



The National Maternity Hospital  
Vita Gloriosa Vita ~ Life Glorious Life



# 1<sup>st</sup> Joint Research Network Conference

*'Nurturing a Culture of Research and Clinical Audit to Enhance Women and Infant Health'*

Thursday 13<sup>th</sup> December 2019 9am-4.30pm:

Lecture Theatre, National Maternity Hospital Education Centre, 65-66 Lower Mount Street, Dublin 2

NMH UCD



**JRN**  
Joint Research Network

Midwifery & Nursing  
IEHG

Est. 2007



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## **JRN Philosophy: Midwives, Nurses, Academics and Students Working Together in a Community of Practice and Research**

### **Message from the Chairs:**

On behalf of the Joint Research Network group we would like to welcome everyone to our inaugural conference. The theme of the conference is:

*“Nurturing a Culture of Research and Clinical Audit to Enhance Women and Infants Health”.*

The Joint Research Network was established in 2007. As part of ongoing development of maternity care services within the National Maternity Hospital (NMH) the Director of Midwifery and Nursing recognised that research links between the NMH and their education partners, University College Dublin, School Of Nursing Midwifery and Health Systems should be formalised. The Joint Research Network was established by Mary Brosnan and Professor Michelle Butler to develop a research culture for midwives, student midwives and nurses. The vision and goals of the group were 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. Today is a showcase of the collaborative research outputs from the past 11 years.

We hope you enjoy the day and look forward to sharing our experiences with you.

*Lucille Sheehy Denise O'Brien*

Lucille Sheehy and Denise O'Brien

Joint Chairs Joint Research Network

### **Website**

<http://www.nmh.ie/home/joiningt-research-network-conference.14321.html>



## JRN Membership

Academics from UCD School of Nursing Midwifery and Health Systems.  
Midwives, Nurses and students in the National Maternity Hospital & Ireland East Hospital Group.

## Vice-Chairs:

Barbara Coughlan, Lecturer/Assistant Professor, UCD School of Nursing Midwifery and Health Systems

Sarah Cullen, CMS Bereavement, National Maternity Hospital

## Founding members

Professor Michelle Butler, Executive Dean for Health and Science Dublin City University Dublin

Mary Brosnan, Director of Midwifery and Nursing, National Maternity Hospital

## JRN Chair (UCD School of Nursing, Midwifery & Health Systems): Dr. Denise O'Brien

Dr. Denise O'Brien is an Assistant Professor/Lecturer and Head of Subject for Midwifery in the School of Nursing, Midwifery and Health Systems in UCD Dublin. Denise is the current co-chair, previous vice-chair and member since the foundation of the Joint Research Network. Denise commenced her academic career in UCD in 2006. Prior to this Denise practised as a Midwife tutor/midwifery practitioner for 5 years in the National Maternity Hospital. Denise was awarded her PhD in 2015 for Participatory Action Research study collaborating with the women and midwives. The study focused around women's understandings, experiences and supports needs to exercise informed choices during pregnancy and childbirth in Ireland. An informational resource was completed as part of the study "Choices for Childbirth" which was offered to the Health Services Executive and some of the content was published/is available at the following link <http://whatsupmum.ie>



Since completing her PhD Denise has continued to expand her research portfolio both with her colleagues in UCD and the National Maternity Hospital and with International collaborators. Areas of publication include informed choice, impact of birth experiences on women's sense of self, shared decision-making, relational decision-making, Advanced Practice Midwifery/Nursing.

## JRN Chair (National Maternity Hospital): Lucille Sheehy

Lucille Sheehy (RN, Hdip RM, BSc, MSc) is Clinical Practice Development Co-ordinator at the National Maternity Hospital. She has worked in healthcare for nearly thirty years. Her professional experience includes nursing, neonatal and midwifery practice and education. This breadth and depth of her professional experience has provided her with a keen insight into the challenges facing nurses and midwives. Within her role she supports the professional development of nurses and midwives in terms of clinical leadership, education and training as well as research and innovation. One of her core values is her ongoing commitment to fostering a culture of safe quality practice for service users.

Lucille is current co-chair, previous vice-chair and member since the foundation of the Joint Research Network (JRN). She has been involved in a number of JRN projects and has presented both nationally and internationally findings from these projects.





## Conference Programme

<b>08.30-9.30am</b>	<b>Registration</b>	
<b>9.30-9.40am</b>	Welcome Address	<b>Dr Barbara Coughlan</b> Lecturer/Assistant Professor
<b>09.40-10.00am</b>	<b>Chair:</b>	<b>Paul Gallagher</b> Chief Director of Nursing and Midwifery Ireland East Hospital Group
	<b>Joint Research Network</b> Collaboration at the heart of research practice	<b>Dr Denise O'Brien</b> Lecturer/Assistant Professor <b>Lucille Sheehy</b> Assistant Director of Midwifery and Nursing
<b>10.00-10.45am</b>	<b>Keynote speaker</b> Reflections on the role of research in driving midwifery practice in the 21 <sup>st</sup> century	<b>Professor Sara Kenyon</b> Professor of Evidence Based Maternity Care Institute of Applied Health Research University of Birmingham
<b>10.45-11.00am</b>	Perineal Management Study: Exploring Midwives Clinical Practice and Professional Development	<b>Ciara Kirwan</b> Lecturer/Assistant Professor in Midwifery
<b>11.00-11.15am</b>	A study to evaluate the outcomes from the implementation of the Labour Hopscotch Framework at the National Maternity Hospital Dublin	<b>Sinead Thompson</b> Community Midwife
<b>11.15-11.30am</b>	"I'm afraid of upsetting them further" - Student midwives' education needs in relation to bereavement care	<b>Sarah Cullen</b> CMS Bereavement
<b>11.30-11.45am</b>	Oxytocin regimen dose and actual dose: Is there a difference?	<b>Dr Tina Murphy</b> Assistant Director of Midwifery and Nursing
<b>11.45-12.00pm</b>	<b>Questions</b>	
<b>12.00-12.30pm</b>	<b>Panel Discussion</b>	<b>Mary Brosnan, Professor Michelle Butler, Dr Barbara Coughlan, Professor Johnathan Drennan, Paul Gallagher</b>
<b>12.30 -13.30 pm</b>	<b>LUNCH</b>	

Afternoon Session		
	<b>Chair:</b>	<b>Susanna Byrne</b> Director, NMPDU, Dublin South, Kildare and Wicklow
<b>13.30 – 14.00pm</b>	<b>Keynote Speaker</b> The role of unlearning in changing practice’?	<b>Professor Declan Devane</b> Professor of Midwifery and Deputy Dean of the College of Medicine, Nursing and Health Sciences at the National University of Ireland Galway
<b>14.00 – 14.15pm</b>	From the grass roots: how research with midwives helped shape perinatal mental health service development	<b>Deirdre Madden</b> ANP Perinatal Mental Health
<b>14.15-14.30pm</b>	Centering Breastfeeding & PRIME project	<b>Denise McGuinness &amp; Lorraine O’Hagan</b> CMS Lactation
<b>14.30-14.45pm</b>	Postpartum voiding dysfunction: An 11yr audit in a tertiary referral unit	<b>Linda Kelly</b> AMP Women’s Health
<b>14.45-15.00pm</b>	<b>Comfort break</b>	
<b>15.00 – 15.15pm</b>	Introduction to neonatal metrics	<b>Shirley Moore</b> ANP Neonates
<b>15.15-15.30pm</b>	Lifestyle intervention education for women with gestational diabetes mellitus: improved outcomes	<b>Ciara Coveney</b> CMS Diabetes
<b>15.30-15.45pm</b>	Importance of audit in the development of an Emergency Department	<b>Anitha Baby</b> AMP Emergency Room
<b>15.45-16.00pm</b>	MN-CMS Training and evaluation of the user experience of readiness	<b>Sive Cassidy and Molly Vinu</b> MN-CMS Local Project Support
<b>16.00-16.30pm</b>	<b>Questions</b>	
<b>16.30 – 16.40pm</b>	<b>Closing and Evaluations</b>	<b>Mary Brosnan</b> Director of Midwifery and Nursing Adjunct Associate Professor

## First Key Note Speaker: Sara Kenyon



Sara Kenyon is a Professor of Evidence Based Maternity Care at the University of Birmingham and has a background as a midwife. She is currently working on the NIHR Collaboration for Applied Health Research and Care (CLAHRC) in the West Midlands and leading the Maternity component of the Maternity and Child Health Theme. Developed strong collaborations with the local maternity Trusts (Birmingham Women's Hospital and Heart of England Foundation Trust) where there is involvement in service change at every level, from evaluating services in existence to developing and evaluating new services and translating evidence into practice. Methodologies employed ensure the most robust possible design and are tailored to the topic concerned and the timelines required.

She is Chief Investigator for the High or Low Dose Syntocinon Trial (HOLDS) recently funded by the HTA. This multicentre, pragmatic, randomised, double blind controlled trial will recruit 1500 women from 30 Maternity units to evaluate the effect on CS rate of high dose regimen versus standard dose regimen oxytocin for nulliparous women at term (37-42 weeks gestation) with confirmed delay in the first stage of labour using NICE definitions.

Member of the 'MBRRACE-UK' collaboration appointed by the Healthcare Quality Improvement Partnership (HQIP) to continue the national programme of work investigating maternal deaths, stillbirths and infant deaths, including the Confidential Enquiry into Maternal Deaths (CEMD). She is also part of the collaboration developing and implementing the Perinatal Mortality Review Tool to standardise review of perinatal death. She is a member of the HTA Maternal and Children's Prioritisation panel and the British Maternal Fetal Medicine Society representative for Labour and Delivery.

Previously Chief Investigator for ORACLE Children Study. Successful completion of follow-up study of over 8,000 children whose mothers joined the ORACLE Trial. This has included leading a team of co-applicants and office staff, and innovative collection of data on educational attainment, achieving a response rate of over 70% and publication in the Lancet. Previously lead the NICE Intrapartum Care Guideline published 2007 and Group lead for the RCOG Intrapartum Clinical Study Group until autumn 2015.

## Second Key Note Speaker: Professor Declan Devane



Professor Declan Devane is Professor of Midwifery and Deputy Dean of the College of Medicine Nursing and Health Sciences at the National University of Ireland Galway. Declan is also Director of the Health Research Board-Trial Methodology Research Network, Director of Evidence Synthesis Ireland and Director of Cochrane Ireland. Declan is an Editor with the Cochrane Pregnancy and Childbirth Group, an Associate Senior Lecturer with the UK Cochrane Centre and an author of numerous Cochrane systematic reviews predominantly in the field of fetal assessment. He has led a number of clinical trials recruiting from 100 to over 3000 participants and serves on a number of Trial Steering Committees and Data Monitoring Boards. He is a past member of the

National Clinical Effectiveness Committee and the Midwives Committee of the Nursing and Midwifery Board of Ireland. He was a member of the Department of Health National Maternity Care Strategy Group (Ireland) and the Health Information and Quality Authority (HIQA) Maternity Standards Advisory Group (Ireland).

## Paul Gallagher: Morning Chair

Paul Gallagher is an Adjunct Associate Professor, School of Nursing and Midwifery, Trinity College Dublin and Fellow of the Faculty of Nursing & Midwifery, RCSI. Paul is a Registered Psychiatric and General Nurse and holds qualifications in critical care nursing. He was appointed as the Chief Director of Nursing & Midwifery for the *Ireland East Hospital Group* (IEHG) in May 2018, a role that he is relishing.

Prior to his current appointment Paul joined the corporate management team of St. James's Hospital, as Director of Nursing in August 2006. He had responsibility for overseeing the Nursing Practice Development Unit, undergraduate, postgraduate and general education requirements for over 2000 registered nurses, student nurses and healthcare assistant staff.

During this time as Director of Nursing Paul was also responsible for overseeing the recruitment, retention and the development of the nursing profession at St. James's. Paul has a strong interest in supporting clinical research and worked closely with academic colleagues in the School of Nursing and Midwifery, Trinity College Dublin to increase the profile of nursing research throughout the hospital.

Between April 2013 and December 2015, Paul was the elected President of the *Nursing & Midwifery Board of Ireland* (NMBI) and with his fellow Board members, Paul was responsible for overseeing the introduction of the *Nurses and Midwives Act, 2011*.

The School of Nursing and Midwifery, Trinity College Dublin, awarded Paul the title of *Adjunct Associate Professor*, in June 2014. In February 2015, Paul was awarded an *Honorary Fellowship*, from the Faculty of Nursing & Midwifery, Royal College of Surgeons in Ireland, as an acknowledgement of his contribution to the professions of Nursing and Midwifery.

He has obtained a great deal of clinical and managerial experience in the Intensive Care setting both in Dublin and North America. He was Assistant Director of Nursing at Beaumont Hospital, Dublin, for seven years prior to his appointment as Director of Nursing at St. James's Hospital. Paul holds an *MBA (Health Services Management)* from The Smurfit Business School, UCD and was recently awarded a *Diploma in Leadership and Quality in Healthcare* from the Royal College of Physicians.



## Afternoon Chair: Susanna Byrne

Susanna Byrne is the Director of the Nursing and Midwifery Planning and Development Unit for Dublin South, Kildare and Wicklow.

She qualified as a Registered General Nurse from the Royal City of Dublin Hospital and St James Hospital, Dublin. Following a period of work as a staff nurse in St James Hospital and in the UK, she undertook a post graduate programme in Our Lady's Children's Hospital, Crumlin and qualified as a Registered Childrens Nurse. She then worked in various roles in Our Lady's Children's Hospital, Crumlin over a 13 year period; from staff nurse to shift leader, clinical facilitator, ICU programme co-ordinator, and went on to develop and co-ordinate the Higher Diploma in Nursing Practice – Paediatric Critical Care Programme in collaboration with The Childrens University Hospital, Temple Street and UCD. She undertook a MSc in Education & Training Management in DCU, in 2000.



In 2005, Susanna took up her role as project officer in the Nursing and Midwifery Planning & Development Unit Palmerstown. She initially focussed on supporting regional nursing and midwifery workforce planning practices, and later, as these roles broadened, supported the strategic development and capacity building of nurses and midwives in the region.

Susanna became Interim Director of the NMPD Palmerstown in December 2010 and Director in November 2014 and is proud to lead the NMPD DSKW team in supporting the profession of nursing and midwifery in the region through leadership, building capacity and supporting excellence in the delivery of safe high-quality care.

## **Mary Brosnan: Panel Member**

Director of Midwifery and Nursing, MSc, RM, RN.

Mary is the Director of Midwifery and Nursing in the National Maternity Hospital. She is in this post since 2006. She has extensive experience in nursing and midwifery having worked both in Ireland and UK. Mary also worked in the Department of Health and Children as the Midwifery Advisor. She was awarded Adjunct Associate Professor in UCD in 2011. This year Mary commenced the Florence Nightingale Foundation Leadership Scholarship which has exposed her to a valuable network of nursing and midwifery senior colleagues in the NHS and voluntary sector in the NHS and voluntary sector in the UK. Mary was Co-Chair of the JRN (NMH) from 2007-2017. Mary is a founding member of the JRN.

## **Professor Michelle Butler: Panel Member**

Executive Dean of Science and Health, PhD, MSc, BSc, RM.

Michelle Butler is the Executive Dean of Science and Health, Dublin City University. She trained as a midwife in the UK in 1990 and following the completion of a master's program in 1993 became involved in research. She completed her PhD in 2001 with a study of competence and professional learning in midwifery. She has conducted research in Canada, the UK and Ireland, funded by the International Confederation of Midwives, the Health Research Board, the Health Services Executive, the National Council for the Professional Development of Nursing and Midwifery, the Women's Health Council, and the Crisis Pregnancy Agency. She has a particular interest in building research capacity with clinical and health services partners. She has over 70 publications, over 40 in peer-reviewed journals. She was previously Director of Midwifery, Dean of Nursing, Midwifery and Health Systems, and Subject Head for Midwifery at UCD, and Director of the Midwifery Program at the University of British Columbia. Michelle is a founding member of the JRN.

## **Dr. Barbara Coughlan: Panel Member**

Lecturer/Assistant Professor, PhD, MA (Research), BA, C. Health Psychol., Ps.S.I., RM, RN.

Barbara is an Lecturer/Assistant Professor in UCD School of Nursing, Midwifery and Health Systems. She is a registered Midwife and Nurse (NMBI) and a Chartered Health Psychologist (PSI). Psychological well-being and coping with loss, situated within a biopsychosocial model of health, broadly encapsulates her expertise as an academic. Her role is influenced by 35 years of experience gained within or associated with the Irish Healthcare System enabling her to support education and research, relating to clinical/community care, for Midwives, Nurses and Allied Health Care Professionals. She has a significant track record of project completion and publication, with 30 peer reviewed papers in both national and international journals (h-index 10, Scopus). Barbara is an honorary lecturer in the National Maternity Hospital and was Co-Chair (UCD) of the JRN from 2013-2017.

## Professor Johnathan Drennan: Panel Member

Professor of Nursing and Health Services Research, PhD, Med, BSc (Hons), PG Dip (Stats), RN.

Jonathan is Professor of Nursing and Health Services Research at the School of Nursing and Midwifery, University College Cork. He was previously Professor of Healthcare Research at the University of Southampton. Jonathan has undertaken research in Ireland and the UK on non-medical prescribing, emergency care, the abuse and neglect of older people in community and residential settings, cancer information services, research priorities for nursing and midwifery and safe nurse staffing. He presented to and advised the National Institute for Health and Care Excellence (NICE) Safe Staffing Advisory Committees on staffing in medical and surgical wards and accident and emergency departments in the UK. This was part of the development process of the NICE guidelines on safe staffing. Jonathan is also a member of the Department of Health taskforce involved in the development of guidelines for safe nurse staffing and skill mix in the healthcare sector. He is currently leading a Health Research Board and Department of Health funded study on safe staffing in medical, surgical and emergency settings in Ireland.

### Perineal management study: Exploring midwives' clinical practice and professional development

**Presenter:** Ciara Kirwan

**Background:** The idea for this study arose from a midwifery normal birth forum held for staff in the National Maternity Hospital where a discussion ensued about how to reduce the incidence of perineal trauma during spontaneous vaginal birth. Perineal trauma is sustained by over 80% of women during childbirth. Women who experience all levels of perineal trauma are at risk of developing long-term problems. Feedback from the forum was brought to the Joint Research Network, and a research group was tasked to carry out a study to develop an educational programme for midwives about all aspects of perineal management.

**Aims/Objectives:** The overall aim of this study is to collate evidence that will inform the development of an educational programme for midwives to reduce perineal trauma in women having a spontaneous vaginal birth.

1. Identify perineal outcomes, clinical factors associated with perineal outcomes and perineal management practices utilised by midwives in this clinical site.
2. Explore midwives' clinical experiences, knowledge and beliefs in relation to perineal management during birth.
3. Explore midwives' clinical decision-making in relation to perineal management during the second stage of labour.
4. To elicit midwives' input into the development of a perineal management education programme.

**Methods:** A mixed-methods sequential explanatory design was used. This included a retrospective chart audit (n=689); a survey of midwives' experience, knowledge and attitudes in relation to perineal management and education (n=103); and two focus groups were conducted to facilitate further exploration of the key findings identified in the survey and chart audit and to elicit midwives input into an educational programme to improve perineal outcomes (n=12).

**Results/Outcomes:** The perineal outcomes of the women in this study were varied: 7% had an intact perineum, 13% sustained a perineal or labial tear which did not require suturing, over 42% of women had a second-degree perineal tear requiring sutures and 29.2% of women received an episiotomy. There was variation in the perineal protection techniques employed by midwives. Midwives in the survey and focus groups recommended elements to be included in a proposed educational programme for the protection and management of the perineum.

**Conclusion:** Data from this study identified a variety of perineal protection practices used by the midwives' in the research site. Midwives reported that they base their use of particular perineal protection techniques on an individualised assessment of each woman. There is no agreement in the literature regarding the optimal perineal protection technique. Therefore it is recommended that all midwives are familiar with all methods. Midwives in the survey and focus group requested more education on perineal management. The findings from this study will inform the development of a perineal management education programme.

## A study to evaluate the outcomes from the implementation of the Labour Hopscotch Framework at the National Maternity Hospital Dublin

**Presenter:** Sinead Thompson

**Background:** In 2015 the national rate of caesarean section in Ireland was 31% from a total of 65,869 births (Health Services Executive 2017). This year on year increase in caesarean section rates, is reflective of international trends of increasing intervention rates in contemporary maternity care. These changes are occurring in conjunction with international concerns that societal confidence for physiological labour is declining. Nyman (2015) suggests that increased interventions during childbirth, pose numerous difficulties for practising midwives supporting normal physiological labour. According to Downe (2016) midwifery knowledge at its best, recognises unique normality and physiological childbirth as well as the formal midwifery evidence-base. In response to the aforementioned concerns, a community midwife working within the DOMINO and home birth services designed and produced a framework entitled 'labour hopscotch' in 2015 which supports both normal physiological birth and evidence-based midwifery practice.

**Aims/Objectives:** To ascertain the benefits that can be gained for women that use the labour hopscotch framework during childbirth. To generate knowledge about women's experiences of the different options offered as part of the hopscotch framework. To gain an understanding of birthing partners perspectives of the framework. To explore midwives' experiences of supporting women during childbirth with the labour hopscotch framework. To identify, if the introduction of the labour hopscotch framework has influenced women's decision to have an epidural during childbirth. To ascertain the rate of epidurals in the group of women who utilise the Labour Hopscotch and compare to the general population. To identify any improvements necessary to the labour hopscotch framework based on women and midwives' perspectives.

**Implementation/Methods:** The study was conducted over an 18-month period commencing in September 2016, the study design is a mixed-method approach utilising an outcome survey instrument and focus group meetings to obtain data. The survey instrumental tool was developed, tested and piloted by the research team. The survey design included several open questions and offered participants an opportunity to provide detailed accounts of their experiences. Following the pilot study, which included 100 participants, an output evaluation survey was conducted with 809 completed responses returned. Descriptive and inferential statistics were conducted on the data collated. An inductive, data-driven content analysis approach was utilised to interpret the qualitative data obtained. Following the survey, a focus group meeting was held with midwives and student midwives to evaluate their experiences of the processes involved in the current implementation and provision of the labour Hopscotch framework in the NMH. Content analysis was utilised to interpret the data.

**Results/Outcomes** In total 94% of participants stated they found the labour hopscotch useful, 72% of participants reported they were confident or very confident to stay home and utilise the Labour hopscotch to cope with early labour. 79% of women were supported throughout the stages of the labour hopscotch framework during childbirth by their birth partner. 40% of participants stated the labour hopscotch framework influenced their decision-making around pain relief methods during childbirth. Choice of model of care, birth type, and age were significantly associated with receiving an epidural. Midwives find the labour hopscotch useful as a framework to support women during childbirth.

## "Im afraid of upsetting them further" Student midwives' education needs in relation to bereavement care

**Presenter:** Sarah Cullen

**Background:** Caring for families at the time of stillbirth, neonatal death or miscarriage can be a challenge for midwives. Student midwives and newly qualified midwives often report feeling too protected during their training, and therefore lack the confidence needed to communicate properly with grieving parents. This led to the development of a Workshop on Bereavement Care focusing on the needs of Students to support their confidence in this important area of midwifery practice.

**Aims/Objectives:** To improve student Midwives' confidence to provide bereavement care to parents following pregnancy loss and perinatal death.

**Implementation/Methods:** A longitudinal sequential mixed-methods design was used to evaluate the outcome and processes of participation in the Workshop. 38 students completed two questionnaires at three-time intervals. The outcome evaluation was completed using two focus groups. This project received ethical approval, confidentiality was maintained, and informed consent was given by all participants.

**Results/Outcomes:** The experience of attending the workshop was positively evaluated by the student midwives and the role plays were deemed the best part of the day. Participation in the Education Training Workshop on Bereavement Care helped increase student midwives' confidence to provide bereavement care to grieving parents and to increase their self-awareness around their clinical practice in this area. Lack of exposure and support from mentors and senior staff was seen as the largest barrier to gaining further confidence.

### **Conclusion:**

This workshop is now integrated into the midwifery curriculum (BSc Midwifery Degree and HDip Midwifery Programs) in UCD. As it is cross-transferable, it is proposed that this workshop may be modified and used for the training of other members of the multi-disciplinary team

## Oxytocin regime dose and actual dose: Is there a difference?

**Presenter:** Dr. Martina Murphy

**Background:** There is no consensus on the appropriate oxytocin regimen used to treat the component of dystocia due to inefficient uterine action (IUA) (dysfunctional labour) in spontaneously labouring, single cephalic, nulliparous women at term (SSCNT). Studying the total oxytocin dose given, together with the fetal and uterine response in addition to labour outcome may help identify the optimum oxytocin regimen to treat inefficient uterine action in SSCNT.

**Aims/Objectives:** To investigate the dose of oxytocin given to SSCNT over the duration of labour, using a standardised oxytocin regimen, and assess the fetal and uterine response in addition to the overall labour outcome.

**Implementation/Methods:** This was a single institution prospective cohort study of 905 SSCNT. A standard management of labour (Active Management of Labour) was applied. Diagnosis of dystocia presumed to be due to IUA (defined as cervical dilatation < 1 cm/hour over 2 hours in the first stage of labour and in the second stage by a lack of rotation and descent over 1 hour) was treated with oxytocin. The oxytocin regimen used started at 5mu/minute with a maximum dose of 30mu/minute. All caesarean deliveries (CD) were classified according to a standard classification for intrapartum CD.

**Results/Outcomes:** Dystocia was diagnosed in 59% of SSCNT women. The overall CD rate was 6.7% (61/905) and 10.0% (53/532) in those women that received oxytocin.

Of the oxytocin given in the first stage of labour 94% (403/426) was given at a cervical dilatation of  $\leq 4$  cm and 16% (68/426) received the maximum possible regimen dose within 90 minutes.

Women classified by CD for fetal intolerance) were intolerant to oxytocin at a much lower dose than those classified as poor response. Women who were classified as over-contracting did not reach the maximum regimen dose over their labour but the fetus showed no signs of intolerance. There were no perinatal deaths in this study and no significant differences in neonatal outcomes between those who received oxytocin and those who did not.

**Conclusion:** The effects of a given dose of oxytocin to any woman or fetus range from no effect, uterine tachysystole, hyperstimulation to fetal intolerance; this is demonstrated in this study by the variation in the dose of oxytocin given to all women and to each group of women in the CD classification.

This method of audit of oxytocin dose given, uterine and fetal response together with labour outcome could be replicated in other centres to inform the debate about the optimum regimen for administration of oxytocin may be in treatment of dystocia due to inefficient uterine action (dysfunctional labour) in SSCNT.

## From the grass roots, how research with midwives helped shape perinatal mental health service development

**Presenter:** Deirdre Madden

**Background:** At the time research began there were few guidelines in place to support midwives identifying and referring women for help to the Specialist Perinatal Mental Health Service (SPMHS), leading to a low threshold for referrals, which may have been contributing to the moderate Did Not Attend (DNA) rate.

**Aims/Objectives:** To identify and develop midwives' skills to support women with mental health needs during the perinatal period.

**Implementation/Methods:** Action research was chosen as the initial focus was very much on a practical problem, i.e. moderate DNA rate, which required change to clinical practice, i.e. low threshold for referring women to the SPMHS. Three co-operative inquiry workshops, generated new knowledge about how midwives in one maternity setting, identify and support women with mental health needs during pregnancy. One key action plan was the development of a referral pathway to the SPMHS.

**Results/Outcomes:** The Midwives began to recognise the contribution their role has in relation to identifying and supporting women with perinatal mental health needs during pregnancy, but they all expressed uncertainty about when to refer women to the SPMHS. The process of the design of the referral pathway, alongside brief education about the use of open-ended questions, improved the midwives' confidence in opening conversations about mental health with women.

**Conclusion:** The referral pathway has been implemented in the maternity setting and has been used alongside brief education to support referrers and has successfully reduced the DNA rate to the SPMHS. There were key educational findings that emerged alongside the development of the pathway which was adapted for the national model of care.

## “Centering Breastfeeding “- An approach to increasing the duration of breastfeeding at The National Maternity Hospital, Dublin

**Presenter:** Denise McGuinness

**Background:** The protection, promotion and support of breastfeeding is of major public health interest. Despite research advocating the many benefits of breastfeeding for mothers and babies. Ireland, unfortunately reports the lowest breastfeeding rates in the world (Perinatal Statistics Report, 2014). While breastfeeding rates are increasing at discharge from the maternity setting, this is not sustained at 3 months following birth. The National Maternity Strategy (2016-2026) identified a lack of breastfeeding support for women both in hospital and the community setting. Breastfeeding clinics and support groups provide a positive breastfeeding culture and support mothers to continue breastfeeding.

**Aims/Objectives:** The aim of the breastfeeding clinic is to ensure that women attending The National Maternity Hospital are supported as they establish breastfeeding. The objectives are to: Increase women’s awareness of the importance of breastfeeding for both mother and baby; Increase and Improve breastfeeding duration rates; Identify early challenges to breastfeeding and offer solutions to ensure that women reach their breastfeeding goals; Create a supportive and facilitative learning environment

**Implementation/Methods:** The Clinical Midwife Specialists in lactation pioneered a Postnatal Breastfeeding Specialist Clinic at the hospital whereby following discharge mother and baby (and partners) are encouraged to return to the breastfeeding clinic at the hospital, should they experience any breastfeeding challenges. Expert clinical breastfeeding support is provided by Midwives who are International Board Certified Lactation Consultants (IBCLC). Each mother receives a one to one consultation with the Lactation Consultant (IBCLC), within a group session. This mirrors a “Centering” *Breastfeeding* approach where a breastfeeding mother can receive individual clinical expertise by the lactation specialist; in addition to peer support. Challenges that arise during the course of breastfeeding are identified and women are supported to continue breastfeeding. This clinic is available up to 6 weeks following the birth of a baby.

**Results/Outcomes:** During 2017 829 women attended the Breastfeeding Clinic. The main reasons that women attended the clinic are as follows: sore breasts, sore nipples and baby weight issues. The breastfeeding specialist clinic at The National Maternity Hospital supports increased duration of breastfeeding in Ireland.

**Conclusion:** The implementation of a Breastfeeding Specialist Clinic at The National Maternity Hospital has resulted in increased breastfeeding initiation and duration rates among this cohort of women. The Health Service Executive is committed to increasing breastfeeding rates within Ireland, therefore, it is suggested that mirroring this initiative nationally will ensure that Ireland’s breastfeeding rates do not remain on the lowest International scale.

## PRIME Project

**Presenter:** Lorraine O’Hagan

**Background:** PRIME - Preterm Infants Need Milk Early - is a multidisciplinary quality initiative to improve the early provision of mother’s milk for preterm infants.

**Aims/Objectives:** The aim of the study was to increase the number of high-risk infants receiving mother’s milk in the first day of life in the NICU at NMH.

**Implementation/Methods:** Retrospective review of the time to first MM for infants born < 32 weeks and < 1500 G in 2016.

Cross sectional survey to evaluate the knowledge and attitudes of staff towards breastmilk for preterm infants.

Development of educational sessions - formal and informal - for all clinical hospital staff, posters hospital wide and a booklet for mothers of preterm infants with the key message: 7 steps for the first 7 days.

Lactation team and NICU medical staff working together and meeting with mothers of a preterm infant before delivery if possible and as early as possible following delivery.

Regular team meetings.

**Results/Outcomes:** 2016 data showed median time to 1<sup>st</sup> MM was 35 hours with 34% of infants receiving MM in the 1<sup>st</sup> 24hrs of life. 2018 data results (May to October) showed that following the intervention the median time to infant receiving first MM was 17hours with 76% of babies receiving MM in first 24hours.

**Conclusion:** Initial results of this hospital wide QI initiative indicate the time to preterm infants receiving mother's milk has halved. Further PDSA cycles are indicated to ensure ongoing improvement.

## Too posh to pee – An 11 year audit of postnatal voiding dysfunction in a tertiary maternity unit

**Presenter:** Linda Kelly

**Background:** The prevalence of voiding dysfunction in the postnatal period varies widely as indeed does its definition.

**Aims/Objectives:** The aim of this study was to assess the prevalence of postnatal voiding dysfunction requiring the patient to use clean intermittent self-catheterisation (CISC), and to evaluate the intra-partum risk factors for such an event. The duration of voiding dysfunction was also studied.

**Implementation/Methods:** We analysed all postnatal patients referred to the urogynaecology department with postnatal voiding dysfunction. This was defined as persistently high post-void residuals (PVR) on bladder ultrasound. In the first 3 years of the study, some of these patients had a supra-pubic catheter inserted, but since 2009 the treatment has been CISC taught by the advanced midwifery practitioner/clinical midwife specialist (AMP/CMS). Patients were followed up by telephone and structured appointments with uroflowmetry.

**Results/Outcomes:** 63 women were referred to the urogynaecology service over the 11 year period. Of these 48 were taught CISC and 15 had a supra-pubic catheter inserted. As the average number of deliveries per annum was 9,500 births, this represented an incidence of 0.06%. 3 referrals came from other units. The median in days for resolution of the voiding dysfunction was 12 days (range 1-120). There were no complications from CISC. Three patients had voiding dysfunction on successive deliveries. Two of the 3 patients referred from other units had long term voiding dysfunction, one of which was treated successfully with a sacral nerve stimulator. The main risk factors associated with voiding dysfunction were nulliparity, epidural usage and instrumental delivery.

**Conclusion:** Due to an increased awareness amongst postnatal staff and early referral to the AMP the incidence of voiding dysfunction in our unit is low. Early detection of voiding dysfunction prevents bladder atony and CISC is well tolerated by most patients. Increased vigilance is required in the nulliparous woman with an epidural block.

## Introduction of Neonatal Metrics

**Presenter:** Shirley Moore

**Background:** Metrics are a tool used to audit practice and documentation in the healthcare setting and involves reviewing patient charts and clinical areas at regular intervals to identify areas that require improvement and are recognised as high risk for the occurrence of errors. Quality elements were identified to include key aspects of care and documentation, medication storage and administration based on the HSE Report (2014) on the Development and Implementation of Metrics System, which focused on the adult nursing and midwifery services. These elements were allocated a score based on compliance and a total of 10 randomly selected metric reviews were undertaken monthly giving an overall metrics compliance percentage.

**Aims/Objectives:** The aim of introducing a neonatal metrics system is underpinned in the deep seated objective of improving quality of care and prevention of avoidable errors at the frontline of neonatal care. The patient cohort is recognised as one of the most vulnerable and morbidities can carry lifelong consequences. Identification and quality improvement initiatives based on the metrics system essentially will reduce errors and iatrogenic morbidities.

**Implementation/Methods:** A 55 element metrics system was developed to include observations, identification, nutritional assessment, infection control, tissue viability, documentation, medication administration, prescription assessment, medication storage, pain management and resuscitation equipment. The system was introduced in September 2015 with each element scored as compliant, partially compliant, non-compliant or not applicable.

**Results/Outcomes:** Metrics were assessed on a monthly basis with compliance scored 89-95%. Results were disseminated to staff at monthly unit meetings and quality improvement initiatives were introduced to improve compliance. These include infection control measures such as individual incubator holders for alcohol gel. Regular spot checks are carried out to ensure babies have two ID bracelets in place or visible within the incubator for extremely premature infants. Reminders to staff were discussed at the monthly meetings and also documented in the communication book.

**Conclusion:** The metrics system provides a robust audit tool to highlight areas or issues that require improvements. Compliance with elements identified to eliminate or reduce error leading to mortalities can only improve quality of care offered to patients.

## An audit of specialist midwifery led lifestyle modification intervention, E-Health support and gestational diabetes mellitus (GDM) clinical care and management of diabetes in pregnancy

**Presenter:** Ciara Coveney

**Background:** Gestational diabetes is defined as any degree of glucose intolerance of variable severity with first recognition or onset during pregnancy. GDM is associated with short- and long-term adverse outcomes of hyperglycaemia in pregnancy including increased incidences of fetal macrosomia and type 2 diabetes for both mother and infant. Glycaemic control is a pivotal factor in combating the adverse effects associated with poorly controlled GDM.

**Aims/Objectives:** Diabetes specialist midwifery care in pregnancy aims to optimise glycaemic control and improve the woman's self-care ability through education and clinical support.

Objectives – To:

- 1- Assist women to achieve normal blood glucose levels

- 2- Assess maternal lifestyle intervention outcomes (i.e mode of delivery, maternal weight and commencement on pharmacological therapy)

Assess fetal outcome with reference to fetal macrosomia and birth weight >4.0kg

**Implementation/Methods:** Lifestyle intervention – education on management of GDM

E-health care

Diabetes midwife led GDM clinic

**Results/Outcomes:** Euglycaemia achieved using lifestyle intervention was 62.8% of 683 women with GDM

17.3% of 683 women required pharmacological therapy.

Just over 50% of patients had a SVD (n=346). 31.8% had a caesarean section (n=213).

81.8% of babies delivered had a birth weight less than 4kg. Macrosomia (>4kg) equalled 18.2% of this cohort and was associated with raised maternal BMI.

**Conclusion:** Diabetes midwifery led GDM management a successful treatment modality for under two thirds of women attending the diabetes midwifery service from January 2015 to December 2016.

The importance of lifestyle modification to prevent complications in pregnancy and longitudinal adverse outcomes is an essential component of the treatment of GDM.

## Importance of audit in the development of an Emergency Department

**Presenter:** Anitha Baby

**Background:** Emergency departments are high pressure environments, focused on delivering care in the most efficient manner. Clinical audits and ongoing monitoring of quality and safety data and key performance indicators are vital in providing quality care within the maternity service

**Aims/Objectives:** To analyse current practice with agreed standards

To identify need for change based on best evidence-based practice

**Implementation/Methods:**

Ongoing audits

Review of services

Patient satisfaction survey

**Results/Outcomes:**

- Numbers attending for emergency maternity care have increased in numbers and in variety of presentations
- Ongoing audits have highlighted areas for improvement.
- Audit highlighted aspects of practice is in accordance with guidelines

**Conclusion:**

Clinical audit and ongoing monitoring of quality and safety data is essential to continually drive improvements in the quality of the care provided within the maternity service. Through ongoing audits and research, we aim at providing high quality maternity healthcare; care which is safe, evidence-based, appropriate, timely, efficient, effective and equitable. Safety is fundamental to quality healthcare and the emergency services we provide is aimed to deliver safe care while balancing competing pressures in a dynamic and complex environment.

# MN-CMS Training and evaluation of the User experience of readiness

**Presenters:** Sive Cassidy and Molly Vinu

**Background:** The Maternal and Newborn Clinical Management System (MN-CMS) is a National electronic patient record for all Maternity Services in Ireland. NMH is one of the phase 1 sites currently live with this record. Training of staff to electronically document the care they deliver within this new system was a challenge to both the culture and resources available within the hospital. A local training strategy was developed within an agreed national approach

**Aims/Objectives:** The aim of this study is to explore the understanding of our staff on the rationale for implementing this system, evaluate their feelings of readiness and confidence to transition from a paper based patient record to electronic documentation. This included electronic lab requests, collection of specimens, reviewing results, prescribing and administration of medications, fetal monitoring, theatre procedures and blood product administration.

**Implementation/Methods:** The training strategy and preparation for Go-Live was developed to be delivered over the short time frame of less than 4 months, with a core team of 10 Trainers Evaluation of the training was collected by means of an audit questionnaire completed by staff at the end of their training course.

**Results/Outcomes:** A post training evaluation questionnaire was developed and distributed to all staff who attended formal training sessions. 471 evaluations were returned out of 780 staff trained.

This was evaluated using themes of staff feeling of readiness following training, rationale for implementing the change, and staff identification of areas where they felt further education was required

**Conclusion:** The Training strategy used for MN-CMS training at the National Maternity Hospital was perceived as positive and of value to the staff. Most of our colleagues viewed the introduction as a positive change. User feedback provides the basis for on-going support and improvements to the system

## Notes:

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