



THE NATIONAL MATERNITY HOSPITAL GP NEWSLETTER



A WELCOME MESSAGE FROM PROFESSOR SHANE HIGGINS, MASTER AT THE NATIONAL MATERNITY HOSPITAL



Welcome to the fifth edition of our GP Newsletter. This edition has a focus on our specialist clinics for high risk patients at The NMH. You'll find information on our Preterm Surveillance Clinic, our Maternal Medicine Service, an update on diabetes technology in pregnancy and much more.

Please note that our GP study day will take place on November 11th 2023. The Study Day will be a blended event with virtual and in person attendance - we look forward to meeting many of you on the day.

We would like to thank you for your continued support. Please do not hesitate to contact us if we can be of assistance to you and your patients.

Yours sincerely,

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SAVE THE DATE GP STUDY DAY

11

DAY

11

MONTH

23

YEAR

BLENDED APPROACH

MATERNAL MEDICINE SERVICE AT THE NATIONAL MATERNITY HOSPITAL

The Maternal Medicine Service at The National Maternity Hospital is led by consultant obstetricians Prof Fionnuala McAuliffe, Prof Mary Higgins and Dr. Siobhan Corcoran in conjunction with clinic midwives Celine O'Brien and Emma Delaney Cahill. We have a Maternal Medicine fellow working with the team also, who currently is Dr. Gillian Corbett.

The service provides pre-pregnancy, antenatal and postnatal care to women with medical disorders-pre-existing pregnancy or those that develop during or as a result of pregnancy. We also provide care to women with substance misuse in conjunction with Victoire Hurley CMS Drug Liaison Midwife and to women with infectious disease requiring anti-viral therapy in pregnancy.

Within the NMH there is a weekly MDT where obstetrics, midwifery and anaesthetics meet both in-person and virtually and link also with specialists as required to discuss specific patient cases and present updates on complex patients. This forum helps formulate pathways of care for women who have complex medical histories.

The weekly clinic provides pre-pregnancy, antenatal and postnatal care to women with a variety of medical conditions. In 2021 the clinic saw 513 new patients with a wide range of conditions documented- haematological, infectious disease, substance misuse, cardiac, gastrointestinal, hepatological, neurological, vascular, rheumatological, respiratory, renal, oncological, endocrine and genetic.

The Maternal Medicine team work with a number of specialists in other clinical areas, some of whom attend the NMH to hold clinics alongside the Maternal Medicine Team. Women attending the specialist clinics at NMH have a visit with a medical specialist and obstetrician together, this collaborative care is unique and is invaluable for women.

SPECIALIST CLINICS

Renal: Dr. John Holian attends the NMH for an antenatal clinic which provides care for women with pre-existing renal disease.

Rheumatology: Prof Doug Veale and Louise Moore (RANP Rheumatology) work closely with the Maternal Medicine team and run a monthly clinic with the team at NMH- the ROSE clinic (Rheumatology Obstetric Service).

Hepatology: Dr. Omar Elsherif attends a monthly clinic for women with liver disorders and will also provide support for clinicians in caring for women with Hepatitis B and C.

Haematology: Dr. Karen Murphy works closely with the team and provides a Haematology service to the women attending The National Maternity Hospital holding a clinic 3 times per month at NMH.

Cardiology: Dr. Carla Canniffe provides care for NMH patients both in St Vincent's University Hospital and monthly at a clinic in NMH.

Epilepsy: Sinead Murphy RANP Epilepsy provides care for women with epilepsy every 2 weeks at the NMH.

REFERRALS

Referrals can be sent via Healthlink or by post.

Any other relevant information to the referral is welcomed such as letters from specialist physicians/ relevant blood reports/investigations undertaken etc.



UPDATE ON DIABETES IN PREGNANCY AND TECHNOLOGY



Author: Professor Mensud Hatunic

Pre-gestational diabetes mellitus, type 1 diabetes mellitus (T1DM) and type 2 diabetes mellitus (T2DM) are associated with an increase in adverse outcomes. However, the quality of care offered to women with diabetes mellitus can affect these birth outcomes. By providing appropriate clinical care, a reduction in adverse outcomes can be achieved.

The Diabetes in Pregnancy service in the National Maternity Hospital during 2022 provided care to 51 women with T1DM and 20 women with T2DM, the largest population of pre-gestational diabetes mellitus in Ireland. All women with pre-gestation diabetes were treated by a multidisciplinary team including an obstetrician, an endocrinologist, a diabetes midwife specialist, a dietician and an ophthalmologist with 1-4 weekly reviews and weekly virtual contacts with the diabetes in pregnancy service.

Diabetes technology currently refers to insulin pump therapy (continuous subcutaneous insulin infusion (CSII), glucose sensors (continuous glucose monitoring (CGM) and flash glucose monitoring) and the interaction between them. Currently 30-40% of women with T1DM in pregnancy attending the National Maternity Hospital are using CSII insulin pump treatment through their entire pregnancy. From the moment of conception right through pregnancy, labour to breastfeeding, insulin requirement fluctuates. Insulin pumps allow for rapid, flexible and precise insulin dosing. Hypoglycaemia in pregnancy can be extremely challenging, insulin pumps and CGM's provides a much-needed treatment option that is easily programmable and quick to adapt over a 24- hour period. In this way, hypoglycaemic attacks can be minimised during pregnancy. Our diabetes in pregnancy multidisciplinary team encourages all women with pre-gestational diabetes mellitus to use diabetes technology through pregnancy.



MEDTRONIC INSULIN PUMP

DIABETES IN PREGNANCY TEAM

The diabetes in pregnancy team is comprised of Endocrinologists, Obstetricians, Specialist Midwifery, Dietetics and HSCP's who provide highly specialised care to women with pre-gestational diabetes, gestational diabetes and cystic fibrosis related diabetes. We offer a comprehensive maternal-fetal medicine service with three specialist maternal-fetal medicine specialist Consultant Obstetricians overseeing Obstetric care.

Within the Endocrine service, we offer a full insulin pump service and provide evidence based care including the latest in diabetes technology. Recently we have seen the prevalence of closed loop hybrid insulin pumps and continuous glucose monitoring increase - with excellent outcomes for both mother and baby.

Our specialist midwifery service provides both Advanced Practice Led Gestational Diabetes Virtual Clinics and a full service for Type One/Type Two and CFRD. This is supported by specialist dietitians, ensuring that each woman receives evidence based, highly individualised care that is outcome focused.

REGISTERED ADVANCED MIDWIFE PRACTITIONER (RAMP) SERVICE IMPROVES ACCESS TO CARE FOR WOMEN WITH GESTATIONAL DIABETES AT THE NATIONAL MATERNITY HOSPITAL

The Advanced Midwife Practitioner led virtual clinic eliminates need for women with gestational diabetes to come to the hospital and provides faster access to care.

Women with gestational diabetes, who previously had to come to the hospital every three to four weeks for the duration of their pregnancy on top of their antenatal care, currently receive the care they need in the comfort of their own homes by availing of the Gestational Diabetes Virtual Care Clinic.

Promising initial results are emerging from a study looking at maternal and neonatal outcomes in the Gestational Diabetes Virtual Service versus in-person care at The National Maternity Hospital.

The study has found that access to care through the virtual clinic is much faster, with 90% of women treated within 10 days of diagnosis and 70% of women treated within 5 days of diagnosis.

Feedback about the clinic from women who attend is also very positive with women not needing to travel for appointments, along with no requirement for child-care or to take time off work to attend the hospital.

CLINIC STATS



- Virtual clinic provides care to approximately 800 women per annum
- 75% of these women can now have their gestational diabetes managed at home
- 90% of women treated within 10 days of diagnosis
- 70% of women treated within 5 days of diagnosis



The Maternity Dashboard

May 2023



Patient Category

Public	54.3%
Private	22.2%
Semi-private	16.9%
DOMINO	5.5%
Missing*	1.1%
Total	100.0%

Earliest Gestational Age
26W 3D



Smallest Baby Born
655g



Latest Gestational Age
42W 3D

Biggest Baby Born
5380g

Liveborn babies only in the measures above

Total Births

545



Busiest Day

25-May
29 Births



Homebirths

2



Hydrotherapy Pool Use

10



Mode of Delivery

Spontaneous vaginal	50.1%
C-Section	41.1%
Operative vaginal	8.8%
Total	100.0%

Breastfeeding at Birth
71.8%



Breastfeeding at Discharge
47.1%

Exclusively

Induction of Labour
39.4%



Total Inductions
215

Theatre Procedures
364



Procedures not patients; excludes c-sections

Births by Age Range

<20 yrs	1.1%	6
20 - 24 yrs	3.5%	19
25 - 29 yrs	9.4%	51
30 - 34 yrs	34.5%	188
35 - 39 yrs	38.2%	208
40 - 44 yrs	11.9%	65
45+ yrs	1.5%	8
Total	100.0%	545

Remembering the babies lost in pregnancy and those born sleeping



Note: Data for births >=500g and/or EGA 24 wks. *Incomplete data entry by clinicians. All figures will be validated for the Annual Clinical Report 2023

Source: MNCMS data entry. Produced by: MNCMS Team & Fionnuala Byrne, Information Officer

PRETERM SURVEILLANCE CLINIC

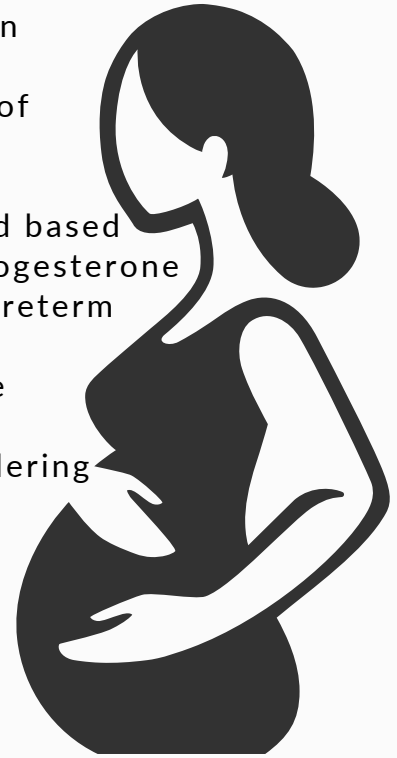
The Preterm Birth Clinic at the National Maternity Hospital is a dedicated multidisciplinary service caring for women at risk of preterm birth and has been growing and developing since its inception in 2012.

Preterm Birth is the single biggest contributor to neonatal mortality and morbidity globally. The impacts of preterm birth on the infant reaches far out into childhood and adolescence. There is even an emerging body of data to show that being born preterm negatively impacts cardiovascular health in adulthood. There is also an unseen morbidity for the mothers of these infants, particularly in terms of the psychological impacts of having a previous preterm birth.

We see women early and often in pregnancy. We offer evidenced based cervical length surveillance and employ interventions such as progesterone and cerclage where appropriate to reduce the risk of recurrent preterm birth. Staffed by Dr Siobhan Corcoran (Consultant Obstetrician – sub Specialty Maternal and Fetal Medicine), Ms Larissa Leuthe (Dedicated Midwife) and a research Fellow Dr Gillian Corbett, the clinic also offers Preconceptual counselling to women considering pregnancy after a preterm birth or mid trimester loss.

Dr Donal O'Brien (Consultant Obstetrician-sub Specialty Gynae Oncology) is also involved in our MDT offering expertise in laparoscopic abdominal cerclage. We find that women value the continuity of care, the frequent visits and reassurance and the access to evidence based PTB prevention strategies.

Research and innovation form a key part of the preterm birth service work also, aiming to improve outcomes for mothers and babies.



THE PRE TERM SURVEILLANCE CLINIC WOULD LIKE TO RECEIVE REFERRALS FROM ANY OF YOUR PATIENTS WITH:

- Previous history of spontaneous delivery prior to 34 completed weeks gestation
- Short cervix due to 2 or more LLETZ treatments of a single cone biopsy
- Spontaneous mid trimester losses
- Known uterine anomalies

ANAESTHESIA HIGH RISK CLINIC

Our high risk anaesthesia clinic runs twice weekly, on Tuesday and Wednesday afternoons. We are referred women antenatally by the obstetric team, or by the midwifery team, based on risk factors that are flagged at the woman's booking visit.

Women we see are of raised BMI (specifically those with BMI > 40kg/m², or BMI >35kg/m² with comorbidities), have a history of spinal deformities/pathologies, complex medical backgrounds, or previous anaesthesia complications.

We also see some postnatal women in these clinics who have had unanticipated general anaesthesia for delivery, failed neuraxial techniques or complications like post dural puncture headaches.

Women who require multi-disciplinary input based on specific complex medical conditions are discussed at our Wednesday morning maternal medicine MDT meetings, and seen in our MDT clinic on the last Wednesday of each month.

STORIES FROM THE COUCH:

"REMISSION OF PRE-GESTATIONAL DIABETES DURING PREGNANCY" BY PROFESSOR MENSUD HATUNIC



A 23-year-old female of Sudanese origin presented for antenatal care with polyuria symptoms and glycosuria prompted testing for diabetes. She had very strong family history of type 2 diabetes: her father, paternal uncle and grandmother, managed with oral hypoglycaemic agents.

Pre-gestational diabetes was diagnosed at 7 weeks gestation with random glucose 19.4 mmol/L, HbA1c 95 mmol/mol, serum ketones were negative. Her BMI was 35 kg/m². Capillary glucose readings ranged 8-13 mmol/L.

Multiple daily insulin injections were titrated upwards to a total daily dose of 72 units to achieve glycaemic targets of pregnancy (3.5-7.8 mmol/L) and continued for several weeks. During pregnancy falling insulin requirements with frequent hypoglycaemia warranted complete cessation of insulin therapy at 16 weeks gestation with HbA1c fell to 42 mmol/mol. Glucose readings off insulin remained stable between 4.5-7.8 mmol/L. Laboratory studies showed preserved C-peptide 1.86 µg/L (1.1-4.4) and raised insulin 28 mU/L (1.1-4.4) off treatment. Autoimmune pancreatic antibodies (GAD and ICA) were negative.

In individuals without diabetes, increased peripheral insulin resistance during pregnancy is compensated for by increased insulin production and growth of pancreatic beta cells; however this cannot occur effectively in those with diabetes. Glucose toxicity and oxidative stress can have an important role in the pathogenesis of hyperglycaemia. We believed that intensive insulin therapy used in our patient may have enabled pancreatic rest, allowing beta cell recovery and subsequent increased endogenous production of insulin. Two weeks later, rising glucose levels necessitated restarting insulin therapy, though at much lower doses and due to expected insulin resistance insulin requirement increased during pregnancy. Post pregnancy insulin treatment was continued with lower doses.



**If you are interested in joining our GP Liaison Committee
which meets quarterly, please email The National Maternity Hospital
Quality Manager, Rachel Irwin at: rirwin@nmh.ie**