCreery, Martina Cronin, Lucille Sheehy, Mary Brosnan, UCD: Dr Denise O'Brien, Assoc. Prof. Barbara Coughlan, Dr. Lorraine Carroll, Mary Curtin. St. Luke's Hospital, Kilkenny: Ann Margaret Hogan, Wexford General Hospital: Caroline Early, Midlands Regional Hospital, Mullingar: Maureen Revilles, Orla Mongan.

- Birth Reflections Service Evaluation at the National Maternity Hospital
  Research team: The National Maternity Hospital: Jean Doherty, Helen McHale, Lucille Sheehy. University College Dublin: Professor Valarie Smith, Dr. Lorraine Carroll.

- Evaluation of the midwifery care at the Fetal Medicine Clinic at the National Maternity Hospital

Research team: The National Maternity Hospital: Jean Doherty, Lucille Sheehy, Heather Hughes, Barbara Cathcart

Learning & Development

Higher Diploma in Midwifery Graduates!

The Executive Management Team approved a Project Manager in January 2024 to review Learning & Development (L & D) at the NMH following an audit in 2019 from BDO Ireland. The audit returned various recommendations on training, covering access to high quality L & D facilities, which can support the level of staff satisfaction and retention. BDO also recommended the establishment of budgets for L & D, accurate recording of Mandatory Training and centralising all records for monitoring and Key Performance Indicator purposes. The Hospital need to be able to accurately ascertain the completion of Mandatory Training, Continuous Professional Development (CPD) and other L & D requirements.

The Hospital want to communicate available training in a prompt and standardised manner to ensure equal L & D accessibility and the associated application pathways. This project in January 2024 was approved to update all policies relating to training, upgrade the NMH e-learning platform, review Mandatory Training presentation's following continuous feedback from attendees and finally create an annual prospectus and Learning & Development Strategy for the Hospital. The Hospital want to ensure there is Governance on Mandatory Training for all staff and with this in mind, a committee of various stakeholders was established in 2024 with terms of reference. This committee meet quarterly to review Mandatory Training compliance and discuss any additional Mandatory Training required for all staff. Outside of this, Heads of Department will ensure that specialist training is up to date for specific roles under their remit.

Upgrade of the E-learning Platform
In 2024, the NMH online Learning & Development Platform was upgraded. When staff log in, they now see an improved user interface, user experience, enhanced reporting capability and improved compliance features. Staff can see the following training at the click of a button:

- Mandatory training modules
- Access to a number of e-learning courses and resources
- Records of Continuous Professional Development (CPD) to track staff progress which in turn can be used for performance achievement meetings
- Dashboard to view at a glance, Mandatory Training completion and outstanding modules

Midwifery & Nursing Education and Human Resources were involved in this upgrade, which was lead out by the Project Manager following research of the current market and the NMH provider to ensure the NMH model was designed and upgraded to meet the Hospital needs.

Work is ongoing with reviewing training polices, updating e-learning modules, the establishment of meetings with trainers, mandatory training governance committee, and engagement with the Learning & Development National forum established on 28th November 2024. This National Forum aims to foster collaboration and exchange ideas on strategies, tools, and solutions that can help us drive learning and development initiatives more effectively within our Hospital. Under this NMH project, the patient e-learning hub is also being updated working with various specialists to ensure patients are receiving up to date information and this is progressing well and due to be completed in Quarter 1 of 2025.

Yvonne Connolly, Director of Learning & Development Project.

Financial Statements

Income And Expenditure

Extracts from the Hospital Income & Expenditure Account For the Year Ended 31 December 2024

Income And Expenditure	2024	2023
	€000	€000
Ordinary Income		
Miscellaneous	426	417
Treatment Charges	11,516	11,728
	11,942	**12,145**
Ordinary Expenditure - Pay		
Medical NCHD's	8,477	7,486
Consultants	13,301	11,958
Nursing	36,557	33,727
Paramedical	8,599	7,548
Housekeeping	2,820	2,800
Catering	2,674	2,568
Porters	1,309	1,289
Maintenance	541	584
Administration	10,013	9,440
Pensions	4,850	6,335
	89,141	**83,735**
Ordinary Expenditure - Non Pay		
Medicines, Blood & Gases	2,424	2,483
Laboratory Expenses	3,216	2,871
Medical and Surgical Appliances	4,691	4,482
X-Ray Expenses	295	447
Provisions	1,227	1,071
Heat, Power and Light	1,071	690
Cleaning and Washing	1,101	1,043
Furniture, Hardware and Crockery	248	128
Bedding and Clothing	117	109
Maintenance	990	517
Transport and Travel	168	213
Finance/Professional fees	885	1,085
Bad Debt provision	47	(93)
Office Expenses	1,034	992
Education, Training	441	539
Computer Expenses	1,745	792
Miscellaneous	1,890	1,687
Depreciation	3,683	3,231
Amortisation	(2,929)	(2,458)
	22,344	**19,829**
Surplus for Year		
Net expenditure	99,543	91,420
Annual Allocation	100,164	94,038
less amount deferred in respect of fixed asset additions	(1,397)	(1,364)
	(776)	**1,254**

Cumulative Figures

Extracts from the Hospital Income & Expenditure Account For the Year Ended 31 December 2024

	2024	2023
	€000	€000
Surplus / (Deficit) Brought Forward	1,644	(383)
Transfer between reserves from revaluation reserve to Revenue Reserve	754	773
(Deficit) / Surplus for the year	(776)	1,254
Surplus Carried Forward	1,622	1,644

Balance Sheet

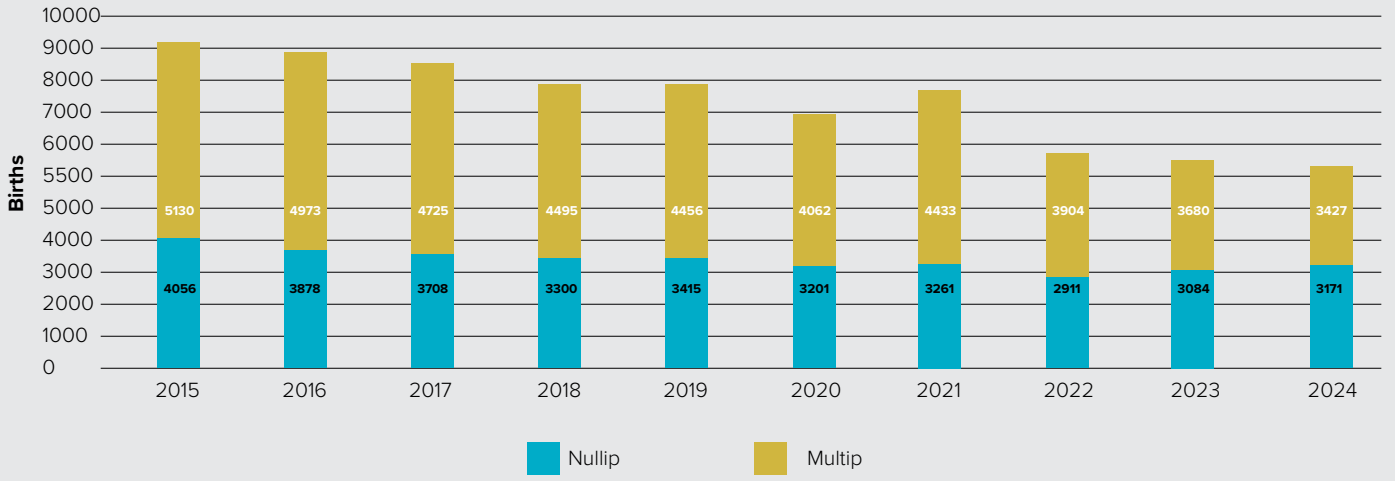
Extracts from the Hospital Balance Sheet as at 31 December 2024

	2024		2023	
Fixed Assets		74,845		73,991
Current Assets				
Stocks	371		424	
Debtors	18,681		17,297	
Cash & Bank	-		-	
	19,052		**17,721**	
Current Liabilities				
Creditors	(17,256)		(15,903)	
	(17,256)		**(15,903)**	
Net Current Liabilities		1,796		1,818
Creditors (amounts falling due after more than one year)				
Deferred Grant		(42,290)		(40,682)
Loans from Funds		(1,682)		(1,682)
Net Assets		**32,669**		**33,445**
Represented By :				
Revaluation Reserve		31,005		31,759
Accumulated Surplus / (Deficit) at end of year		1,622		1,644
Other Funds		42		42
		32,669		**33,445**

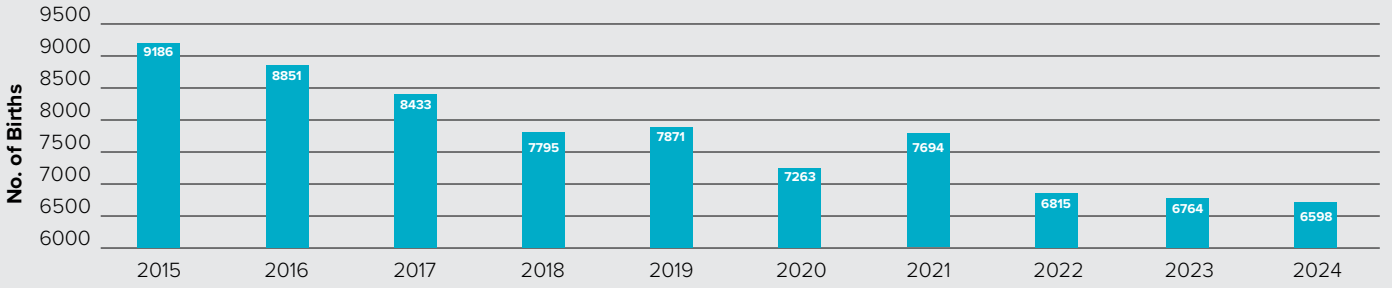
Clinical & Administrative Activity

Births	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Nullip	4056	3878	3708	3300	3415	3201	3261	2911	3084	3171
Multip	5130	4973	4725	4495	4456	4062	4433	3904	3680	3427
Total	**9186**	**8851**	**8433**	**7795**	**7871**	**7795**	**7694**	**6815**	**6764**	**6598**
% Nullip	44.2%	43.8%	44.0%	42.3%	43.4%	41.1%	42.4%	42.7%	45.6%	48.1%

Births by Parity

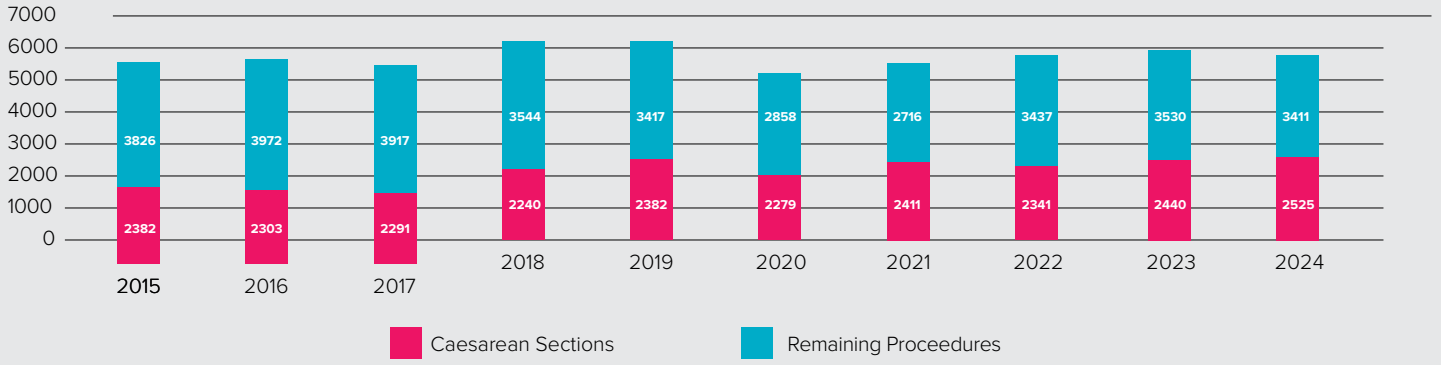


Births



Theatre Activity	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Caesarean Sections	2382	2303	2291	2240	2382	2279	2411	2341	2440	2525
Remaining Procedures	3826	3972	3917	3544	3417	2858	3154	3437	3530	3411
Total	**5824**	**6020**	**6208**	**6275**	**5799**	**5137**	**5565**	**5778**	**5970**	**5936**

Theatre Procedures



Outpatient Activity	2015	2016	2017	2018	2019	2020	2021	2022*	2023*	2024
Obstetric*	76120	74481	71711	71896	73870	73722	80721	69410	71145	74478
Gynaecology & Colposcopy	16419	16353	15673	15565	15691	14404	18603	20302	22628	24754
Neonatology	3777	3914	4023	3367	3443	2765	3160	2815	2998	3128
Total	**96316**	**94748**	**91407**	**90828**	**93004**	**90891**	**102484**	**92527**	**96771**	**102360**

** revised for 2023 report. Includes sub-specialties. Excludes all unbooked attendances*

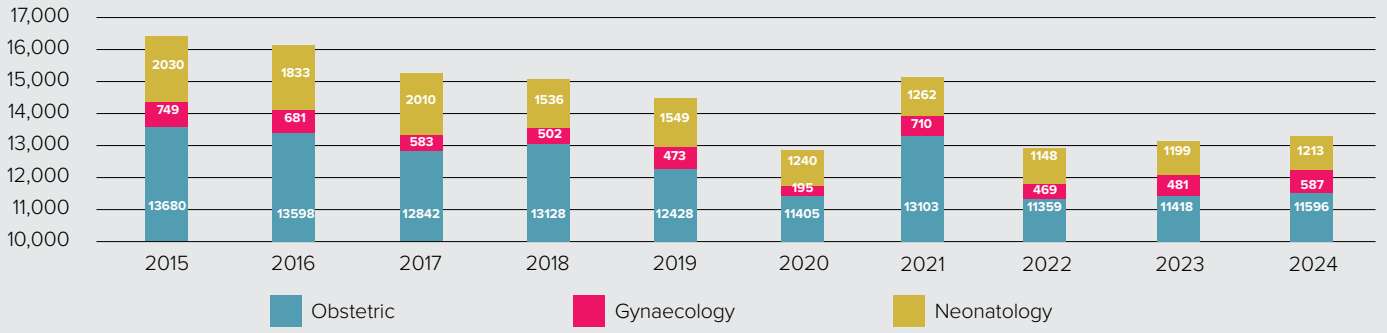
Fetal Medicine Unit	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Booked Attendances	22829	21746	21309	21539	23679	24779	22207	25001	24665	25824

Inpatient Discharges	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Obstetric	13680	13598	12842	13128	12428	11405	13103	11359	11418	11596
Gynaecology	749	681	583	502	755	532	710	469	481	587
Neonatology	2030	1833	2010	1536	1549	1240	1262	1148	1199	1213
Total	**16459**	**16112**	**15435**	**15166**	**14732**	**13177**	**15075**	**12976**	**13098**	**13396**

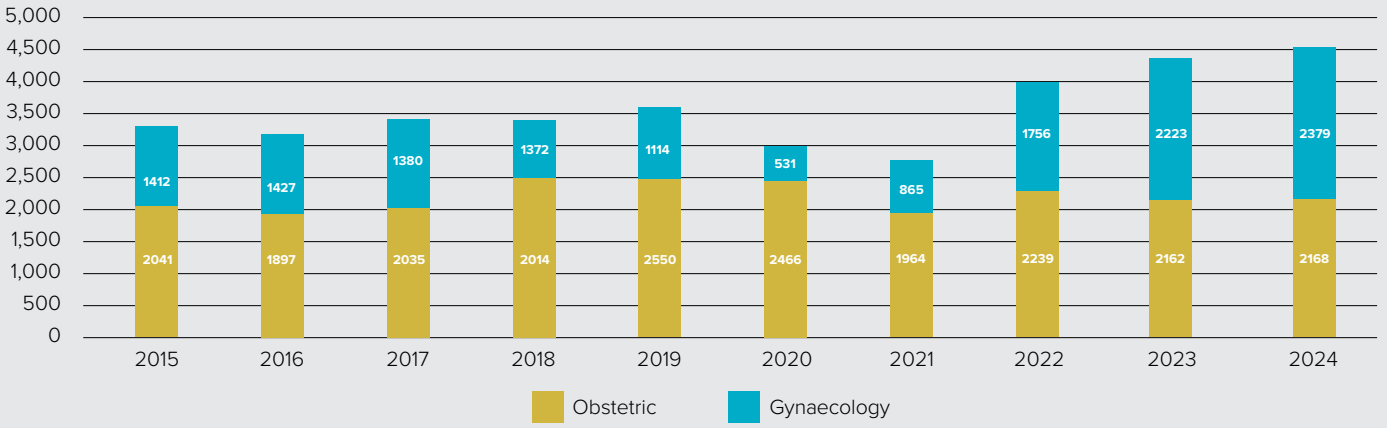
Day Cases	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Obstetric	2041	1879	2035	2014	2550	2466	1964	2239	2162	2168
Gynaecology	1412	1427	1380	1372	1114	531	865	1756	2223	2379
Total	**3453**	**3306**	**3453**	**3386**	**3664**	**2997**	**2829**	**3995**	**4385**	**4547**

Emergency Room Attendances	2018	2019	2020	2021	2022	2023	2024
Emergency Room Attendances	13101	14146	11115	11442	11827	12006	13214

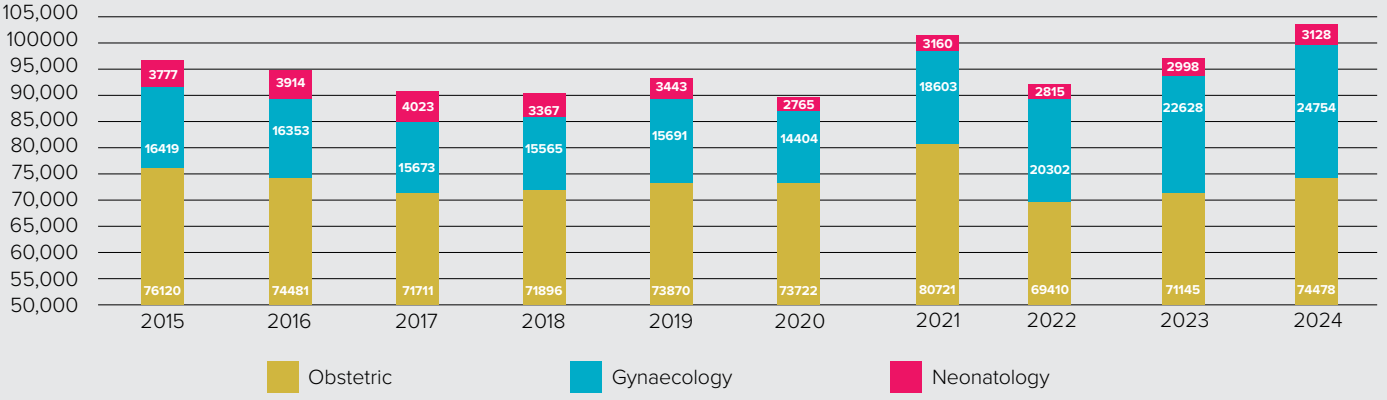
Inpatient Discharges



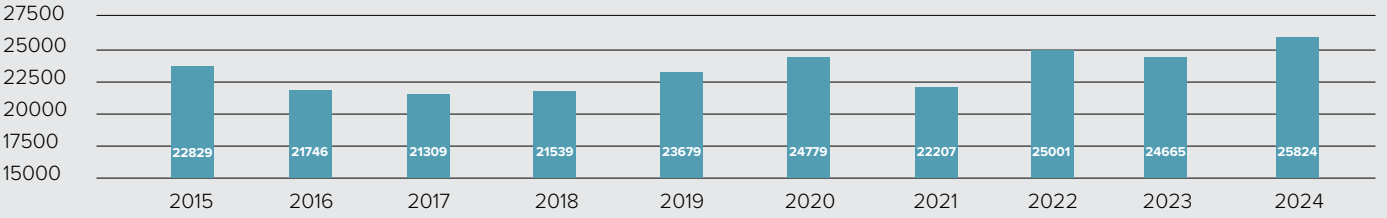
Day Cases



Outpatient Attendences



Fetal Medicine Department Attendances



Statistical Analysis Expressed As Percentages Over 10 Years

Percentages of births >= 500g and/or EGA >=24 wks (2024 n=6598):

Age	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
< 20 years	1.0	0.8	1.8	0.7	0.6	0.6	0.4	0.5	0.7	0.6
20 - 24 years	5.1	5.5	4.0	4.1	4.2	4.4	4.2	4.3	4.3	3.6
25 - 29 years	14.7	15.8	12.0	12.0	12.6	11.6	11.0	12.4	11.6	12.1
30 - 34 years	38.4	40.9	36.8	33.5	34.5	34.8	34.5	34.6	34.8	35.1
35 - 39 years	33.1	32.9	36.8	37.9	38.5	37.9	39.2	36.6	36.9	37.1
40+ years	7.7	7.1	8.6	8.2	9.6	10.7	10.8	11.6	11.7	11.5
Not available	0.0	0.0	0.0	3.6	0.0	0.0	0.0	0.0	0.0	0.0

Parity	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
0	44.2	43.8	44.0	42.0	43.4	44.1	42.4	42.7	45.6	48.1
1,2,3	60.0	60.4	60.2	56.3	55.0	54.1	56.2	55.8	52.8	50.5
4+	1.8	1.8	1.8	1.7	1.6	1.8	1.4	1.5	1.6	1.4

Percentages of babies >= 500g and/or EGA >=24 wks (2024 n=6722)

Birthweight	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
<500g	n/a	n/a	n/a	0.1	0.0	0.1	0.0	0.1	0.1	0.1
500 - 999	0.4	0.6	0.6	0.7	0.8	0.8	0.8	0.8	1.0	0.6
1000 - 1499	0.7	0.7	1.0	0.6	0.7	0.8	0.6	0.8	0.7	0.8
1500 - 1999	1.4	1.4	1.3	1.6	1.0	1.3	1.2	1.4	1.2	1.0
2000 - 2499	3.1	2.6	3.1	2.9	2.7	3.0	3.2	2.9	3.5	3.6
2500 - 2999	10.6	10.5	10.3	10.1	10.5	11.0	10.2	12.4	12.0	13.1
3000 - 3499	30.0	30.3	30.1	30.1	30.8	29.6	32.2	33.2	33.4	32.9
3500 - 3999	35.3	36.2	35.7	35.2	35.0	36.2	35.2	33.7	34.3	34.2
4000 - 4499	15.3	14.9	15.0	14.9	15.7	14.7	13.9	12.7	11.7	11.9
4500 - 4999	2.9	2.6	2.7	2.8	2.5	2.3	2.4	1.9	1.9	1.7
5000+	0.3	0.2	0.2	0.3	0.2	0.2	0.3	0.1	0.2	0.1
Not available	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0

Gestation	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
< 26 weeks	0.2	0.4	0.3	0.4	0.3	0.5	0.5	0.4	0.5	0.3
26 - 29 + 6 days	0.4	0.5	0.7	0.8	0.8	0.9	0.6	0.9	0.7	0.8
30 - 33 + 6 days	1.7	1.7	1.7	1.5	1.5	1.6	1.6	1.5	1.7	1.5
34 - 36 + 6 days	4.6	4.5	4.7	4.5	4.0	4.5	4.6	5.2	4.9	4.5
37 - 41 + 6 days	88.9	88.9	88.8	88.0	90.2	89.9	90.6	90.6	91.0	92.3
42 + weeks	4.2	4.0	3.8	4.0	3.2	2.6	2.1	1.4	1.3	0.6
Not available	0.0	0.0	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0

10 Year Comparative Table

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Total Births (inc. <500g)	10092	9790	9357	8671	8700	8158	8567	7515	7559	7414
Births (>=500g and/or 24 wks)	9186	8851	8433	7774	7871	7263	7694	6815	6764	6598
Para 0	4052	3878	3684	3271	3415	3201	3261	2911	3084	3171
Para 1+	5134	4973	4759	4503	4456	4062	4433	3904	3680	3427
Nulliparous %	44.1	43.8	43.7	42.1	43.4	44.1	42.4	42.7	45.6	48.1
Maternal Mortality	0	1	0	0	0	0	0	0	1	0
Babies Born (>=500g and/or 24 wks)	9389	9037	7914	7914	8009	7402	7855	6948	6880	6722
Perinatal Mortality	59	53	60	60	74	66	64	53	42	45
Perinatal Mortality Rate	6.3	5.9	7.6	7.6	9.2	8.9	8.1	7.6	6.1	6.7
Congenital Anomalies	21	23	18	26	32	19	19	18	24	18
Corrected Perinatal Mortality Rate	4.1	3.3	5.3	4.3	5.3	6.4	5.7	5.1	2.6	4.0
Caesarean Section %	25.9%	26.0%	27.2%	28.9%	30.3%	31.4%	31.3%	34.3%	36.1%	38.3%
Operative Vaginal Delivery %	12.7%	14.2%	13.0%	13.7%	12.5%	12.7%	12.3%	11.3%	12.1%	10.7%
Normal Delivery %	61.4%	59.8%	59.8%	57.0%	57.2%	55.9%	56.5%	54.4%	51.8%	51.0%
Induction %	27.6%	28.6%	29.8%	27.8%	31.0%	34.0%	34.4%	38.3%	38.5%	40.5%

COMPARATIVE TABLE OF PRE-VIABLE AND HYDATIDIFORM MOLES

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Mothers delivered <500g	834	842	828	808	809	798	761	632	705	736
Hydatidiform moles	11	27	27	29	14	31	44	24	34	16
Ectopic pregnancies	61	70	69	60	65	66	68	46	56	64

2024 PERINATAL MORTALITY ANALYSIS

	Perinatal Deaths	PNMs %	Rate per '000 Births	Total Births
Births by Mothers' Age on Delivery				
< 20 years	0	0.0%	0.0	36
20 - 24 years	2	4.4%	8.3	242
25 - 29 years	8	17.8%	9.8	818
30 - 34 years	13	28.9%	5.5	2357
35 - 39 years	20	44.4%	8.0	2488
40 + years	2	4.4%	2.6	781
Total	**45**			**6722**

	Perinatal Deaths	PNMs %	Rate per '000 Births	Total Births
Births by Parity				
0	22	48.9%	6.8	3227
1,2,3	23	51.1%	6.8	3400
4+	0	0.0%	0.0	95
Total	**45**			**6722**
Birthweight				
<500	3	6.7%	428.6	7
500 - 999g	15	33.3%	394.7	38
1000 - 1499g	5	11.1%	92.6	54
1500 - 1999g	5	11.1%	71.4	70
2000 - 2499g	6	13.3%	24.6	244
2500 - 2999g	2	4.4%	2.3	883
3000 - 3499g	5	11.1%	2.3	2208
3500 - 3999g	4	8.9%	1.7	2295
4000 - 4499g	0	0.0%	0.0	797
4500 - 4999g	0	0.0%	0.0	117
5000g +	0	0.0%	0.0	9
Total	**45**			**6722**
Gestation				
< 26 weeks	11	24.4%	523.8	21
26 - 29 + 6 days	12	26.7%	240.0	50
30 - 33 + 6 days	5	11.1%	51.0	98
34 - 36 + 6 days	4	8.9%	13.1	305
37 - 41 + 6 days	12	26.7%	1.9	6206
42 + weeks	1	2.2%	23.8	42
Total	**45**			**6722**

10 YEAR ANALYSIS OF PERINATAL MORTALITY

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Total Perinatal Deaths	**59**	**60**	**60**	**60**	**74**	**66**	**64**	**53**	**42**	**45**
PNMR per '000 Births	6.3	5.9	7.6	7.6	9.2	8.9	8.1	7.6	6.1	6.7
Antepartum Deaths	**24**	**19**	**26**	**27**	**29**	**35**	**27**	**19**	**10**	**18**
Percentage of Total	40.7	31.7	43.3	45.0	39.2	53.0	42.2	35.8	23.8	40.0
Intrapartum Deaths	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Percentage of Total	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Early Neonatal Deaths	**14**	**11**	**9**	**7**	**13**	**12**	**18**	**16**	**8**	**9**
Percentage of Total	23.7	18.3	15.0	11.7	17.6	18.2	28.1	30.2	19.0	20.0
Congenital Anomalies	**21**	**23**	**19**	**26**	**32**	**19**	**19**	**18**	**24**	**18**
Percentage of Total	35.6	38.3	31.7	43.3	43.2	28.8	29.7	34.0	57.1	40.0

Infants whose birthweight was >=500g and/or with EGA >=24 wks and liveborn infants who died within 7 days.

10 YEAR ANALYSIS OF PERINATAL MORTALITY EXCLUDING CONGENITAL ANOMALIES

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Total Births >=500g and/or >=24 wks	9389	9037	8619	7914	8009	7402	7855	6948	6880	6722
Births >=500g and/or >=24 wks less lethal congenital anomalies	9368	9014	8600	7895	7977	7383	7836	6930	6856	6704
Stillbirths	24	19	26	27	29	35	27	19	10	18
Stillbirth rate per '000 births	2.6	2.1	3.0	3.4	3.6	4.7	3.4	2.7	1.5	2.7
Early Neonatal Deaths	14	11	9	7	13	12	18	16	8	9
ENND rate per '000 births	1.5	1.2	1.0	0.9	1.6	1.6	2.3	2.3	1.2	1.3
Total Perinatal Mortality	**38**	**30**	**34**	**34**	**42**	**47**	**45**	**35**	**18**	**27**
Corrected Perinatal Mortality Rate	4.1	3.3	4.0	4.3	5.3	6.4	5.7	5.1	2.6	4.0

DUBLIN MATERNITY HOSPITALS COMPARATIVE TABLES

Table 1: Patients Attending	
Births >= 500g	6598
Mothers Delivered < 500g	736
Ectopic Pregnancies	64
Hydatidiform Moles	16
	7414

based on histologically confirmed samples

Table 2: Maternal Deaths	0

Table 3: Babies Born (24 wks EGA and/or >= 500g)	
Singletons	6475
Twins	121
Triplets	2
Quadruplets	0
Total Births	**6598**

Table 4: Obstetric Outcome	**%**
Spontaneous Vaginal Delivery	51.0%
Forceps	1.3%
Ventouse	8.5%
Ventouse/Forceps	0.9%
Total Operative	*10.7%*
Caesarean Section	38.3%
Induction	**2669 (40%)**

Table 5: Perinatal Deaths	
Antepartum Deaths	18
Intrapartum Deaths	0
Total Stillbirths	*18*
Early Neonatal Deaths	9
Congenital Anomalies (SBs and ENNDs)	18
Total Perinatal Deaths	**45**
Total External Referrals	9
Total External Referrals (Excluding CA)	4
Late Neonatal Deaths	3

Table 6: Perinatal Mortality Rates		
Overall Perinatal Mortality Rate per 1000 births	45/6722	6.7
Perinatal Mortality Rate corrected for lethal congenital anomalies (18)	27/6704	4.0
Perinatal Mortality Rate corrected for external referrals (4) and lethal congenital anomalies (18)	23/6700	*3.4*
Overall Perinatal Mortality Rate including late neonatal deaths (3)	48/6722	7.1
Overall Perinatal Mortality Rate excluding external referrals (9)	36/6713	5.4
Perinatal Mortality Rate corrected for lethal congenital anomalies (18) and excluding early deaths and stillbirth external referrals (4)	23/6700	3.4

Table 7: Age of Mothers Delivered	Nullip	Multip	Total	%
< 20 yrs	32	4	36	0.5%
20 - 24 yrs	180	60	240	3.6%
25 - 29 yrs	474	327	801	12.1%
30 - 34 yrs	1360	957	2317	35.1%
35 - 39 yrs	881	1563	2444	37.0%
40 + yrs	244	516	760	11.5%
Total	**3171**	**3427**	**6598**	**100.0%**

Table 8: Parity of Mothers Delivered	Total	%
Para 0	3171	48.1%
Para 1, 2, 3	3335	50.5%
Para 4+	92	1.4%
Total	**6598**	**100.0%**

Table 9: Body Mass Index (WHO ranges)	Total	%
Underweight: <18.5	99	1.5%
Healthy: 18.5 - 24.9	3129	47.4%
Overweight: 25 - 29.9	1904	28.9%
Obese class 1: 30 - 34.9	831	12.6%
Obese class 2: 35 - 39.9	281	4.3%
Obese class 3: >40	116	1.8%
Not Recorded	238	3.6%
Total	**6598**	**100.0%**

Table 10: Ethnicity of Mothers Delivered	Total	%
Irish	4191	63.5%
Any other White background	1074	16.3%
Any other Asian background	585	8.9%
Any other Black background	155	2.3%
Other including Mixed Background	205	3.1%
Irish Traveller	35	0.5%
Not Known	353	5.4%
Total	**6598**	**100.0%**

National Census Classification

Table 11: Birthweight of Babies Born	Nullip	Multip	Total	%
<500g	3	4	7	0.1%
500 - 999g	19	19	38	0.6%
1,000 - 1,499g	29	25	54	0.8%
1,500 - 1,999g	37	33	70	1.0%
2,000 - 2,499g	142	102	244	3.6%
2,500 - 2,999g	505	378	883	13.1%
3,000 - 3,499g	1125	1083	2208	32.8%
3,500 - 3,999g	1029	1266	2295	34.1%
4,000 - 4,499g	298	499	797	11.9%
4,500 - 4,999g	38	79	117	1.7%
5,000g +	2	7	9	0.1%
Total	**3227**	**3495**	**6722**	**100.0%**

Table 12: Sex of Babies Born	Nullip	Multip	Total	%
Male	1673	1785	3458	51.4%
Female	1554	1710	3264	48.6%
Not determined	0	0	0	0.0%
Total Babies Born	**3227**	**3495**	**6722**	**100.0%**

Table 13: Gestational Age of Babies Born	Nullip	Multip	Total	%
< 26 weeks	11	10	21	0.3%
26 - 29 + 6 days	25	25	50	0.7%
30 - 33 + 6 days	52	46	98	1.5%
34 - 36 + 6 days	161	144	305	4.5%
37 - 41 + 6 days	2945	3261	6206	92.3%
42 + weeks	33	9	42	0.6%
Total Babies Born	**3227**	**3495**	**6722**	**100.0%**

Table 14: Perineal Trauma after Spontaneous and Operative Vaginal Delivery (SVD & OVD)	Nullip	Multip	Overall
Episiotomy	994	230	1224
Incidence % of OVDs	*52.2%*	*10.6%*	*30.1%*
First Degree Tear	167	491	658
Incidence % of OVDs	*8.8%*	*22.7%*	*16.2%*
Second Degree Tear	526	722	1248
Incidence % of OVDs	*27.6%*	*33.4%*	***30.7%***
Third Degree Tear*	57	18	75
Incidence % of OVDs	*3.0%*	*0.8%*	*1.8%*
Fourth Degree Tear	6	0	6
Incidence % of OVDs	*0.3%*	*0.0%*	*0.1%*
Intact	155	703	858
Incidence % of OVDs	*8.1%*	*32.5%*	*21.1%*
Total Operative Vaginal Deliveries	**1905**	**2164**	**4069**

**includes Episiotomy with sphincter damage (n=12)*

Table 14(a): Perineal Trauma after Spontaneous Vaginal Delivery (SVD)	Nullip	Multip	Overall
Episiotomy	468	148	616
Incidence % of SVDs	*35.3%*	*7.3%*	*18.3%*
First Degree Tear	162	479	641
Incidence % of SVDs	*12.2%*	*23.5%*	*19.0%*
Second Degree Tear	506	707	1213
Incidence % of SVDs	*38.2%*	*34.7%*	*36.0%*
Third Degree Tear*	32	16	48
Incidence % of SVDs	*2.4%*	*0.8%*	*1.4%*
Fourth Degree Tear	4	0	4
Incidence % of SVDs	*0.3%*	*0.0%*	*0.1%*
Intact	153	690	843
Incidence % of SVDs	*11.5%*	*33.8%*	*25.1%*
Total Spontaneous Vaginal Deliveries (excl. Operative)	**1325**	**2040**	**3365**

**includes Episiotomy with sphincter damage (n=1)*

Table 14(b): Perineal Trauma after Operative Vaginal Delivery (OVD)	Nullip	Multip	Overall
Episiotomy	526	82	608
Incidence % of OVDs	*90.7%*	*66.1%*	*86.4%*
First Degree Tear	5	12	17
Incidence % of OVDs	*0.9%*	*9.7%*	*2.4%*
Second Degree Tear	20	15	35
Incidence % of OVDs	*3.4%*	*12.1%*	*5.0%*
Third Degree Tear*	25	2	27
Incidence % of OVDs	*4.3%*	*1.6%*	*3.8%*
Fourth Degree Tear	2	0	2
Incidence % of OVDs	*0.3%*	*0.0%*	*0.3%*
Intact	2	13	15
Incidence % of OVDs	*0.3%*	*10.5%*	*2.1%*
Total Operative Vaginal Deliveries	**580**	**124**	**704**

**includes Episiotomy with sphincter damage (n=11)*

Table 15: Severe Maternal Morbidity	
Major Obstetric Haemorrhage	15
ICU/CCU admission	9
Renal / Liver Dysfunction	9
Uterine Rupture	5
Cerebral Vascular Accident	2
Interventional Radiology	2
Peripartum Hysterectomy	2
Pulmonary Embolism	1
Septic Shock	1
Acute Respiratory Dysfunction	0
Anaesthetic Problems	0
Cardiac Arrest	0
Coma	0
Eclampsia	0
Pulmonary Oedema	0
Status Epilepticus	0
Total	**40 patients 46 SMM events**

Some women had more than one SMM – in this table only the major SMM is reported

Table 16: Neonatal Encephalopathy	Inborn	Outborn
Neonatal Encephalopathy - with HIE	7	12
Neonatal Encephalopathy - no HIE	2	0
Seizures – No Encephalopathy	0	0
Therapeutic Hypothermia	9	12

Theatre Procedures

Procedures, not patients. A patient may have more than on procedure in an overall operation.

Procedure	Total
Emergency caesarean section	1327
Elective lower segment caesarean section	1198
ERPC*	577
Hysteroscopy +/- mirena insertion (120)	642
Examination under anaesthesia	118
Cystoscopy	116
Diagnostic laparoscopy	147
IUCD - fitting/change/removal of intrauterine contraception	173
Pelvic floor repair	207
Manual removal of placenta	95
Repair of third and fourth degree tears	74
Injection of nerve block	70
Laparoscopic treatment of ectopic pregnancy	65
Injection of urethral bulking agent	64
Truclear polypectomy	62
Botox injection therapy	56
Polypectomy	51
Vaginal hysterectomy	50
Repair of episiotomy, 1st or 2nd tear	69
Ovarian cystectomy- laparoscopy	35
Dye injection at laparoscopy	35
Vaginal birth in Theatre	30
Endometrial ablation	28
Marsupialization of Bartholin's cyst/abs	27
Shirodkar's cervical cerclage	23
Salpingectomy	46
Total laparoscopic hysterectomy	22
Cystoscopy and injection of botox	21
Bilateral tubal ligation	25
Endometrial biopsy	17
Cystoscopy and injection of bulking agent	17
Blood patch	15
Cystectomy	14
Total abdominal hysterectomy	16
Laparoscopic hysterectomy	13
Operative laparoscopy	13
Incision & drainage of Bartholins abscess	13
Cervical smear	12
Fenton's procedure	11
Adhesiolysis-laparoscopy + Adhe	11
Laparotomy single/bilateral	10
Hysteroscopic myomectomy	10
Others <10	311
	5936

Sustainability

Context and Purpose

The National Maternity Hospital aims to be a sustainable organisation. Our ambition is to create a net-zero hospital, and we've already taken steps to address our carbon footprint. The purpose is to provide exceptional healthcare services and to do so in a manner that preserves our planet for future generations.

We operate within a dynamic landscape, where global challenges such as climate change, resource scarcity, and waste management demand urgent attention.

Sustainability is not an isolated endeavour. It spreads through every facet of our hospital—from patient care to management. We embrace transparency in our operations. Our governance structure ensures accountability, and we actively engage with stakeholders.

In January 2023, the Executive Management Committee established the Environmental Committee, comprising of staff from both clinical and non-clinical departments. The Committee meets regularly to coordinate and target environmental initiatives in the hospital. We actively engage with our own staff, suppliers and share learnings across the broader healthcare network.

Ireland has committed to a 50% reduction in greenhouse gas (GHG) carbon emissions by 2030 and achieving net-zero emissions by 2050 at the latest. Our ambition is to align with these national sustainability goals. Two documents of specific relevance for us are The Public Sector Climate Action Plan and the HSE Climate Action Strategy, to which we will reference our work going forward. A tracker document has been introduced, structured according to Environment, Social, Governance principles (ESG), HSE Climate Action Strategy and the Sustainable Development Goals of the United Nations (SDG).

Mary Brosnan, Director of Midwifery & Nursing, Carl Alfvag, Green Committee Chair and Claudiu Zselemi, Portering Services Manager, with the Transport for Ireland (TFI) Smarter Travel Mark awarded to The NMH. TFI Smarter Travel is a behaviour change programme working with large employers to implement voluntary Workplace Travel Plans that promote and encourage sustainable and active commuting.

KEY INITIATIVES

Strategy: For the first time the Strategic Plan contains an Environmental, Social and Governance (ESG) section in order to highlight the fundamental importance of sustainability issues for the hospital.

Waste survey: In order to improve our waste management we conducted a waste survey in three clinical areas; theatre, delivery ward and a postnatal ward. We learn from the result and use it in communications with staff to highlight the need for a correct waste segregation.

Waste management: We have improved our waste management infrastructure by introducing more user-friendly bins in parts of the hospital. The ambition is to continue the change across the entire campus. In the canteen a food waste bin has been re-introduced. We have managed to exchange some of the single use plastic bottles to re-usable plastic bottles in lactation, laboratory and pharmacy.

Carbon footprint reduction: We have implemented energy-efficient practices (PIR sensors, LED lights), explored renewable energy sources and optimised waste management.

Collaboration: We foster partnerships with suppliers, fellow healthcare institutions, and community organisations. Together, we share knowledge and drive positive change. A partnership with students from Trinity College Business School was established around reporting structures based on CSRD. The project will be completed in the second quarter of 2025.

Education and awareness: Our staff, patients, and visitors play pivotal roles. We educate, advocate, and inspire sustainable behaviours. Sustainability has been introduced in our mandatory training and will be part of induction as well. During the year we introduced a monthly newsletter sent out to all members of staff. Members of the Environmental Committee have completed a training course provided by the HSE. We also invite members of the Environmental Committee to attend seminars and conferences

Water dispensers: We made a full inventory of the need for plumbed-in waster dispensers around the hospital. We got funding for it but didn't have the internal resources to implement it in 2024.

Smarter travel: Based on a Staff Travel Survey, we submitted our application for Smarter Travel Mark and received Silver status by the National Transport Authority.

Re-usable items: A long-term work has started in clinical areas to reduce use of single-use items and move to re-usable items. A symbolic start was the recycling of ligasures (electrosurgical device) in Theatre. Ligasures are now being sold back to a company that upscale them for reuse.

Certification: The Laboratory is working towards their first 'My Green Lab' accreditation and participating in the global Freezer Challenge. The Freezer Challenge is a global competition to manage cold storage more efficiently. The Catering Department retained the ISO 22000:2018 Food Safety Management Systems certification. The Department was also finalist in the Irish Hotel and Catering Awards Gold medal awards for the healthcare section.

Procurement: In all our procurements we are following new legal requirements of award criteria for environmental initiatives. This is part of the Green Procurement Guidelines by the HSE. We are also proactively seeking information on recyclability of products and packaging as part of our product specification as well as asking that suppliers recommend Initiatives to us that we may not have considered.

Digitisation: We have started the process of moving from paper based to digital for certain processes, both internally and externally with third parties. That will continue going forward. Laptops have been issued to a large number of employees which facilitates for blended working as well as a more digital meeting structure in the hospital. The reduction of the vast number of printers have started with the aim of moving to network printers.

Blended working: Several departments have introduced a formal blended working scheme which reduces commuting as well as promoting a better life work balance for staff.

Telemedicine: Virtual clinics were originally introduced during the Covid-19 pandemic and have continued where possible, given the positive effects from a sustainability perspective.

Challenges and Opportunities

While progress has been made, challenges persist. We will continue to get staff involved all around the hospital. Balancing patient care, health and safety, infection control and efficiency with environmental impact requires creativity and resilience. This Sustainability Report sets the stage. We commit to annual updates and tracking our progress. Our sustainability efforts and achievements are still at an early stage.

Carl Alfvag, NMH Green Committee Chair.

Healthy Ireland

NMH staff getting their steps in for Marchathon! Marchathon is a fun team Step Challenge that takes place in March each year.

The Healthy Ireland (HI) Working Group at The National Maternity Hospital (NMH) supports staff and patient wellbeing under the pillars of the national Healthy Ireland (HI) program. The group links with the regional Healthy Ireland group for IEHG (changing to Dublin South East Regional Group) and reports on plans and activities in line with national guidance.

Healthy Ireland themes are embedded into patient care in practice at the NMH. Midwifery-led smoking cessation support for pregnant women and nicotine replacement for staff are available. Antenatal nutrition and wellbeing education, breastfeeding information/ support, and the use of MECC (making every contact count) for health promotion is routinely included in antenatal clinic assessments. The antenatal booking checklist includes routine questions for every woman that can lead to onward referral as needed. The NMH uniquely funds and supports the Hollestic meal planning and recipe app for pregnancy, which is widely used by women across Ireland and around the world to support healthy eating in pregnancy free of charge.

For staff, the NMH Healthy Ireland team engaged in awareness and health promotion activities throughout 2024 (examples below) and the upcoming annual plan and calendar for 2025 were outlined at the end of the year. The BeneKit Wellbeing App and toolkit is made available to staff free of charge. The Employee Assistance Program provides support for staff and their families through counselling, career coaching and financial planning free of charge. The NMH canteen is subsidised for staff, and was the recipient of the Irish Heart Foundation Gold Award in recognition of the heart healthy meal options available. A highlight in 2024 was the Workplace Wellbeing Day supported by HR. Events included meditation sessions online and in person, 'Random Acts of Kindness' and social media highlights with the help of the communications team.

Highlights for 2024:

- Staff Health Assessments in January and October
- Marchathon and Walktober activity challenges
- Workplace Wellbeing Day events and stand on theme of Kindness & Respect- April
- Men's Health Awareness – know your numbers – June
- Nutrition & hydration information posters campaign (ongoing)
- Park walk and free packed lunch & promotions for World Mental Health Day- October.
- World Diabetes Day stand, quiz and morning yoga with diabetes team- November
- Light up Your Life – bike lights from the NMH Bike Fairy

Working Group members:

Sinead Curran (chair), Helen McCrimmon (secretary), Sarah Browne, Caoimhe de Brun, Damian McKeown, Carl Alfvag, Liz Byrne, Aoife Menton, Claire Daisy O'Reilly, Jenny FitzGerald

Thanks to all NMH staff who continue to support each other and women attending the NMH, by incorporating Healthy Ireland principles in their work and by engaging in staff health promotion activities.

Publications and Presentations

UCD Obstetrics & Gynaecology

Corbett G, Daly M, Keegan D, Horgan P, Keyes C, Luethe L, Corcoran S, McAuliffe FM. Embedding the patient voice into research on spontaneous preterm birth-themes from a Preterm Birth Advisory Council. PLoS One. 2024 Dec 20;19(12):e0312370. doi: 10.1371/journal.pone.0312370.

Corbett GA, Corcoran S, Feehily C, Soldati B, Rafferty A, MacIntyre DM, Cotter PD, McAuliffe FM. Preterm-birth-prevention with Lactobacillus Crispatus oral probiotics: Protocol for a double blinded randomised placebo-controlled trial (the PrePOP study). Contemp Clin Trials. 2024 Dec 17:107776. doi: 10.1016/j.cct.2024.107776.

Keating N, Rooney G, McGuinness S, McAuliffe FM. A review of the effects of Valsalva manoeuvre in labour and birth. Obstet Med. 2024 Aug 9:1753495X241269121. doi: 10.1177/1753495X241269121. PMID: 39553189

Roseingrave R, Canniffe C, McAuliffe F, Browne I, Higgins M, Corcoran S. Uncomplicated vaginal delivery 5 years after acute traumatic aortic transection and transluminal endovascular aortic repair. Obstet Med. 2024 Feb 28:1753495X241233332. doi: 10.1177/1753495X241233332. PMID: 39553183

McNestry C, Hobbins A, Donnellan N, Gillespie P, McAuliffe FM, O'Reilly SL; Latch On Consortium. Evaluation of a complex intervention: the Latch On randomized controlled trial of multicomponent breastfeeding support for women with a raised body mass index. J Public Health (Oxf). 2024 Nov 12:fdae282. doi: 10.1093/pubmed/fdae282. PMID: 39532292

Delahunt A, Callanan S, O' Brien EC, Geraghty AA, O' Reilly SL, McDonnell CM, Hokey E, McAuliffe FM. Sensory processing and child appetitive traits: findings from the ROLO longitudinal birth cohort study. Nutr J. 2024 Nov 1;23(1):136. doi: 10.1186/s12937-024-01040-1.

Callanan S, Talaei M, Delahunt A, Shaheen SO, McAuliffe FM. Low glycaemic index diet in pregnancy and child asthma: follow-up of the ROLO trial. Br J Nutr. 2024 Oct 28:1-11. doi: 10.1017/S0007114524001612

MacSharry J, Kovács Z, Xie Y, Adamczyk B, Walsh C, Reidy F, McAuliffe FM, Kilbane MT, Twomey PJ, Rudd PM, Wingfield M, Butler M, van Sinderen D, Glover L, Saldova R. Endometriosis specific vaginal microbiota links to urine and serum N-glycome. Sci Rep. 2024 Oct 25;14(1):25372. doi: 10.1038/s41598-024-76125-2

Corbett GA, Moore R, Feehily C, Killeen SL, O'Brien E, Van Sinderen D, Matthews E, O'Flaherty R, Rudd PM, Saldova R, Walsh CJ, Lawton EM, MacIntyre DA, Corcoran S, Cotter PD, McAuliffe FM. Dietary amino acids, macronutrients, vaginal birth, and breastfeeding are associated with the vaginal microbiome in early pregnancy. Microbiol Spectr. 2024 Oct 4:e0113024. doi: 10.1128/spectrum.01130-24.

Callanan S, Killeen SL, Delahunt A, O'Brien EC, Geraghty AA, Cushion R, Gainfort A, Crowley RK, Twomey PJ, McDonnell CM, McAuliffe FM. Associations of childhood physical activity and screen time with cardiometabolic health in preteens who were born to mothers with previous macrosomic delivery: Findings from the ROLO longitudinal birth cohort study. Pediatr Obes. 2024 Oct 3:e13178. doi: 10.1111/ijpo.13178.

Bartels HC, Walsh JM, Carroll S, Downey P, O'Brien DJ, McAuliffe FM, C'Connor C, Thompson C, Donnelly J, Brennan DJ, Corcoran SM. Prenatal detection of placenta accreta spectrum using a sonographic checklist. Acta Obstet Gynecol Scand. 2024 Oct 2. doi: 10.1111/aogs.14943

Sanchez-Gallardo R, Bottacini F, O'Neill IJ, Esteban-Torres M, Moore R, McAuliffe FM, Cotter PD, van Sinderen D. Selective human milk oligosaccharide utilization by members of the Bifidobacterium pseudocatenulatum taxon. Appl Environ Microbiol. 2024 Sep 24:e0064824. doi: 10.1128/aem.00648-24

O'Brien M, Whyte S, Doyle S, McAuliffe FM. Genetic disorders in maternal medicine. Best Pract Res Clin Obstet Gynaecol. 2024 Sep 3;97:102546. doi: 10.1016/j.bpobgyn.2024.102546

Philippe K, Teo SM, Perrotta C, McAuliffe FM, Phillips CM. Why do preconception and pregnancy lifestyle interventions demonstrate limited success in preventing overweight and obesity in children? A scoping review investigating intervention complexity, process evaluation components, and author interpretations. Obes Rev. 2024 Aug 28:e13822. doi: 10.1111/obr.13822.

McGovern LM, O'Toole L, Laws RA, Skinner TC, McAuliffe FM, O'Reilly SL. An exploration of prenatal breastfeeding self-efficacy: a scoping review. Int J Behav Nutr Phys Act. 2024 Sep 2;21(1):95. doi: 10.1186/s12966-024-01641-3

Allotey J, Archer L, Snell KIE, Coomar D, Massé J, Sletner L, Wolf H, Daskalakis G, Saito S, Ganzevoort W, Ohkuchi A, Mistry H, Farrar D, Mone F, Zhang J, Seed PT, Teede H, Da Silva Costa F, Souka AP, Smuk M, Ferrazzani S, Salvi S, Prefumo F, Gabbay-Benziv R, Nagata C, Takeda S, Sequeira E, Lapaire O, Cecatti JG, Morris RK, Baschat AA, Salvesen K, Smits L, Anggraini D, Rumbold A, van Gelder M, Coomarasamy A, Kingdom J, Heinonen S, Khalil A, Goffinet F, Haqnawaz S, Zamora J, Riley RD, Thangaratinam S; International Prediction of Pregnancy Complications collaborative network; Kwong A, Savitri AI, Bhattacharya S, Uiterwaal CS, Staff AC, Andersen LB, Olive EL, Redman C, Macleod M, Thilaganathan B, Ramírez JA, Audibert F, Magnus PM, Jenum AK, McAuliffe FM, West J, Askie LM, Zimmerman PA, Riddell C, van de Post J, Illanes SE, Holzman C, van Kuijk SMJ, Carbillon L, Villa PM, Eskild A, Chappell L, Velauthar L, van Oostwaard M, Verlohren S, Poston L, Ferrazzi E, Vinter CA, Brown M, Vollebregt KC, Langenveld J, Widmer M, Haavaldsen C, Carroli G, Olsen J, Zavaleta N, Eisensee I, Vergani P, Lumbiganon P, Makrides M, Facchinetti F, Temmerman M, Gibson R, Frusca T, Norman JE, Figueiró-F. Development and validation of a prognostic model to predict birth weight: individual participant data meta-analysis. BMJ Med. 2024 Aug 14;3(1):e000784. doi: 10.1136/bmjmed-2023-000784.

Sanchez-Gallardo R, O'Connor PM, O'Neill IJ, McDonnell B, Lee C, Moore RL, McAuliffe FM, Cotter PD, van Sinderen D. Pseudocin 196, a

novel lantibiotic produced by Bifidobacterium pseudocatenulatum elicits antimicrobial activity against clinically relevant pathogens. Gut Microbes. 2024 Jan-Dec;16(1):2387139. doi: 10.1080/19490976.2024.2387139.

Sanchez-Gallardo R, Bottacini F, Friess L, Esteban-Torres M, Somers C, Moore RL, McAuliffe FM, Cotter PD, van Sinderen D. Unveiling metabolic pathways of selected plant-derived glycans by Bifidobacterium pseudocatenulatum. Front Microbiol. 2024 Jul 16;15:1414471. doi: 10.3389/fmicb.2024.1414471

Callanan S, Delahunt A, Phillips C, Wilson Z, Foley H, McNestry C, Douglass A, Cody D, McDonnell C, Twomey P, Crowley R, McAuliffe FM. Childhood nutritional factors and cardiometabolic outcomes at 9-11 years of age: findings from the ROLO longitudinal birth cohort study. Am J Clin Nutr. 2024 Jul 27:S0002-9165(24)00649-X. doi: 10.1016/j.ajcnut.2024.07.025

McEvoy A, Kane D, Hokey E, Mangina E, Higgins S, McAuliffe FM. Virtual reality training for postpartum uterine balloon insertion - a multi-center randomized controlled trial. Am J Obstet Gynecol MFM. 2024 Jul 15:101429. doi: 10.1016/j.ajogmf.2024.101429.

Mealy G, Brennan K, Killeen SL, Kilbane M, Yelverton C, Saldova R, Groeger D, VanSinderen D, Cotter PD, Doyle SL, McAuliffe FM. Impact of previous pregnancy and BMI on cellular and serum immune activity from early to late pregnancy. Sci Rep. 2024 Jul 11;14(1):16055.

O'Brien M, Doyle S, McAuliffe FM, Leuven F, Mahmood T. Current status and future of genomics in fetal and maternal medicine: A scientific review commissioned by European Board and College of Obstetrics and Gynaecology (EBCOG). Eur J Obstet Gynecol Reprod Biol. 2024 May 21:S0301-2115(24)00249-5

Nørmark LP, McAuliffe F, Maindal HT, O'Reilly S, Davies A, Burden C, Skinner TC, Vrangbæk K, Callander E. Protocol for cost-effectiveness analysis of a randomised trial of mHealth coaching (Bump2Baby and Me) compared with usual care for healthy gestational weight gain and postnatal outcomes in at-risk women and their offspring in the UK, Australia, Ireland and Spain. BMJ Open. 2024 May 21;14(5):e080823

Friess L, Bottacini F, McAuliffe FM, O'Neill IJ, Cotter PD, Lee C, Munoz-Munoz J, van Sinderen D. Two extracellular α-arabinofuranosidases are required for cereal-derived arabinoxylan metabolism by Bifidobacterium longum subsp. longum. Gut Microbes. 2024 Jan-Dec;16(1):2353229. doi: 10.1080/19490976.2024.2353229. Epub 2024 May 16.PMID: 38752423

Mustafa HJ, Khalil A, Johnson S, Gordijn SJ, Ganzevoort W, Melling C, Koh CJ, Mandy GT, Kilby MD, Johnson A, Quintero RA, Ryan G, Shamshirsaz AA, Nassr A; LUTO Working Group. Fetal lower urinary tract obstruction: international Delphi consensus on management and core outcomes set. Ultrasound Obstet Gynecol. 2024 May 15. doi: 10.1002/uog.27684

Keating NE, Walker CJ, Lally DA, O'Brien CM, Corcoran SM, Ryan BM, Harewood GC, McAuliffe FM. Elevated cord levels of ustekinumab following its use in the treatment of Crohn's disease in pregnancy. Obstet Med. 2024 Mar;17(1):47-49. doi: 10.1177/1753495X221135201

O'Toole FE, Hokey E, McAuliffe FM, Walsh JM. The Experience of Anaemia and Ingesting Oral Iron Supplementation in Pregnancy: A Qualitative Study. Eur J Obstet Gynecol Reprod Biol. 2024 Mar 26;297:111-119. doi: 10.1016/j.ejogrb.2024.03.005.

Teo SM, Segurado R, Mehegan J, Douglass A, Murrin CM, Cronin M, Kelleher CC, McAuliffe FM, Phillips CM. Sociodemographic factor associations with maternal and placental outcomes: A cluster and partial least squares regression analysis. Placenta. 2024 Apr 7;150:62-71. doi: 10.1016/j.placenta.2024.04.001

McNestry C, Crowley RK, O'Reilly SL, Kasemiire A, Callanan S, Delahunt A, Twomey PJ, McAuliffe FM. Breastfeeding duration is associated with favorable body composition and lower glycoprotein acetyls in later life. Int J Gynaecol Obstet. 2024 Apr 8. doi: 10.1002/ijgo.15484

Delahunt A, Killeen SL, O'Brien EC, Geraghty AA, O'Reilly SL, McDonnell CM, Cushion R, Mehegan J, McAuliffe FM. Stability of child appetitive traits and association with diet quality at 5 years and 9-11 years old: Findings from the ROLO longitudinal birth cohort study. Eur J Clin Nutr. 2024 Apr 4. doi: 10.1038/s41430-024-01436-6.

O'Keeffe R, Mulligan K, McParland P, McAuliffe FM, Mahony R, Corcoran S, O'Connor C, Carroll S, Walsh J. Estimating fetal weight in gastroschisis: A 10 year audit of outcomes at the National Maternity Hospital. Int J Gynaecol Obstet. 2024 Apr 4. doi: 10.1002/ijgo.15525.

Dunlop K, Dillon G, McEvoy A, Kane D, Higgins S, Mangina E, McAuliffe FM. The virtual reality classroom: a randomized control trial of medical student knowledge of postpartum hemorrhage emergency management. Front Med (Lausanne). 2024 Mar 19;11:1371075. doi: 10.3389/fmed.2024.1371075. eCollection 2024. PMID: 38566920

Mukonka V, Sialubanje C, McAuliffe FM, Babaniyi O, Malumo S, Phiri J, Fitzpatrick P. Effect of a mother-baby delivery pack on institutional deliveries: A community intervention trial to address maternal mortality in rural Zambia. PLoS One. 2024 Mar 11;19(3):e0296001. doi: 10.1371/journal.pone.0296001. eCollection 2024. PMID: 38466648

Lynch S, Killeen SL, O'Brien E, Mullane K, Hokey E, Mealy G, McAuliffe FM. Diet quality and blood pressure among pregnant women with overweight or obesity: A secondary analysis of two randomized controlled trials. Acta Obstet Gynecol Scand. 2024 Mar 7. doi: 10.1111/aogs.14821. Online ahead of print. PMID: 38450653

Finnegan C, Dicker P, Asandei D, Higgins M, O'Gorman N, O' Riordan M, Dunne F, Gaffney G, Newman C, McAuliffe F, Ciprike V, Fernandez E, Malone FD, Breathnach FM. The IRELAnD study-investigating the role of early

low-dose aspirin in diabetes mellitus: a double-blinded, placebo-controlled, randomized trial. Am J Obstet Gynecol MFM. 2024 Mar 8:101297. doi: 10.1016/j.ajogmf.2024.101297.

FIGO Preconception Checklist: Preconception care for mother and baby.
Benedetto C, Borella F, Divakar H, O'Riordan SL, Mazzoli M, Hanson M, O'Reilly S, Jacobsson B, Conry JA, McAuliffe FM; FIGO Committee on Well Woman Healthcare, FIGO Committee on the Impact of Pregnancy on Long-Term Health.Int J Gynaecol Obstet. 2024 Mar 1. doi: 10.1002/ijgo.15446. Online ahead of print. PMID: 38426290

O'Reilly SL, McNestry C, McGuinness D, Killeen SL, Mehegan J, Coughlan B, O'Brien EC, O'Brien D, Szafranska M, Brosnan M, Sheehy L, Murtagh R, O'Hagan L, Corbett M, Walsh M, Keogh R, Power P, Woodcock M, Phelan M, Carroll A, Murray S, Scallan C, Dunn E, McAuliffe FM. Multicomponent perinatal breastfeeding support in women with BMI >25: The Latch On multi-centre randomised trial. .BJOG. 2024 Feb 12. doi: 10.1111/1471-0528.17782

Killeen SL, Mealy G, Brennan K, Cotter PD, Yelverton C, Saldova R, Groeger D, VanSinderen D, Doyle S, McAuliffe FM. Impact of Bifidobacterium longum1714® on maternal cytokine response in peripheral blood mononuclear cells. Cytokine. 2024 Feb;174:156458. doi: 10.1016/j.cyto.2023.156458. Epub 2023 Dec 9.PMID: 38071842

Cetin I, Carlson SE, Burden C, da Fonseca EB, di Renzo GC, Hadjipanayis A, Harris WS, Kumar KR, Olsen SF, Mader S, McAuliffe FM, Muhlhausler B, Oken E, Poon LC, Poston L, Ramakrishnan U, Roehr CC, Savona-Ventura C, Smuts CM, Sotiriadis A, Su KP, Tribe RM, Vannice G, Koletzko B. Omega-3 fatty acid supply in pregnancy for risk reduction of preterm and early preterm birth.; Clinical Practice Guideline on behalf of Asia Pacific Health Association (Pediatric-Neonatology Branch), Child Health Foundation (Stiftung Kindergesundheit), European Academy of Paediatrics, European Board & College of Obstetrics and Gynaecology, European Foundation for the Care of Newborn Infants, European Society for Paediatric Research, and International Society for Developmental Origins of Health and Disease.Am J Obstet Gynecol MFM. 2024 Feb;6(2):101251. doi: 10.1016/j.ajogmf.2023.101251. Epub 2023 Dec 7.PMID: 38070679

Windrim C, Ryan G, Rojas D, Montero D, Higgins M, Windrim R. Remote hands-on training with a novel "video-game" simulator for teaching fetoscopic laser techniques for ablation of placental anastomoses in twin to twin syndrome. Prenatal diagnosis. 2024; 44(1): 108-110.

Dempsey B, Callaghan S, Higgins MF (2024) Providers' experiences with abortion care: A scoping review. PLoS ONE 19(7): e0303601. https://doi.org/10.1371/journal.pone.0303601

O'Brien M, Dempsey B, Higgins MF. The experiences and outcomes of Gypsy, Roma, and Traveller pregnant people in pregnancy: A scoping review. Int J Gynecol Obstet. 2024; 00: 1-9. doi:10.1002/ijgo.15723

Higgins MF, Cooley S, Hayes-Ryan D, Dempsey B (2024) Approaches to a crisis in early pregnancy: a qualitative study of medical students and doctors in training using a story completion model. Sexual and Reproductive Health 2024; Oct 21: 1-21

Kennedy C, Al-Tikriti S, Abubakr KA, et al. Exploring patient involvement in obstetrics and gynaecology education for medical students: a scoping review protocol. BMJ Open 2024;14:e089287

Jackson H, MacBride C, Taylor L, Carey M, Higgins MF. Patients' attitudes to bedside teaching after the COVID-19 pandemic. Ir J Med Sci. 2024; 193(3)1337-42.

Bartels HC, Hameed S, Young C, Nabhan M, Downey P, Curran KM, McCormack J, Fabre A, Kolch W, Zhernovkov V, Brennan DJ. Spatial proteomics and transcriptomics of the maternal-fetal interface in placenta accreta spectrum. Transl Res. 2024 Dec;274:67-80. doi: 10.1016/j.trsl.2024.09.004.

Bartels HC, Wolsztynski E, O'Doherty J, Brophy DP, MacDermott R, Atallah D, Saliba S, El Kassis N, Moubarak M, Young C, Downey P, Donnelly J, Geoghegan T, Brennan DJ, Curran KM. Radiomic study of antenatal prediction of severe placenta accreta spectrum from MRI. Br J Radiol. 2024 Nov 1;97(1163):1833-1842. doi: 10.1093/bjr/tqae164.

Bartels HC, Downey P, Brennan DJ. Looking back to look forward: Has the time arrived for active management of obstetricians in placenta accreta spectrum? Int J Gynaecol Obstet. 2025 Jan;168(1):48-56. doi: 10.1002/ijgo.15826. Epub 2024 Jul 24.

Bartels HC, Brennan DJ. Complex caesarean delivery. Case Rep Womens Health. 2024 May 10;42:e00613. doi: 10.1016/j.crwh.2024.e00613. eCollection 2024 Jun.

Parmar C, Abi Mosleh K, Aeschbacher P, Halfdanarson TR, McKenzie TJ, Rosenthal RJ, Ghanem OM; BRIDGE Study Group. The feasibility and outcomes of metabolic and bariatric surgery prior to neoplastic therapy. Surg Obes Relat Dis. 2024 Aug;20(8):717-728. doi: 10.1016/j.soard.2024.02.008.

Donohoe F, O'Meara Y, Roberts A, Comerford L, Valcheva I, Kearns U, Galligan M, Higgins MJ, Henry AL, Kelly CM, Walshe JM, Hickey M, Brennan DJ. Multimodal, Technology-Assisted Intervention for the Management of Menopause after Cancer Improves Cancer-Related Quality of Life-Results from the Menopause after Cancer (Mac) Study. Cancers (Basel). 2024 Mar 12;16(6):1127. doi: 10.3390/cancers16061127.

Hickey M, Basu P, Sassarini J, Stegmann ME, Weiderpass E, Nakawala Chilowa K, Yip CH, Partridge AH, Brennan DJ. Managing menopause after cancer. Lancet. 2024 Mar 9;403(10430):984-996. doi: 10.1016/S0140-6736(23)02802-7.

Bartels HC, Brennan DJ. Placenta accreta spectrum - the ongoing evolution of an iatrogenic condition. Case Rep Womens Health. 2023 Jun 19;39:e00521. doi: 10.1016/j.crwh.2023.e00521

Mulligan K, Corry E, Donohoe F, Glennon K, Vermeulen C, Reid-Schachter G, Thompson C, Walsh T, Shields C, McCormack O, Conneely J, Khan MF, Boyd WD, McVey R, O'Brien D, Treacy A, Mulsow J, Brennan DJ. Multidisciplinary Surgical Approach to Increase Survival for Advanced Ovarian Cancer in a Tertiary Gynaecological Oncology Centre. Surg Oncol. 2024 Jan;31(1):460-472. doi: 10.1245/s10434-023-14423-1.

Treacy T, O'Meara Y, Galligan MC, Henry AL, Lensen SF, Higgins MJ, Hickey M, Brennan DJ. The Sleepio After Cancer (SAC) study. Digital cognitive behavioural therapy for insomnia (dCBT-I) in women cancer patients - Trial protocol of a randomised controlled trial. Contemp Clin Trials. 2024 Jan;136:107337. doi: 10.1016/j.cct.2023.107337

Bartels HC, Lalor JG, Walsh D, Nieto-Calvache AJ, Terlizzi K, Cooney N, Palacios-Jaraquemada JM, O'Flaherty D, MacColgain S, Ffrench-O'Carroll R, Brennan DJ. Anesthesia and postpartum pain management for placenta accreta spectrum: The patient perspective and recommendations for care. Int J Gynaecol Obstet. 2024 Mar;164(3):992-1000. doi: 10.1002/ijgo.15125.

Bartels HC, Walsh D, Nieto-Calvache AJ, Lalor J, Terlezzi K, Cooney N, Palacios-Jaraquemada JM, O'Flaherty D, MacColgain S, Ffrench-O'Carroll R, Brennan DJ. Anesthesia and postpartum pain management for placenta accreta spectrum: The healthcare provider perspective. Int J Gynaecol Obstet. 2024 Mar;164(3):964-970. doi: 10.1002/ijgo.15096.

M Higgins, Obstetrics and Gynaecology: An Evidence Based Text for the MRCOG. Fourth Edition. Editors: D Luesley, M Kilby. 2024. Shoulder Dystocia, Breech, Diagnosis of Labour, Fetal compromise in the first stage of labour, Fetal compromise in the second stage of labour, Management of abnormal labour

Royal College of Surgeons in Ireland

Riordan N, Robson M, Keane D. Passive Descent and the Second Stage. To Push or Not to Push. American Journal of Obstetrics and Gynecology. (2024). 841: 230.S446-S447.

Riordan N, Robson M, Keane D. How Much Oxytocin Do We Give? Cumulative Doses for Labour Acceleration. American Journal of Obstetrics and Gynecology (2024) 840: 230. S446.

Baalman JH, Bergholt T, Keane D et al. Prospective structured perinatal audit and the Ten Group classification system: Essential for understanding and improving childbirth. Aust NZ J Obst Gynaecol 2024 https://doi.org/10.1111/ajo.13893

Kelly L, O'Leary BD, Keane DP. Protracted postpartum urinary retention: risk factors, treatment, and effect on pelvic floor dysfunction. . Ir Med J. 2025 Feb 20;118(2):20. PMID: 40008579

Neonatology

Houben NA, Fustolo-Gunnink S, Fijnvandraat K, Caram-Deelder C, Carrascosa MA, Beuchée A, Brække K, Cardona F, Debeer A, Domingues S, Ghirardello S. Red blood cell transfusion in European neonatal intensive care units, 2022 to 2023. JAMA network open. 2024 Sep 3;7(9):e2434077-.

Houben NA, Lopriore E, Fijnvandraat K, Caram-Deelder C, Carrascosa MA, Beuchée A, Brække K, Cardona F, Debeer A, Domingues S, Ghirardello S. Platelet transfusion in neonatal intensive care units of 22 European countries: a prospective observational study. The Lancet Regional Health–Europe. 2024 Dec 1;47.

Moore CM, Lorusso A, Morgan L, Brazil S, Croxon H, Waters A, Farrelly A, Hervig T, Curley A. Safety and feasibility of platelet transfusion through long catheters in the neonatal intensive care unit: an in vitro study. Archives of Disease in Childhood-Fetal and Neonatal Edition. 2024 Jan 1;109(1):70-3.

O'Reilly D, Murphy CA, Moore CM, Ní Áinle F, Gormley IC, Morrell CN, Curley A, Mc Callion N, Maguire P. Markers of platelet activation foR identification of late onset sEpsis in infaNTs: PARENT study protocol. Pediatric Research. 2024 Feb;95(3):852-6.

Joyce RT, Geraghty LE, O'Donnell CPF. Randomised cross-over study of thin catheters used for less invasive surfactant delivery in a newborn manikin. *Arch Dis Child Fetal Neonatal Ed* 2024 Online First July 11 doi. org/10.1136/archdischild-2024-327473

Geraghty LE, Dunne, EA, Ní Chathasaigh CM, Vellinga A, Adams NC, O Currain EM, McCarthy LK, O'Donnell CPF. Video versus direct laryngoscopy for urgent intubation of newborn infants. *N Engl J Med* 2024; 390: 1885-94 doi: 10.1056/NEJMoa2402785

Alonso-Ojembarrena A, Ehrhardt H, Cetinkaya M, Lavizzari A, Szczapa T, Sartorius V, Rocha G, Sindelar R, Wald M, Heiring C, Soukka H, Danhaive O, Roehr CC, Cucerea M, Calkovska A, Dimitriou G, Barzilay B, Klingenberg C, Schulzke S, Plavka R, Tameliene R, O'Donnell CPF, van Kaam AH; ESPR Pulmonary Research Consortium. Use of neonatal lung ultrasound in European neonatal units; a survey oby the European Society of Paeiatric Research. *Arch Dis Child Fetal Neonatal Ed* 2024; 109: 660-66411 PMID: 38604653

Dunne EA, Ní Chathasaigh CM, Geraghty LE, O'Donnell CPF, McCarthy LK. Polyethylene bags before cord clamping in very preterm infants: a randomised controlled trial. *Arch Dis Child Fetal Neonatal Ed* 2024; 109: 317-321 doi: 10.1136/archdischild-2023-32580

Murphy MC, Miletin J, Klingenberg C, Guthe HJ, Rigo V, Plavka R, Bohlin K, Pereira AB, Juren T, Alih E, Galligan M, O'Donnell CPF. Prophylactic oropharyngeal surfactant for preterm newborns at birth: a randomized clinical trial. *JAMA Pediatr* 2024; 118: 117-124 doi: 10.1001/jamapediatrics.2023.508

Ní Chathasaigh CM, Dunne EA, Geraghty LE, O'Donnell CPF, O'Currain E, Curley. Video analysis of neonatal intubations using video laryngoscopy: a prospective comparison of clinical practice with resuscitation guidelines. AE. Arch Dis Child Fetal Neonatal Ed. 2025 Jan 19: fetalneonatal-2024327723.

Ni Chathasaigh CM, Smiles L, O'Currain E, Curley AE. Integration of a respiratory

function monitor into newborn positive pressure ventilation training; development of a standardised training intervention. Resusc Plus. 2024 Mar 10;18:100602

Ni Chathasaigh CM, Smiles L, Curley AE, O'Currain E. Newborn face mask ventilation training using a standardised intervention and respiratory function monitor: a before and after manikin study..Arch Dis Child Fetal Neonatal Ed. 2024 Aug 16;109(5):505-510

Garvey A, Kearney A, Kasha S, Dafalla I, Moore S, Wall H, Curley A. Management of neonatal hypoglycaemia in a tertiary maternity unit-A multidisciplinary quality improvement project.. Acta Paediatr. 2024 Mar;113(3):434-441

O'Reilly D, Murphy CA, Moore CM, Ní Áinle F, Gormley IC, Morrell CN, Curley A, Mc Callion N, Maguire P Markers of platelet activation foR identification of late onset sEpsis in infaNTs: PARENT study protocol.Pediatr Res. 2024 Feb;95(3):852-856

Z Greene, A Tonge, V Winn, J Caldeira, S Browne. Parent class for introducing solids to high risk infants post discharge from NICU: Next Steps. NMH Research and Innovation Symposium, 2024 (poster presentation).

Z Greene, A Tonge, V Winn, J Caldeira, S Browne. Feeding Issues after NICU: Profile of infants attending for multidisciplinary feeding management at the NMH. Irish Neonatal Research Symposium, 2024 (oral presentation).

Dr Lucy Geraghty: "Video versus Direct Laryngoscopy for Urgent Intubation of Newborn Infants" from the Platform in a Neonatal Clinical Trials Session at the Pediatric Academic Societies Meeting in Toronto Canada, May 5th. The New England Journal of Medicine co-ordinated online publication of the manuscript with the presentation. Dr Colm O'Donnell later presented the results of the same study at the request of the Editors at the New England Journal of Medicine in a session at the American Thoracic Society in San Diego CA, USA on May 19th.

Fetal Medicine

Results from National Fetal Neurosurgery Programme were recently published in two peer reviewed journals:
Ryan GA, Start AO, Cathcart B, Hughes H, Denona B, Higgins S, Corcoran S, Walsh J, Carroll S, Mahony R, Crimmins D, Caird J, Robinson I, Colleran G, McParland P, McAuliffe FM. Prenatal findings and associated survival rates in fetal ventriculomegaly: A prospective observational study. Int J Gynaecol Obstet. 2022 Dec;159(3):891-897.

Start AO, Ryan GA, Cathcart B, Hughes H, Higgins S, Corcoran S, Walsh J, Carroll S, Mahony R, Crimmins D, Caird J, Colleran G, McParland P, McAuliffe FM. Severe fetal ventriculomegaly: Fetal morbidity and mortality, caesarean delivery rates and obstetrical challenges in a large prospective cohort. Prenat Diagn. 2022 Jan;42(1):109-117.

Flahavan, C. (2024) 'This space inside': An art-based autoethnographic exploration of the hysterectomy experience, Journal of Applied Arts & Health 15(2) p. 171 - 187

Anaesthetics

Scanlon E, Leeson H, Higgins N. The impact of out-of-hours elective surgery: is it worth the risk? Anaesthesia. 2025 Feb;80(2):215. doi: 10.1111/anae.16458. Epub 2024 Oct 22. PMID: 39435994.

Luke, Ciara, Higgins, Nikki. International Journal of Obstetric Anesthesia, Volume 58, 104017An audit of obstetric admissions to a high dependency unit, in a tertiary maternity hospital

Luke, Ciara et al. International Journal of Obstetric Anesthesia, Volume 58, 104066An analysis of pain during caesarean section in a tertiary maternity hospital.

Meeting: National Patient Safety Conference, Dublin 22nd November 2024: Talk; Safety in Obstetric Anaesthesia.

Supervision of MD Student Dr Lorcan O'Carroll through UCD, entitled 'Development and testing of proficiency based simulation teaching programme for the use of ISBAR communication tool in the setting of emergency caesarean sections.' (Dr Robert Ffrench-O'Carroll)

Ciara Luke, Lorcan O' Carroll, Robert Ffrench O' Carroll, Roger McMorrow. Pain during caesarean delivery: What gets measured, gets managed. International Journal of Obstetric Anesthesia,2024,https://doi.org/10.1016/j.ijoa.2024.104281.

Egan M, Schaler L, Crosby D, Ffrench-O'Carroll R. Anaesthesia considerations for assisted reproductive technology: a focused review. Int J Obstet Anesth. 2024 Aug 8:104248. doi: 10.1016/j.ijoa.2024.104248. Epub ahead of print. PMID: 39209573.

Ffrench-O›Carroll R, Saulnier L, Bhiladvala C, Albert A, Mayer U, Chau A. Quality of recovery and maternal satisfaction after caesarean delivery: a mixed-methods prospective cohort study. Int J Obstet Anesth. 2024 Jun 20;60:104227. doi: 10.1016/j.ijoa.2024.104227. Epub ahead of print. PMID: 39018741.

C. Joyce, R. Free, P. Calpin, I. Browne, M. Robson, R. ffrench-O'Carroll, Programmed-intermittent epidural bolus regimen vs continuous epidural infusion: a retrospective study of motor block and obstetric outcomes using the Robson's Ten Group Classification System, Int J Obstet Anesth, 2024, 104215, ISSN 0959-289X,

Yamaguchi E, Ffrench O'Carroll R, Chau A, Preston R. Successful antepartum de-labelling of local anaesthetic allergy in a parturient with a self-reported allergy to amide and ester local anaesthetics. Int J Obstet Anesth. 2024 May;58:103978. doi: 10.1016/j.ijoa.2024.103978. Epub 2024 Jan 11. PMID: 38508964.

S. Hannon, Z. Laila, I. Browne, J. Fitzgerald, K. Sherlock, IV Ferric Carboxymaltose administration for severe anaemia following postpartum haemorrhage. Ir Med J; November 2024; Vol 117; No. 10; P1062.

ISOA Abstracts Publications

J Fitzgibbon, R Ffrench-O'Carroll, S MacColgain, P O'Concuir. Ir Med J; November-December

2024; Vol 117; No. 10; P1049, December 19th, 2024, Evaluation of Patient Satisfaction and Quality of Recovery Post Caesarean Section: A Single Centre Prospective Observational Study

A. Sherif, R. ffrench-O`Carroll, O. Elabbasy, Ir Med J; November-December 2024; Vol 117; No. 10; P1049, December 19th, 2024, Pain Management after Caesarean Section,

Z. Laila, S. Hannon, I. Browne, An audit reviewing epidural placement in patients with scoliosis. Ir Med J; November-December 2024; Vol 117; No. 10; P1049, December 19th, 2024

R. Ní Dhomhnaill, A. Impiumi, R. ffrench-O'Carroll, Outcomes after Elective Caesarean Section according to ERAS Standards.

Hilary Leeson, Emer Scanlon, Nikki Higgins, Ir Med J; November 2024; Vol 117; No. 10; P1062

December 19th, 2024, An audit to assess the volume of elective surgeries performed out-of-hours in a stand-alone maternity hospital.

Ir Med J; November 2024; Vol 117; No. 10; P1062, December 19th, 2024. A collaborative multidisciplinary approach to nursing education in obstetric critical care. D. McMahon1, 2, P. Watters, N. Naidoo, N. Higgins.

Hilary Leeson, Róisín Ní Dhomhnaill, Siaghal MacColgáin, Ir Med J; November 2024; Vol 117; No. 10; P1062, December 19th, 2024. Audit of Anaesthetist Response Times to Epidural Analgesia Requests on the Labour Ward.

A. Afridi, F. Afridi, M. Kumar, M. Akhtar, N. Higgins. Ir Med J; November 2024; Vol 117; No. 10; P1062, December 19th, 2024. Compliance of Documentation of Pre-Anaesthetic Assessment for Emergency Cases at the tertiary maternity hospital

A. Afridi, F. Afridi, A. Lennon, J. Saltori, Nikki Higgins[1]Ir Med J; November 2024; Vol 117; No. 10; P1062, December 19th, 2024, Intraoperative cell salvage and its role in patient blood management in the obstetric population.

A. Afridi, F. Afridi, H.Z Malik, R. McMorrow, R. Ffrench- O'Carroll, Ir Med J; November 2024; Vol 117; No. 10; P1062, December 19th, 2024, Intra-operative pain during Caesarean Delivery in a tertiary maternity hospital.

E. Scanlon, M. Fakhri, N. Higgins, Ir Med J; November 2024; Vol 117; No. 10; P1062

December 19th, 2024, Obstetric high dependency unit admissions in a maternity hospital

S. Hannon, Z. Laila, I. Browne, Ir Med J; November 2024; Vol 117; No. 10; P1062 December 19th, 2024, An audit on postpartum neuropathies,

Laboratory

Keating NE, Walker CJ, Lally DA, O'Brien CM, Corcoran SM, Ryan BM, Harewood GC, McAuliffe FM. Elevated cord levels of ustekinumab following its use in the treatment of Crohn's disease in pregnancy. Obstet Med. 2024 Mar;17(1):47-49. doi: 10.1177/1753495X221135201. Epub 2022 Nov 7. PMID: 38660328; PMCID: PMC11037200.

Bartels HC, Downey P, Brennan DJ. Looking back to look forward: Has the time arrived for active management of obstetricians in placenta accreta spectrum? Int J Gynaecol Obstet. 2025 Jan;168(1):48-56. doi: 10.1002/ijgo.15826. Epub 2024 Jul 24. PMID: 39045676; PMCID: PMC11649868.

Bartosch C, Nadal A, Braga AC, Salerno A, Rougemont AL, Van Rompuy AS, Fitzgerald B, Joyce C, Allias F, Maher GJ, Turowski G, Tille JC, Alsibai KD, Van de Vijver K, McMahon L, Sunde L, Pyzlak M, Downey P, Wessman S, Patrier S, Kaur B, Fisher R. Correction to: Practical guidelines of the EOTTD for pathological and genetic diagnosis of hydatidiform moles. Virchows Arch. 2024 Mar;484(3):539-548. doi: 10.1007/s00428-023-03715-2. Erratum for: Virchows Arch. 2024 Mar;484(3):401-422. doi: 10.1007/s00428-023-03658-8. PMID: 38421406.

Bartels HC, Hameed S, Young C, Nabhan M, Downey P, Curran KM, McCormack J, Fabre A, Kolch W, Zhernovkov V, Brennan DJ. Spatial proteomics and transcriptomics of the maternal-fetal interface in placenta accreta spectrum. Transl Res. 2024 Dec;274:67-80. doi: 10.1016/j.trsl.2024.09.004. Epub 2024 Sep 28. PMID: 39349165.

Bartosch C, Nadal A, Braga AC, Salerno A, Rougemont AL, Van Rompuy AS, Fitzgerald B, Joyce C, Allias F, Maher GJ, Turowski G, Tille JC, Alsibai KD, Van de Vijver K, McMahon L, Sunde L, Pyzlak M, Downey P, Wessman S, Patrier S, Kaur B, Fisher R. Practical guidelines of the EOTTD for pathological and genetic diagnosis of hydatidiform moles. Virchows Arch. 2024 Mar;484(3):401-422. doi: 10.1007/s00428-023-03658-8. Epub 2023 Oct 19. Erratum in: Virchows Arch. 2024 Mar;484(3):539-548. doi: 10.1007/s00428-023-03715-2. PMID: 37857997.

Bartels HC, Walsh JM, Carroll S, Downey P, O'Brien DJ, McAuliffe FM, C'Connor C, Thompson C, Donnelly J, Brennan DJ, Corcoran SM. Prenatal detection of placenta accreta spectrum using a sonographic checklist. Acta Obstet Gynecol Scand. 2024 Oct 2. doi: 10.1111/aogs.14943. Epub ahead of print. PMID: 39356049.

Bartels HC, Walsh JM, Carroll S, Downey P, O'Brien DJ, McAuliffe FM, C'Connor C, Thompson C, Donnelly J, Brennan DJ, Corcoran SM. Prenatal detection of placenta accreta spectrum using a sonographic checklist. Acta Obstet Gynecol Scand. 2024 Oct 2. doi: 10.1111/aogs.14943. Epub ahead of print. PMID: 39356049.

Bartels HC, Wolsztynski E, O'Doherty J, Brophy DP, MacDermott R, Atallah D, Saliba S, El Kassis N, Moubarak M, Young C, Downey P, Donnelly J, Geoghegan T, Brennan DJ, Curran KM. Radiomic study of antenatal prediction of severe placenta accreta spectrum from MRI. Br J Radiol. 2024 Nov 1;97(1163):1833-1842. doi: 10.1093/bjr/tqae164. PMID: 39152998; PMCID: PMC11491593.

Joyce CM, Wakefield C, Chen-Maxwell D, Dineen S, Kenneally C, Downey P, Duffy C, O'Donoghue K, Coulter J, Fitzgerald B. Appraisal of hydatidiform mole incidence and registration

rates in Ireland following the establishment of a National Gestational Trophoblastic Disease Registry. J Clin Pathol. 2024 Aug 2:jcp-2023-209270. doi: 10.1136/jcp-2023-209270. Epub ahead of print. PMID: 38555103.

Angelini G, Panunzi S, Pompili M, Riccardi L, Garcovich M, Verrastro O, Russo S, Mare T, Luxton J, le Roux CW, Raffaelli M, Mingrone G, Vincent RP. Performance of Noninvasive Tests for Metabolic Dysfunction-Associated Steatohepatitis and Liver Fibrosis Resolution after Bariatric Surgery. Clin Chem. 2024 Dec 30:hvae208. doi: 10.1093/clinchem/hvae208. PMID: 39786442

Raverdy V, Tavaglione F, Chatelain E, Lassailly G, De Vincentis A, Vespasiani-Gentilucci U, Qadri SF, Caiazzo R, Verkindt H, Saponaro C, Kerr-Conte J, Baud G, Marciniak C, Chetboun M, Oukhouya-Daoud N, Blanck S, Vandel J, Olsson L, Chakaroun R, Gnemmi V, Leteurtre E, Lefebvre P, Haas JT, Yki-Järvinen H, Francque S, Staels B, Le Roux CW, Tremaroli V, Mathurin P, Marot G, Romeo S, Pattou F. Data-driven cluster analysis identifies distinct types of metabolic dysfunction-associated steatotic liver disease. Nat Med. 2024 Dec 9. doi: 10.1038/s41591-024-03283-1. Online ahead of print. PMID: 39653777

Cohen RV, Park JY, Prager G, Bueter M, le Roux CW, Parmar C, Kermansaravi M, Salminen P, Miras AD. Role of obesity-management medications before and after metabolic bariatric surgery: a systematic review. Br J Surg. 2024 Nov 27;111(12):znae284. doi: 10.1093/bjs/znae284. PMID: 39612581

Cohen RV, Busetto L, Levinson R, Le Roux CW, Salminen P, Prager G; International Consensus on the Role of Obesity Management Medications in the Context of Metabolic Bariatric Surgery. International consensus position statement on the role of obesity management medications in the context of metabolic bariatric surgery: expert guideline by the International Federation for the Surgery of Obesity and Metabolic Disorders (IFSO). Br J Surg. 2024 Nov 27;111(12):znae283. doi: 10.1093/bjs/znae283. PMID: 39612579 No abstract available.

le Roux CW, Steen O, Lucas KJ, Ekinci EI, Startseva E, Unseld A, Hussain SA, Hennige AM. Survodutide, a glucagon receptor/glucagon-like peptide-1 receptor dual agonist, improves blood pressure in adults with obesity: A post hoc analysis from a randomized, placebo-controlled, dose-finding, phase 2 trial. Diabetes Obes Metab. 2024 Nov 25. doi: 10.1111/dom.16052. Online ahead of print. PMID: 39582349 No abstract available.

Tirzepatide for Obesity Treatment and Diabetes Prevention. Jastreboff AM, le Roux CW, Stefanski A, Aronne LJ, Halpern B, Wharton S, Wilding JPH, Perreault L, Zhang S, Battula R, Bunck MC, Ahmad NN, Jouravskaya I; SURMOUNT-1 Investigators. N Engl J Med. 2024 Nov 13. doi: 10.1056/NEJMoa2410819. Online ahead of print. PMID: 39536238

Contreras F, Al-Najim W, le Roux CW. Health Benefits Beyond the Scale: The Role of Diet and Nutrition During Weight Loss Programmes. Nutrients. 2024 Oct 22;16(21):3585. doi: 10.3390/nu16213585. PMID: 39519418 Free PMC article. Review.

Wharton S, le Roux CW, Kosiborod MN, Platz E, Brueckmann M, Jastreboff AM, Ajaz Hussain S, Pedersen SD, Borowska L, Unseld A, Kloer IM, Kaplan LM; SYNCHRONIZE 1 and 2 trial committees and investigators. Survodutide for treatment of obesity: rationale and design of two randomized phase 3 clinical trials (SYNCHRONIZE™-1 and -2). Obesity (Silver Spring). 2024 Nov 4. doi: 10.1002/oby.24184. Online ahead of print. PMID: 39495965

Kueh MTW, Chong MC, Miras AD, le Roux CW. Oxyntomodulin physiology and its therapeutic development in obesity and associated complications. J Physiol. 2024 Nov 4. doi: 10.1113/JP287407. Online ahead of print. PMID: 39495024 Review.

Le Roux CW, Koroleva A, Larsen S, Foot E. Anti-obesity treatment preferences of healthcare providers and people living with obesity: A survey-based study. Clin Obes. 2024 Oct 28:e12704. doi: 10.1111/cob.12704. Online ahead of print. PMID: 39468412

Kosiborod MN, Platz E, Wharton S, le Roux CW, Brueckmann M, Ajaz Hussain S, Unseld A, Startseva E, Kaplan LM; SYNCHRONIZE–CVOT Trial Committees and Investigators. Survodutide for the Treatment of Obesity: Rationale and Design of the SYNCHRONIZE Cardiovascular Outcomes Trial. JACC Heart Fail. 2024 Dec;12(12):2101-2109. doi: 10.1016/j.jchf.2024.09.004. Epub 2024 Oct 23. PMID: 39453356 Free article. Review.

Coral DE, Smit F, Farzaneh A, Gieswinkel A, Tajes JF, Sparsø T, Delfin C, Bauvin P, Wang K, Temprosa M, De Cock D, Blanch J, Fernández-Real JM, Ramos R, Ikram MK, Gomez MF, Kavousi M, Panova-Noeva M, Wild PS, van der Kallen C, Adriaens M, van Greevenbroek M, Arts I, Le Roux C, Ahmadizar F, Frayling TM, Giordano GN, Pearson ER, Franks PW. Subclassification of obesity for precision prediction of cardiometabolic diseases. Nat Med. 2024 Oct 24. doi: 10.1038/s41591-024-03299-7. Online ahead of print. PMID: 39448862

Cohen RV, Azevedo MA, Le Roux CW, Caldeon LP, Luque A, Fayad DA, Petry TBZ. Metabolic/Bariatric Surgery is Safe and Effective in People with Obesity, Type 2 Diabetes Mellitus and Chronic Kidney Disease: A Systematic Review and Meta-Analysis of Randomized Controlled Trials. Obes Surg. 2024 Nov;34(11):4097-4105. doi: 10.1007/s11695-024-07535-4. Epub 2024 Oct 17. PMID: 39417958

Al Ozairi E, Steenackers N, Pazmino S, Alattar AT, Al Kandari J, Almeda-Valdes P, Antonio-Villa NE, Delfin C, Faradji RN, García-Tuomola A A, Irshad M, Longenecker JC, Rosen J, Hurtado Del Pozo C, Sparsø T, Lavens A, Mathieu C, Van der Schueren B, le Roux CW. Prevalence of obesity in people with and without type 1 diabetes across Belgium, Kuwait, and Mexico: an IMI2 SOPHIA study. EClinicalMedicine. 2024 Oct 3;77:102869. doi: 10.1016/j.eclinm.2024.102869. eCollection 2024 Nov.

Ehlers LH, Reinstrup NW, Olesen RH, Holm JC, McEwan P, Le Roux CW. Global barriers to decision makers for prioritizing interventions for obesity. Int J Obes (Lond). 2024 Oct 16. doi: 10.1038/s41366-024-01650-z. PMID: 39414950 Review.

Haddad A, Suter M, Greve JW, Shikora S, Prager G, Dayyeh BA, Galvao M, Grothe K, Herrera M, Kow L, Le Roux C, O'Kane M, Parmar C, Quadros LG, Ramos A, Vidal J, Cohen RV. Therapeutic Options for Recurrence of Weight and Obesity Related Complications After Metabolic and Bariatric Surgery: An IFSO Position Statement. Obes Surg. 2024 Nov;34(11):3944-3962. doi: 10.1007/s11695-024-07489-7. Epub 2024 Oct 14. PMID: 39400870 Review.

Craig HC, Walley D, le Roux CW. What influences patient decisions when selecting an obesity treatment? Obes Pillars. 2024 Aug 8;12:100123. doi: 10.1016/j.obpill.2024.100123. eCollection 2024 Dec. PMID: 39280039 Free PMC article.

Farrell E, Nadglowski J, Hollmann E, le Roux CW, McGillicuddy D. "What would be left of me?" Patient perspectives on the risks of obesity treatment: An innovative health initiative stratification of obesity phenotypes to optimise future obesity therapy (IMI2 SOPHIA) qualitative study. Obes Pillars. 2024 Aug 23;12:100129. doi: 10.1016/j.obpill.2024.100129. eCollection 2024 Dec. PMID: 39268014 Free PMC article.

Al-Humadi AW, Al-Najim W, Bleiel S, le Roux CW. Laxative Properties of Microencapsulated Oleic Acid Delivered to the Distal Small Intestine in Patients with Constipation after Bariatric Surgery or Treatment with Glucagon-Like- Peptide 1 Analogues. Obes Surg. 2024 Oct;34(10):3807-3812. doi: 10.1007/s11695-024-07492-y. Epub 2024 Sep 5. PMID: 39235686 Free PMC article. Clinical Trial.

Naseer F, Zhang SD, Miras AD, Redpath T, Martin M, Boyd A, Spence H, Pournaras DJ, Bodnar Z, Kerrigan D, le Roux CW, Livingstone MBE, Price RK. Metabolic adaptation following gastric bypass surgery: results from a 2-year observational study. Int J Obes (Lond). 2024 Nov;48(11):1577-1586. doi: 10.1038/s41366-024-01585-5. Epub 2024 Sep

Kennedy C, Hayes P, Cicero AFG, Dobner S, Le Roux CW, McEvoy JW, Zgaga L, Hennessy M. Semaglutide and blood pressure: an individual patient data meta-analysis. Eur Heart J. 2024 Oct 7;45(38):4124-4134. doi: 10.1093/eurheartj/ehae564. PMID: 39217502 Free PMC article.

Farrell E, Nadglowski J, Hollmann E, le Roux CW, McGillicuddy D. Patient perceptions of success in obesity treatment: An IMI2 SOPHIA study. Obes Sci Pract. 2024 Aug 17;10(4):e70001. doi: 10.1002/osp4.70001. eCollection 2024 Aug. PMID: 39157779 Free PMC article.

Au K, Zheng MH, Lee WJ, Ghanem OM, Mahawar K, Shabbir A, le Roux CW, Targher G, Byrne CD, Yilmaz Y, Valenti L, Sebastiani G, Treeprasertsuk S, Hui HX, Sakran N, Neto MG, Kermansaravi M, Kow L, Seki Y, Tham KW, Dang J, Cohen RV, Stier C, AlSabah S, Oviedo RJ, Chiappetta S, Parmar C, Yang W; Global Obesity Collaborative. Resmetirom and Metabolic Dysfunction-Associated Steatohepatitis: Perspectives on Multidisciplinary Management from Global Healthcare Professionals. Curr Obes Rep. 2024 Dec;13(4):818-830. doi: 10.1007/s13679-024-00582-z. Epub 2024 Aug 7. PMID: 39110384 Review.

Al-Ozairi E, Mandani Y, Alfaleh G, Raj J, Alshammari S, Le Roux CW. Reformulating ice cream to improve postprandial glucose response: an opportunity for industry to create shared value. Front Nutr. 2024 Jul 16;11:1349392. doi: 10.3389/fnut.2024.1349392. eCollection 2024. PMID: 39081682.

Al-Ozairi E, Irshad M, AlKandari J, Mashankar A, Alroudhan D, le Roux CW. Liver fibrosis and liver stiffness in patients with obesity and type 1 diabetes. Diabetes Obes Metab. 2024 Jul 10. doi: 10.1111/dom.15760. PMID: 38984381.

Farrell E, le Roux CW, Hollmann E, Nadglowski J, McGillicuddy D. Patient perspectives on personalised medicine for obesity: An IMI2 SOPHIA Study. Obes Res Clin Pract. 2024 Jun 28:S1871-403X(24)00063-2. doi: 10.1016/j.orcp.2024.06.004. PMID: 38944550.

Samarasinghe SNS, Leca B, Alabdulkader S, Dimitriadis GK, Davasgaium A, Thadani P, Parry K, Luli M, O'Donnell K, Johnson B, Abbara A, Seyfried F, Morman R, Ahmed AR, Hakky S, Tsironis C, Purkayastha S, le Roux CW, Franks S, Menon V, Randeva H, Miras AD. Bariatric surgery for spontaneous ovulation in women living with polycystic ovary syndrome: the BAMBINI multicentre, open-label, randomised controlled trial. Lancet. 2024 Jun 8;403(10443):2489-2503. doi: 10.1016/S0140-6736(24)00538-5. PMID: 38782004.

Papamargaritis D, Al-Najim W, Lim JZM, Crane J, Bodicoat DH, Barber S, Lean M, McGowan B, O'Shea D, Webb DR, Wilding JPH, le Roux CW, Davies MJ. Effectiveness of integrating a pragmatic pathway for prescribing liraglutide 3.0 mg in weight management services (STRIVE study): a multicentre, open-label, parallel-group, randomized controlled trial. Lancet Reg Health Eur. 2024 Feb 9;39:100853. doi: 10.1016/j.lanepe.2024.100853. eCollection 2024 Apr. PMID: 38803628.

Buckley A, Suliman S, Allum M, Mohammed N, Lessan N, le Roux CW, Suliman M. Real world use of tirzepatide in the treatment of type 2 diabetes in an Arab population. Diabetes Obes Metab. 2024 May 24. doi: 10.1111/dom.15680. PMID: 38783825.

Alsaqaaby MS, Cooney S, le Roux CW, Pournaras DJ. Sex, race, and BMI in clinical trials of medications for obesity over the past three decades: a systematic review. Lancet Diabetes Endocrinol. 2024 May 6:S2213-8587(24)00098-6. doi: 10.1016/S2213-8587(24)00098-6. PMID: 38723646.

Craig HC, Alsaeed D, Heneghan H, Al-Najim W, Al Ozairi E, le Roux CW. Factors that determine patients considering medication for the disease of obesity: an IMI2 SOPHIA study. Int J Obes (Lond). 2024 May 1. doi: 10.1038/s41366-024-01524-4. PMID: 38693212.

Peschard S, Raverdy V, Bauvin P, Goutchtat R, Touche V, Derudas B, Gheeraert C, Dubois-Chevalier J, Caiazzo R, Baud G, Marciniak C, Verkindt H, Oukhouya Daoud N, le Roux CW, Lefebvre P, Staels B, Lestavel S, Pattou F. Genetic Evidence of Causal Relation Between Intestinal Glucose Absorption and Early Postprandial Glucose Response: A Mendelian Randomization Study. Diabetes. 2024 Jun 1;73(6):983-992. doi: 10.2337/db23-0805. PMID: 38498375.

Chandiwana N, Venter W, Manne-Goehler J, Wade A, Le Roux CW, Mbalati N, Grimbeek

A, Kruger P, Montsho E, Zimela Z, Yawa A, Tshabalala S, Rambau N, Mpofu N, Stevenson S, McNulty B, Ntusi N, Pillay Y, Dave J, Murphy A, Goldstein S, Hfman K, Mahomedy S, Thomas E, Mrara B, Wing J, Lubbe J, Koto Z, Conradie-Smit M, Wharton S, May W, Marr I, Kaplan H, Forgan M, Alexander G, Turner J, Fourie VR, Hellig J, Banks M, Ragsdale K, Noeth M, Mohamed F, Myer L, Lebina L, Maswime S, Moosa Y, Thomas S, Mbelle M, Sinxadi P, Bekker LG, Bhana S, Fabian J, Decloedt E, Bayat Z, Daya R, Bobat B, Storie F, Goedecke J, Kahn K, Tollman S, Mansfield B, Siedner M, Marconi V, Mody A, Mtshali N, Geng E, Srinivasa S, Ali M, Lalla-Edwards S, Bentley A, Wolvaardt G, Hill A, Nel J. Obesity is South Africa's new HIV epidemic. S Afr Med J. 2024 Mar 18;114(3):e1927. doi: 10.7196/SAMJ.2024.v114i3.1927. PMID: 38525565.

Delfin C, Dragan I, Kuznetsov D, Tajes JF, Smit F, Coral DE, Farzaneh A, Haugg A, Hungele A, Niknejad A, Hall C, Jacobs D, Marek D, Fraser DP, Thuillier D, Ahmadizar F, Mehl F, Pattou F, Burdet F, Hawkes G, Arts ICW, Blanch J, Van Soest J, Fernández-Real JM, Boehl J, Fink K, van Greevenbroek MMJ, Kavousi M, Minten M, Prinz N, Ipsen N, Franks PW, Ramos R, Holl RW, Horban S, Duarte-Salles T, Tran VDT, Raverdy V, Leal Y, Lenart A, Pearson E, Sparsø T, Giordano GN, Ioannidis V, Soh K, Frayling TM, Le Roux CW, Ibberson M. A Federated Database for Obesity Research: An IMI-SOPHIA Study. Life (Basel). 2024 Feb 16;14(2):262. doi: 10.3390/life14020262. PMID: 38398771.

Althukair NK, Abdeen GN, le Roux CW, Miras AD, Alqahtani AR. The Effects of Sleeve Gastrectomy on the Appetitive Domain of Taste Using the Progressive Ratio Task. Obes Surg. 2024 Feb 19. doi: 10.1007/s11695-023-07035-x. PMID: 38372880

Al-Ozairi E, Narula K, Miras AD, Taghadom E, Samad AE, Al Kandari J, Alyosef A, Mashankar A, Al-Najim W, le Roux CW. Obesity Treatments to Improve Type 1 Diabetes (OTID): a randomized controlled trial of the combination of glucagon-like peptide 1 analogues and sodium-glucose cotransporter 2 inhibitors-protocol for Obesity Treatments to Improve Type 1 Diabetes (the OTID trial). Trials. 2024 Feb 16;25(1):129. doi: 10.1186/s13063-024-07930-3. PMID: 38365744

Nicholls SJ, Tofé S, le Roux CW, D'Alessio DA, Wiese RJ, Pavo I, Brown K, Weerakkody GJ, Zeytinoglu M, Romera IC. Reduction of prevalence of patients meeting the criteria for metabolic syndrome with tirzepatide: a post hoc analysis from the SURPASS Clinical Trial Program. Cardiovasc Diabetol. 2024 Feb 10;23(1):63. doi: 10.1186/s12933-024-02147-9. PMID: 38341541

le Roux CW, Steen O, Lucas KJ, Startseva E, Unseld A, Hennige AM. Glucagon and GLP-1 receptor dual agonist survodutide for obesity: a randomised, double-blind, placebo-controlled, dose-finding phase 2 trial. Lancet Diabetes Endocrinol. 2024 Feb 5:S2213-8587(23)00356-X. doi: 10.1016/S2213-8587(23)00356-X. PMID: 38330987

de Lemos JA, Linetzky B, le Roux CW, Laffin LJ, Vongpatanasin W, Fan L, Hemmingway A, Ahmad NN, Bunck MC, Stefanski A. Tirzepatide Reduces 24-Hour Ambulatory Blood Pressure in Adults With Body Mass Index ≥27 kg/m2: SURMOUNT-1 Ambulatory Blood Pressure Monitoring Substudy. Hypertension. 2024 Feb 5. doi: 10.1161/HYPERTENSIONAHA.123.22022. PMID: 38314555

Alsaqaaby MS, Alabduljabbar KA, Alruwaili HR, Neff KJ, Heneghan HM, Pournaras DJ, Le Roux CW. Perceived Benefits of Bariatric Surgery: Patient Perspectives. Obes Surg. 2024 Jan 4. doi: 10.1007/s11695-023-07030-2. PMID: 38175484

Fanning M, Murphy CF, Elliott JA, Ravi N, Docherty NG, le Roux CW, Donohoe CL, Reynolds JV.
Br J Surg. 2024 Jan 3;111(1):znad371. doi: 10.1093/bjs/znad371. Continuous glucose monitoring and low-glycaemic index diet in the management of postprandial hypoglycaemia after oesophagogastric cancer surgery. PMID: 37963130

Reproductive Medicine

L Bolger, N O'Riordan, C Allen. A Rapid Improvement Event: Progesterone Prescribing in Prevention of Miscarriage. BMJ Open Qual. 2024 Mar 26;13(1): doi: 10.1136/bmjoq-2023-002517

S Petch, R Bauman, M Hatunic, C Allen. Ovarian Hyperstimulation Syndrome without Gonadotropin Stimulation, an unusual response to a GnRH agonist. . BMJ Case Rep. 2024 Jul 18;17(7):e260512.doi: 10.1136/bcr-2024-260512

Browning J, Ghanim M, Jagoe W, Cullinane J, Glover LE, Wingfield M, Kelly VP.

Membrane-bound receptor for advanced glycation end products (RAGE) is a stable biomarker of low-quality sperm. *Hum Reprod Open*. 2024 Nov 7;2024(4):hoae064. doi: 10.1093/hropen/hoae064.

MacSharry J, Kovács Z, Xie Y, Adamczyk B, Walsh C, Reidy F, McAuliffe FM, Kilbane MT, Twomey PJ, Rudd PM, Wingfield M, Butler M, van Sinderen D, Glover L, Saldova R.

Endometriosis specific vaginal microbiota links to urine and serum N-glycome. *Sci Rep*. 2024 Oct 25;14(1):25372. doi: 10.1038/s41598-024-76125-2.

Egan M, Schaler L, Crosby D, Ffrench-O'Carroll R. Anaesthesia considerations for assisted reproductive technology: a focused review. *Int J Obstet Anesth*. 2024 Nov;60:104248. doi: 10.1016/j.ijoa.2024.104248.

Giangrazi F, Buffa D, Lloyd AT, Redmond AK, Glover LE, O'Farrelly C. Evolutionary Analysis of the Mammalian IL-17 Cytokine Family Suggests Conserved Roles in Female Fertility. *Am J Reprod Immunol.* 2024 Aug;92(2):e13907. doi: 10.1111/aji.13907.

Kelly SM, Bracken O, Bholah T, Crosby DA. Uptake rates and attitudes to influenza and COVID-19 vaccination in pregnancy - a prospective cohort study. *Ir J Med Sci.* 2024 Feb;193(1):289-293. doi: 10.1007/s11845-023-03428-0.

Petch S, Crosby D. Updates in preimplantation genetic testing (PGT). *Best Pract Res Clin*

Obstet Gynaecol. 2024 Sep;96:102526. doi: 10.1016/j.bpobgyn.2024.102526.

Petch S, Stokes J, Glover L, O'Reilly S, Crosby D. Knowledge, Attitudes, and Challenges: Irish General practitioners' preparedness for publicly funded Assisted reproductive technologies. Eur J Obstet Gynecol Reprod Biol. 2024 Oct;301:160-165. doi: 10.1016/j.ejogrb.2024.08.004.

Schaler L, Ghanim M, Guardiola J, Kaulsay J, Ibrahim A, Brady G, McCormack W, Conlon N, Kelly VP, Wingfield M, Glover L. Impact of COVID-19 vaccination on seminal and systemic inflammation in men. *J Reprod Immunol*. 2024 Aug;164:104287. doi: 10.1016/j.jri.2024.104287.

Zemet R, Maktabi MA, Tinfow A, Giordano JL, Heisler TM, Yan Q, Plaschkes R, Stokes J, Walsh JM, Corcoran S, Schindewolf E, Miller K, Talati AN, Miller KA, Blakemore K, Swanson K, Ramm J, Bedei I, Sparks TN, Jelin AC, Vora NL, Gebb JS, Crosby DA, Berkenstadt M, Weisz B, Wapner RJ, Van Den Veyver IB. Amniocentesis in pregnancies at or beyond 24 weeks: an international multicenter study. *Am J Obstet Gynecol*. 2024 Jun 22:S0002-9378(24)00693-8. doi: 10.1016/j.ajog.2024.06.025.

Andrew Downey (Oral Presentation): Laparoscopic oocyte retrievals: a single centre experience (BFS Early Career Clinician Award: shortlisted). Fertility 2024 'Rethinking Reproduction', Edinburgh, 10th–13th January 2024

Andrew Downey: Fertility preservation before cancer treatment: evaluating the experience of young patients and their families. Fertility 2024 'Rethinking Reproduction', Edinburgh, 10th–13th January 2024

Sarah Petch: Ovarian Hyperstimulation Syndrome without Gonadotrophin Stimulation.

Fertility 2024 'Rethinking Reproduction', Edinburgh, 10th–13th January 2024

Sarah Petch: Does routine supplementation with LH improve oocyte yield or maturity?

Fertility 2024 'Rethinking Reproduction', Edinburgh, 10th–13th January 2024

Sorca O'Brien: Publicly funded fertility services in Ireland; how best to direct resources in a developing service. Fertility 2024 'Rethinking Reproduction', Edinburgh, 10th–13th January 2024

Sarah Petch: Awareness of and attitudes towards fertility investigations and management amongst General Practitioners (Awarded: Best Audit). RISE Symposium 2024, (Research & Innovation Symposium Exhibition), National Maternity Hospital, April 19th 2024

Niamh Joyce: Fertility Considerations for AYA with Cancer: Before, During and after Treatment

Adolescent and Young Adults (AYA) Cancer Awareness Week, University Hospital Galway, April 2024

Maebh Horan: Fertility preservation and HSCT. Haematopoeitic Stem Cell Therapy (HSCT) Educational Series, CHI Crumlin May 9th 2024

Niamh Joyce: Adolescent fertility preservation of male gametes in the Republic of Ireland: Our experience to date. UK Fertility Preservation Conference, Edinburgh May 22nd-23rd 2024

Niamh Joyce (Awarded: Best Clinical Poster). Establishing a Standard Operating Procedure for Fertility Preservation in Adolescent and Young Adult Male Survivors of Childhood Cancers: Addressing a Gap in Care in the Republic of Ireland

UK Fertility Preservation Conference, Edinburgh May 22nd-23rd 2024

Niamh Joyce: Fertility Preservation through Tissue Cryopreservation

Longevity Summit, Dublin, June 13-16 2024

Niamh Joyce: Male gamete cryopreservation for adolescent fertility preservation: Our experience to date. Global (ES)GURS-ESAU Conference Antwerp, Belgium 9-11 October 2024

Niamh Joyce: Establishing a Standard Operating Procedure for Fertility Preservation in Adolescent and Young Adult Male Survivors of Childhood Cancers: Addressing a Gap in Care in the Republic of Ireland. Global (ES) GURS-ESAU Conference Antwerp, Belgium 9-11 October 2024

Ciara Nolan: Temporal Trends in Sperm Concentration: A Contrasting Perspective from a Single-Centre Review. Institute of Obstetricians & Gynaecologists and Junior Obstetrics & Gynaecology Society Annual Meeting, 29 November 2024

Ciara Nolan: Perspectives of Obstetricians and Gynaecologists on the Use of Weight Loss Medications. Institute of Obstetricians & Gynaecologists and Junior Obstetrics & Gynaecology Society Annual Meeting, 29 November 2024

Sarah Petch: Live Birth following Laparoscopic Egg Retrieval in a Woman with a Bicorporeal Uterus
Institute of Obstetricians & Gynaecologists and Junior Obstetrics & Gynaecology Society Annual Meeting, 29 November 2024

Jenny Stokes: Investigating Fertility Awareness and Attitudes amongst Midwives and Nurses in Ireland
Institute of Obstetricians & Gynaecologists and Junior Obstetrics & Gynaecology Society Annual Meeting, 29 November 2024

Rachel Elebert: Fertility Preservation for Adolescents and Young Adults (AYA) with Cancer – a Patient and Parent Perspective. Institute of Obstetricians & Gynaecologists and Junior Obstetrics & Gynaecology Society Annual Meeting, 29 November 2024

Rachel Elebert: Embryo Development Morphokinetics and Clinical Outcomes in Oocytes with Smooth Endoplasmic Reticulum Aggregates (SERa)

Institute of Obstetricians & Gynaecologists and Junior Obstetrics & Gynaecology Society Annual Meeting, 29 November 2024

Julia Kaulsay: Engaging Fertility Patients in COVID-19 Vaccine-Based Research: The Male Perspective. Institute of Obstetricians & Gynaecologists and Junior Obstetrics & Gynaecology Society Annual Meeting, 29 November 2024

Infection Surveillance, Prevention and Control

E. Houlihan, A. Byrne, M. McKenna, B. Redmond, SJ. Knowles. Group B Streptococcal Management in Penicillin-allergic Pregnant Women. Ir Med J 2024;117:1030.

Oral Presentation: E Houlihan, A McCormick, C. O'Connor, SJ Knowles. Longitudinal Carriage of Antimicrobial Resistant Microorganisms in Preterm Neonates. Irish Society of Clinical Microbiologists Spring meeting, Dublin, 22nd March 2024 and NMH Research Innovation Symposium Exhibition 19th April 2024.

Posters

(a) E. Houlihan, M. Corderroura, L. Delany, A. Twomey, S. Knowles. Vancomycin dosing in neonates and sub-therapeutic levels. Irish Society of Clinical Microbiologists Spring meeting.

(b) A Byrne, M McKenna, B Redmond, E Houlihan, SJ Knowles. Group B Streptococcus management in penicillin-allergic women. Irish Society of Clinical Microbiologists Spring meeting.

(c) Ryan R, Connolly G, Curry A, Knowles S. Introduction of the FilmArray Gastrointestinal Panel for detection of Faecal Pathogens. NMH Research & Innovation Symposium Exhibition.

(d) McCormick A, O'Connor C, Houlihan E, Knowles S. Longitudinal carriage of antimicrobial resistant organisms in preterm neonates gastrointestinal tract. Poster 3303 ECCMID, Barcelona.

(e) Kealy N, O'Dea G, Houlihan E, Knowles SJ. Can umbilical cord blood improve detection of early-onset sepsis in preterm neonates <34 weeks gestation? FIS/HIS International conference, Liverpool.

Continue patient enrolment in 'Pyrexia in Labour Infection Calculator' (PILIC) for Shideh Kiafar PhD studies in UCD.

Preterm Birth

Corbett G, Daly M, Keegan D, Horgan P, Keyes C, Luethe L, Corcoran S, McAuliffe FM. Embedding the patient voice into research on spontaneous preterm birth—themes from a Preterm Birth Advisory Council. PloS one. 2024 Dec 20;19(12):e0312370.

Corbett GA, Corcoran S, Feehily C, Soldati B, Rafferty A, MacIntyre DA, Cotter PD, McAuliffe FM. Preterm-birth-prevention with Lactobacillus crispatus oral probiotics: Protocol for a double blinded randomised placebo-controlled trial (the PrePOP study). Contemporary Clinical Trials. 2025 Feb 1;149:107776.

Corbett GA, Windrim C, Higgins S, McAuliffe FM, Wilkinson M, O'Brien D, Corcoran S. Laparoscopic pre-pregnancy transabdominal cerclage: operative and pregnancy outcomes for a novel technique of suture placement using port closure device. American Journal of Obstetrics and Gynecology. 2024 May 1;230(5):578-80.

Corbett GA, Moore R, Feehily C, Killeen SL, O'Brien E, Van Sinderen D, Matthews E, O'Flaherty R, Rudd PM, Saldova R, Walsh CJ. Dietary amino acids, macronutrients, vaginal birth, and breastfeeding are associated with the vaginal microbiome in early pregnancy. Microbiology Spectrum. 2024 Nov 5;12(11):e01130-24.

Lia Roth, Helena Bartels, Gillian Corbett, Larissa Lüthe, Siobhan Corcoran. Pregnancy outcomes in women with a surgically short cervix with no history of preterm birth. P12 Poster,UK Preterm Birth Conference, Liverpool January 2024

M O'Brien, G Corbett, C Dignam, E Keane, M. Cheung, F. Byrne, A. Toher, S Corcoran. Antenatal Corticosteroids and Delivery – Timing and Use. P30 Poster, Preterm Birth Conference, Liverpool January 2024

Gillian A. Corbett, Rebecca Moore, Conor Feehily, Sarah Louise Killeen, Eileen O'Brien, Douwe Van Sinderen, Elizabeth Matthews, Roisin O'Flaherty, Pauline M Rudd, Radka Saldova, David MacIntyre, Siobhan Corcoran, Paul Cotter, Fionnuala M. McAuliffe. P22 Poster, Preterm Birth Conference, Liverpool January 2024

Radiology

Altered sleep and inflammation are related to outcomes in neonatal encephalopathy. Hurley T, Stewart P, McCarthy R, O'Dea M, Kelly L, Daly M, Butler J, McCarthy R, Miletin J, Sweetman D, Byrne A, Colleran G, Bhroin MN, Bokde ALW, Molloy EJ.Acta Paediatr. 2025 Feb;114(2):428-436. doi: 10.11 11/apa.17457. Epub 2024 Nov 5.PMID: 39498720

ESR Essentials: imaging of suspected child abuse-practice recommendations by the European Society of Paediatric Radiology. Colleran GC, Fossmark M, Rosendahl K, Argyropoulou M, Mankad K, Offiah AC.Eur Radiol. 2025 Apr;35(4):1868-1880. doi: 10.1007/s00330-024-11052-4. Epub 2024 Sep 18.PMID: 39289300

Clinical Nutrition and Dietetics

Doherty, J., McHale, H., Killeen, S.-L., Curran, S., Bennett, M., Sheehy, L., Murphy, S., Murtagh, L., O'Brien, E., 2023. Women's experiences of Hyperemesis Gravidarum (HG) and of attending a dedicated multi-disciplinary hydration clinic. Women Birth S1871519223000999. https://doi.org/10.1016/j.wombi.2023.06.005

O'Brien, E.C., Doherty, J., Killeen, S.L., Bennett, M., Murtagh, L., Curran, S., Murphy, S., McHale, H., Sheehy, L., 2024. The IRIS clinic: A Protocol for a mixed-methods study evaluating the management of Hyperemesis Gravidarum. Contemp. Clin. Trials Commun. 101227. https://doi.org/10.1016/j.conctc.2023.101227

Sinead O'Donovan, Catherine Chambers, Lorna O'Connor, Aoife Gill, Ciara Coveney, Eimear Rutter, Hannah Rooney, Sinead

Curran Audit of the dietetic care of patients with gestational diabetes mellitus at the National Maternity Hospital, NMH Research and Innovation Symposium, 2024 (poster presentation).

Lucy Murphy, Emma Hokey, Sarah Louise Killeen, Fionnuala McAuliffe Dietary intakes and acceptability the FIGO Nutrition Checklist among pregnant women in an outpatient department. Research and Innovation Symposium, 2024 NMH Poster Presentation

Mia Grehan, Sarah Louise Killeen, Sarah Browne, Sinead Curran Using FIGO Nutrition Checklist to review dietary intakes of pregnant women with overweight or obesity NMH Research and Innovation Symposium, 2024.

Sarah Fenton, Brendan Murphy, Anne Doolan, Roberta McCarthy, Ann-Marie Brennan, Standardisation of Preterm Parenteral Nutrition in Ireland. European Association of Hospital Pharmacists Congress, Bordeaux, France, 2024.

Katie Caffrey, Jessica Caldeira, Roísín Gowan, Vanessa Winn, Cillian Power, Roberta McCarthy. Infants born moderate to late preterm - growth post discharge warrants attention. NMH Research and Innovation Symposium, 2024 (poster presentation - awarded 2nd top poster).

Katie Caffrey, Sarah Browne, Roísín Gowan, Jessica Caldeira, Vanessa Winn, Anne Twomey, Cillian Power, Roberta McCarthy. Necrotising enterocolitis at our tertiary neonatal unit - a study over 20 years. NMH Research and Innovation Symposium, 2024 (oral presentation).

Pharmacy

B. Soldati, D. Fitzgerald, A. Toher, C. Breen, N. Carney. Introduction of a Clinical Pharmacist Referral Service for the Gynaecology Pre-assessment Clinic (PAC). Abstract submission for the RISE Symoposium April 2024.

F.E. O'Toole1, G. Mealy, SL. Killeen, A. Murphy-Cruse, B. Soldati, J. Fitzgerald, F.M. McAuliffe, J.M. Walsh. Micronutrient Supplementation Before, During and After Pregnancy. Irish Pharmacy News, March 2024.

I.Kagalwala, D.Fitzgerald. Pharmacist resources for the supply of prescription or OTC medications to pregnant or breastfeeding patients in a community pharmacy. Irish Pharmacy Union, July 2024.

Emma Lewis, Staff Midwife, who graduated with a Higher Diploma in Midwifery during the year with her husband Carlos and son Mateo at her graduation.

Staff Listing

RESIDENT AND VISITING MEDICAL STAFF

Master
Prof Shane Higgins

Department of Obstetrics and Gynaecology
Dr Gerard Agnew
Dr Cathy Allen
Dr Venita Broderick
Dr Stephen Carroll
Dr Siobhán Corcoran
Dr David Crosby
Dr Myra Fitzpatrick
Dr Grainne Flannelly (*ret Jan*)
Dr Mona Joyce
Dr Zara Fonseca-Kelly
Dr Eithne Linnane
Dr Rhona Mahony
Dr Fiona Martyn
Dr Ruaidhri McVey
Dr Donal O'Brien
Dr Laoise O'Brien
Dr Clare O'Connor O'Sullivan
Dr Michael Robson
Prof Jennifer Walsh
Dr Ann McHugh
Dr Kate Glennon
Dr Maebh Horan

Department of Obstetrics and Gynaecology, University College Dublin
Prof Fionnuala McAuliffe
Prof Mary Higgins
Prof Donal Brennan

Department of Obstetrics and Gynaecology Royal College of Surgeons
Prof Declan Keane

Department of Pathology and Laboratory Medicine
Director: Dr Susan Knowles
Dr Eoghan Mooney
Dr Joan Fitzgerald
Dr David Gibbons
Dr Paul Downey
Dr Karen Murphy
Dr Maryse Power

Department of Paediatrics and Neonatology
Director: Dr Deirdre Sweetman
Dr Anna Curley
Dr Jan Franta
Dr Lisa McCarthy
Dr Eoin O'Currain
Prof Colm O'Donnell
Dr Jyothsna Purna
Dr Claudine Vavasseur
Dr Hana Fucikova
Dr Mary O'Dea
Dr Carmel Moore
Dr Madeleine Murphy

Department of Anaesthetics
Director: Dr Nikki Higgins
Dr Ingrid Browne
Dr Larry Crowley
Dr Siobhan McGuinness
Dr Roger McMorrow (Clinical Dir)
Dr Kirk Levins
Dr Robert French-O'Carroll
Dr Siaghal MacColgain

Consultant Perinatal Psychiatrist
Dr Catherine Hinds
Dr Anthony McCarthy *(ret Sept)*

Department of Radiology
Department Lead: Dr Gabrielle C. Colleran
Dr Niamh Adams
Dr Ian Robinson

Consultant Geneticist
Dr Samantha Doyle

Endocrinologist
Dr Mensud Hatunic

Clinical Lead – GP Menopause Clinic
Dr Deirdre Lundy

Consultant Cardiologist
Dr Carla Canniffe

Consultant in Chemical Pathology
Dr Carel Le Roux *(from July)*

Honorary and Visiting Consulting Staff Respiratory Physician
Dr John Garvey
Dr Eleanor Dunican

Physician in Chemotherapeutic Medicine
Dr David Fennelly

Adult Nephrology
Dr John Holian

Occupational Physician
Dr Sheelagh O Brien

Microbiology
Dr Niamh O'Sullivan
Dr Cathal O'Sullivan

Gastroenterology
Dr Juliette Sheridan
Prof Hugh E Mulcahy

Surgeons
Mr Feargal Quinn

Oto-Rhino-Laryngologist (ENT Surgeon)
Mr Alex Blayney

Surgeons
Mr John Gillick

Consultant Anaesthetist
Dr Paul Murphy

Oto-Rhino-Laryngologist (ENT Surgeon)
Mr Alex Blayney

Paediatric Surgeon
Mr John Gillick

Urological Surgeons
Mr David Quinlan
Mr Gerry Lennon

Orthopaedic Surgeon
Mr Damian McCormack

Dermatologist
Dr Aoife Lally

Paediatric Cardiologists
Dr Paul Oslizlok
Dr David Coleman
Dr Colin McMahon

General and Colorectol
Dr Ann Hanley

Paediatric Neurology
Dr Bryan Lynch
Dr David Webb

Paediatric Neurosurgery
Mr Darach Crimmins
Mr John Caird
Mr Kieron Sweeney
Ms Tafadzwa Mandiwanza

Consultant Paediatric Opthalmologist
Dr Sarah Chamney

Adult Neurologists
Dr Conor O'Brien
Dr Janice Redmond
Prof Niall Tubridy
Dr Chris McGuignan

Infectious Diseases
Prof Colm Bergin
Dr Eoin Feeney

Chemical Pathology
Dr Pat Twomey
Dr Royce Vincent

Palliative Medicine Paediatrics
Dr Marie Twomey
Dr John Allen

Hepatology
Prof Aiden McCormick
Prof Omar ElSherif Rheumatology
Prof Douglas J Veale (RIP 2024)

NON-CONSULTANT HOSPITAL DOCTORS

Doctors in this list have spent between 3 and 12 months in The NMH. Some doctors may appear under more than one heading if they were employed at different levels during the year.

Fellows / Research Registrars
Dr Ahmed Eissa, Placenta Accreta Fellow *(from July)*
Dr Maria Farren, Fellow in Medical Education
Dr Andrew Downey, Merrion Fertility Clinic
Dr Niamh Joyce, Aspire Fellow*
Dr Bobby O'Leary (Fellow in Urogynae Mesh)
Dr Nicola O'Riordan, Labour Ward Fellow *(to July)*
Dr Ellen McMahon, Labour Ward Fellow *(from July)*
Dr Rachel Elebert, Merrion Fertility Clinic
Dr Fiona O'Toole, Maternal & Fetal Medicine Fellow
Dr Sarah Petch, Merrion Fertility Clinic
Dr Gillian Corbett, Fellow in Maternal Medicine
Dr Shahad Al-Tikriri, Fellow in Medical Education
Dr Helena Bartels, Placenta Accreta Fellow *(to July)*
Dr Simon Craven, Urogynae/Mesh Complications
Dr Maggie O'Brien, Maternal Medicine Fellow
Dr Tara Rigney, Fellow in Perinatal Genomics
Dr Sarah Kasha, Neonatology Fellow *(from Jul)*
Dr Ioana Sirbu (Anaesthesiology Fellow)
Dr Catriona Ni Chathasaigh, Neonatology Researcher
Dr Ashfaq Afridi (Anaesthesiology Fellow)
Dr Fakhri Danial (Anaesthesiology Fellow)

**Development and consolidation of Fertility Preservation services for Children, Adolescents and Young Adults (CAYA) in Ireland*

Specialist Registrars in Obstetrics/ Gynaecology
Dr Aleksandra Sobota
Dr Ita Shanahan
Dr Aoife McTiernan
Dr Jennifer Stokes
Dr Bernard Kennedy
Dr Kate Sexton
Dr Catherine O'Regan
Dr Nada Warreth
Dr Ciara Conaty
Dr Nicola Whelan
Dr Ciara McCormick
Dr Rachel O'Keeffe
Dr David Rooney
Dr Roisin McConnell
Dr Elmuiz Haggaz
Dr Sarah McDonnell
Dr Helena Bartels
Dr Teresa Treacy

Registrars in Obstetrics/Gynaecology
Dr Aisha Abukarog
Dr Rachel O' Keeffe
Dr Alex Taylor
Dr Ruairí Floyd
Dr Alice O Neill
Dr Ruta Petkute
Dr Brian McDonnell
Dr Ruth Mathew
Dr Caoimhe Hartnett
Dr Sarah Kelly
Dr Mohamed Abdelrahman
Dr Sowmya Mayigaiah
Dr Mohamed Elshaikh
Dr Yulia Shahabuddin
Dr Orla Bracken

Senior House Officers in Obstetrics/ Gynaecology
Dr Adeela Zahid
Dr Daniel Kelly
Dr Jacqui Clifford
Dr Niamh O'Brien
Dr Aideen Hillery
Dr Deirdre Ryan
Dr James McDermott
Dr Olufemi Awojoodu
Dr Aine Ni Sheaghdha
Dr Elise Morrissey
Dr Jessica Pian
Dr Orlaith Whelan
Dr Alaa Boukalfouni
Dr Emily O'Connor
Dr Juliette Duff
Dr Robbie Thomas
Dr Ammara Sultana
Dr Emma Donohoe
Dr Kate Coleman
Dr Ruta Petkute
Dr Amrita Roy
Dr Emma Shanley
Dr Mary (Ailis) Powderly
Dr Sarah Lally
Dr Brian McDonnell
Dr Evangeline Morris
Dr Mary Brennan
Dr Saran Kennedy Williams
Dr Brian Waldron
Dr Hayley Jackson
Dr Max Waterstone
Dr Sorcha Lynch
Dr Caroline Herron

Dr Holly Keating
Dr Niamh McCarthy
Dr Taha Elsherif
Dr Chidinma Anyanwu
Dr Itoro Edelduok
Dr Niamh O Donovan
Dr Tayla Phillips
Dr Conor Devlin

Specialist Registrars in Neonatology

Dr Andrew O'Donnell
Dr Marahaini Isa
Dr Anna Prendiville
Dr Mark Glynn
Dr Ciara O'Shea
Dr Michael Horgan
Dr Conor Ring
Dr Padraic O'Coisdealbha
Dr Eleanor Burke
Dr Sarah Hoolahan
Dr Elizabeth Murphy
Dr Sinéad Lally
Dr Freya Guinness
Dr Tiarnan Fallon Verbruggen
Dr Georgia Dugaci
Dr Zaineb Elbishari
Dr Graham King
Dr Mohd Fazly
Dr Jack McCaffrey
Dr Naureen Almas Khan
Dr Laura Ryan
Dr Sarah Kasha

Senior House Officers in Neonatology

Dr Ahmed Mohamed
Dr Eoin Donnellan
Dr Marwa Abas
Dr Róisín Cullinan
Dr Anthony Rowan
Dr Fergal Kelly
Dr Natalie Coyle
Dr Roya Ahmed
Dr Cherian Mathew
Dr Holly Walsh
Dr Niamh Vaughan
Dr Youeil Abdelnour
Dr Doaa Ali
Dr Jessica Miller
Dr Nur Idris
Dr Qurat-ul-Ain Ahmed
Dr John Gannon

Specialist Registrars in Anaesthesiology

Dr Peter O'Connor
Dr Anna Impiumi
Dr Darren McMahon
Dr Kevin Dodd
Dr Thomas Walsh
Dr Susie Hannon
Dr Lorcan O'Carroll
Dr Emer Scanlon

Registrars in Anaesthesiology

Dr Ahmed Sherif
Dr Launcelot McGrath
Dr Roisin Ní Dhomhnaill
Dr Shaista Sulaeman
Dr Fiza Zaib
Dr Lorcan O'Carroll
Dr Ronan Sheridan
Dr Sidrish Idris
Dr Hilary Leeson
Dr Mohsin Akhtar
Dr Safia Rao
Dr Umar Ishtiaq
Dr Jenny Fitzgibbon
Dr Zeerak Laila

Specialist Registrars in Histopathology

Dr Jennifer Garry
Dr Paul Reddy

Senior Registrars in Psychiatry

Dr Genevieve Crudden
Dr Niamh Fee

Specialist Registrars in Microbiology

Dr Elaine Houlihan *(to July)*

SENIOR MIDWIFERY & NURSING STAFF

Director of Midwifery & Nursing

Mary Brosnan

Assistant Directors of Midwifery & Nursing – Day Duty

Ann Calnan
Geraldine Duffy
Valerie Kinsella
Carol Pugh
Shideh Kiafar, *Infection Prevention and Control*
Teresa McCreery, *Community Midwifery Services*

Assistant Directors of Midwifery & Nursing – Night Duty

Martina Carden *(retired Feb)*
Rahel Dalton *(from Apr)*
Eimir Guinan
Erica Mullins

Assistant Director of Midwifery & Nursing – Clinical Practice Development Co-ordinator

Lucille Sheehy

Advanced Midwife / Nurse Practitioners

Sarah Belton, *Gynaecology Oncology*
Caroline Brophy, *Postnatal Maternal Morbidity*
Ciara Coveney, *Diabetes*
Linda Kelly, *Women's Health & Urodynamics*
Shirley Moore, *Neonatology*

Candidate Midwife / Nurse Practitioner

Niamh Murray
Linda Smiles

Clinical Midwife / Nurse Managers 3

Gillian Canty, *Project Team*
Sive Cassidy, *MN–CMS*
Katie Cosgrove, *Community Midwifery Services*
Martina Cronin, *Labour and Birth & Antenatal Inpatient Services*
Emily Flynn, *Postnatal Services*
Sara Rock, *Neonatal Unit (from July)*
Karen Sherlock, *Theatre and Gynaecology Inpatient services*
Valerie Spillane, *Antenatal Outpatient & Ultrasound Services*
Helen Thompson, *Gynaecology / Women's Health & Emergency Care Services*
Hilda Wall, *Neonatal Unit (Retired March)*

Clinical Midwife / Nurse Managers 2

Anitha Baby, *Fetal Assessment Unit*
Ann Lopez, *Gynaecological Inpatients Services*
Emily Barriga *Neonatal Unit*
Emer Kilduff, *Night Duty*
Michelle Barry, *Fertility*
Sheeba Masih, *Labour & Birthing Unit*
Theresa Barry, *Parentcraft Education*

Mairead Markey, *Labour & Birthing Unit*
Anne Beirne, *Gynaecological Outpatients*
Remy Mathew, *Postnatal Services*
Maggie Bree, *Theatre (retired*
Deirdre Molloy *Perinatal Mental Health*
Carmel Breen, *Pre-Assessment Clinic*
Georgina Mulligan, *Perinatal Mental Health*
Mariola Buczkowska, *Neonatal Unit (to Dec)*
Annabel Murphy, *Antenatal Holles Clinic*
Emma Ruth Candeleria, *Neonatal Unit*
Fiona Murphy, *Postnatal Services (from April)*
Niamh Carney, *Pre-Assessment Clinic*
Amy McCoy, *Antenatal Inpatients Unit*
Barbara Cathcart, *Fetal Medicine Unit*
Carolanne McGinley, *Labour & Birthing Unit*
Michelle Clarke *Labour & Birthing Unit*
Helen McHale, *Birth Reflections Service*
Joanne Courtney, *Fetal Medicine Unit*
Petria O'Connell *Baby Clinic*
Siobhan Crisham, *Theatre / Recovery*
Gwen O'Neill, *Labour & Birthing unit*
Eleanor Durkin, *Parentcraft Education*
Breid O'Dea, *Outpatients Clinic*
Jennifer Fitzgerald, *Occupational Health*
Rebekah Prabakaran, *Neonatal Unit*
Anne Flynn, *Theatre/Recovery (from Dec)*
Alphonsa Pius, *MN-CMS*
Miriam Griffin *Postnatal Services*
Bronwyn Redmond, *Infection Control*
Dana Hardy, *Theatre*
Christina Silas, *Night Duty (from Apri)*
Bianca Hein *Labour & Birthing Unit*
Brid Shannon, *Labour & Birthing Unit*
Mairead Hughes, *MRI*,
Molly Vinu, *MN-CMS*
Nicole Jackson, *Emergency Care Area*
Jisha Vijayan, *Neonatal Unit*
Jean Kavanagh, *Labour & Birthing Unit*
Lorraine White *Baby Clinic*
Jane Langenbach, *Labour & Birthing Unit*

Clinical Midwife/Nurse Specialists

Brenda Casey, *CMS Bereavement*
Caroline McCafferty, *CNS Neonatal*
Sharon Croke, *CMS Ultrasound*
Claire McElroy, *CMS Menopause*
Sarah Cullen, *CMS Bereavement*
Claire McSharry, *CMS Ultrasound*
Yvonne Fallon, *CMS Bereavement*
Ciara Murphy, *CNS Neonatal*
Lisa Hyland, *CMS Ultrasound*
Celine O'Brien, *CMS Maternal Medicine*
Heather Hughes, *CMS Ultrasound*
Megan O'Malley, *CNS Perinatal Mental Health*
Cecilia Mulcahy, *CMS Ultrasound*
Hannah Rooney, *CMS Diabetes*
Elizabeth, Betty Murphy, *CMS Ultrasound*
Eimear Rutter, *CMS Diabetes*
Ann Marie Murphy Cruse, *CMS Haematology*
Elaine Smyth, *CNS Perinatal Mental Health*

Community / ETH Services

Debbi Appelbe
Lorna Killick
Trinity Bonham
Clodagh Manning
Sarah Byers
Roisin McCormack
Kate Casey
Bronwyn Nicol
Katie Hearty
Eimear O'Connor
Claire Howlett
Fiona Roarty
Alice Hoffmeister
Nicola Smyth

Clinical Skills Facilitator

Aoife Lennon
Colette O'Neill
Saila Kuriakose
Lavanya Lakshmanan]]

Neonatal Clinical Skills Facilitator

Geraldine Walsh
Thankamma Mathew

Lactation Specialists

Helen Batson
Lizzie Reeves
Ruby Jaison
Ramita Dangol
Aoife Kenny

Neonatal Resuscitation Officer

Laura Eager

Neonatal Transport Co-Ordinator

Blaithin Quinlan

Oncology Nurse Co-ordinator

Sharon Glynn

Post Registration Midwifery Programme Co-ordinator

Ann Marie Dunne

Clinical Placement Co-ordinators

Sharon Egan
Avril O'Connell
Orla Gavigan (retired April)
Elaine Creedon
Sally Horton (from May)

Haemovigilance Officer

Bridget Carew

Nurse Colposcopists

Gina Baldesco
Natasha Farron Mahon
Dympna Casey
Siobhan Griffin
Hazel Catibog
Lisa Hughes
Marie Collery
Sinead Kausley
Deirdre O'Neill

Smoking Cessation

Orla Bowe

SENIOR ADMINISTRATION STAFF

Secretary/General Manager

Ronan Gavin

Financial Controller

Alistair Holland

Compliance and Operations Manager/ Data Protection Officer

Carl Alfvag

Human Resources Manager (Acting)

Caoimhe De Brun

Tendering Officer, Joint Hospital Tendering Manager

James Byrne

General Services Manager

Tony Thompson

Director of Learning & Development

Yvonne Connolly

Purchasing and Supplies Managers
Linda Mulligan and Lorraine McLoughlin

Patient Services Manager
Alan McNamara

Information Officer
Fionnuala Byrne

Health & Safety Officer
Martin Creagh Health & Safety Officer

Facilities Engineering Manager
Neil Farrington

IT Manager (Acting)
Con Grimes

Senior Project Manager ICT Dept / Project Office
Shay Moriarty

Quality, Risk and Patient Safety
Dr Anne Twomey (to Jun)

Director of Quality, Risk and Patient Safety
Dr Orla Shiel (from Jul)

Claims Co-ordinator
Nicole Kennedy

Quality Manager
Rachel Irwin

Clinical Risk Managers
Fidelma Martin
Kim Ryan

Project Programme Office for NMH at Elm Park
Dr Orla Sheil, *Operational Programme Manager, Clinical Lead*
Prof Jennifer Walsh, *Joint Chair, Digital Health Steering Group*
Martin Keane, *Project ICT Lead*
Damian McKeown, *Project Co-ordinator*
Eoghan Hayden, *Commissioning & Transitioning Pillar Lead*
Gillian Canty, *Operational Readiness Deputy Lead*
Martin Creagh, *Co-location Deputy Lead*
Geraldine Duffy, *People Pillar Lead*
Shay Moriarty, *Senior Project Manager ICT Dept / Project Office*
Sarah McCourt, *Administrator*

HEALTH & SOCIAL CARE PROFESSIONALS

Medical Social Work
Laura Harrington, *Head Medical Social Worker*

Senior Medical Social Workers
Ciara McKenna
Gillian Mc Murray
Karen McCormack
Ciara Buggy
Doireann Kavanagh
Sinead Stakelum

Senior Medical Social Worker Practitioner
Gillian McMurray
Aoife Shannon

Medical Social Workers
Tina Moley
Deirdre Real
Sarah Lovely
Kim Bartley

Radiography
Laura Moyles, *Radiographer Service Manager*

Senior Radiographer
Bernadette Ryan
Veronica McGuire
Katie King
Eleanor Ryan
Orlaith Fahey

Clinical Specialist Radiographer
Clara Nolan
Una Murphy
Elga Grimes
Carla Groves
Katie Campbell
Angela Angove

Physiotherapy
Judith Nalty, *Physiotherapy Manager*

Senior Physiotherapists
Margaret Deasy *(Gyn)*
Erin Griffin *(Neo)*
Sarah Fitzmaurice *(Obs)*
Amanda Olson *(Obs)*
Sarah Mullins *(Gyn)*
Aoife Magner *(Obs)*

Clinical Specialist Physiotherapists
Jo Egan, *(Neo)*
Eithne Lennon *(Gyn)*
Ciara Ryan *(Gyn)*

Laboratory
Damian Lally, *Laboratory Manager*

Chief Medical Scientist
Anya Curry
Sinead O'Brien
Catherine Doughty
Aoife Reynolds
Laura Greenan Kennedy
Paula Whyte

Surveillance Scientist
Carol O'Connor

Pharmacy
David Fitzgerald, *Pharmacist Executive Manager*

Chief II Pharmacist
Áine Toher

Senior Pharmacist NICU
Montserrat Corderroura

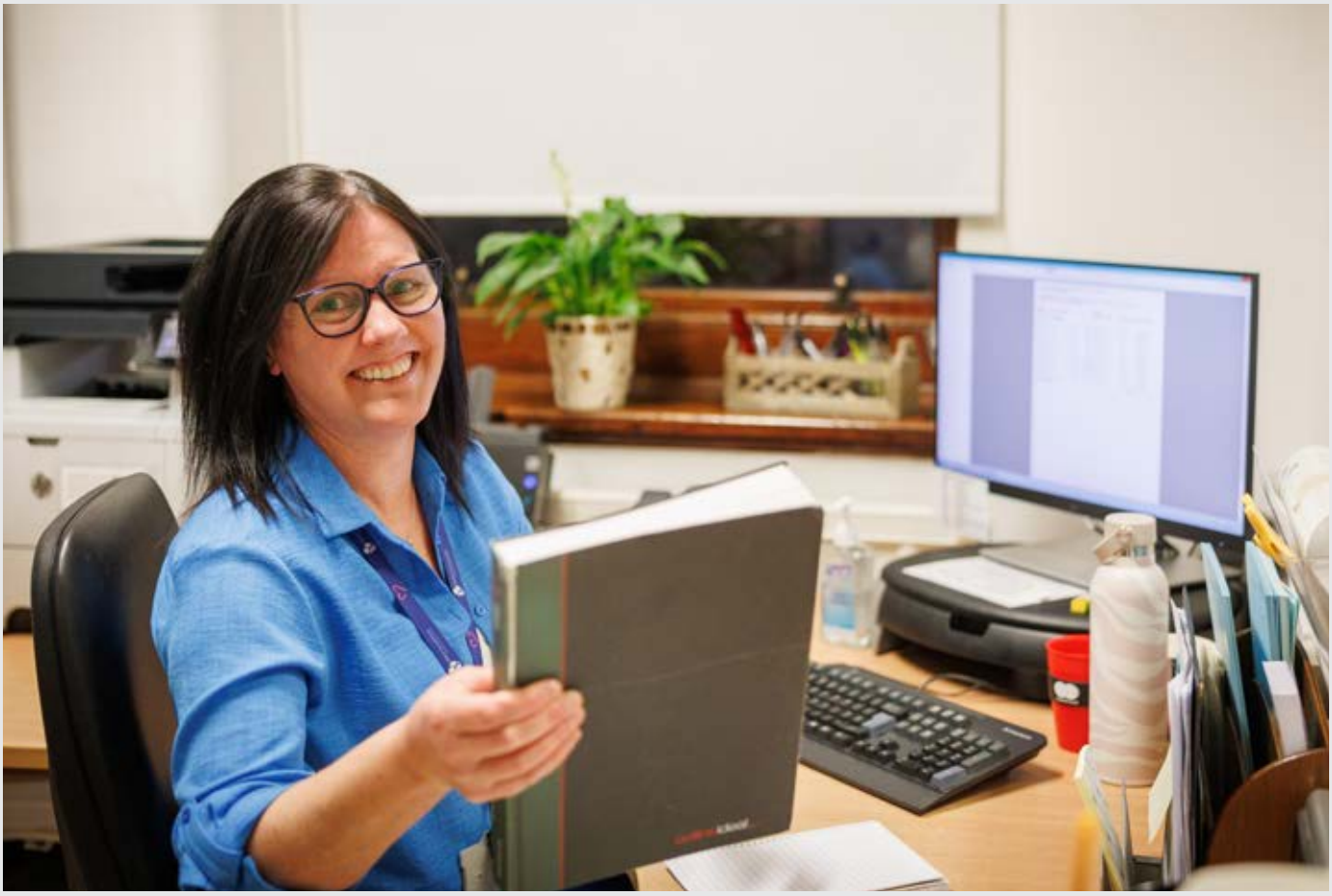
Antimicrobial Pharmacist
Louise Delany

Senior Pharmacist Maternal Medicines Clinic
Benedetta Soldati

Senior Pharmacist
Avril Dempsey

Dietetics
Roberta McCarthy, *Manager (Neonatology) Head of Department*
Sinead Curran, *Manager (Obs & Gynae)*

Clinical Specialist Dietitian
Roisin Gowan



Nicole Adams, Medical Social Work Administrative Support.

Senior Dietitians
Catherine Chambers
Laura Harrington
Lorna O'Connor
Niamh Gilmartin
Sarah Louise Killeen
Jessica Smith

Clinical Engineering
Eoghan Hayden, *Chief Clinical Engineer*

Senior Clinical Engineer
Oleg Shrolik
Mark Power
Tak Yeung Ryan Suen

Clinical Specialist, Speech & Language Therapist
Zelda Greene

Perinatal Mental Health
Fidelma Shortall

Senior Psychologist
Aoife Menton, *Clinical Developmental Psychologist*
Marie Slevin

Art Therapist
Claire Flahavan

Psychosexual Counsellor
Meg Fitzgerald
Corinne Henry-Bezy *(from Aug)*

Central Decontamination Unit
Pam Hutchings

Sonographer
Lucy Collender, Margaret Daly and Kristina Cuenca

Senior Occupational Therapist
Aoife Tonge

SENIOR SUPPORT SERVICES

Portering Services Manager
Claudiu Zselemi

Assistant Portering Services Manager
Glenn Kynes

Hygiene Services Manager
Mark Anderson

Catering Manager
Elizabeth Byrne

Assistant Catering Managers
Martina Guiney
Michael Lennon
Beata Banach
Paul Humphreys
Marta Jankowska

Engineering
Gearoid O Toole, Maintenance Supervisor
Ciaran Richardson, Maintenance Supervisor
Keith Lowry, Engineering Building Services Assistant

Chaplaincy
Helen Miley
Angela Neville Egan

CANDIDACY CHECKLIST FOR NEONATAL THERAPEUTIC HYPOTHERMIA (COOLING)

PATIENT'S NAME: _____ **HOSP. NO:** _____

TIME of BIRTH: _____:_____ hrs. **CURRENT AGE in hours /minutes:** _____ hrs._____ mins.

If current age is greater than 6 hours, call tertiary cooling centre before proceeding.

Directions for the use of this checklist: Start at the top and work through each numbered component. When directed to proceed to the exam, refer to the exam found on page 2. If there is missing data,(such as a known perinatal event and / or Apgar scores) and you are in doubt as to whether or not the patient qualifies for cooling, consult with the tertiary cooling centre promptly to discuss the patient.

**Note: If patient is < 6 hours old and meets the gestation, weight and blood gas criteria and has a witnessed seizure, patient is eligible for 'COOLING' regardless of additional exam findings. Consult the tertiary cooling centre to discuss any questions or concerns.*

Clinical Information	Criteria *(place a tick in the box that corresponds to the patient information)*	Instructions
Gestation	1 ≥ 36 weeks gestation ☐	Go to ⇒ 2 **Weight**
	= 35 weeks gestation ☐	May not be eligible *Contact cooling centre*
	< 35wks gestation ☐	Not Eligible
Weight	2 ≥ 1800 grams ☐	Go to ⇒ 3 **Blood Gas**
	< 1800 grams ☐	Not Eligible
Blood Gas pH = _____ Base Excess = _____ Source: Cord ☐ *Or* 1st infant blood gas at <1hour of life ☐ Arterial ☐ Capillary ☐ Venous Time Obtained: _____ : _____	3 pH < 7.0 *or* Base excess ≥ -16 ☐	Criteria met thus far. Go to **EXAM***
	No gas obtained ☐ *or* pH 7.0 to 7.15 ☐ *or* Base excess -10 to -15.9 ☐	Go to ⇒ 4 **History of acute perinatal event**
	pH >7.15 or Base Excess < 10 ☐	May not be eligible; Go to ⇒ 4 **History of acute perinatal event**
Acute Perinatal Event *(tick all that apply)*	4 Variable / late foetal HR decelerations ☐ Prolapsed / ruptured / tight nuchal cord ☐ Uterine Rupture ☐ Maternal haemorrhage / placental abruption ☐ Maternal trauma (eg. vehicle accident) ☐ Mother received CPR ☐	Any ticked, Go to ⇒ 5 **Apgar score**
	No perinatal event *or* Indeterminate what the event was because of home birth or missing information	May not be eligible; Go to ⇒ 5 **Apgar score**
Apgar Score at 1 minute _____ 5 minute _____ 10 minute _____	5 Apgar ≤ 5 at 10 minutes (yes) ☐	Criteria met thus far. Go to **EXAM***
	Apgar ≤ 5 at 10 minutes (no) ☐ *(no, was 6 or greater at 10 minutes)*	Go to ⇒ 6 **Resuscitation after delivery**
Resuscitation after Delivery *(tick all that apply)* _____ PPV/intubated at 10 minutes _____ CPR _____ Adrenaline administered	6 Continued need for PPV or Intubated at 10 minutes?(yes) ☐	Criteria met thus far. Go to **EXAM***
	PPV/Intubated at 10 minutes?(no) ☐	May not be eligible Go to **EXAM***

This checklist, adapted from the 'STABLE Program', 6th edition, 2013, has been produced by the National Neonatal Transport Programme (NNTP) and endorsed by the Faculty of Paediatrics, Royal College of Physicians, Ireland, in March 2014.

Circle findings for each domain

PATIENT IS ELIGIBLE FOR COOLING WHEN 3 OR MORE DOMAINS HAVE FINDINGS IN COLUMNS 2 OR 3

Domain	1	2	3
Seizures	**None**	**Seizures common:** (focal or multifocal seizures) (Multifocal: clinical activity involving > one site which is asynchronous and usually migratory) Note: If the patient is < 6 hours old and meets the gestation, weight and blood gas criteria and has a witnessed seizure, patient is eligible for cooling regardless of the rest of this exam	**Seizures uncommon:** (excluding decerebration) ***Or*** Frequent seizures
Level of Consciousness	**Normal** **or** **Hyperalert**	***Lethargic*** Decreased activity in an infant who is aroused and responsive **Definition of Lethargic:** • Sleeps excessively with occasional spontaneous eye opening • Responses are delayed but complete • Threshold for eliciting such responses increased • Can be irritable when disturbed	**Stuporous / Comatose** Demonstrates no spontaneous eye opening and is difficult to arouse with external stimuli **Definition of Stuporous:** • Aroused only with vigorous and continuous stimulation **Definition of Comatose:** • No eye opening or response to vigorous stimulation In both stupor and / or coma, the infant may respond to stimulation by grimacing / stereotyped withdrawal / decerebrate posture
Spontaneous activity when awake or aroused	**Active** **Vigorous, doesn't stay in one position**	**Less than active, not vigorous**	**No activity whatsoever**
Posture	**Moving around and does not maintain only one position**	**Distal flexion, complete extension or "frog-legged" position** Term infants with HIE often exhibit • Weakness in hip-shoulder distribution (eg proximal part of extremities) • Distal joints, fingers and toes often exhibit strong flexion • Thumbs strongly flexed and adducted. • Wrists often flexed • Above postures are enhanced by any stimulation	**Decerebrate with or without stimulation (all extremities extended)**
Tone	**Normal** • Resists passive motion **Hypertonic, jittery** • Lowered threshold to all types of minimal stimuli eg light touch, sudden noises • Infant may even respond to his/her own sudden movements	**Hypotonic or floppy,** • Axial hypotonia (ie. head lag) and/or limb hypotonia	**Completely flaccid like a rag doll**
Primitive reflexes	***Suck:*** Vigorously sucks finger or ETT ***Moro:*** Normal: Limb extension followed by flexion with stimulus	***Suck:*** Weak ***Moro:*** Incomplete	***Suck:*** Completely absent ***Moro:*** Completely absent
Autonomic system	***General Activation of Sympathetic nervous system*** ***Pupils:*** • Normal size (-1/3 of iris diameter) • Reactive to Light ***Heart Rate:*** • Normal, > 100bpm ***Respirations:*** • Regular spontaneous breathing	***General Activation of Parasympathetic nervous system*** ***Pupils:*** • Constricted (< 3mm estimated) • but reactive to light ***Heart Rate:*** • Bradycardia (< 100bpm, variable up to 120) ***Respirations:*** • Periodic, irregular breathing effort • Often have more copious secretions and require frequent suctioning	***Pupils:*** • Skew gaze, fixed, dilated, • not reactive to light ***Heart Rate:*** • Variable, inconsistent heart rate, irregular, may be bradycardic ***Respirations:*** • Completely apnoeic, requiring PPV & / or ET intubation and ventilation

Neurological Exam to evaluate candidacy for cooling: If in doubt as to whether patient qualifies for cooling, consult with the cooling centre promptly to discuss the patient.

Glossary

ABG	Arterial blood gas
AC	Abdominal circumference
ACA	Anticardiolipin antibodies
ACH	After coming head
aEEG	Amplitude integrated EEG
AFI	Amniotic fluid index
AFV	Amniotic fluid volume
AGA	Appropriate for gestational age
ALT	Alanine aminotransferase
Anaemia	A haemoglobin level of less than 102% g/dl
ANC	Antenatal care
APCR	Activated protein C resistance.
APH	Antepartum haemorrhage Bleeding from the genital tract after 24 weeks gestation
APTT	Activated partial thromboplastin
ARM	Artifical rupture of the membranes to induce labour
ASD	Atrial septal defect
AST	Asparate aminotransferase
AVSD	Atrioventricular septal defect
BBA	Born before admission
BMI	Body mass index
BMV	Bag and Mask Ventilation
BPP	Biophysical profile
BP	Blood pressure
BPD	Biparietel diameter
BPD	Bronchopulmonary dysplasia
BPP	Bio physical profile
BSO	Bilateral salpingo oophorectomy
CCAM	Congenital cystic adenomatoid malformation
CHD	Congenital heart defect
CIN	Cervical intraepithelial neoplasia
CK	Creatine kinase
CLD	Chronic lung disease
CMV	Cytomegalovirus
CPAP	Continuous positive airway pressure
CPC	Choroid plexus cysts
CPD	Cephalopelvic disproportion
CPG	Capilliary blood gas
CPR	Cardiopulmonary resuscitation
CRP	C reactive protein
CSA	Childhood sexual abuse
CSF	Cerebro spinal fluid
CT	Computerised axial tomography
CTG	Cardiotocograph
CTPA	Computed tomography pulmonary angiogram
CVP	Central venous pressure
CVS	Cardiovascular system
CXR	Chest x-ray
D Day	
DCH	Diffuse chorioamnionic haemosiderosis
D/C	Dilatation and curettage
DIC	Disseminated intravascular coagulation
DNA	Did not attend
Domino	Domicillary In Out
DR	Delivery room
DTR	Deep tendon reflex
DVT	Deep vein thrombosis
DWI	Diffusion-weighted images
EBL	Estimated blood loss
Echo	Echocardiogram
ECHO	Extracorpeal membrane oxygenation
ECV	External cephalic version
EDF	Enddiastolic flow
EDV	Enddiastolic volume
EFM	Electronic fetal monitoring
EFW	Estimated fetal birth weight
ELBW	Extremely low birth weight
ET	Endotracheal
ETT	Endotracheal tube
EUA	Examination under anaesthetic
FBS	Fetal blood sampling
FD	Fetal distress
FFP	Fresh frozen plasma
FHH/NH	Fetal heart heard/not heard
FIR	Fetal inflammatory response
FM	Fetal movements
FMF	Fetal movement felt
FMNF	Fetal movements not felt
FSE	Fetal Scalp Electrode
FTA	Failure to advance
FTND	Full term normal delivery
FVM	Fetal Vascular Malperfusion
G and M	Grossly and microscopically
GA	General anaesthetic
GAD	Gestation at delivery
GBS	Group B Streptococcus
GCT	Glucose Challenge Test
GDM	Gestational diabetes mellitus
GIS	Gastrointestinal system
GP	General practitioner
GTT	Glucose tolerance test
GUS	Genitourinary system
Hb	Haemoglobin g/dl
HCG	Human chorionic gonadotrophin
HELLP	Haemolysis elevated liver enzymes low platelets
HFO	High frequency oscillation
HR	Heart rate
Hrs	Hours
HRT	Hormone replacement therapy
HSV	Herpes simplex virus
HVS	High Vaginal Swab
IA	Intermittent auscultation

IDDM	Insulin dependent diabetes mellitusl
HCP	Intrahepatic cholestasis of pregnancy
IMB	Intramenstrual bleeding
IMV	Intermittent mandatory ventilation
INR	International normalised ratio
IOL	Induction of labour
IPP	Intermittent positive pressure
IPPV	Intermittent positive pressure ventilation
ITP	Idiopathic thrombocytopenic purpura
IUCD	Intrauterine contraceptive device
IUD	Intrauterine death
IUGR	Intrauterine growth retardation
IUI	Intra uterine insemination
IUT	Intrauterine transfusion
IVDA	Intravenous drug abuser
IVH	Intra ventricular haemorrhage
IVIG	Intravenous immunoglobulin
L/S	Lecithin/Sphingomyelin
LA	Lupus anticoagulant
LBI	Liveborn infant
LDV	Lactate dehydrogenase
LFD	Large for dates
LFT	Liver function test
LGA	Large for dates
LLETZ	Large loop exision of transformation zone
LMP	Last menstrual period
LMWH	Low molecular weight heparin
LP	Lumbar Puncture
LSCS	Lower segment caesarean section
LSR	Lecithin/sphingomyelin ratio
LUS	Lower uterine scar
LVH	Left ventricular hypertrophy
LVS	Low vaginal swab
MCA	Middle cerebral artery
Mins	Minutes
MIR	Maternal inflammatory response
MRA	Magnetic resonance angiogram
MRI	Magnetic resonance imaging
MROP	Manual removal of placenta
MSU	Mid-stream urinalysis
MSV	Mauriceau smellie veit
MVM	Maternal Vascular Malperfusion
ND	Normal delivery
NEC	Necrotising enterocolitis
NED	No evidence of disease
NER	Neonatal encephalopathy register
NICU	Neonatal intensive care unit
NIPPV	Nasal intermittent positive pressure ventilation
NND	Neonatal death
NO	Nitric oxide
NPO	nil by mouth
N/R	Not recorded
NRCTG	Non reassuring CTG
NS	Normal saline
NSAPH	Non substantial antepartum haemorrhage
NST	Non stress test
NT	Nuchal translucency
NTD	Neural tube defect
OCP	Oral contraceptice pill
OHSS	Ovarian hyperstimulation syndrome
OP	Occipital Posterior
PCB	Post coital bleeding
PCOS	Polycystic ovary syndrome
PCR	Polymerase chain reaction
PDA	Patent ductus arteriosis
PE	Pulmonary embolism
PET	Pre-eclamptic toxaemia
PFA	Plain film of the abdomen
PFC	Persistent fetal circulation
PFO	Patent foramen ovale
PGA	Post gestational age
PIE	Pulmonary interstitial emphysema
PLIC	Posterior limb of the internal capsule
PMB	Post menopausal bleeding
PNW	Postnatal ward
POM	Puncture of membranes to accelerate labour
POP	Persistent occipito posterior position
PPH	Post partum haemorrhage
PPHN	Persistent pulmonary hypertension
PPROM	Preterm pre-labour rupture membranes
PR	Pulmonary regurgitation
PROM	Preterm rupture of membranes
PTX	Pneumothorax
PVL	Periventricular leucomalacia
RBC	Red blood cell
RCC	Red cell concentrate
RDS	Respiratory distress syndrome
RLF	Retrolental fibroplasia
RPOC	Residual products of conception
RS	Respiratory system
RV	Right ventricle
RVH	Right ventricular hypertrophy
SA	Spinal analgesia
SBI	Stillborn infant
SCBU	Special care baby unit
SFD	Small for dates
SFD	Suspected fetal distress
SG	Social group
SGA	Small for gestational age
SIADH	Syndrome of inappropriate ADH secretion
SIDS	Sudden infant death syndrome
SIMV	Synchronized intermittent mandatory ventilation
SMR	Standardised mortality rate
SROM	Spontaneous rupture of membranes
SUA	Single umbilical artery
SVC	Superior vena cava
SVD	Spontaneous vaginal delivery
TAH	Total abdominal hysterectomy

TAH & BSO	Total abdominal hysterectomy and bilateral salpingoopherectomy
TAPVD	Total anomalous pulmonary venous drainage
TAS	Thoracamniotic shunt
TC	True conjugate
TDS	Three times a day
TICH	Traumatic intracranial haemorrhage
TLD	Therapeutic loop diathermy
TOF	Tracheo oesophageal fistula
TR	Tricuspid regurgitation
TTN	Transient tachypnoea of the newborn
TTT	Twin to twin transfusion
TVT	Tension-free vaginal tape
U/S	Ultrasound
UA	Umbilical artery
USS	Ultrasound scan
UTI	Urinary tract infection
VAIN	Vaginal intraepithelial neoplasia
VBG	Venous blood gas
VIN	Vulval intraepithelial neoplasia
VLBW	Very low birthweight
VOD	Vermont oxford database
VON	Vermont oxford network
VP	Ventriculoperitoneal
VSD	Ventricular septal defect
Vx	Vertex
WCC	White cell count
XRP	X-ray pelvimetry

Definitions

Approach to Data Presentation in Clinical Report

Presentation of data in the individual cases is now recorded in tabular form. An explanation of placental terminology is provided in appendix 1. Individual cases are categorised according to the disease process that caused death. Many cases will have multiple pathologies and multiple potential causes of death, and the sequence leading to these is given in the final (diagnostic) line.

The approach taken in cases with potentially competing causes of death is that analysis of this data enables calculation of hospital mortality in infants without a lethal or potentially lethal congenital anomaly.

IUGR can be variously applied to infants at the 3rd, 5th or 10th centiles. The third centile is the one shown to correlate best with perinatal mortality. The reference ranges for centiles given in this report are those published by the Child Growth Foundation (UK) (updated 2002).

Maternal death: Death of a patient, booked or unbooked, for whom the hospital has accepted responsibility, during pregnancy or within six weeks of delivery whether in the hospital or not.

Stillborn infant: A baby with birthweight greater than or equal to 500g and/or 24+0 wks estimated gestational age, who shows no signs of life at delivery.

Early neonatal death: A baby born alive with birthweight greater than or equal to 500g and/or 24+0 wks estimated gestational age, who dies within 7 days.

Perinatal mortality rate: The sum of stillbirths and early neonatal deaths per 1,000 total births whose birthweight is greater than or equal to 500g and/or 24+0 wks estimated gestational age.

Corrected perinatal mortality rate: The sum of stillbirths and early neonatal deaths per 1,000 total births whose birthweight is greater than or equal to 500g and/or 24+0 wks estimated gestational age excluding congenital anomalies.

Gestation: The best estimate is the duration of gestation using the first day of the last normal menstrual period and early ultrasound as appropriate in the clinical circumstances.

Preterm: Less than 37 completed weeks.

Postdates: 42 weeks or greater.

Prolonged labour: Labour more than 12 hours - nulliparous.

Labour length: Duration of time spent in the labour ward.

Blood Gases: Capillary, Arterial and Venous Blood gases given in order pH, Partial Pressure of Oxygen (PO2), Partial Pressure of Carbon (PCO2) and Base Excess (BE).

PATHOLOGY

Thrombophilia screen

Prothrombin Time, INR, APTT, Thrombin Time, Fibrinogen, Lupus Anticoaguloant screen - (Lupus anticoagulant, anticardiolipin antibodies, beta-2 glycoprotein
1 antibody), Anti Thrombin Three, Protein C, Protein S Free, Modified APCR (FVLeiden mutation if appropriate).

Postmortem

The perinatal autopsy involves external examination of body, with appropriate photographs and X-ray. Internal examination includes inspection of cranial, thoracic and abdominal cavities with removal and weighing of organs: organs are retuned to the body before release. Samples are taken for subsequent processing and histologic examination. Extent of sampling of tissue such as spinal cord, nerve and muscle depends on clinical details and on the extent of maceration. The autopsy includes swabs for culture from body cavities and washings for virology. Tissue is frozen for fat stains and may be used for assessment of metabolites. Cytogenetic analysis and where indicated, microarray, may be performed on ether skin or placental tissue. The placenta is reported in conjunction with the autopsy, and maternal blood results are also evaluated in reaching a diagnosis. The quality of the report is benchmarked against standards set in the Faculty of Pathology, RCPI QA/QI programme.

A provisional anatomic diagnosis is issued within two working days (except in Coroner's cases, where it is not issued), and the final report is usually within 8 weeks. Occasional cases take longer due to complexity and/or the necessity for external consultations.

Placental pathology

A triage system is in place for placental examination. The entire placenta is submitted to the laboratory:

a) from cases of Caesarean section
b) from cases born in the delivery ward, where there is an abnormality of pregnancy, labour, delivery or the neonatal period.

In other cases, the placenta is kept refrigerated for seven days and retrieved if an indication for analysis becomes apparent.

Data from analysis of cases of Perinatal morbidity or mortality is returned in an anonymised fashion to the National Perinatal Epidemiology Centre, UCC, where it is pooled with data from other maternity units and national trends and benchmarks are published. The terminology used is the same consensus terminology as that used by NPEC (Khong TY et al). Some of these terms are expanded on below.

Maternal vascular malperfusion (MVM)

This is a spectrum: at the less severe end is mild accelerated villous maturation, then ischemic villous crowding and latterly infarction, also referred to as uteroplacental insufficiency (UPI). Increasingly, terms such as "shallow implantation" are being used to explain the pathogenesis. Expected findings in a case of severe PET would be a small placenta with recent and old infarcts, located centrally and peripherally in the parenchyma. Atherosis is

fibrinoid change in vessels, seen in about half of cases of PET and occasionally in other conditions eg connective tissue disease.

Hypoxic membrane lesions
Laminar decidual necrosis may be regarded as an acute hypoxic lesion, and microcystic change in the chorion as a chronic hypoxic lesion.

Meconium
When present in large quantities, meconium may cause necrosis of muscle cells in the walls of chorionic vessels and possibly lead to vasospasm and ischaemia.

Chorangiosis
More vessels than normal are seen in terminal villi. It may be present as a primary finding or as a reaction where adjacent
villi have been destroyed by villitis, and is suggested to be a marker of chronic hypoxia.

PATTERNS OF INFLAMMATION

Chorioamnionitis
The terms “maternal inflammatory response” and “fetal inflammatory response are used with each being staged and graded according to consensus guidelines. There is an association between a severe fetal inflammatory response and brain damage in both term and pre-term infants.

Maternal-fetal immune interaction.
This may be manifest as any or all of villitis, intervillositis, chronic chorioamnionitis and deciduitis.

Villitis
Rare cases of villitis are due to infection eg CMV, but most are of unknown aetiology and are immunologically mediated. Villitis is graded as low-grade or high-grade. Overall, villitis is seen in 10% of placentas; highgrade villitis occurs in < 2% and is associated with an adverse perinatal outcome. Villitis may cause damage to fetal vessels in the placenta and this is associated with neurologic damage in term infants. It may recur in subsequent pregnancies.

Intervillositis
Chronic histiocytic intervillositis is relatively rare, but is over-represented in the cases in this report. It is associated with growth restriction and perinatal loss, with a mean gestation of loss of 25/40. It is more common in patients with immune dysregulation, and is likely to recur in subsequent pregnancies.

THROMBOSIS AND HAEMORRHAGE

Fetal vascular malperfusion (FVM) Occlusions of the fetoplacental circulation are manifest by: extensive avascular villi, obliterated stem arteries, haemorrhagic villitis, and occlusive thrombi. The term fetal thrombotic vasculopathy is also used. Highgrade FVM, in particular, is associated with neonatal encephalopathy.

Non-occlusive mural fibrin thrombi
These are found in large fetal vessels in approx 10% of placentas. They are more common in cases with FTV and abnormal coiling; they reflect impaired fetoplacental flow, but the significance of isolated ones in smaller stem vessels is at present unclear.

Cord coiling
The cord normally has one coil per 5cm. Both hypo- and hypercoiled cords are associated with IUGR, fetal death, cord stricture, thrombosis and an abnormal response to labour.

Abruption and retroplacental haemorrhage (RPH)
RPH may be identified on pathologic examination of the placenta, but have been clinically silent. Conversely, dramatic clinical abruption may leave no changes in the placenta. In many cases RPH causes compression infarction of the placenta.

Diffuse chorioamniotic haemosiderosis (DCH)
This is diagnosed by the presence of haemosiderin-laden macrophages in the membranes and/or chorionic plate. Such placentas are more likely to show circumvallation, old peripheral blood clots and green discoloration. Clinically, DCH is associated with chronic vaginal bleeding, multiparity and smoking. Blood and breakdown products are released into the amniotic fluid. Oligohydramnios, IUGR and a lower gestational age at delivery have been found more commonly in cases with DCH. Persistent pulmonary hypertension and dry lung syndrome are more common in these neonates. DCH may represent chronic peripheral separation of the placenta, possibly from marginal venous bleeding (rather than the arterial bleed of abruption).

ABNORMAL PLACENTAL DEVELOPMENT
Delayed/abnormal villous maturationThis is where the placenta has failed to develop appropriately for gestational age, partially or completely. It is a poorly understood entity, and is associated with diabetes. It is associated with an increased risk of stillbirth. Some cases may receive a descriptive diagnosis eg abnormal maturation or variable villous maturation where there is a mixed picture, with some areas showing delayed maturation and other areas accelerated maturation. The term “distal villous immaturity” is also used.

Increased perivillous fibrin
Localised increases in fibrin are common, but a diffuse increase, sometimes in a pattern called “maternal floor infarction” is associated with an adverse outcome.

Placental weight
In general, the term placenta weighs between one sixth and one seventh of the infant’s weight, but a wide range of placental weights is seen in normal infants. The weight is given in the cases discussed where it is felt to be markedly abnormal. Fetoplacental weight ratio (median of around 7 at term) are sometimes used.

Updated September 2018

Khong T Yee, Mooney EE, Ariel I et al. Sampling and definition of placental lesions. Amsterdam Placental Workshop Group Consensus Statement. Arch Pathol Lab Med 2016;140:698-713.

Appendix 2: Classification of indications for caesarean section in spontaneous labour or after having had labour induced

Fetal reason
Caesarean section for fetal indication before any oxytocin has been given.

Dystocia

Inefficient uterine action/inability to treat/fetal intolerance
Problem is inadequate progress with no fetal problems until oxytocin is started.

Inefficient uterine action/inability to treat/ overcontracting
Problem is inadequate progress but oxytocin does not reach maximum dose as per protocol in unit because of overcontracting uterus.

Inefficient uterine action/poor response
Problem is inadequate progress which does not improve after being treated with the maximum dose of oxytocin according to the protocol in the unit.

Inefficient uterine action/no oxytocin Problem is inadequate progress which for whatever reason has not been treated with oxytocin.

Efficient uterine action/CPD/POP* Adequate progress (1cm/hr) and in nulliparous women would need to have been treated with oxytocin) but vaginal delivery not possible.
*In multiparous women the term CPD/POP is replaced with obstructed labour.

CLASSIFICATION OF INDICATIONS FOR INDUCTIONS OF LABOUR

Fetal reasons
Includes all indications for induction that are carried out for the benefit of the fetus.

PET/Hypertension
Includes all indications for induction that are carried out for hypertensive disorders.

Post Dates
Includes all inductions that are carried out specifically for 42 weeks gestation or greater.

SROM
Includes all inductions for spontaneous rupture of the membranes

Maternal reasons/Pains
Includes all indications for induction that are carried out for the benefit of the mother including pains not in labour

Non medical reasons/Dates< 42 weeks
Includes all indications for inductions where there is no absolute medical indication or for dates but less than 42 weeks

The National Maternity Hospital Annual Report 2024

Photography in the Report
Some professional images in the report were sent in by patients and we are grateful for their contribution. Other images included are from Mark Griffin Photography and Denis Towell, press releases, the NMH Staff Newsletter and other photos staff shared with us and we are grateful to have them all.

Print & Design
Printcomp

Project Managed by Fionnuala Byrne, Information Officer

The Linen Guild
The National Maternity Hospital

The Linen Guild is a discretionary charity founded in 1912 which provides emergency assistance to mothers and babies in need who attend The National Maternity Hospital.

It is a 100% voluntary charity organisation. All members are volunteers who give willingly of their time and share our common objective of wanting to help mothers and newborn babies in difficult circumstances at a vulnerable time.

We are self-funding through donations and a variety of fund raising initiatives during the calendar year. 100% of all the money raised go directly to help mothers and babies who need emergency financial and practical support.

thelinenguild@gmail.com

NMH Foundation
Helping Holles Street

The NMH Foundation exists to raise vital funds for the National Maternity Hospital, with a focus on advancing maternal and neonatal health in Ireland. We raise vital funds to invest in research, to provide vital equipment and technology within the hospital, and to support the work of the care teams and support services caring for mothers and tiny babies. The NMH Foundation is helping babies to arrive, survive and thrive.

NMH Foundation, The National Maternity Hospital, Holles Street, Dublin 2

foundation@nmh.ie | 01 637 3372 | www.nmhfoundation.ie

CRA 20080891 | CHY 20389