Coombe Women & Infants University Hospital
Ospidéal Ollscoille Ban agus Náionán an Chúim

Excellence in the Care of Women and Babies
Foirfeacht i gCúram Ban agus Naíonán

Annual Clinical Report

2018

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Coombe Women & Infants University Hospital

Ospidéal Ollscoile Ban agus Naíonán an Chúim

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Foirfeacht i gCúram Ban agus Naíonán

ANNUAL CLINICAL REPORT 2018

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Acknowledgements

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Ms Emma McNamee
Ms Julie Sloan
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Introduction from the Master

Introduction from the Master

Welcome to this year's Annual Clinical Report

In 2018, as a tertiary-referral university-teaching Hospital, we cared for 8827 mothers, 8330 infants weighing ≥500g and operated on 6180 women. The corrected perinatal mortality rate was 2.65/1000.

Our mission of "excellence in the care of women and babies" remained central to all activity at the Coombe and I wish to acknowledge the tremendous efforts of every member of staff throughout the year. We continued our focus on patient-centred care and our staff worked tirelessly to deliver this. It was a year filled with challenges and opportunities, with increased demand for care, greater patient complexity, ongoing staff shortages, restricted budgets and a continued public focus on maternity and gynaecology services. I wish to express my gratitude to our team of medical, midwifery and nursing, allied health professionals, support and administrative staff who worked together to ensure that we delivered safe, high-quality care to our women, babies and their families.

Nicknamed "The Beast from the East", Storm Emma pounded the country with severe weather conditions in February, and caused significant disruption to our elective activity. Patients and staff alike faced challenging and often hazardous journeys to get to the Hospital. Our staff demonstrated immense resilience, dedication and commitment to ensure that our women, babies and indeed each other received the care and attention they needed. I would like to acknowledge all of the people involved in keeping the Hospital running so smoothly during those difficult days.

Once again, the Senior Management Team played a central role in ensuring the safe and smooth running of the Hospital and I would like to thank them for their dedication, diligence and commitment; Mr Patrick Donohue, Secretary and General Manager, Ms Ann MacIntyre, Director of Midwifery and Nursing and Mr John Robinson, Financial Controller. I am so fortunate to be surrounded by such a dedicated and hard-working team and I cannot thank them enough for their support, encouragement and energy. I would like to sincerely thank Ms Vivienne Gillen, Operations/Hygiene Services Manager, for her dedication and support throughout the year.

I would like to express my gratitude to Ms Laura Forde, my PA, for her hard work and support throughout the year. This Annual Clinical Report is only one part of the year's work that would not exist without Laura's assistance and I would like to thank her most sincerely for her commitment. I would also like to thank Ms Emma McNamee, Ms Mary Holden and Ms Julie Sloan for their dedication, diligence and attention to detail in providing so much of the data for the report and throughout the year. I am deeply indebted to each of them.

The Hospital is governed by a Board of Guardians and Directors, chaired by Mr John Gleeson. Throughout 2018, they worked tirelessly, on a completely pro bono basis, advocating for women, infants and families, and supporting the Hospital in too many ways to list. I wish to extend my sincere thanks to each of them for their support and their expertise.

I also wish to acknowledge the huge support and commitment of the Management Executive, the Divisional and Departmental Heads and all of the members who serve on the various committees (both internal and external) which are central to the running of the Hospital.

In March, Mr Tadhg O'Sullivan (IT Manager) retired after many years of service at the Coombe. Tadhg had been instrumental in developing the electronic patient record for maternity patients in addition to providing in-depth IT expertise over the years on a wide range of projects both locally and nationally. We also said farewell to Ms Margaret Mason, Physiotherapy Manager, who retired in April after 36 years in the Hospital. Margaret not only provided her expertise to women and babies, but she was also extremely active in the Neonatal Support Group held monthly on Saturdays for parents whose babies had been discharged from the Neonatal Centre. Both Tadhg and Margaret witnessed huge changes in our services and were instrumental in advancing care for our patients. I would like to take this opportunity to thank them for their enormous contribution to the Hospital over the years and to wish them both every happiness in their retirements. I would also like to offer my congratulations to their successors, Ms Melissa Lawlor (ICT Manager) and Ms Anne Graham (Acting Physiotherapy Manager).

Dr Cliona Murphy, Consultant Obstetrician and Gynaecologist was elected the first female Chair of the Institute of Obstetricians and Gynaecologists during the year. This is a tremendous honour and I would like to wish Dr Murphy every success in this prestigious role.

We were delighted to welcome a number of new Consultant staff to the Coombe during the year; Professor Richard Deane, commenced in his substantive post and Dr Workineh Tadesse (Obstetrics & Gynaecology), Dr Mark Hehir (Obstetrics & Gynaecology), Dr Francisco Meza (Neonatology) and Dr Filip Sokol (Pathology) joined us as Locum Consultants.

I would like to congratulate Dr Eimear McSharry and Dr Gillian Corbett who served as Lead NCHDs throughout the year. It was a pleasure to work closely with these doctors and I wish to acknowledge the significant contribution each of them made in post.

Throughout the year, Friends of the Coombe continued to provide much-needed support to the Hospital. I wish to thank the Chair, Ms Ailbhe Gilvarry, Ms Liz Burke and all of the Board members for their commitment during 2018. I would also like to acknowledge the work of Coombe Care, a voluntary Committee which works closely with the Medical Social Workers of the Coombe Women & Infants University Hospital to provide much needed support to those mothers and families most in need of assistance.

A most interesting fact was brought to our attention in relation to the past Masters of our Hospital. We were alerted to a gap in our history by Mr Brian Eric Sean O'Hara from Lincoln, UK. Mr O'Hara, on researching his ancestors, discovered that his great great grandfather, Dr Charles Joesph O'Hara, had served as Master of the Coombe although we had no record of this. Mr O'Hara provided us with copies of newspaper articles and journal articles supporting Dr O'Hara's appointment. It would appear that Dr O'Hara served as Master following the resignation of Dr Thomas McKeever in 1835 but then sadly died in September that same year. I would like to thank Mr O'Hara for bringing this important information to our attention and to Professor Bernard Stuart, retired Consultant Obstetrician & Gynaecologist, Ms Ann Louise Mulhall, local historian, retired midwife and former Director of the Centre for Midwifery Education and Ms Harriot Wheeler, Keeper of Records, RCPI for their invaluable assistance. The Board of Guardians and Directors has formally acknowledged Dr O'Hara's position as former Master of the Coombe Lying-In Hospital.

Achievements and Challenges in 2018

2018 marked the third year of our Hospital's 5 year strategy which had been developed with the Board of Guardians and Directors and the Senior Management Team. This strategy continues to set the direction of the Hospital, underpinned by our commitment to our mission of "excellence in the care of women and babies", and our values of excellence in everything we do, respect, progressive, woman and baby-centred, caring and pride in what we do, and our vision to be a "nationally and internationally recognised leader in healthcare for women, babies and their families".

It was a year filled with inspections and accreditation visits. In February 2018, the Hospital underwent a Quality Assurance and Verification Division (HSE) Audit of Compliance with the National Clinical Effectiveness Guidelines on Clinical Handover in Maternity Services. Feedback from the audit was incredibly positive.

In April, the Ombudsman conducted a follow-up investigation to the "Learning to Get Better" report which had been launched in 2015. This report examined the complaints management system in the Acute Hospital System. The purpose of this follow-up investigation was to consider the level of progress made in implementing the recommendations from the report. The Coombe Women & Infants University Hospital had been visited as part of the initial review and was selected again to be reviewed as part of this investigation. The Hospital was found to be fully compliant with the recommendations.

The Faculty of Paediatrics conducted an inspection of the Hospital in July 2018. The Inspectors met with the Senior Management Team and members of the Department of Paediatrics and Newborn Medicine in addition to visiting the relevant clinical areas and praised the training opportunities provided to trainees.

Following on from the self-assessment on compliance with the National Standards for Safer Better Maternity Services with a particular focus on the Management of Obstetric Emergencies, an unannounced hospital inspection was conducted by HIQA in August 2018. During the inspection they met with the Senior Management Team, medical, nursing, midwifery and administrative staff, as well as visiting a number of clinical areas within the Hospital. As part of their inspection, a range of documentation was reviewed. Feedback at the time was positive and a full report is awaited.

In September 2018, the College of Anaesthetists conducted an inspection of the Hospital. The inspection involved meeting with the Senior Management Team, the Consultant Anaesthetists and NCHDs in addition to a tour of the Hospital facilities including clinical and non-clinical areas. The Inspectors commended the trainers for their commitment to training, audit and research and commented that the feedback from the trainees had been excellent in relation to their training at the Hospital. They did raise issues in relation to the proximity of the second-on-call bedroom to the Operating Theatre Department and the office space

available within the Operating Theatre Department. These issues will be considered while a full report is awaited.

The Hospital underwent a Medical Council Clinical Training Site Inspection in November 2018. The purpose of the visit was to inspect places of specialist training to ensure that the standards for training and experience are being maintained, across all disciplines. The Assessors met separately with Hospital Management, Consultant trainers in all disciplines, Trainees in all disciplines and also conducted a tour of the Hospital facilities, including on-call accommodation and training facilities. While a detailed report is awaited, feedback on the day from the assessors was very positive. They acknowledged the excellent training opportunities provided to trainees and the commitment of the Hospital and the Consultant trainers to trainees.

Later in November, the Hospital had an unannounced visit by the Environmental Protection Agency (EPA). The scope of the visit was in relation to "Licence Level Inspection". The Inspector was met by the Hospital's Radiation Safety Officer, Radiation Safety Committee Chairman, Master and Secretary & General Manager. During the course of the Inspector's visit he made four observations, for which the Hospital must put in place a Quality Improvement Plan, which it is now undertaking.

The Hospital's Laboratory Department underwent its annual inspection by the Irish National Accreditation Board in September and October (3 visits). The assessors commended the staff for the excellent standard of services provided and their well established quality systems. They have recommended accreditation for a further 5 years and I would like to acknowledge the hard work of all the staff throughout the year and to congratulate them on their success and continued accreditation.

Our Quality, Patient Safety and Risk Team worked tirelessly throughout the year and I would like to thank Ms Evelyn O'Shea, Quality Manager, Ms Anna Deasy, Clinical Risk Manager, Ms Michelle McTernan, Clinical Risk Manager and Ms Niamh Dunne, Patient Liaison Manager for their dedication and support in driving the quality, safety and risk agenda within the Hospital and also for the assistance that they provide to all staff. The team continued in their structured approach to engage with women, staff and leadership to develop, deliver, implement and evaluate a comprehensive quality, safety and risk programme to provide assurance regarding our delivery of person-centred, high-quality care in the Hospital.

LEAN methodology continued to be employed by staff with many more staff achieving qualifications in this area of quality improvement. In addition, a number of quality improvements were undertaken within the Hospital throughout the year which demonstrated great results. I would like to express my gratitude to all of the staff for their tremendous teamwork on these Quality Improvement Projects driving improvements in Obstetric Anal Sphincter Injuries (OASIs), Postpartum Haemorrhage (PPH), Caesarean Section Surgical Site Infections, Discharge Information for Gynaecology Patients, Catering Services for In-Patients and ER Check-In.

The revised Quality & Safety Leadership Rounds undertaken by the Senior Management Team continued to provide an opportunity for frontline staff to identify and discuss any quality and safety concerns that they have within the Hospital, and particularly within their specific department.

The Hospital successfully maintained compliance with the European Working Time Directive (EWTD) in relation to the 24-hour maximum shift, with non-compliance threatening unaffordable financial penalties. Recruitment of additional NCHDs, changes to NCHD rosters, and further development of formal handovers helped to alleviate some of the challenges associated with achieving compliance with the 48-hour week limit. I would like to thank the NCHDs, Consultants, Midwives and Nurses who played a vital role in helping us achieve compliance while maintaining a safe and high-quality service for our patients.

Staffing recruitment and retention across midwifery and nursing staff remained a major focus throughout the year, with a much welcomed uplift in appointments towards the latter part of the year as a number of new midwives from Italy and Spain joined our staff. The Hospital continued to advertise on the website and in national and international journals and also attended recruitment fairs both at home and overseas. The measures introduced in the previous year of additional Healthcare Assistants, Portering Staff, Administrative Staff and Phlebotomy services continued to help alleviate the midwifery and nursing staff pressures. Close and continued monitoring of staffing levels across all sectors will continue in 2019.

In recognition of the ongoing need for investment in our infrastructure, a number of refurbishment and upgrading works were completed throughout the year, including essential upgrades to our electrical plant, CSSD refurbishments, upgrading of St Monica's Ward and the continued redevelopment of the Coombe Education Centre. The dedication and teamwork displayed by all involved in this project allowed us not only to complete the works on time, but to do so while maintaining a full and safe service for our patients.

Other areas of the Hospital, including the Main Outpatients Department, the Neonatal Centre, St Patrick's Ward have been prioritised for refurbishment and development and despite not receiving funding in 2018, it is hoped that funding will be secured in 2019. A commitment to advancing the Operating Theatre redevelopment to Design Stage was secured towards the end of the year and I look forward to progressing this in the New Year, in tandem with the Laboratory and Women's Health Unit expansions.

Throughout 2018, the three Dublin Maternity Hospitals continued to meet formally through the Joint Standing Committee of the Dublin Maternity Hospitals. I would like to thank Mr Don Thornhill, Chairman for his leadership and expertise.

We continued to work closely with the Dublin Midlands Hospital Group throughout the year and I would like to sincerely thank Mr Trevor O'Callaghan who took over as Group CEO from Dr Susan O'Reilly on her retirement. I would also like to express my gratitude to our other colleagues in the Group and the HSE for their support to the Hospital.

Our Services

Throughout the year, patient complexity continued to increase, and I would like to express my gratitude to the Consultants, NCHDs, Midwives, Nurses, Healthcare Assistants, Allied Health Professionals, Support Staff and Administrative Staff who enabled the Coombe to meet the demands of complex care.

Attendances at our Antenatal Clinics and Perinatal Centre grew significantly during the year, in addition to the expansion of our Community Clinics. The Perinatal Ultrasound and Fetal Medicine Departments continued to provide diagnostics of the highest quality, particularly for babies with complex congenital anomalies including cardiac disease because of our close proximity to Our Lady's Children's Hospital Crumlin and the all-island service, extending our services to include mothers and babies from the North of Ireland, continued to flourish.

We continued to provide the busiest dedicated consultant-provided Maternal Medicine Clinic in the country in 2018 with multidisciplinary specialists from the Coombe, St James's and Tallaght Hospitals providing a regional and national service to mothers with serious co-morbidities. The demand for maternal medicine input has increased and we will need to resource the services and personnel required to support a full service across our Hospitals.

Staff on the Delivery Suite focussed on delivering 1:1 care and drove continuous quality improvements throughout the year. Birth Reflections continued to develop in 2018 under the direction of Ms Ann Fergus, aimed at women planning delivery or who have delivered within the past year. The feedback from women remains incredibly positive since its introduction. Women continued to use the pool on Delivery Suite for labour and delivery as part of the Water Immersion Study (WIS) during the year. I would like to thank Dr Aoife Mullally, Labour Ward Lead, Ms Nora Vallejo, Ms Ann Fergus and Ms Fidelma McSweeney and all of the staff of the Delivery Suite and Maternity Floors for their tremendous work during the year.

Throughout 2018, the Neonatal Intensive Care Unit continued to provide highly specialised care to the smallest and youngest babies born not just here in this Hospital but who were transferred from other units around the country who did not have these facilities. We continued to partake in the National Neonatal Transport Service and looked after 115 very low birth weight infants (<1500g). I would like to thank Dr John Kelleher, Director of Paediatrics and Newborn Medicine, Ms Bridget Boyd, Ms Mary Ryan, Ms Mary O'Connor, Ms Anne O'Sullivan and all of our Neonatal Staff for their continued hard work and dedication.

We continued to provide a most extensive Surgical Gynaecology Service throughout the year and more than ever, due to increased demand for Gynaecology Services, we remain committed to expanding our capacity at the Coombe. These waiting lists remained at an unacceptable level, with demand far-outstretching capacity. Validation of waiting lists made significant inroads in reducing unnecessary appointments, reducing DNA rates and overall freeing up much needed capacity. The Hospital's Gynaecology Waiting Lists are collected by the National Treatment Purchase Fund and reported nationally, however NTPF funding in 2018 focussed on Theatre Waiting Lists rather than Outpatient Waiting Lists. It is hoped that this funding will be extended to Outpatient Services next year.

Throughout the year, we were delighted to continue our expanded Outpatient Gynaecology Clinics to care for patients who were waiting the longest for care. In addition to these clinics, we continued our Ambulatory Hysteroscopy Service. Feedback from patients and staff has been extremely positive.

We were delighted to receive confirmation towards the end of the year of funding for two new Consultant Obstetricians and Gynaecologists. Recruitment of these crucial posts will begin in the New Year. Progression of the plans for the new Theatre Development remains essential to increase the overall capacity for Gynaecology. We welcomed the commitment from the

HSE and DOH to the development.

We continued to liaise with a number of GPs to progress plans for the rollout of a GP-led Clinic within the Hospital. Such clinics would help to alleviate existing pressures on the Gynaecology Outpatient Services, ensuring that women whose care could be managed at the Primary Care level, would have access to those practitioners with a particular interest in Gynaecology, and thus the patients remaining on waiting lists for Consultant care are those that require Consultant care.

The Strategy for Gynaecology at the Coombe Women & Infants University Hospital forms an integral part of the overall Hospital Strategy. It is fully aligned to the mission of "excellence in the care of women and babies", and is underpinned by the Hospital's core values. Consistent with HSE and HIQA Standards, the National Maternity Strategy and the National Women & Infants Health Programme, the Gynaecology Strategy has focussed on access to effective care, seeking to ensure that the woman is seen by the right person, in the right place at the right time.

A sustainable and effective model of care is required, where the increasing demand for care can be met, and the risks associated with waiting for care are eliminated. The strategy therefore looks not only at current demands, but also looks to the future to address how the growth in demand will be matched. A multi-faceted approach has been adopted, one which addresses the current waiting lists but importantly, also prevents the accumulation of further waiting lists.

Ultimately, the strategy seeks to ensure that all national targets for outpatient and inpatient waiting times are achieved. It must start by clearing the backlog of patients waiting, while simultaneously developing capacity to prevent the re-accumulation of waiting lists. It is underpinned by appropriate staffing, training and infrastructure. It focuses on four key areas, with each of these priorities requiring investment: referrals, Outpatient Services, Ambulatory Gynaecology and Gynaecology in-patients and day-cases.

Working closely with the Dublin Midlands Hospital Group, the National Women and Infants Health Programme and HSE Estates, the Coombe Women & Infants University Hospital has developed a comprehensive suite of measures to successfully deliver a world-class, woman-centred model of care for gynaecology and cervical disease. Critical to this is the redevelopment of the Operating Theatre Department at CWIUH, endorsed by HIQA following their inspection in 2015, in addition to a 2nd floor extension to the Women's Health Unit and Consultant expansion. Cognisant of the need to establish Termination of Pregnancy Services in Ireland in 2019, the investment in the development of this world-class facility at the Coombe to include the National Cervical Screening Centre is both time-sensitive and imperative. The refurbishment of the Operating Theatres and the expansion of existing Ambulatory Gynaecology Services at CWIUH are essential to meet the needs of the National Cytology Centre as even more women will seek to access care here.

There remains an urgent requirement to secure additional resources in terms of staffing and equipment and the Hospital will continue to work with the DMHG and the NWIHP in this regard. Approval for further Consultants, in addition to Nursing and Administrative Staff, will be sought.

I wish to thank Professor Tom D'Arcy, Director of Gynaecology, Dr Terry Tan, Director of Peri-operative Medicine/Anaesthesia, Professor John O'Leary, Director of Pathology, Ms Frances Richardson, Ms Alison Rothwell, Ms Clare Smart, Ms Martina Ring and all of the staff who continue to build our extensive Gynaecology and Laboratory services.

As a leading Hospital for research in all aspects of women and infants' healthcare, our focus on research and innovation continued throughout 2018. The Research Laboratory at the Coombe maintained its international reputation for cutting edge molecular medicine with grant income in this area exceeding €50 million over the past number of years. I wish to acknowledge the vital role that all of our Academic leaders and partners play in maintaining research and education high on the Hospital's agenda.

Other important events in the Coombe Calendar

Education & Training

Education, one of the key pillars of the Coombe, remained a priority in 2018 with the Hospital hosting a number of conferences throughout the year.

To celebrate national Health & Social Care Professionals Day in February, an afternoon of research and discussion was held in the Hospital. Organised by Ms Fiona Dunlevy, Dietitian Manager and Ms Tanya Franciosa, Senior Medical Social Worker, a number of Health and Social Care Professionals presented their research within the Coombe. Health and Social Care Professionals within the Hospital include Physiotherapy, Audiology, Radiography, Medical Social Work, Phlebotomy, Medical Scientists, Clinical Biochemistry, Clinical Measurement, Clinical Engineering and Dietetics.

A Midwifery and Nursing study day was organised in May to celebrate International Day of the Midwife. "Coombe midwives leading the way with Quality Care: Past, present and future" showcased the superb work of our Midwives and Student Midwives.

A Maternal Medicine meeting took place in June in the Durkan Lecture Theatre, Trinity Centre for Health Sciences, St James's Hospital entitled "The Challenges of Managing the Sick Pregnant Woman in the General Hospital Setting". This meeting organised by our Maternal Medicine Team focussed on the challenges of managing the sick pregnant woman in the General Hospital setting and in standalone Maternity Units.

The Annual Guinness Lecture Symposium was held in October and I would like to thank Dr Michael O'Connell who organised the symposium which celebrated 10 years of Addiction and Infectious Diseases Services at the Coombe Women & Infants University Hospital. Professor Stephen Lindow, Division Chief of Obstetrics at Sidra Medical and Research Centre, Qatar, delivered the Hospital's 46th Guinness Lecture entitled "Domestic Violence and the Obstetrician" which was most informative and thought-provoking. It was a pleasure to welcome Professor Lindow and his wife to the Hospital.

This year's Annual Prematurity Symposium, to mark World Prematurity Awareness Week, took place in November, focussing on Stress and Pain. In addition to this symposium, a number of other events were held including a tea party for parents of babies in the Neonatal Centre and a "Graduate Gathering" for families of babies who have been discharged home from the Neonatal Unit.

Annual Service of Remembrance

The Annual Service of Remembrance was held in April for the families of those who have been bereaved. I would like to thank all of the members of the Bereavement Team for their dedication and compassion in organising this event and in supporting families and indeed staff throughout the year.

Cultural Events and Health & Well-being

Raising awareness of the importance of Workplace Health and Well-being remained a key focus of the Hospital in 2018, with numerous events organised to encourage and support staff to stay healthy, eat well and exercise. I would like to thank and congratulate all of the staff involved in the Health and Well-being Committee during the year for their enthusiasm, energy and determination.

The Galway Cycle took place from 6th - 8th April, to raise funds for the Friends of the Coombe to support the Hospital to provide hospice-style care by creating a family-friendly home-away-from-home environment to afford bereaved parents both comfort and dignity. Established in 1987 by a group of students at St Patrick's College Maynooth as a way of raising money for charity, this year was the 31st year of the Galway Cycle. Approximately 140 cyclists took part in the Cycle from Maynooth University to Galway on 6th April and back again on 8th April with hundreds of volunteers collecting money along the route and in Galway City. The event raised a phenomenal €106,000 and I would like to extend a heartfelt thank you in particular to the Fahey family who nominated us to be the Charity Partner of this incredibly special event, in honour of their baby Tom who had been cared for by the Coombe's Palliative Care and Bereavement Services. I would also like to acknowledge the President, Members and Supporters of the Galway Cycle, Friends of the Coombe, Ms Liz Burke, Ms Brid Shine and all of the staff and supporters of the Hospital who gave so willingly of their time and efforts to ensure the success of this partnership.

To celebrate our multi-cultural staff, a celebration "International Staff Day" took place during the year, showcasing cuisine from all over the world. Staff wore their national dress on the day and our Catering Staff, in addition to staff volunteers, prepared their local dishes to share with other staff. It was a tremendous success and I'd like to thank Dr Petar Popivanov and Dr Gillian Corbett for organising the event in conjunction with Mr Tom Dowling.

We were delighted to continue our partnership with Outlandish Theatre Platform who staged a number of events and workshops throughout the year.

In September, the Annual Friends of the Coombe Golf Classic, organised by Ms Liz Burke, was held in Killeen Castle Golf Club. It was a most enjoyable and successful day. I would like to thank Liz and the Friends of the Coombe for their continued invaluable support to the Hospital throughout the year.

Christmas brought lots of excitement to the Hospital, starting with the Christmas Tree Decoration Competition organised by Dr Gillian Corbett, Lead NCHD. All Departments were encouraged to decorate their trees with the theme of "Diversity" and I would like to thank the Chairman, Mr John Gleeson, and Board Member, Ms Mary Donovan, who visited each Department and assisted with the judging. Congratulations to the Dietetic Department who won first prize. Closer to Christmas, the landings and stairwells of the Hospital were filled with the sounds of the Coombe Choir, who had earlier in the year performed so well at the Workplace Choir National Competition. I would like to thank the Choir for their beautiful and uplifting voices.

National Context

Women and infants' services dominated the national, and indeed international news headlines for most of 2018.

Termination of Pregnancy Services

The work that had been undertaken by the Citizens' Assembly in 2017, followed through to the Referendum on the regulation of termination of pregnancy which was held on 25th May 2018. The resultant Yes vote (to repeal the Eighth Amendment) was monumental for Ireland. The Oireachtas promptly set about preparing legislation to regulate the termination of pregnancy, differently from the way in which it had been regulated under the 2013 Protection of Life During Pregnancy Act. The Government's proposed legislation will make terminations accessible within the first 12 weeks of pregnancy without restriction, and thereafter will make provisions for terminations based on the risk to life or health of the mother and on conditions likely to lead to the death of a fetus.

Acutely conscious of the need to develop and implement a robust model of care for these services across the country and to ensure the provision of safe, high-quality, sensitive and compassionate care to women, it is essential that the model seamlessly transitions across primary/community and secondary care settings. Committed to ensuring Termination of Pregnancy Services at the Hospital, the three Masters continue to engage with the National Women and Infants Health Programme, the HSE and the Department of Health to support the development and implementation of the services. In addition, the Institute of Obstetricians and Gynaecologists, GPs and other professional groups have been working hard to ensure the rollout of safe, accessible services. Extensive preparations are underway at the Hospital and we welcomed the WHO in December to deliver a Values Clarification course to staff. The commitment of staff to establish these services has been commendable.

The Hospital remains fully committed to providing Abortion Services under new legislation, the Health (Regulation of Termination of Pregnancy) Act 2018, which is due to come into effect on January 1st 2019. By late December, in the absence of a model of care, clinical guidelines or legislation, I believe this deadline to be unrealistic for the full range of services. In addition, no resources have been agreed. To ensure the provision of safe, high-quality, sensitive and compassionate care to women, we have agreed that these services would be provided when satisfied that the necessary resources have been put into place.

CervicalCheck

The National Cervical Screening Programme faced unprecedented challenges that began in April 2018 and have continued throughout the year. Initially two issues arose in relation to the programme including the reliability of Cytology and the communication with patients of the results of reviews conducted by the programme upon diagnosis of cervical cancer.

The Minister for Health established a Scoping Inquiry to ascertain the extent of the issues with the National Cervical Screening Programme, led by Dr Gabriel Scally. As the only public provider of Cervical Cytology in Ireland and to the programme, our Hospital was visited as part of the national CervicalCheck Scoping Inquiry in September.

Following the publication of the Scally Report in September, there has been a continued focus on Cervical Screening Services, including Cytology and Colposcopy. The Scally Report contained 50 recommendations relating to the Department of Health and HSE's method of approach in respect of document management and ensuring accountability, listening to the voices of women and families, CervicalCheck organisation and governance, CervicalCheck Laboratory services, procurement, audit, open disclosure and the HSE, Medical Council and CervicalCheck, cancer registration, other screening programmes and resolution. Dr Scally appeared before the Oireachtas Health Committee in October to discuss his findings and to outline plans for a further review in relation to the cervical screening programme.

In addition to further reviews by Dr Scally, an international expert panel review led by the Royal College of Obstetricians and Gynaecologists and the British Society for Colposcopy and Cervical Pathology is also underway and patients have been written to seeking their consent to participate.

The Hospital has seen exponential growth in the demands for Colposcopy and Cytology services, in addition to patient phone calls and attendances. We continued to provide services and vital education for the National Cervical Screening Programme (NCSS), thanks to our Colposcopy Unit, the Laboratory and the National Cytology Training Centre. The overall number of smear tests processed by the Laboratory in 2018 was in excess of 31,800, significantly increased from the previous year's total of 26,185. HPV triage for low grade abnormalities continued to expand and develop.

I would like to acknowledge the work performed by all of those involved in the Hospital in the delivery of work to the CervicalCheck programme. Increased

demands on both Cytology and Colposcopy services have persisted since April and the staff have continued to work tirelessly to meet these demands. In particular, I would like to thank Professor John O'Leary, Ms Martina Ring, Ms Mary Sweeney, Mr Stephen Dempsey, Professor Tom D'Arcy, Ms Olivia McCarthy, Ms Aoife Kelly and all of the Medical, Midwifery and Nursing, Laboratory, Administrative and Support Staff for their dedication and commitment. We will now consider the establishment of a National Cervical Screening Centre on the campus of the Coombe Women & Infants University Hospital, in tandem with the expansion of Women's Health Services here. Reassuringly, the HSE has recognised that investment in the development of women's care at the Coombe has never been more critical.

Vaginal Mesh

Towards the end of last year, concerns arose about the frequency and severity of complications associated with the use of mesh devices in the surgical treatment of Stress Urinary Incontinence (SUI) and Pelvic Organ Prolapse (POP) in women in Ireland; the regulation and audit of their use; the extent of use of these devices in Ireland and the availability of services for women affected by mesh-associated complications. A memo was issued on 27th July 2018 by Dr Colm Henry, Interim Chief Clinical Officer HSE, requesting that a pause be placed on the use of all procedures involving uro-gynaecological/transvaginal mesh implants for the management of Stress Urinary Incontinence (SUI) or Pelvic Organ Prolapse (POP) in HSE funded hospitals, in cases where it is clinically appropriate and safe to do so. He also emphasised that surgery should only proceed where expert clinical judgement is that there is an urgency to carry out the procedure and no suitable alternative exists, if a delay would risk harm to the patient. This should be based on a multidisciplinary team decision and fully informed consent.

The Chief Medical Officer's report to the Minister for Health entitled "The use of Uro-gynaecological Mesh in Surgical Procedures" was subsequently published on 21st November 2018. A range of recommendations are identified throughout the report, including recommendations about patient information and informed consent, patient selection and counselling, clinical and professional standards of practice, including clinical guidance, professional training and the appropriated multi-disciplinary expertise in units carrying out mesh procedures, the development of information resources to permit long-term research and audit of practice, ensuring the reporting of mesh related complications, and ensuring the timely, appropriate arrangements for the management of women with complications.

I would like to thank all of the members of the Urogynaecology MDT Team at the Hospital, Professor Chris Fitzpatrick, Dr Aoife O'Neill, Dr Mary Anglim, Dr Gunther von Bunau and Ms Eva Fitzsimons who had undertaken work to revise the consent procedures and patient information leaflets, in addition to auditing the services. This pause remains in place until advice to the contrary is issued. In the interim, patients continue to be seen in the Urogynaecology Clinic and Physiotherapy Department and plans to enhance these services are being developed.

National Maternity Strategy

Following on from the launch in January 2016 of Ireland's first ever Maternity Strategy, the National Women and Infants Health Programme (NWIHP) was established in January 2017 to ensure its implementation and the Hospital continued to work with NWIHP throughout 2018.

National Performance Metrics

Each of the three Dublin Maternity Hospitals continues to produce Annual Clinical Reports which are not only published but are peer-reviewed and assessed each year by an external assessor at the Annual Reports meeting now organised by the Institute of Obstetricians and Gynaecologists. In addition to the Annual Clinical Reports, each of the 19 maternity units submits data nationally relating to patient safety and quality of care to a number of agencies for review, including the Hospital Groups, the State Claims Agency, the National Perinatal Epidemiology Centre and the Quality Assurance Programme of the HSE Clinical Care Programme in Obstetrics and Gynaecology.

Coombe and Midlands Regional Hospital Portlaoise

During the year, work continued on the development of a collaborative clinical network across the Coombe and the Midlands Regional Hospital Portlaoise. I would like to thank Dr Michael O'Connell, Mr Michael Knowles, Mr Trevor O'Callaghan, the staff on both sites for their continued support and commitment.

New Children's Hospital and the Coombe

Work continued at a pace on the development of the New Children's Hospital on the St James's Hospital campus. Children's Health Ireland has now taken over the services of the existing three Dublin children's hospitals and will run the new children's hospital, as well as the paediatric outpatient and urgent care centres planned for Connolly and Tallaght Hospitals. By ultimately combining the specialties of the Maternity, Paediatric and Adult Hospitals in this tri-location, the quality of care for our women and babies will be greatly enhanced. We look forward to developing this model of healthcare excellence, ensuring a seamless continuity

of care for our patients. There remains however no indicative timeframe for our move to tri-location.

Role of Voluntary Hospitals

We continued to work closely with the Voluntary Healthcare Forum (VHF) throughout the year, helping to prepare submissions to the Independent Review Group, established to review the role of voluntary organisations in publicly-funded health services. I would like to acknowledge the great work undertaken by Ms Patricia Doherty and Mr John Gleeson, Chair of the VHF, to drive cohesion among the voluntary organisations in conveying the importance of our collective role in the future of healthcare in Ireland.

Maternal & Newborn – Clinical Management System (MN-CMS)

The MN-CMS Project, which involves the design and implementation of an electronic health record for all women and babies in maternity services in Ireland, is now live in four hospitals around the country. It was anticipated that the rollout of this project to our Hospital would commence in 2018 however this has been delayed nationally and we await confirmation of a definite timeline from the National Project Office.

General Data Protection Regulation (GDPR)

The new European Union-wide framework known as the General Data Protection Regulation (GDPR) came into force across the EU on 25th May 2018, providing for significant reforms to current data protection rules with higher standards of data protection for individuals and increased obligations on organisations that process personal data. They also increase the range of possible sanctions for infringements of these rules. This new legislation will have a significant impact on hospitals and our management of data.

Awards

I would like to congratulate Dr Eimer O'Malley, Research Fellow in Obstetrics and Gynaecology, and winner of the Master's Medal for her presentation entitled "Dietary intake of smokers compared to non-smokers at the first prenatal visit". In addition, I would like to congratulate all of the other NCHDs who submitted abstracts and presented their research at the Master's Medal.

Congratulations also to Ms Joanne Frawley and her supervisor, Ms Fiona Dunlevy, who were awarded the Dr James Clinch Prize for Audit for their work entitled "Audit on adherence to the Clinical Practice Guideline Hyperemesis and Nausea/Vomiting in Pregnancy". I would like to thank all of the staff who submitted their audits for consideration.

At the State Claims Agency's Quality, Clinical Risk and Patient Safety Conference, Dr Gillian Corbett and the QI team won First Prize for their work aimed at reducing Caesarean Section Surgical Site Infections. I would like to congratulate everyone involved for their hard work and tenacity in achieving such a marvellous result. This work was also presented at the St Luke's Symposium, RCPI, and Dr Corbett was awarded the David Mitchell Award.

More success came during the year too as Dr Mary O'Dea, Paediatric Research Fellow won the prestigious EAP Young Investigator Award and I wish to extend my warmest congratulations to her.

Going forward in 2019

As we face into 2019, there is little doubt that we will be presented with a new set of opportunities and challenges, in addition to the current ones. We must continue to advocate for the very best standards of care and to surpass expectations. Robust investment in our services, our staff and ultimately our women and infants, is absolutely critical.

The further development of Women's Health Services on our campus is imperative and the opportunities before us are exciting and timely. As we continue our extensive preparations to roll out Termination of Pregnancy services, we must continue to advocate for the very best standards of care for women by ensuring that appropriate care pathways, guidelines, supports and resources have been agreed.

The recruitment and retention of all Healthcare Staff must remain a priority at national level to guarantee the provision of high-quality and safe care to women and infants, both next year and far beyond. Our highly-skilled and talented workforce rightly demands the very best standards. Recognition of the importance of education, training, research and innovation is essential and must form an integral part of clinical strategic planning and considerations.

As I complete my penultimate year in office, it remains my great privilege to serve as Master of the Coombe Women & Infants University Hospital and I again thank the Board and staff for their support. I look forward to leading the hospital into the New Year.

Dr Sharon Sheehan

Master/CEO

Awards

Awards

Master's Medal 2017 – 2018

Congratulations to Dr Eimer O'Malley, Research Fellow in Obstetrics & Gynaecology and winner of the Master's Medal for her presentation entitled "Dietary intakes of smokers compared to non-smokers at the first prenatal visit".

Dr James Clinch Prize for Audit

Congratulations to Joanne Frawley, winner of the Dr James Clinch Prize for Audit 2018, and her supervisor Fiona Dunlevy. Her audit was entitled "Audit on adherence to the Clinical Practice Guideline Hyperemesis and Nausea/Vomiting in Pregnancy". *(See Appendix V).*

External Awards

EAP Young Investigator Award

Congratulations to Dr Mary O'Dea, Paediatric Research Fellow on winning the EAP Young Investigator Award.

1st Prize – State Claims Agency Quality, Clinical Risk & Patient Safety Conference and David Mitchell Award, St Luke's Symposium, RCPI

Congratulations to Dr Gillian Corbett, SHO in Obstetrics & Gynaecology and all of the team involved in the Quality Improvement Project to reduce Caesarean Section Surgical Site Infections.

Awards to Midwives, Nurses and Students in 2018

Ann Louise Mulhall Scholarship Award

Best Clinical Educator

Elinor Shields

Awards to Midwifery Students

Gold Medal BSc Midwifery

BSc 2013 – 2017 – Elizabeth McGuigan

Silver Medals BSc Midwifery

BSc 2013 – 2017 – Grace McGovern

Gold Medal Higher Diplomy in Midwifery

2016 – 2018 – Catherine Lauren Crowley

Silver Medal Higher Diploma in Midwifery

2016 – 2018 – Catherine Bourke

Dr T Healy Awards – Best Overall Clinical Student Midwife

BSc 2013 – 2017 – Jurgita Dvirnaite

Higher Diploma 2016 – 2018 – Sadie Lavelle Cafferkey

Congratulations to all of our Staff and Students for their outstanding achievements.

Dr Sharon Sheehan

Master/CEO

Executive Summary

Executive Summary

Obstetrical activity

A total of 8827 mothers attended the Hospital in 2018, 8154 mothers delivering 8330 infants weighing ≥ 500g, with 98 infants ≤ 1500g. A total of 193 multiple pregnancies booked at the Hospital, comprising 187 sets of twins, 5 sets of triplets and 1 quadruplet pregnancy.

Obstetrical demographics

30.9% of mothers who booked in the Hospital in 2018 were born outside the Republic of Ireland; (highest in 7 years, lowest at 28.4% in 2014). 19.5% of mothers were unemployed; similar to last year (highest in the last 7 years in 2012: 25.5%). Communication difficulties were reported in 5.1% of mothers at booking (60.1% in 2017). 0.3% of mothers were < 18 years (similar to last year); 7.3% of mothers were ≥ 40 years (highest in 7 years; lowest in 2012: 5.7%). Nulliparae accounted for 41.8% of mothers (highest in the last 7 years). 26.9% of pregnancies were unplanned (26.6% in 2017); worryingly less than half of all mothers (49.6%) had taken pre-conceptual folic acid prior to booking for antenatal care; 9.5% were current smokers; similar to the previous year (highest in the last 7 years in 2012: 13.5%); 0.7% reported consuming alcohol at the time of booking (highest in 2012: 1.5%); 0.2% were taking illicit drugs or methadone (range over 7 years: 0.2% - 0.8%); 7.8% had a history of previous drug use (similar trend over the last 7 years); 21.1% of mothers had a history of psychological/psychiatric disorders (the highest rate in 7 years, lowest in 2012, 15.4%) including 4.1% with a history of post-natal depression. A total of 1.1% had a history of domestic violence (range over 7 years: 0.9% - 1.1%). At booking less than half (48.1%) were in the healthy weight range, 1.1% were underweight (BMI < 18.5) and 30.3% were defined as overweight (BMI 25-29.9). Overall 19.7% were obese (Class 1-3), with 2.1% defined as morbidly obese (Class 3), (range over the last 7 years: 1.5 - 2.3%). 12.7% had history of one previous Caesarean Section at booking (range over the last 7 years: 12.2-13.8%) and 4.6% had a history of two or more sections (range over the last 7 years: 3.4 - 4.6%).

Obstetrical Interventions & Outcomes

The induction rate in 2018 was 37.0% (highest in the last 7 years, lowest in 2014 at 30.9%). The percentage of nulliparae having a spontaneous vaginal delivery was 36.9% (lowest rate over the last 7 years, highest in 2013: 43.2%). The percentage of parous mothers having a spontaneous vaginal delivery was 62.7% (highest in 2012: 69.4%). The use of forceps has reduced slightly to 4.8%, higher in nulliparae than multiparae (9.7% v 1.2% respectively). Ventouse rates have remained relatively stable overall at 9.8%.

The rate of LSCS in 2018 (33.8%) was the highest rate in the last 7 years (lowest rate: 27.1% in 2012). The rate of LSCS in nulliparae (singleton with cephalic presentations) in spontaneous labour is 12.0%; induction in nulliparae significantly increased the risk of LSCS (36.8% in 2018). The overall VBAC rate for mothers with one previous LSCS continues to decline and was 22.7% in 2018 (highest in 2013: 34.1%). 67.6% of mothers with one previous LSCS (and no previous vaginal delivery) had an elective repeat LSCS (65.9% in 2017); the VBAC rate for mothers with one previous LSCS and at least one vaginal delivery was 46.7% (highest in 2012: 60.3%). There has been a marked decline in overall VBAC rates over the past 7 years.

The number of operative vaginal deliveries conducted in Theatre fell this year compared to last year (69 v 80 respectively). There were 8 Classical Caesarean Sections performed in 2018 (range over last 7 years: 2-8).

A total of 1806 mothers had their booking appointments completed in the community-based clinics; 22.1% of all bookings, representing an increase on the previous year (19.9% in 2017). Uptake of the Early Transfer Home (ETH) programme continued to be high with 1989 women availing of this service. The DOMINO scheme continued its expansion in 2018 with 5% of women booking for this care. 64.4% of women in this scheme had a spontaneous vaginal delivery and the Caesarean Section rate for these women was 15.7%.

Exclusive breastfeeding rates (38.0%) remain low by international standards and have significant socio-economic and ethnic patterns; an additional 24% of babies were fed by a combination of breast and formula. A comprehensive Breastfeeding Support Service is available; educational programmes for health carers have been extended to include Student Nurses on obstetric placement, Medical Students and Healthcare Assistants.

Obstetrical Complications

Rates of primary post-partum haemorrhage (PPH) have risen dramatically over the past 7 years however 2018 saw a stabilisation of the rate (21.6%; 21.9% in 2017, with the range being 13.7 - 21.9% over the past 7 years). The rate of PPH in spontaneous labour and induced labour in nulliparae was similar to last year (18.2%

and 29.9% respectively). The rate of PPH in women delivered by Caesarean Section was 42.8% (lowest rate over the last 7 years, 26.9% in 2015). Emergency Caesarean Sections were associated with a higher rate of PPH compared to elective Caesarean Sections (49.3% and 36.5% respectively). The overall rate of PPH in twin deliveries was 49.1% (48.9 % in 2017). The incidence of manual removal of the placenta remained fairly stable in 2018 at 1.1%, and the percentage of women having a PPH rose in this group (70.0%; 62.3% in 2017).

The method of measuring blood loss in Theatre changed in 2010 during the ECSSIT Study and a more recent study in the Delivery Suite, the LABOR Trial, has resulted in more direct measurement of blood loss. This change in measurement may possibly account for some of the increase rates over the last 7 years. While the rates of blood transfusion did increase in 2018 from 2.8% to 3.0%, some of these transfusions were in antenatal women. The rate of transfusion > 5 units was 0.1% and remains at an acceptable level. PPH rates continue to be monitored closely as part of a Quality Improvement Project to reduce the incidence of PPH.

The rate of severe maternal morbidity increased from 7.1 per 1000 women in 2017 to 8.2 per 1000 women in 2018 (67 women). Massive Obstetric Haemorrhage remains the leading cause of severe maternal morbidity. In 2018 there were 40 cases of Massive Obstetric Haemorrhage (30 in 2017) defined according to revised criteria (estimated blood loss > 2.5L and/or treatment of coagulopathy). There were six peripartum hysterectomies performed.

There were 213 obstetrical admissions to the High Dependency Unit (210 in 2017); 46% of these admissions were related to haemorrhage (36% in 2017) and 44% were due to Hypertension/PET (32% in 2017). Of note, 9 patients were admitted for MgSO4 for fetal neuroprotection for anticipated premature delivery. There were no cases of eclampsia. A total of 8 women were admitted to HDU with sepsis, and there were 3 cases of septic shock. There were 2 cases of uterine rupture. Seven women were transferred to ICU: Sepsis (2), Septic Shock (2), HELLP and renal failure requiring dialysis (1), Carotid artery dissection and CVA (1), MOH at Caesarean Section (1).

There was one maternal death and the Coroner's verdict is awaited.

There was a marked increase in the number of patients attending the Combined Clinic for Diabetes (908 in 2018, 832 in 2017). Increased BMI, demographic changes and revised diagnostic criteria have contributed to this increase. Oral hypoglycaemic therapy (Metformin) continues to result in a reduction in the number of women requiring admission and Insulin therapy. A total of 851 mothers developed Gestational Diabetes; 100 were treated with Insulin, 244 with Metformin, 142 with Insulin and Metformin, and 365 with Diet alone. There was a decrease in the number of infants born weighing ≥4500g in 2018 (109; 118 in 2017 and 144 in 2016) despite the significant increase in the incidence of Gestational Diabetes. The incidence of Shoulder Dystocia remains relatively unchanged over the last 7 years (0.8%).

The recorded incidence of third degree tears in vaginal deliveries rose compared to the previous year (2.6%, 2.0% in 2017). A total of 7 (0.1%) fourth degree tears were reported (3 in 2017). A Quality Improvement Team was established to focus on reducing these injuries.

In 2018, there were 408 new referrals to the multidisciplinary Medical Clinic (381 in 2017). The consultant-led high-risk service with a dedicated in-patient Maternal Medicine Team was established in 2012 and has continued to provide a comprehensive service for CWIUH mothers and those referred from other units around the country. The most common indications for referral relate to thrombosis/haemorrhagic disorders (116), renal/ hypertensive disease (74), cardiac disease (59), liver/GI disease (39), connective tissue disease (32) and cerebrovascular/neurological disease (23). The number of women attending for preconceptual care was slightly increased compared to the previous year (30; 25 in 2017).

A total of 149 women attended the Preterm Birth Clinic at a gestation of less than 30 weeks and at each visit a cervical length measurement was obtained. From 18 weeks, fetal fibronectin tests are used in conjunction with cervical length measurements to create individualised care plans in an attempt to prevent preterm birth and reduce the morbidity associated with prematurity. The clinic forms part of a UK-based preterm birth network which seeks to expand the knowledge around this challenging area.

Early Pregnancy Assessment Unit (EPAU)

There were a total of 4178 visits to EPAU in 2018; 2451 new and 1727 return attendances (2535 and 1678 respectively in 2017). Dr Mei Yee Ng completed her Clinical Fellowship in EPAU and Dr Jennifer Hogan commenced her Clinical Fellowship. A total of 1669 miscarriages were seen in the unit and of these that were not completed, 35.5% were managed conservatively, 24.1% were managed medically and 40.4% were managed surgically. A total of 66 ectopic pregnancies were diagnosed in the unit with 54.4% requiring surgical management.

Fetal Medicine

The Fetal Medicine Service has continued to develop in 2018 with a total of 29,260 scans performed (28,858 in 2017). All mothers booked at CWIUH are offered both routine dating and a 20-22 week structural scan. A total of 123 invasive prenatal procedures were performed. We introduced a facility for patients to avail of Non-Invasive Prenatal Testing (NIPT) in 2017 and a total of 752 women availed of this test (375 in 2017).

The weekly Combined Fetal Medicine/Paediatric Cardiology Clinic has grown significantly since its formal establishment in 2010 with referrals from units nationwide. It is now the largest national referral service for prenatal diagnosis of congenital heart disease in Ireland. Women are seen within one week of referral. Of the fetal ECHOs performed, 95 structural cardiac abnormalities were detected in addition to 9 major rhythm disturbances.

At the Multiple Birth Clinic, led by Prof Aisling Martin, a total of 193 multiple pregnancies were looked after in 2018; 187 sets of twins, 5 sets of triplets and 1 set of quadruplets. 32% of twins were delivered at or beyond 37 weeks gestation. The preterm delivery rate in the multiple pregnancies overall was 68%.

In 2018 the Department also hosted two fellowship posts: the Bernard Stuart Fellow in Perinatal Ultrasound and the Rotunda/Coombe/Columbia Subspecialty Fellow.

Perinatal/Neonatal Outcomes

The overall Perinatal Mortality Rate (PMR) for infants born weighing ≥ 500g was 4.32/1000; the corrected PMR rate was 2.65/1000. 12 of the 13 normally formed stillbirths weighed ≤ 2500g, with 8 of these weighing ≤1500g; abruption (2), cord accident (2), and uterine rupture (2) were the most common causes of death among the normally-formed stillborn infants. Four deaths were unexplained. There were no intra-partum deaths.

Congenital malformation (7) and extreme prematurity (7) with other problems were the main causes of early neonatal death (16); 9 of the 16 early neonatal deaths occurred in normally formed infants, with 6 of these babies weighing < 1000g. There were 5 late neonatal deaths; 3 of these occurred in normally formed babies, with two of these weighing less than 1000g.

There were 1026 admissions to the Neonatal Centre. 115 infants were reported to the Vermont Oxford Network in 2018. The overall survival for VLBW infants in 2018 was 84.3% and importantly survival of VLBW infants without specified morbidities was 58%. The low incidence of chronic lung disease at 36 weeks (11.6% v VON 22.7%) appears to correlate with the low rate of invasive ventilation. Patent Ductus Arterious (PDA) was identified in 6.9% of VLBW infants; with only one baby requiring ligation (1.0% v 2.8% ligation rate in VON). The strategy of conservative PDA treatment, frequent use of point of care ultrasound and cardiology support from Dr Orla Franklin appears to have been particularly effective in this context. The VLBW cohort is continuing to show low incidence of severe intraventricular/ periventricular (PIVH) haemorrhage (5.1% v VON 7.8%).

Three neonatal deaths occurred in normally formed infants born weighing ≥ 1000g: chorioamnionitits, RDS and IVH (1), cord accident (1) and Coroner's report awaited (1).

8 inborn infants were classified with HIE grade II/III; all were treated by Total Body Cooling according to TOBY trial criteria; 1 infant died within the first day of life, 3 infants were diagnosed with Cerebral Palsy and 4 infants had normal neurodevelopmental follow-up (follow-up ranging from 6 - 18 months).

Gynaecology

In 2018 there were 5071 gynaecological operations performed (5012 in 2017). The slight increase in numbers related to the completion of essential refurbishment works in 2018 which had commenced in the Operating Theatre Department and CSSD during the previous year. The Gynaecology Service provided by Consultants based in the CWIUH across this Hospital, St. James's Hospital and Tallaght Hospital continues to be the busiest Surgical Service in the state. Increasing Caesarean Section rates continue to put pressure on Theatre capacity and thankfully the Emergency Obstetric Theatre on the Delivery Suite has helped to alleviate some of the infrastructural challenges posed.

The Ambulatory Gynaecology Clinic, established in July 2017, continued to expand throughout 2018. Since its commencement, 857 women have attended the service. It now operates a "See and Treat" model of care, whereby women have access to transvaginal ultrasound, hysteroscopy, biopsy and treatment if required, at the same consultation.

There has been a marked increase in the number of minimal access surgeries performed in the Hospital over the last seven years. While the overall number of laparoscopic hysterectomies (laparoscopic-assisted

vaginal, total, subtotal and radical hysterectomy) fell compared to the previous year (69; 92 in 2017), the number of open hysterectomies (vaginal, total abdominal, subtotal and radical hysterectomy) remained very low (40). Similar trends have been seen in tubal/ovarian surgeries over the past seven years, with a total of 727 procedures performed laparoscopically in 2018 compared to only 48 open procedures.

Urogynaecology operations fell in 2018 (377; 410 in 2017) which coincided with the national pause on mesh procedures. Treatment options for women with complex pelvic floor dysfunction continued with both vaginal and advanced laparoscopic interventions. Urogynaecology MDT meetings were held during the year and continue to be very beneficial. Intravesical hyaluronic acid instillations for bladder hypersensitivity continued during the year. There was an increase in the number of botox treatments for refractory Detrusor Overactivity (38; 30 in 2017).

There were 1986 first visit attendances at the Coombe Colposcopy Clinic in 2018, a 7% increase compared to 2017, and 4007 return visits, which represented an 1% decrease on the previous year. A total of 612 excisional procedures were performed in the clinic and 101 in theatre. A total of 31,814 cytology specimens were processed through the Laboratory in 2018, compared to 26,185 in 2017, a 21% increase.

Gynaecological surgical complications during 2018 included uterine perforation (4), bladder /urethral injury (2), transfer to HDU (4). There were no reported incidences of blood transfusion > 5l. No patient required transfer to ICU.

Peri-operative Medicine

During 2018, 3314 epidurals were sited in labour; the epidural rate was 40.6%, (highest in the last 7 years in 2012, 44.5%); 98.4% of elective Caesarean Sections and 92.8% of emergency Caesarean Sections were performed under regional anaesthesia. The Emergency Obstetric Theatre on the Delivery Suite continued to cater for emergency cases between 08.00 and 17.00 hours. This has been a great advance in patient care, allowing for timely intervention without transfer delays.

The multidisciplinary Acute Pain Service led by the Department of Peri-operative Medicine continued to operate effectively in 2018; with almost all surgical patients reviewed within 24 hours of surgery. This service also includes a Pharmacist and a Physiotherapist. The introduction of electronic PCA pumps continues to enhance the monitoring of opiod requirements.

The Pre-operative Anaesthetic Assessment Clinic continued to ensure that all women scheduled for major surgery and day case surgery undergo an appropriate anaesthetic review; this continued to greatly facilitate same day admission for all major gynaecology patients.

The Chronic Pain Clinic has continued to be of huge benefit to both obstetrical and gynaecological patients with refractory pain.

Structured training and research programmes within the Department of Peri-operative Medicine, under the leadership of Dr Terry Tan, have continued to attract Anaesthetic trainees and the Hospital had been selected by the College of Anaesthetists of Ireland as a pilot site to trial competency-based training for Anaesthetic trainees.

Academic

In addition to providing tertiary maternal-fetal, neonatal, gynaecology and anaesthetic services both at a network and national level, the Hospital has a very significant academic portfolio in terms of academic appointments, research grant income and publications. Medical students from UCD, TCD and RCSI attend the Hospital; the campus hosts the Centre for Midwifery Education for the Greater Dublin Area. The National Cellular and Molecular Cytopathology Training School on our campus provides dedicated training and an MDT function for the National Cervical Screening Programme. The Hospital also supports research fellowships in Obstetrics, Peri-operative Medicine, Early Pregnancy Assessment, Perinatal Ultrasound and Pharmacology.

The Research Laboratory in the Hospital, under the leadership of Professor John O'Leary, has a grant portfolio in excess of €50m over the past 5 years. In 2018, the Laboratory hosted 7 postgraduate students pursuing PhD/MD/MSc degrees. The Molecular Pathology Group published 13 peer reviewed journal articles with 15 published abstracts. The Laboratory has an international reputation for cancer stem cell biology and pregnancy proteomics and transcriptiomics. It also hosts two EU research consortia as well as being the co-ordinator for the Irish Cervical Cancer Screening Research Consortium (Cerviva). This Laboratory hosts researchers from TCD, UCD, RCSI, DCU, DIT and from other national and international third level institutions and has collaborative relationships with many biotechnology partners.

As evidenced in this year's Annual Clinical Report, the other Academic Departments under the leadership

of Professor Michael Turner (UCD Centre for Human Reproduction), Professor Mairead Kennelly (UCD Centre for Human Reproduction and Perinatal Ireland), Professor Deirdre Murphy (TCD), Professor Sean Daly (TCD and Perinatal Ireland), Professor Michael Carey (Peri-operative Medicine) and Professor Jan Miletin (Paediatrics and Newborn Medicine) together with departmental researchers, have significantly expanded the research portfolio of the Hospital. The leadership role of Ms Triona Cowman (CME Director) is also acknowledged in relation to the Centre for Midwifery Education for the Greater Dublin Area.

During 2018, the Hospital hosted/co-hosted a series of highly successful multidisciplinary conferences (see Introduction for details) including the Midwifery & Nursing Study Day, the Prematurity Awareness Symposium and the Guinness Lecture Symposium.

Dr Sharon Sheehan
Master/CEO

Hospital Overview

Members of the Board of Guardians and Directors – 2018

Board Members	Date of Election
John Gleeson	2013 *(Chair from January 2014)*
Carol Bolger	2013
Prof Michael Carey	2012
Anne-Marie Curran	2016
Mary Donovan	2014
Prof Robbie Gilligan	2016
Michael O'Neill	2014
Maura Quinn	2014
Prof Michael Turner	2013

Ex-Officio Members

THE LORD MAYOR OF DUBLIN

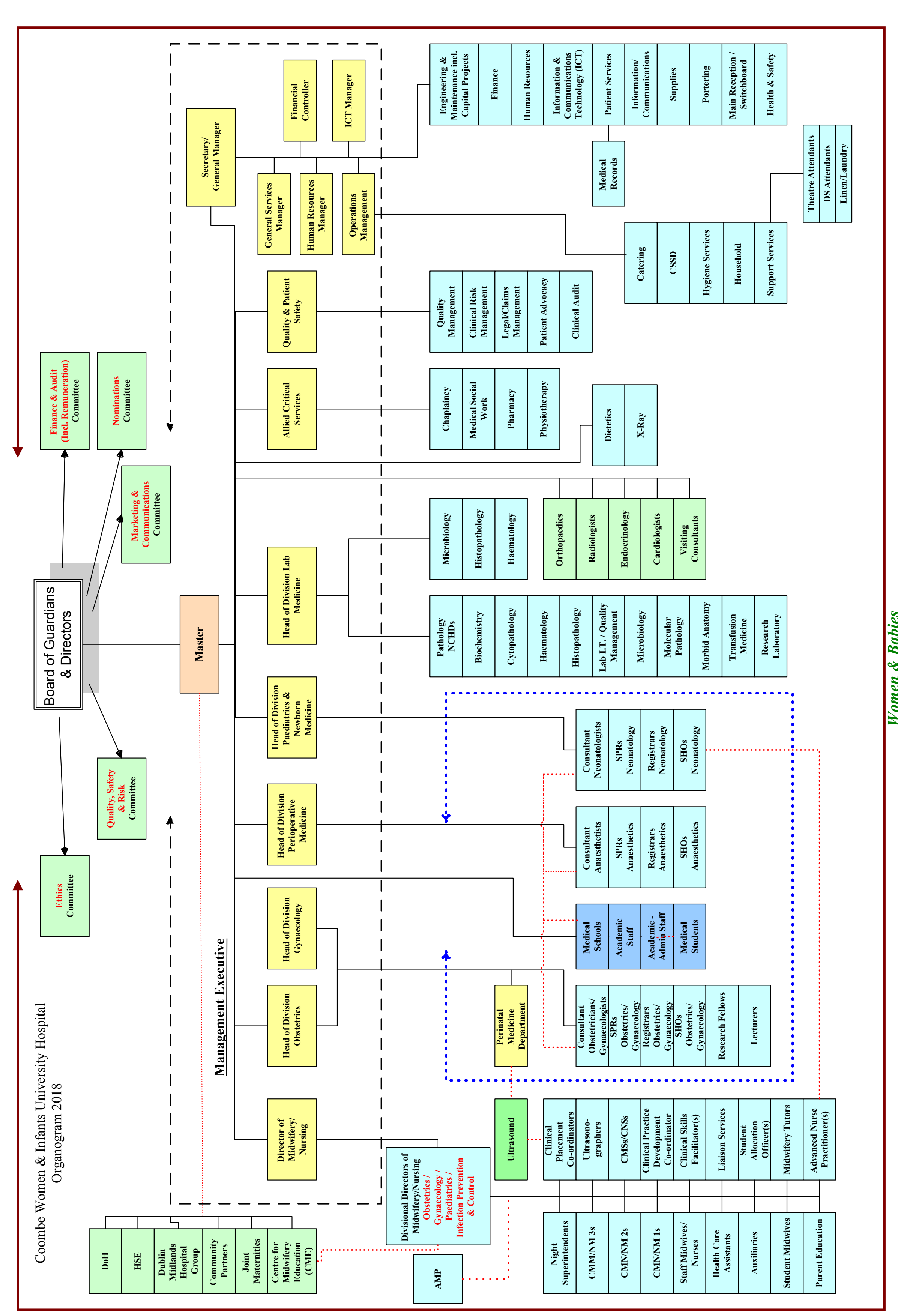
Ardmhéara Mícheál Mac Donncha
(In office from June 2017 – June 2018)

Lord Mayor Nial Ring
(In office from June 2018 – June 2019)

MASTER / CHIEF EXECUTIVE OFFICER

Dr Sharon Sheehan
(from January 2013)

Organisational Chart



Members Of Staff

Consultant Obstetricians / Gynaecologists

Dr Sharon Sheehan, Master / CEO

Professor Chris Fitzpatrick

Professor Michael Turner

Dr Hugh O'Connor

Professor Sean Daly

Dr Noreen Gleeson

Dr Mary Anglim

Dr Bridgette Byrne

Dr Carmen Regan

Professor Thomas J D'Arcy

Professor Deirdre Murphy

Dr Michael O'Connell

Dr Gunther Von Bunau

Professor Mairead Kennelly

Dr Cliona Murphy

Professor Aisling Martin

Dr Caoimhe Lynch

Dr Aoife O'Neill

Professor Nadine Farah

Dr Shobha Singh

Dr Muhammad Waseem Kamran

Dr Aoife Mullally

Dr Niamh Maher

Dr Iram Basit*

Dr Workineh Tadesse*

Dr. Mark Hehir*

Consultant Anaesthetists

Dr Terry Tan (Director of Peri-operative Medicine)

Dr Niall Hughes

Dr Steven Froese

Dr Nikolay Nikolov

Dr Rebecca Fanning

Dr Sabrina Hoesni

Dr Michelle Walsh*

Dr Yassir Mohammed*

Dr Stephen Smith

Dr Petar Popivanov*

Professor Michael Carey

Consultant Neonatologists

Dr John Kelleher, *Director of Paediatrics & Newborn Medicine*

Professor Jan Miletin

Professor Martin White

Dr Pamela O'Connor

Dr Jan Janota

Dr Anne Doolan

Dr Jana Semberova

Dr Hana Fucikova

Dr Jan Franta

Dr Muhammad Shahid Saleemi*

Dr Francisco Meza*

Consultant Paediatrician in Palliative Medicine

Dr Mary Devins

Consultant Radiologist (Adult)

Professor Mary T. Keogan

Consultant Radiologist (Paediatric)

Dr Eoghan Laffan

Director of Pathology

Professor John James O'Leary

Consultant Histopathologist

Dr Colette Adida

Dr Filip Sokol*

Consultant Microbiologist

Dr Niamh O'Sullivan

Consultant Haematologist

Dr Catherine Flynn

Dr Kevin Ryan

Consultant Diabetologist

Professor Brendan Kinsley

Consultant Endocrinologist

Dr Rachel Crowley

Consultant Nephrologist

Dr Catherine Wall

Consultant Cardiologist

Dr John Cosgrave

Consultant Psychiatrist

Dr Joanne Fenton

Dr Ann O'Grady-Walsh

Consultant Orthopaedic Surgeons

Dr Paula Kelly

Dr Jacques Noel

Consultant Ophthalmic Surgeon

Dr Kathryn McCreery

Visiting Consultants

Dr Orla Franklin

Dr Enda McDermott

Dr Donal Brosnahan

Dr Thomas Lynch

Professor Andrew Greene

Dr Fiona Mulcahy

Dr Fiona Lyons

Dr Colm Bergin

Non-Consultant Hospital Doctors

Specialist Registrars in Obstetrics / Gynaecology

Dr Jennifer Hogan

Dr Azriny Khalid

Dr Alison DeMaio

Dr Laurentina Schaeler

Dr Fionan Donohoe

Dr Patrick Maguire

Dr Amy O'Higgins

Dr Cathy Montieth

Dr David Crosby

Dr Syeda Farah Nazir

Dr Nicola Maher

Dr Davor Zibar

Dr Ikechukwu Uzochukwu

Dr Edward Corry

Dr Irum Farooq

Dr Kate Glennon

Registrars in Obstetrics / Gynaecology

Dr Megat Kamaruzaman

Dr Aoife McTiernan

Dr Marion Brooks

Dr Zulfiya Mamaeva

Dr Oxana Hughes

Dr Oladayo Oduola

Junior Registrars in Obstetrics / Gynaecology

Dr Eimear McSharry

Dr Daniel Galvin

Dr Sarah McDonnell

Dr Eibhlin Healy

Dr Ailbhe Duffy

Dr Aleksandra Sobota

Dr Aisling Heverin

Dr Nicola O'Riordan

TCD / Coombe Lecturers / Registrars in Obstetrics / Gynaecology

Dr Mei Yee Ng

Dr Catherine O'Gorman

UCD Lecturers / Registrars in Obstetrics / Gynaecology

Dr Eimer O'Malley

Fellow in Maternal Medicine

Dr Dana Alshuwaikhat

Fellow in Urogynaecology

Dr Faiza Aldarmaki

Bernard Stuart Research Fellow

Dr Brendan McDonnell

Clinical Research Fellow / Registrar in Early Pregnancy Ultrasound

Dr Mei Yee Ng

Dr Jennifer Hogan

Senior House Officers in Obstetrics / Gynaecology

Dr Sowmya Mayigaiah

Dr Bernard Kennedy

Dr Gillian Corbett

Dr Sarah Petch

Dr Aisling Heverin

Dr Catherine O'Regan

Dr Gary Faughnan

Dr Lydia Leigh

Dr Zus Sabina Falvia

Dr Aleksandra Sobota

Dr Amaliya Morgan Brown

Dr Sunia Bringi

Dr Siobhan Walsh

Dr Icchya Gyawali

Dr Maryanne Breen

Dr Niamh Garry

Dr Ronan Daly

Dr Javaria Malik

Senior House Officers in General Practice

Dr Niamh Fitzgerald

Dr Niamh Nic Cinneide

Dr Christopher McDermott

Dr Katherine McGuane

RCSI Clinial Tutor in Paediatrics

Dr Saira Tabassum

Specialist Registrars in Paediatrics

Dr Graham King

Dr Jennifer Jones

Dr Peter Tormey

Dr Michaela Pentony

Dr David Staunton

Dr Jeanne Cloonan

Dr Heather Cary

Dr Meredith Kinoshita

Dr Rebecca Finnegan

Dr Sadbh Hurley

Dr Claire Murphy

Registrars in Paediatrics

Dr Lennie Falcone

Dr Zulfiquar Ali Sarani

Dr Gergana Semova

Dr Hisham Ali

Dr Robert McGrath

Dr Shiraz Elbashier

Dr Jsun Loong Wong

Dr Geneva Balanica

Senior House Officers in Paediatrics

Dr Justyna Rutkowski
Dr Elaine Carty
Dr Sheena Coyne
Dr Lisa Flynn
Dr Nicola Duffy
Dr Jonathan Clarke
Dr Arowa Othman
Dr Lauren Walsh
Dr Shahida Begum
Dr Waqaa Khan
Dr Haroon Usman
Dr Paul Bergin
Dr Zainab Elbishari
Dr Sida Rashid
Dr Annabelle Piquet
Dr Arie Fisher
Dr Ivan Yu
Dr Robert Kirwan
Dr Amar Sulieman

Neonatal Tutor in Paediatrics

Dr Mary O'Dea
Dr Elinor Jenkins

Specialist Registrar in Anaesthetics

Dr Paul Hession
Dr Rizwan Ali
Dr Dermot Nolan
Dr Michael Ma
Dr Ruairi Irwin

Senior Registrar in Anaesthetics

Dr Ashley Fernandes
Dr Matthew Leonard
Dr Peter Popivanov
Dr Dilshod Khamdamov

Registrar in Anaesthetics

Dr Sabina Stanescu
Dr Volodymyr Marrienko
Dr Pankaj Shende
Dr Catalina Buzaianu

Senior House Officers in Anaesthetics

Dr Patrick Wiseman
Dr Alison Deasy
Dr Brian Doyle
Dr Eoin Young
Dr Aoife Geoghegan
Dr Marike Rademan
Dr Conor Haugh
Dr Richard Skelly
Dr John O'Keeffe
Dr David Burke
Dr Mark Henegan

Specialist Registrars in Histopathology

Dr Roisin O'Connor
Dr John O'Neill

Midwifery & Nursing

Director of Midwifery & Nursing

Ann MacIntyre

Director of Centre for Midwifery Education

Triona Cowman

Assistant Directors of Midwifery & Nursing

Bridget Boyd, *Assistant Director of Midwifery & Nursing with responsibility for Neonatal Centre and Ultrasound Department*

Fidelma McSweeney, *Assistant Director of Midwifery & Nursing with responsibility for Maternity Services including Community Midwifery*

Frances Richardson, *Assistant Director of Midwifery & Nursing with responsibility for Gynaecology, Theatre, OPD and Colposcopy Services*

Shyla Jacob, *Night Superintendent*

Lucy More O'Ferrall, *Night Superintendent*

Ita Burke, *Night Superintendent*

Advanced Nurse Practitioner – Neonatal Nursing

Anne O'Sullivan

Infection Prevention & Control Nurse

Rosena Hanniffy

Clinical Midwife / Nurse Managers 3

Ann Fergus, *Birth Reflections Service*

Nora Vallejo, *Acting, CMM 3 Delivery Suite*

Anitha Selvanayagam & Joanne Glover & Raji Dominic, *CMM3 Maternity Wards*

Ann-Marie Sliney, *CMM 3, Community Midwifery*

Mary O'Connor, *CMM 3, NNC (Acting)*

Elaine McGeady, *CMM 3, Fetal Medicine & Perinatal Ultrasound*

Mary McDonald, *CMM 3 OPD*

Alison Rothwell, *CNM 3 Theatre Department*

Midwife Manager for PPGs, Audit, Statistics & Personnel

Anne Jesudason

Midwifery Education

Ann Bowers, *CPC, Acting Practice Development Co-ordinator*

Paula Barry, *on secondment as Research Midwife*

Gwen Baker, *CPC*

Sarah Lodola, *CPC*

Natasha Joyce, *CPC*

Mary Rodgerson, *CPC*

Helen Saldanha Castelino, *St. Patrick's Ward, CPC from 15.01.18, CMM 1 prior to this*

Arathi Noronha, *Post Registration Programme Facilitator*

Denise Kiernan, *Allocations Liaison Officer, 0.5 WTE*

Kevin Mulligan, *Co-ordinator Post Graduate Diploma in Intensive Neonatal Nursing Programme*

Joy Geraghty, *Clinical Skills Facilitator, Delivery Suite (Acting)*

Clinical Midwife / Nurse Managers 2

Sangeetha Nagarajan, *St. Gerard's Ward*

Marcy Ninan, *Gynae Day Ward*

Fiona Gilsenan, *Theatre*

Patricia Ryan, *Theatre*

Sarah Ann Walsh, *Theatre*

Grainne Sullivan, *Delivery Suite*

Monica O'Shea, *Delivery Suite*

Noirín Farrelly, *Delivery Suite*

Fiona Noonan, *Delivery Suite*

Gráinne Sullivan, *Delivery Suite*

Gráinne McRory, *Delivery Suite*

Anne Moyne, *Delivery Suite*

Suzi McCarthy, *Delivery Suite*

Elizabeth Johnson, *(Acting), Delivery Suite*

Deirdre Kavanagh, *Delivery Suite*

Louise O'Halloran, *Delivery*

Helen Curley, *Delivery*

Sinead Finn, *Delivery Suite*

Carmel Healy, *Delivery Suite*

Mary McMorrow, *St Monica's Ward*

Rhoda Billones, *NNC*

Niamh Buggy, *NNC*

Mary O'Connor, *NNC*

Mary Ryan, *NNC (0.5 WTE)*

Elaine Butler, *NNU*

Nova Lacondola Quiapos, *Neonatal*

Luisa Daguio, *NNU*

Manju Kuzhivelil, *Neonatal*

Ann Kelly, *NNC (0.5 WTE)*

Violeto Basco, *Neonatal*

Ann Leonard, *St Patrick's ward*

Joanna Iwanska, *Our Lady's Ward*

Susan Jagan, *St Joseph's Ward*

Vivienne Browning, *Community Midwifery*

Mary Holohan, *Community Midwifery*

Breege Joyce, *Community Midwifery*
Fiona Walsh, *Community Midwifery*
Nicole Mention, *Ultrasound*
Aoife Metcalfe, *Ultrasound (CMS Designate)*
Felicity Doddy, *Perinatal Diagnosis Co-ordinator, Ultrasound*
Sinead Gavin, *Ultrasound*
Janice Gowran, *Early Pregnancy Assessment Unit*
Megan Sheppard, *Parent Education*
Clare Smart, *Gynaecology Services Co-Ordinator*
Feba Paul, *Colposcopy (CMS Designate)*
Yvonne McCudden, *Colposcopy (CMS Designate)*
Laura McGovern, *Gynaecological Oncology Liaison*
Sarah Gleeson, *CMS Designate, Bereavement*

Haemovigilance Officer

Sonia Varadkar

Midwife Co-Ordinator High Risk Midwifery Team

Catherine Manning

Clinical Midwife or Nurse Specialists (CMS / CNS)

Ethna Coleman, *CMS, Diabetes*
Clíodhna Grady, *CMS, Diabetes*
Jane Durkan Leavy, *CMS, Ultrasound*
Christine McLoughlin, *CMS designate, Ultrasound*
Siobhán Ni Scannaill, *CMS, Ultrasound*
Olivia McCarthy, *Colposcopy*
Feba Paul, *Colposcopy*
Aoife Kelly, *CMS, Colposcopy*
Yvonne McCudden, *Colposcopy*
Margaret Moynihan, *CMS, Adult & Neonatal Resuscitation*
Meena Purushothaman, *CMS, Lactation*
Mary Toole, *CMS, Lactation*
Orla Cunningham, *CMS, Infectious Diseases*
Brid Shine, *CMS, Bereavement*
Susanne Daly, *CMS, Perinatal Mental Health*
Aoife Metcalfe, *Ultrasound (CMS Designate)*
Sarah Gleeson, *CMS Designate, Bereavement*

Clinical Skills Facilitators

Mary Ryan, *Neonatal Nursing (0.5 WTE)*
Pauline O'Connell, *Neonatal Nursing (0.5 WTE)*
Ann Kelly, *Neonatal Nursing (0.5 WTE)*
Ruth Banks, *Delivery Suite*
Joy Geraghty, *Delivery Suite*

Clinical Midwife / Nurse Managers I

Violeto Basco, *Neonatal*
Alice O'Connor, *Neonatal*
Marion O'Shaughnessy, *Neonatal*
Manju Kuzhivelil, *Neonatal*
Nova Lacondola Quiapos, *Neonatal*
Jean Cousins, *Neonatal Paediatric Clinic*
Grace Cuthbert, *St. Gerard's Ward*
Bridget Kirby, *St Gerard's Ward*
Geraldine Creamer Quinn, *St. Patrick's Ward*
Minimol George, *St Patrick's Ward*
Helen Saldanha Castelino, *St. Patrick's Ward*
Deborah Duffy, *St. Monica's Ward*
Marie Foudy, *St. Monica's Ward*
Althea Noble, *St. Monica's Ward*

On Secondment to Health Service Executive

Judith Fleming, *on secondment to CME from Oct 15 to present*

Midwifery & Nursing Secretarial Support

Sarah Bux

Medical Social Workers

Rosemary Grant, *Principal Medical Social Worker*
Denise Shelly, *Senior Social Work Practitioner*
Tanya Franciosa, *Medical Social Worker*
Sarah Lopez, *Medical Social Worker*
Sorcha O'Reilly, *Medical Social Worker*
Kate Burke, *Medical Social Worker*

Gretchen Gaspari McGuirk, *Medical Social Worker*
Tara Lynch, *Medical Social Worker**

Physiotherapists

Margaret Mason, *Physiotherapy Manager*
Julia Hayes, *Senior Chartered Physiotherapist*
Anne Graham (McCloskey), *Senior Chartered Physiotherapist - Acting Physiotherapy Manager*
Roisin Phipps Considine, *Senior Chartered Physiotherapist*
Sarah Bevan, *Senior Chartered Physiotherapist*
Anna Chrzan, *Chartered Physiotherapist*
Sara Birch, *Physiotherapist**
Amanda Martins, *Physiotherapist*
Velta Vuskane, *Physiotherapist*
Laura Ward, *Senior Chartered Physiotherapist*

Dietician / Clinical Nutritionist

Fiona Dunlevy, *Dietician Manager*
Niamh Ryan, *Senior Dietician (Diabetes)*

Pharmacists

Mairead McGuire, *Chief Pharmacist I*
Peter Duddy, *Chief Pharmacist II*
Una Rice, *Senior Pharmacist, Antimicrobial Stewardship*
Orla Fahy, *Senior Pharmacist*
Joanne Frawley, *Basic Grade Pharmacist*
Gayane Adibekova, *Pharmacy Technician*

Chief Medical Scientists

Martina Ring, *Laboratory Manager*
Stephen Dempsey, *Pathology Quality/IT*
Fergus Guilfoyle, *Haematology/Blood Transfusion*
Jacqui Barry O'Crowley, *Histopathology*
Mary Sweeney, *Cytology*
Catherine Byrne, *Microbiology*
Alma Clancy, *Microbiology*

Principal Biochemist

Ruth O'Kelly

Clinical Specialist Radiographer

Johannes Tsagae
Edwina Quinlan

Secretary & General Manager

Patrick Donohue

Financial Controller

John Robinson

Human Resources

AnneMarie Waldron, *HR Manager*
Bridie Horan, *HR Business Partner*
Gina Elliott
Theresa Dempsey
Niamh McGlade
Carthach McCarthy
Hilda Reddy
Edisa Mulacic

Household Services Manager / Household Supervisor

Michael Cummins
Jonathan Roughneen

Patient Services Manager

Ann Shannon

Deputy Patient Services Manager / Healthcare Records Manager

Niamh McNamara

Data Governance Manager

Siobhan Lyons

Operations Manager

Vivienne Gillen

Assistant Household Supervisor

Arlene Kelly
Olive Lynch
Rita Greene
Colm Harte*

Hospital Engineer

Serge Panzu Nianga

Clinical Engineer

Karl Bergin

Research Project Managers

Lean McMahon*
Karen Power*

Quality Manager

Evelyn O'Shea

Clinical Risk Manager

Anna Deasy
Michelle McTernan

Patient Liason Manager

Niamh Dunne

Supplies Manager

Robert O'Brien

Catering Manager

Thomas Dowling

Chaplain

Renee Dilworth
Anita Delaney*
Margaret Monaghan*

Communications Officer

Mary Holden

Information Technology Manager

Tadgh O'Sullivan
Melissa Lawlor
Emma McNamee, *Acting Manager*

Health & Safety Officer

Tom Madden

Reception

Brid Mangan, Head Receptionist

P.A. To Master / CEO and to Secretary & General Manager

Laura Forde

** Locum/Temporary position*

Staff Retirements in 2018

Maureen English
Senior Staff Midwife

Patricia O'Hara
CNM III

Breda Brunell
Grade IV Officer

Helen Browne
Grade IV Officer

Mary Borland
Senior Staff Midwife

Tadhg O'Sullivan
I.T. Manager

Catherine Patricia Ryan
CMM II

Margaret Mason
Physiotherapy Manager

Geraldine Connolly
Domestic

Margaret Moynihan
Clinical Midwife Specialist

Ann Poole
Domestic

Leonor Barros
Senior Staff Nurse

Margaret Finlay
Domestic

Martin Locke
Pharmacy Porter

Tommy O'Reilly
Carpenter

Ursula Mangan
Grade V Officer

Bridget Kirby
CMM I

Flordeliza Lingatong
Senior Staff Nurse

On behalf of the Board of Guardians and Directors and the Management Executive of the Hospital, I would like to sincerely thank the members of staff who have retired from the Hospital in 2018 for their enormous contribution during their years of dedicated professional service.

Dr Sharon Sheehan
Master / CEO

Director of Midwifery and Nursing

Director Midwifery & Nursing- Corporate Report 2018

Head of Department

Ms Ann MacIntyre, *Director of Midwifery & Nursing*

Title of Post	In post on 31st December 2018 (WTE)	In post on 31st December 2017 (WTE)
Director of Midwifery & Nursing	1	1
Assistant Director of Midwifery & Nursing	6 .55	6.55
Advanced Nurse Practitioner-Neonatal Nursing		1
Midwifery & Nursing Practice Development Co-ordinator	1	1
Postgraduate Neonatal Programme Co-ordinator	1	1
Clinical Midwife/Nurse Manager 3	1	9
Clinical Midwife/Nurse Manager 2	**10**	**40.9**
Clinical Midwife/Nurse Specialists	**44.56**	**13.1**
Clinical Skills Facilitators	11.99	3.13
Haemovigilance Officer	3.74	0.77
Clinical Placement Coordinators	0.77	3.62
Post Registration Programme Facilitator	5.23	1
Allocation Liaison Officer	1	0.5
Clinical Midwife/Nurse Manager 1	**0.5**	**10.24**
Midwives & Nurses	**257.74**	**251.66**
Midwifery Students	7.60	10
NMPDU Research Posts	8	1
Total	**362.68**	**355.5**

Staff Complement

Total Complement for Midwives & Nurses as of 31st December 2018 was 383 WTE.

Key Performance Indicators

Quality of Midwifery & Nursing Care

- That every woman, baby and family experience high-quality, evidence-based, person-centred care in accordance with our mission statement "Excellence in the Care of Women & Babies".

Midwifery & Nursing Workforce

- Continuous Professional Development in Midwifery & Nursing research, audit and education leading to a highly-skilled, educated and empowered team.
- Workforce Planning and development with a strong focus on recruitment, retention and succession planning resulting in a decreased agency usage and a decrease in staff turnover rates.

Leadership

- Leadership and Direction to the Nursing and Midwifery staff working in partnership with the Multi-Disciplinary Team and Stakeholders especially the women and their families.
- Ensure that Midwifery & Nursing practice reflects and delivers the CWIUH Strategy, National Maternity Strategy 2016-2026, National Standards for Safer Better Maternity Services (HIQA) and NMBI Standards for Nurses and Midwives.

Overview of Activities in 2018

2018 was an amazingly diverse year. Storm Emma in February demonstrated what a resilient, committed and dedicated team of Midwives, Nurses, HCAs and Multidisciplinary Team we have in the CWIUH. They continued to ensure safe quality care to all the women, babies and families during this difficult period. At National level the 'Yes' vote in May to repeal the Eighth Amendment and the demands of the CervicalCheck Programme increased demands on both Cytology and Colposcopy Services. Everyone worked together as a great Team supporting each other. Further collaborative Teamwork in August with the Papal visit to Dublin ensured staff and women and families travelled to and from the CWIUH with minimal disruption.

An unannounced HIQA inspection was conducted in August 2018 on the compliance with the National Standards for Safer Better Maternity Services with a focus on the Management of Obstetric Emergencies. The HIQA team visited a number of clinical areas within the hospital and met with the Senior Management Team, Medical, Nursing, Midwifery and Administrative Staff. Feedback at the time was positive and a full report is expected in 2019.

"Back to Basics" continued to be our focus and guide for 2018, ensuring that every woman receive the Gold Standard of "One to One Care" in the Delivery Suite. This was achieved by the guidance and support of the Delivery Suite Clinical Midwife Managers. The passion, care and support given by the Midwives, Nurses and Healthcare Assistants is reflected throughout this annual report. Their eagerness and enthusiasm to give "Excellence in Care" was demonstrated throughout the year and the achievements of 2018 listed in the various clinical reports would not have been possible without the dedication and commitment of all the staff. Very sincere thanks to all the Staff Midwives and Nurses and HCAs that welcomed, supported and mentored all the 52 (49.3WTEs) newly recruited staff throughout the year.

A very sincere thanks to all the staff for their hard work and caring ethos and a very sincere thanks also to the Assistant Directors of Midwifery & Nursing and Night Superintendents for their support, guidance, help and kindness that they continually gave to all the staff throughout the year.

Workforce Planning

Recruitment and retention of Midwives and Nurses continued to be a top priority in 2018. Very sincere thanks to the Human Resources Team for their wonderful support and assistance throughout the year in the recruitment process. A CWIUH Team comprising of three Midwives and Human Resources attended the Midwifery Festival in Dublin and Birmingham. Two ADoM&Ns travelled to Dubai in December and successfully recruited Theatre and Neonatal Staff.

We welcomed funding from the National Women & Infants Programme (NWIHP) for four Staff Midwives, one CNS in anomaly scanning and an Advanced Midwife Practitioner (AMP) under Service Developments. The Nursing & Midwifery Planning & Development Unit also supported and funded an AMP.

To support retention:

- A dedicated induction programme was introduced for newly appointed Staff Midwives and Nurses. The Practice Development Team and the Clinical Skills Facilitators supported and helped implement the programme.
- A Clinical Skills Facilitator was recruited to help support staff at ward-level.
- CMM1 posts on the Maternity floors were re-introduced to ensure Staff development into Management.
- Two AMP candidate posts were secured - 1) High Risk Care and 2) Models of Care pathways.
- Rotation continues and this year the CMM3s in OPD, Delivery Suite, and the Maternity floors presented the vision, the learning outcomes and the quality improvement or LEAN initiatives of each area to the Midwifery & Nursing Staff. This enabled clarity and transparency of rotation and removed the fear. It also highlighted the great learning and education opportunities offered in each area.
- Introduction of an easy access to Q pulse via the Intranet enabling the CMMs identify staff training records and requirements in each ward.
- 'Growing our Own' initiative continues in the Ultrasound and OPD. The Midwives are placed on a training sonography course and when qualified will rotate between Ultrasound and OPD/ER.
- The Practice Development Team continued their 3-hour information sessions over the summer months for Staff Nurses with an interest in pursuing a career in Midwifery. A poster was placed at the front gates inviting and informing nurses to come join the CWIUH team.

Midwifery / Nursing Education

This year, eight Higher Diploma (HDip) Student Midwives commenced their Midwifery training out of 25 places. This deficit is concerning regarding the future training of Midwives and these concerns were raised with the NWIHP, the HSE and the DMHG. The DoM&N in both the CWIUH and the Rotunda, the Director of Nursing in the DMHG and the School of Midwifery & Nursing in TCD met to discuss the HDip Programme and recruitment into the Programme. The CWIUH Midwifery & Nursing Graduation Day took place on June 28th, 20 Staff Midwives graduated and 7 Staff Nurses graduated in the PgDip in Neonatal Intensive Care Nursing. The Return to Midwifery Practice Course commenced on 11th June and 2 midwives were accommodated in the CWIUH.

Approval and funding from the Nursing & Midwifery Planning Development Unit (NMPDU) was secured for 28 Midwives and Nurses to continue and/or commence study at Diploma/Post Graduate Diploma/MSc level and High Dependency Maternity Care module and Lactation IBLCLC Course. This financial support is critical to the Continuous Professional Development of the Midwives and Nurses. The 5th Annual Regional Nursing & Midwifery (NMPDU) Conference was held in Tallaght on the 13th of September. The CWIUH presented 3 posters: Induction of labour, Early Pregnancy Scanning and CMM3 Team Meetings.

To celebrate the International Day of the Midwife and 100 years of the Midwives Act, the Midwifery and Nursing Study Day was held on Thursday 10th May, entitled "Coombe Midwives leading the way with quality care: past, present and future". Ms Dawn Johnson, Director of Midwifery, NMBI, opened the meeting and a number of staff showcased the Quality Improvement Projects that they had undertaken within the hospital. The presentations comprised of staff presenting their research undertaken as part of their MSc studies and LEAN presentations, The Importance of Reflection and a Student Midwife gave a reflection on her journey in Midwifery. There were also 10 poster presentations and a white belt project entitled "Implementation of an education tool to assist women and their partners during the induction of labour process (St Patrick's Ward)" won 1st prize.

Both CMSs in Breastfeeding organised education sessions presented by the multidisciplinary team for the National Breastfeeding Week in October. All staff were invited and welcomed. Our CMM3 in Community and our Parent Education CMM2 attended the *Tallaght Health Fair* in September where members of the public can see the full range of services available and provided by the CWIUH, Public Health Nurses and voluntary organisations. They were also involved in the ATTI initiative *"Tallaght welcomes Breastfeeding"* which is aimed at increasing awareness of, support of and the uptake of breastfeeding in the Dublin 24 region. Staff Midwife Ger Chawke completed her HDip in Infection, Prevention & Control. The ADoM&N & S/M Chawke attended the *Infection Prevention and Control All Ireland Conference* meeting in May. World Hand Hygiene Day was celebrated in the CWIUH during the week commencing 30th April. The theme was "It's in YOUR HANDS: PREVENT SEPSIS in Health Care". 168 staff participated in the programme of events consisting of Glow Box and Surewash.

The CMM3 in Community and the ACMM3 in OPD completed a certificate in Future Leaders in Midwifery & Nursing. Toolbox education sessions, supported by the CSFs, continued throughout the year with a focus on the clinical handover guideline, the use of the ISBAR for communication and the K2 CTG programme. Each month there was a dedicated education focus. Mandatory training continues to be supported and encouraged, with ownership at ward level utilising Q Pulse. Staff Midwife Bronagh O'Connell was nominated to represent the CWIUH as our 'Midwife Champion' in the NWIHP. Well done to Sarah Lodola (CPC) on the publication of her article *'Prelabour Rupture of Membranes Hospital or Home?'*.

The ACMM3 in the Neonatal Centre and the Neonatal Team organised a series of events to mark *'World Prematurity Week'* in November. This year's Annual Prematurity Symposium focused on *Stress and Pain.* In addition to this symposium, other events were planned including a tea party for parents of babies in the Neonatal Centre and a "Graduate Gathering" with 75 families attending to celebrate 50 years of Neonatal care in the CWIUH. It was a great celebration; graduate ages ranged from 11 months to 35 years. On World Prematurity Day 17th November, the Hospital Foyer was decorated with posters, lights, balloons, and information booklets for families.

The Director of Midwifery & Nursing attended the *National Standards* in Bereavement in Croke Park Conference Centre, the *Values of Nursing & Midwifery* in Dublin Castle, *The Global Gathering* for Healthcare in Ireland, the Maternity Strategy in Farmleigh, the Big Conversation with NWIHP and *The Challenges of Managing the Sick Pregnant Woman in the General Hospital Setting* in St James's Hospital. The Night Superintendent and CMM3 for the Maternity floors attended HMI Annual conference in the RDS.

Quality Improvement/ Risk Issues

Six CMMs, the Clinical Risk Manager, CNS in Occupational Health and the ADoM&N in Practice Development attended a 2-day course on Clinical Incident Stress Management (CISM) training in the Wisdom Centre. After Action Review (AAR) training was also offered to staff.

Five green belt LEAN projects commenced in the Delivery Suite, SCBU, OPD, Postnatal and Antenatal wards, while five white belts also commenced. These projects are looking at quality, processes and outcomes. There is also a multidisciplinary meeting organised to review the process of the Diabetic Clinics.

A new pilot project initiated by the CMM3 group commenced in July involving the introduction of a "huddle" meeting at 10am Monday to Friday for key staff members on duty each day. The meetings last approximately 10 minutes. Attendees include the ADOM on duty, Midwifery and Nursing representatives from each clinical area and a medical on-call representative from each specialty, ideally the Registrar on-call or the Consultant. The aim of this "huddle" is to improve communication across the disciplines and is a way of highlighting any significant challenges or risks across the Hospital each day. To date, the feedback has been very positive.

Other quality improvements such as the Obstetric Anal Sphincter Injury (OASIs) Quality Improvement Project continued with ongoing education sessions, debriefing and audit. Other quality initiatives commenced throughout the year such as: *Improving the Induction of Labour Experience of Women, Improving Discharge Information for Gynaecology Patients, Improving the Nutrition Service, Improving the Surgical Site Infection Rate for Women having C-Section, Review of Post-Partum Haemorrhage.* All the projects involve the multidisciplinary teams throughout the CWIUH. In collaboration with the HSE's Microsystems (QI) Facilitator, the OPD/ER multidisciplinary team commenced a project on *'Improving our patients' experience of check-in for Emergency Room'*. This was a great success as it enabled a clear pathway for the women attending ER.

Going forward into 2019 let our values continue to drive us to guide and support us to deliver holistic, quality and safe care to every woman, baby & family that we care for.

Let us:

Create a better future by embracing the National Maternity Strategy

Work in collaboration with Women & their families

Innovation & Integrity by providing evidence-based care, abide by clinical governance and ensure a culture of open transparency

Unity in working together and respecting and supporting each other.

Holistic and compassionate care for women, babies & families & staff, treating each other with kindness.

Ms Ann MacIntyre

Director of Midwifery & Nursing

Activity Data

Dublin Maternity Hospitals – Combined Clinical Data

Dr Sharon Sheehan, *Master*

The following tables have been agreed to form the common elements of the Three Dublin Maternity Hospitals Report.

1. Total Mothers Attending

Mothers delivered ≥ 500 grams	8154
Mothers delivered < 500 grams & miscarriages	578
Gestational Trophoblastic Disease	16
Ectopic pregnancies	79
Total mothers	**8827**

** Does not include all spontaneous miscarriages*

2. Maternal Deaths 1

3. Births ≥ 500g

Singletons	7978
Twins	344*
Triplets	8*
Quadruplets	0
Total	**8330**

**excludes babies <500g*

4. Obstetric Outcome (%)

Spontaneous vaginal delivery	51.8
Forceps	4.8
Ventouse	9.8
Caesarean Section	33.8
Induction	37.0

5. Perinatal Deaths ≥ 500g

Antepartum Deaths	20
Intrapartum Deaths	0
Stillbirths	20
Early Neonatal Deaths	16
Late Neonatal Deaths	5
Congenital Anomalies	16

*** 7 SB, 7 END, 2 LND*

6. Perinatal Mortality Rates ≥ 500g

Overall perinatal mortality rate per 1000 births	4.3
Perinatal mortality rate corrected for lethal congenital anomalies	2.7
Perinatal mortality rate including late neonatal deaths	4.9
Perinatal mortality rate excluding unbooked cases	4.2
Corrected perinatal mortality rate excluding unbooked	2.5
Corrected perinatal mortality rate excluding those initially booked elsewhere	1.6

7. Age

Age (Years)	Nulliparous*	Parous*	**Total**	
	N	N	**N**	**%**
< 20 yrs	98	16	**114**	**1.4**
20-24 yrs	439	253	**692**	**8.5**
25-29 yrs	735	739	**1474**	**18.1**
30-34 yrs	1276	151	**2797**	**34.3**
35-39 yrs	728	1774	**2502**	**30.7**
40+ yrs	153	422	**575**	**7.1**
Total	**3429**	**4725**	**8154**	**100**

**nulliparous and parous refer to the maternal status at booking or at first presentation to the hospital; nulliparous = never having delivered an infant ≥ 500g; parous = having delivered at least one infant ≥ 500g*

8. Parity

Age (Years)	Nulliparous	Parous	**Total**	
	N	N	**N**	**%**
Para 0	3429		**3429**	**42.1**
Para 1		2802	**2802**	**34.4**
Para 2-4		1822	**1822**	**22.3**
Para 5+		101	**101**	**1.2**
Total	**3429**	**4725**	**8154**	**100**

9. Country of Birth & Nationality

Country	N	%
Ireland	5721	70.2
Britain	235	2.9
EU	841	10.3
EU Accession Countries 2007	200	2.4
Rest of Europe (including Russia)	144	1.8
Middle East	58	0.7
Rest of Asia	478	5.8
Americas	179	2.2
Africa	261	3.2
Australasia	22	0.3
Uncoded	15	0.2
Total	**8154**	**100**

10. Socio-Economic Groups

Socio-Economic Group	N	%
Higher Profession	751	9.2
Lower Profession	2808	34.4
Clerical	1168	14.3
Skilled	773	9.5
Semi-Skilled	563	6.9
Unskilled	303	3.7
Unemployed	1690	20.7
Unsupported	40	0.5
Military	2	0.02
Not Classified	53	0.7
Not Answered	3	0.04
Total	**8154**	**100**

11. Birth Weight

Grams	Nulliparous N	Parous N	Total N	Total %
500 – 999	28	22	**50**	**0.6**
1000 – 1499	22	26	**48**	**0.6**
1500 – 1999	72	56	**128**	**1.5**
2000 – 2499	208	189	**397**	**4.7**
2500 – 2999	487	636	**1123**	**13.5**
3000 – 3499	1201	1541	**2742**	**32.9**
3500 – 3999	1092	1670	**2762**	**33.2**
4000 – 4499	379	592	**971**	**11.7**
4500 – 4999	25	76	**101**	**1.2**
≥ 5000	2	6	**8**	**0.1**
Total	**3516**	**4814**	**8330**	**100**

12. Gestational Age

Weeks	Nulliparous N	Parous N	Total N	Total %
< 26 weeks	7	11	**18**	**0.2**
26 – 29 weeks + 6 days	29	22	**51**	**0.6**
30 – 33 weeks + 6 days	80	60	**140**	**1.7**
34 – 36 weeks + 6 days	206	269	**475**	**5.7**
37 – 41 weeks + 6 days	3153	4438	**7591**	**91.1**
42+ weeks	39	13	**52**	**0.6**
Not Answered	2	1	**3**	**0.0**
Total	**3516**	**4814**	**8330**	**100**

13. Perineal Trauma after Spontaneous Vaginal Delivery (SVD)

	Nulliparous		Parous		**Total**	
	N	%	N	%	**N**	**%**
Episiotomy	313	24.8	159	5.4	**472**	**11.2**
First degree tear	199	15.7	639	21.6	**838**	**19.8**
Second degree tear	553	43.8	910	30.7	**1463**	**34.6**
Third degree tear	51	4.0	33	1.1	**84**	**2.0**
Fourth degree tear	2	0.2	1	0.0	**3**	**0.1**
Other	709	56.1	1092	36.9	**1801**	**42.6**
Intact	80	6.3	861	29.1	**941**	**22.3**
Total Spontaneous Vaginal Deliveries	**1264**		**2963**		**4227**	

14. Third Degree Tears (N = 139)

	Nulliparous	Parous	**Totals***	
	N	N	**N**	**%**
Occurring spontaneously	51	33	**84**	**60.4**
Associated with episiotomy	39	4	**43**	**30.9**
Associated with forceps	26	4	**30**	**21.6**
Associated with ventouse	15	3	**18**	**12.9**
Associated with ventouse + forceps	8	0	**8**	**5.8**
Associated with O.P. position	11	3	**14**	**10.1**
Total Third Degree Tears	**99**	**40**	**139**	

** % of all third degree tears; tears may be recorded in > one category*

15. Perinatal Mortality in Normally Formed Stillborn Infants (N= 13)

	Nulliparous	Parous	**Total**
Abruption	2	0	**2**
Cord accident	1	1	**2**
Uterine rupture	0	2	**2**
Fetal thrombotic vasculopathy	0	1	**1**
Placental insufficiency	1	0	**1**
Coroner's results awaited	0	1	**1**
Unexplained	2	2	**4**
Total	**6**	**7**	**13**

16. Perinatal Deaths in Infants with Congenital Malformation (N = 14)*

	Nulliparous	Parous	**Total**
Chromosomal	2	4	**6**
Neural tube defects	2	1	**3**
Cloacal Dysgenesis Sequence	1	0	**1**
Thanatophoric Dysplasia	0	1	**1**
Severe Limb Body Wall Complex	0	1	**1**
Renal Agenesis	0	1	**1**
Congenital Cardiac Disease	1	0	**1**
Total	**6**	**8**	**14**

** 7 SB, 7 END*

17. Neonatal Deaths ≥500g (N= 21)*

	Nulliparous	Parous	**Total**
Congenital	5	4	**9**
Extreme Prematurity / Infection	3	1	**4**
Extreme Prematurity / IVH	1	2	**3**
Extreme Prematurity / Pulmonary Haemorrhage	1	0	**1**
Extreme Prematurity / NEC	0	1	**1**
Sepsis	0	1	**1**
HIE / Pulmonary Haemorrhage / RDS	1	0	**1**
Parechovirus infection	0	1	**1**
Total	**11**	**10**	**21**

** 16 END, 5 LND*

18. Overall Autopsy Rate 42 %

19. Hypoxic Ischaemic Encephalopathy - Inborn (Grade II and III) 8

20. Severe Maternal Morbidity (N=67 mothers*)

	Nulliparous	Parous	**Total**
Massive Obstetric Haemorrhage	14	26	**40**
Renal / Liver dysfunction	6	4	**10**
Peripartum hysterectomy	0	6	**6**
Septic Shock	2	0	**2**
Pulmonary Embolus	0	2	**2**
Uterine Rupture	0	2	**2**
Pulmonary Oedema	2	0	**2**
CVA	0	1	**1**
ICU	4	3	**7**
Acute Respiratory Dysfunction	1	0	**1**
Other	4	1	**5**

**Some patients are included in more than one category*

21. Financial Summary at 31st December 2018

Income	€,000	€,000
Department of Health Allocation 2018	62,736	
Patient Income	10,635	
Other	4,811	
		78,182
Pay		
Medical	11,557	
Nursing	21,444	
Other	28,597	
		61,598
Non Pay		
Drugs & Medicines	2,255	
Medical & Surgical Appliances	4,788	
Insurances	100	
Laboratory	2,713	
Other	6,308	
		16,164
Net Surplus 2018		420
Taxes paid to Revenue Commissioners Year ended 31st December 2018		
PAYE & USC		10,406
PRSI EE		1,787
PRSI ER		4,658
Withholding Tax		150

Does not include any deficit balances carried forward from previous years

Statistical Summaries

Dr Sharon Sheehan, *Master*

1. Mothers Attending Hospital

	2012	2013	2014	2015	2016	2017	**2018**
Mothers delivered ≥ 500 grams	8419	7986	8632	8220	8233	7975	**8154**
Mothers delivered < 500 grams and Miscarriages*	627	563	632	649	589	586	**578**
Gestational Trophoblastic Disease	19	14	6	8	6	24	**16**
Ectopic Pregnancies	110	89**	124	124	113	104	**79**
Total Mothers	**9175**	**8610**	**9344**	**9001**	**8941**	**8689**	**8827**

** Does not include all spontaneous miscarriages*

*** method of collecting ectopic data changed in 2013*

2. Maternal Mortality

	2012	2013	2014	2015	2016	2017	**2018**
Maternal Deaths	3[1]	1[2]	1[3]	1[4]	0	0	**1[5]**

[1] *Suicide, Sudden Adult Death Syndrome (SADS) and Amniotic Fluid Embolism*

[2] *Cardiac arrest brought about by hyperkalaemia*

[3] *Amniotic Fluid Embolism (cardiac collapse & disseminated intravascular coagulopathy following amniotic fluid escape into the maternal circulation)*

[4] *Ruptured giant internal carotid artery aneurysm with systemic Fibromuscular Dysplasia*

[5] *Coroner's Report awaited*

3. Births ≥ 500g

	2012	2013	2014	2015	2016	2017	**2018**
Singleton	8258	7810	8463	8042	8048	7786	**7978**
Twins*	309	338	336	353	350	365	**344**
Triplets*	18	18	20	9	23	15	**8**
Quadruplets*	0	4	0	0	0	0	**0**
Total	**8585**	**8170**	**8819**	**8404**	**8421**	**8166**	**8330**

**excludes babies <500g*

4. Obstetric Outcomes

	2012	2013	2014	2015	2016	2017	**2018**
Induction of Labour	35.3%	33.8%	30.9%	31.7%	33.9%	34.8%	**37.0%**
Episiotomy	14.0%	13.2%	13.2%	13.9%	15.5%	17.9%	**17.9%**
Forceps Delivery	6.4%	5.2%	5.2%	5.8%	5.3%	5.3%	**4.8%**
Ventouse Delivery	8.9%	8.5%	9.3%	9.0%	9.1%	9.6%	**9.8%**
Caesarean Section	27.1%	28.0%	27.8%	29.3%	31.3%	31.8%	**33.8%**

5. Perinatal Deaths ≥ 500g

	2012	2013	2014	2015	2016	2017	**2018**
Stillbirths	33	31	41	29	21	27	**20**
Early Neonatal Deaths	20	29	13	19	18	22	**16**
Late Neonatal Deaths	8	6	2	7	6	11	**5**
Total	**61**	**66**	**56**	**55**	**45**	**60**	**41**

6. Perinatal Mortality Rates (PNMR) ≥ 500 g per 1000

Overall perinatal mortality rate per 1000 births	4.3
Perinatal mortality rate corrected for lethal congenital anomalies	2.7
Perinatal mortality rate including late neonatal deaths	4.9
Perinatal mortality rate excluding unbooked cases	4.2
Corrected perinatal mortality rate excluding unbooked	2.5
Corrected perinatal mortality rate excluding those initially booked elsewhere	1.6

7. Statistical Analysis of Obstetric Population

7.1 Age

Age (Years)	Nulliparous* N	Parous* N	**Total** N	%
<20	98	16	**114**	**1.4**
20 – 39	3178	4287	**7465**	**91.6**
40+	153	422	**575**	**7.1**
Total	**3429**	**4725**	**8154**	**100**

**nulliparous and parous refer to the maternal status at booking or at first presentation to the hospital; nulliparous = never having delivered an infant ≥ 500g; parous = having delivered at least one infant ≥ 500g*

7.2 Category

Patient Category	Nulliparous* N	Parous* N	**Total** N	%
Public	2704	3722	**6426**	**78.8**
Semi-Private	300	369	**669**	**8.2**
Private	425	633	**1058**	**13.0**
Total	**3429**	**4725**	**8154**	**100**

7.3 Birthplace

Mother's Country of Birth	N	%
Republic of Ireland	5721	70.2
EU	1276	15.6
Non EU	1142	14.0
Uncoded	15	0.2
Total	**8154**	**100**

7.4 Parity

	Nulliparous*	Parous*	**Total**	
	N	N	**N**	**%**
Para 0	3429		**3429**	**42.1**
Para 1		2802	**2802**	**34.4**
Para 2-4		1822	**1822**	**22.3**
Para 5+		101	**101**	**1.2**
Total	**3429**	**4725**	**8154**	**100**

7.5 Birth Weight

	Nulliparous*	Parous*	**Total**	
	N	N	**N**	**%**
500 – 999	28	22	**50**	**0.6**
1000 – 1499	22	26	**48**	**0.6**
1500 – 1999	72	56	**128**	**1.5**
2000 – 2499	208	189	**397**	**4.7**
2500 – 2999	487	636	**1123**	**13.5**
3000 – 3499	1201	1541	**2742**	**32.9**
3500 – 3999	1092	1670	**2762**	**33.2**
4000 – 4499	379	592	**971**	**11.7**
4500 – 4999	25	76	**101**	**1.2**
> 5000	2	6	**8**	**0.1**
Total	**3516**	**4814**	**8330**	**100**

7.6 Gestational Age

	Nulliparous* N	Parous* N	Total N	%
< 26 weeks	7	11	**18**	**0.2**
26-29 weeks + 6 days	29	22	**51**	**0.6**
30-33 weeks + 6 days	80	60	**140**	**1.7**
34-36 weeks + 6 days	206	269	**475**	**5.7**
37-41 weeks + 6 days	3153	4438	**7591**	**91.1**
42+ weeks	39	13	**52**	**0.6**
Not Answered	2	1	**3**	**0.0**
Total	**3516**	**4814**	**8330**	**100**

8. Statistical Analysis of Hospital Population, 2012 – 2018

8.1 Age, 2012 – 2018

Age at Delivery (Years)	2012 (n=8419)	2013 (n=7986)	2014 (n=8632)	2015 (n=8220)	2016 (n=8233)	2017 (n=7975)	**2018 (n=8154)**
<20	2.6%	2.1%	1.9%	1.9%	2.1%	1.7%	**1.4%**
20 – 24	11.7%	10.6%	9.3%	8.5%	8.6%	8.6%	**8.5%**
25 – 29	23.3%	22.7%	20.2%	19.9%	18.5%	18.5%	**18.1%**
30 – 34	34.4%	35.6%	36.1%	36.3%	36.4%	34.0%	**34.3%**
35 – 39	23.0%	23.4%	26.2%	27.3%	27.8%	30.4%	**30.7%**
>40	5.0%	5.6%	6.3%	6.1%	6.6%	6.8%	**7.0%**

8.2 Parity, 2012 – 2018

Parity	2012 (n=8419)	2013 (n=7986)	2014 (n=8632)	2015 (n=8220)	2016 (n=8233)	2017 (n=7975)	**2018 (n=8154)**
0	40.2%	38.7%	39.1%	38.5%	40.0%	40.9%	**42.1%**
1,2,3	56.5%	57.7%	57.7%	58.6%	57.0%	56.3%	**55.2%**
4+	3.3%	3.6%	3.2%	2.9%	3.0%	2.8%	**2.7%**

8.3 Birth Weight, 2012 – 2018

Birth Weight (grams)	2012 (n=8419)	2013 (n= 8170)	2014 (n= 8819)	2015 (n= 8404)	2016 (n= 8421)	2017 (n=7975)	**2018 (n=8154)**
500 - 999	0.7%	0.7%	0.6%	0.6%	0.6%	0.7%	**0.6%**
1000 – 1499	0.8%	1.0%	0.7%	0.6%	0.6%	1.0%	**0.6%**
1500 – 1999	1.4%	1.7%	1.5%	1.5%	1.5%	1.4%	**1.5%**
2000– 2499	4.3%	4.6%	4.3%	4.2%	4.0%	4.3%	**4.8%**
2500– 2999	13.8%	12.9%	13.9%	13.4%	13.9%	12.8%	**13.5%**
3000– 3499	33.4%	33.4%	34.0%	34.3%	33.9%	33.5%	**32.9%**
3500– 3999	33.0%	32.8%	32.9%	33.1%	33.0%	34.0%	**33.1%**
4000– 4499	10.7%	11.3%	10.4%	10.7%	10.8%	10.7%	**11.7%**
>4500	1.9%	1.6%	1.7%	1.6%	1.5%	1.5%	**1.3%**
Unknown	0.7%	0.0%	0.0%	0.0%	0.2%	0.1%	**0.0%**

8.4 Gestation, 2012 – 2018

Gestation (weeks)	2012 (n=8419)	2013 (n=8170)	2014 (n=8819)	2015 (n=8220)	2016 (n=8233)	2017 (n=7975)	**2018 (n=8154)**
<28 weeks	0.5%	0.6%	0.5%	0.5%	0.5%	0.5%	**0.5%**
28 – 36	6.0%	6.7%	6.2%	6.2%	6.0%	6.5%	**6.4%**
37 – 41	93.2%	92.3%	92.7%	92.8%	92.9%	92.2%	**92.4%**
42+	0.3%	0.4%	0.6%	0.4%	0.6%	0.7%	**0.6%**
Unknown	0.0%	0.0%	0.04%	0.1%	0.0%	0.1%	**0.0%**

9. In-patient Surgery, 2012 – 2018

	2012	2013	2014	2015	2016	2017	**2018**
Obstetrical	3239	3308	3630	3590	3663	3544	**3748**
Cervical	1034	838	882	752	828	844	**872**
Uterine	2668	2897	2696	2704	2761	2543	**2564**
Tubal & Ovarian	1051	1032	916	844	847	812	**775**
Vulval & Vaginal	367	522	408	361	423	360	**427**
Urogynaecology	224	336	328	329	365	410	**377**
Other	60	47	31	38	31	43	**56**
Total	**8650**	**8980**	**8891**	**8618**	**8918**	**8556**	**8819**

10. Outpatient Attendances, 2012 – 2018

	2012	2013	2014	2015	2016	2017	**2018**
Paediatric	9378	8690	8587	6829	6572	5545	**6393**
Obstetrical / Gynaecological*	101448	111204	110985	109201	105521	112074	**111211**

**excludes Colposcopy and Perinatal Centre*

11. In-patient Admissions*, 2012 – 2018

	2012	2013	2014	2015	2016	2017	**2018**
Obstetrics	17185	16746	17637	16398	17006	16514	**16709**
Gynaecology	1082	1182	1028	966	943	812	**737**
Paediatrics	1057	1124	1106	1052	1424	1105	**1128**

**Figure based on discharges*

12. Bed Days (Overnight admissions), 2012 – 2018

	2012	2013	2014	2015	2016	2017	**2018**
Infants	12653	12200	11765	12673	14206	14503	**13592**
Adults	45626	43530	41198	40695	42329	39691	**40199**

13. Day Case Admissions, 2012 – 2018

	2012	2013	2014	2015	2016	2017	**2018**
Obstetrical	12741	10092	12268	12453	12841	13160	**13540**
Gynaecological	8045	11997	9850	8510	8495	8185	**7885**
Total	**20786**	**22089**	**22136**	**20963**	**21336**	**21345**	**21425**

14. Adult Emergency Room (ER) & Early Pregnancy Assessment Unit (EPAU), 2012 – 2018

	2012	2013	2014	2015	2016	2017	**2018**
ER	7802	8136	9457	9573	9026	9351	**9163**
EPAU	4293	4368	4654	5106	4460	4213	**4178**

15. Perinatal Day Centre Attendances (PNDC) & Perinatal Ultrasound (PNU)*, 2012 – 2018

	2012	2013	2014	2015	2016	2017	**2018**
PNU*	28701	27732	26039	28161	28913	28858	**29620**
PNDC**	12372	11534	12217	13012	12471	12196	**12648**

** refers only to scans performed in the Perinatal Ultrasound Dept.* *** excludes all telephone consultations with Diabetic patients.*

16. Laboratory Tests, 2012 – 2018

	2012	2013	2014	2015	2016	2017	**2018**
Microbiology	44672	44672	44514	42573	41639	44387	**44764**
Biochemistry*	172734	162045	205475	218565	216849	207686	**213994**
Haematology	45718	46877	50717	53961	55111	54298	**51418****
Transfusion	22076	22866	25273	26537	26328	29464	**29099**
Cytopathology	10428	16774	27355	25589	26161	26185	**31814**
Histopathology	5606	5696	5877	6001	6331	6380	**6796**
Post mortems	40	41	50	35	33	32	**32**
Phlebotomy	19394	19931	21084	23641	25250	37870	**38287**

** includes POCT tests* ***counting method changed late 2017*

Perinatal Mortality and Morbidity

Dr Sharon Sheehan, *Master*
Dr John Kelleher, *Director of Paediatrics and Newborn Medicine*
Mrs Julie Sloan, *Research Midwife*

A. Overall Statistics

1. Perinatal Deaths ≥ 500g

Antepartum Deaths	**20**
Intrapartum Deaths	**0**
Stillbirths	**20**
Early Neonatal Deaths	**16**
Late Neonatal Deaths	**5**
Congenital Anomalies	**16**

*** 7 SB, 7 END, 2 LND*

2. Perinatal Mortality Rates ≥ 500g

Overall perinatal mortality rate per 1000 births	**4.3**
Perinatal mortality rate corrected for lethal congenital anomalies	**2.7**
Perinatal mortality rate including late neonatal deaths	**4.9**
Perinatal mortality rate excluding unbooked cases	**4.2**
Corrected perinatal mortality rate excluding unbooked	**2.5**
Corrected perinatal mortality rate excluding those initially booked elsewhere	**1.6**

3. Perinatal Mortality by Mother's Age

Mother's Age at Delivery	Perinatal Deaths N	Perinatal Deaths %	PMR	**Total Births N**
<20 years	2	5.6	17.5	**114**
20-24 years	1	2.8	1.4	**700**
25-29 years	4	11.1	2.7	**1489**
30-34 years	17	47.2	5.9	**2865**
35-39 years	9	25.0	3.5	**2567**
≥40 years	3	8.3	5.0	**595**
Total	**36**	**100**		**8330**

4. Perinatal Mortality by Mother's Parity

Mother's Parity at Booking	Perinatal Deaths N	Perinatal Deaths %	PMR	Total Births N
Para 0	17	47.2	4.8	**3516**
Para 1	6	16.7	2.1	**2852**
Para 2-4	12	33.3	6.5	**1860**
Para 5+	1	2.8	9.8	**102**
Total	**36**	**100**	**4.51**	**8330**

5. Perinatal Mortality by Birthweight

Birthweight	Perinatal Deaths N	Perinatal Deaths %	PMR	Total Births N
500-999g	15	41.7	300.0	**50**
1000-1499g	9	25.0	187.5	**48**
1500-1999g	6	16.7	46.9	**128**
2000-2499g	3	8.3	7.6	**397**
2500-2999g	0	0.0	0.0	**1123**
3000-3499g	1	2.8	0.4	**2742**
3500-3999g	2	5.6	0.7	**2762**
4000-4499g	0	0	0.0	**971**
4500-4999g	0	0	0.0	**101**
5000g +	0	0	0.0	**8**
Total	**36**	**100**		**8330**

6. Perinatal Mortality by Gestational Age

Gestation	Perinatal Deaths N	Perinatal Deaths %	PMR	Total Births N
<26 weeks	7	19.4	388.9	**18**
26-29+6 weeks	9	25.0	176.5	**51**
30-33+6 weeks	8	22.2	57.1	**140**
34-36+6 weeks	7	19.4	14.7	**475**
37-41+6 weeks	4	11.1	0.5	**7591**
42 + weeks	0	0.0	0.0	**52**
Not Answered	1	208	333.3	**3**
Total	**36**	**100**		**8330**

7. Perinatal Mortality in normally formed babies ≥34 weeks and ≥2.5kg

Normally formed babies ≥34 weeks and ≥2.5kg	**7704**
Perinatal Deaths	**2**
PMR	**0.26**

8. Perinatal Mortality in Normally Formed Stillborn Infants (N= 13)

	Nulliparous	Parous	**Total**
Abruption	2	0	**2**
Cord accident	1	1	**2**
Fetal thrombotic vasculopathy	0	1	**1**
Uterine rupture	0	2	**2**
Unexplained	2	2	**4**
Coroner's results awaited	0	1	**1**
Placental insufficiency	1	0	**1**
Total	**6**	**7**	**13**

9. Intrapartum Deaths ≥500g 0

10. Perinatal Deaths in Infants with Congenital Malformation (N = 14)*

	Nulliparous	Parous	**Total**
Chromosomal	2	4	**6**
Neural tube defects	2	1	**3**
Cloacal Dysgenesis Sequence	1	0	**1**
Thanatophoric Dysplasia	0	1	**1**
Severe Limb Body Wall Complex	0	1	**1**
Renal Agenesis	0	1	**1**
Congenital Cardiac Disease	1	0	**1**
Total	**6**	**8**	**14**

** 7 SB, 7 END*

11. Neonatal Deaths ≥500g (N= 21)*

	Nulliparous	Parous	**Total**
Congenital	5	4	**9**
Extreme Prematurity / Infection	3	1	**4**
Extreme Prematurity / IVH	1	2	**3**
Extreme Prematurity / Pulmonary Haemorrhage	1	0	**1**
Extreme Prematurity / NEC	0	1	**1**
Sepsis	0	1	**1**
HIE / Pulmonary Haemorrhage / RDS	1	0	**1**
Parechovirus infection	0	1	**1**
Total	**11**	**10**	**21**

** 16 END, 5 LND*

12. Overall Autopsy Rate 42 %

13. Hypoxic Ischaemic Encephalopathy - Inborn (Grade II and III) 8

Division of Obstetrics

General Obstetric Report – Medical Report

Head of Division

Dr Sharon Sheehan, *Master*

1. Maternal Statistics

	2012	2013	2014	2015	2016	2017	**2018**
Mothers booking	8761	8554	9333	8933	8647	8653	**8608**
Mothers delivered ≥ 500g	8419	7986	8632	8220	8233	7975	**8154**

2.1 Maternal Profile at Booking – general demographic factors (%)

	2012	2013	2014	2015	2016	2017	**2018**	**N=8608**
Born in RoI	69.2	69.9	71.6	69.6	68.9	70.1	**69.1**	**5944**
Born in rest of EU	16.8	16.9	15.9	17.7	17.6	15.6	**15.4**	**1326**
Born outside EU	13.8	13.2	12.5	12.6	13.3	14.2	**15.4**	**1329**
Country not known	0.2	0.01	0.0	0.1	0.2	0.1	**0.1**	**9**
Resident in Dublin	65.9	65.7	64.6	63.7	63.3	62.6	**63.0**	**5425**
< 18 years	0.6	0.5	0.5	0.5	0.6	0.3	**0.3**	**30**
≥ 40 years	5.7	5.7	6.3	6.4	6.9	7.2	**7.3**	**630**
Unemployed	25.5	21.5	23.0	24.3	21.5	20.5	**19.5**	**1682**
Communication difficulties reported at booking	7.1	7.8	6.4	6.9	5.7	6.1	**5.1**	**441**

2.2 Maternal Profile at booking – general history (%)

	2012	2013	2014	2015	2016	2017	**2018**	**N = 8608**
BMI Underweight: <18.5	1.8	2.1	2.0	2.0	1.6	1.7	**1.6**	**135**
BMI Healthy: 18.5 – 24.9	53.3	51.6	52.5	51.6	50.7	49.3	**48.1**	**4145**
BMI Overweight: 25-29.9	28.2	28.9	26.8	29.2	29.3	29.7	**30.3**	**2613**
BMI Obese class 1: 30-34.9	11.1	11.0	9.9	10.8	11.9	12.3	**12.7**	**1090**
BMI Obese class 2: 35 – 39.9	3.7	4.3	3.9	4.2	4.4	4.5	**4.9**	**419**
BMI Obese class 3: ≥ 40	1.6	1.8	1.5	1.7	1.8	2.3	**2.1**	**182**
Unrecorded	0.3	0.3	3.5	0.4	0.2	0.2	**0.3**	**24**
Para 0	39.4	39.1	38.6	38.9	40.7	41.1	**41.8**	**3594**
Para 1-4	59.1	59.3	60.0	59.9	57.8	57.9	**57.0**	**4910**
Para 5 +	1.5	1.6	1.4	1.2	1.4	1.0	**1.2**	**104**
Unplanned pregnancy	30.5	31.2	27.7	28.9	27.6	26.6	**26.9**	**2315**
No pre-conceptual folic acid	56.5	56.6	52.6	54.1	52.9	49.6	**51.4**	**4425**
Current Smoker	13.5	12.8	10.5	11.1	10.0	9.4	**9.5**	**821**
Current Alcohol Consumption	1.5	1.4	1.5	1.1	1.0	0.7	**0.7**	**56**
Taking illicit drugs / methadone	0.8	0.7	0.5	0.3	0.2	0.3	**0.2**	**16**
Illicit drugs/Methadone ever	7.9	8.7	8.3	8.2	8.0	7.5	**7.8**	**675**
Giving history of domestic violence	1.0	0.9	1.0	1.0	0.9	0.9	**1.1**	**92**
Cervical smear never performed	20.7	21.7	18.7	19.9	19.1	19.2	**20.0**	**1720**
History of psychiatric / psychological illness /disorder	15.4	18.0	16.6	15.5	16.7	18.5	**21.1**	**1818**
History of postnatal depression	4.7	4.0	4.7	4.5	4.4	4.6	**4.1**	**355**
Previous perinatal death	2.1	1.7	2.3	1.6	1.5	1.7	**1.5**	**125**
Previous infant < 2500g	5.5	5.5	6.5	5.2	4.7	5.9	**4.9**	**425**
Previous infant < 34 weeks	1.3	2.7	2.7	2.4	2.1	2.6	**2.1**	**179**
One previous Caesarean section	12.2	12.6	13.8	12.9	12.7	12.7	**12.7**	**1092**
Two or more previous Caesarean sections	3.7	3.4	4.0	4.0	4.0	4.2	**4.6**	**392**

2.3 Maternal Profile in index pregnancy (Mothers delivered ≥ 500g) (%)

	2012	2013	2014	2015	2016	2017	**2018**	**N=8154**
Pregnancy Induced Hypertension	7.5	7.7	7.5	6.7	7.3	6.8	**6.8**	**556**
Pre-eclampsia	3.8	2.8	3.3	2.9	2.8	2.7	**2.3**	**191**
Eclampsia	0.01	0.06	0.00	0.02	0.05	0.00	**0.0**	**0**
Pregestational Type 1 DM	0.5	0.38	0.3	0.35	0.3	0.4	**0.4**	**33**
Pregestational Type 2 DM	0.2	0.23	0.17	0.32	0.2	0.3	**0.3**	**24**
Gestational DM	6.6	4.4	7.8	7.8	8.4	9.7	**10.4**	**851**
Placenta praevia	0.4	0.4	0.4	0.5	0.4	0.4	**0.6**	**49**
Abruptio placentae	0.2	0.3	0.2	0.4	0.2	0.1	**0.4**	**30**
Antepartum haemorrhage	4.4	5.6	6.6	5.3	5.7	5.3	**4.8**	**390**
Haemolytic antibodies	0.5	0.5	0.5	0.5	0.6	0.4	**0.6**	**52**
Hep C +	0.8	0.6	0.5	0.5	0.4	0.3	**0.2**	**16**
Hep B +	0.5	0.6	0.4	0.5	0.4	0.2	**0.3**	**22**
HIV +	0.2	0.3	0.2	0.3	0.2	0.2	**0.1**	**11**
Sickle cell trait	0.4	0.4	0.3	0.3	0.4	0.2	**0.4**	**31**
Sickle cell anaemia	0.1	0.02	0.1	0.02	0.05	0.03	**0.05**	**4**
Thalassaemia trait	0.6	0.4	0.3	0.5	0.3	0.4	**0.3**	**22**
Delivery < 28 weeks	0.6	0.6	0.5	0.5	0.5	0.5	**0.5**	**39**
Delivery < 34 weeks	1.3	2.7	2.2	2.2	2.1	2.2	**2.1**	**170**
Delivery < 38 weeks	14.3	13.9	13.6	14.3	13.9	14.5	**15.5**	**1264**
Delivery < 1500g	1.5	1.4	1.2	1.3	1.3	1.4	**1.1**	**88**
Delivery < 2500g	6.5	6.9	6.4	7.2	6.1	6.6	**6.6**	**540**
Unbooked mothers	1.7	1.3	1.6	0.9	0.7	1.0	**1.1**	**92**
LSCS	27.1	28.0	28.7	29.3	31.3	31.8	**2754**	**33.8**
Admissions to HDU	1.5	2.1	2.0	2.6	2.0	2.2	**2.0**	**163**
Severe Maternal Morbidity	0.5	0.5	0.5	0.4	0.8	0.7	**0.8**	**67**
Maternal Deaths (N)	3[1]	1[2]	1[3]	1[4]	0	0	**1[5]**	**1**

[1] *Suicide, Sudden Adult Death Syndrome (SADS) and Amniotic Fluid Embolism*

[2] *Cardiac arrest brought about by hyperkalaemia*

[3] *Amniotic Fluid Embolism (cardiac collapse and disseminated intravascular coagulopathy following amniotic fluid escape into the maternal circulation)*

[4] *Ruptured internal carotid artery aneurysm with Systemic Fibromuscular Dysplasia*

[5] *Coroner's Report awaited*

3.1 Induction of Labour 2018

	Nulliparous		Multiparous		**Total**	
	N	%	N	%	**N**	**%**
Inductions	1552	45.3	1462	30.9	**3016**	**37.0**

3.2 Induction of Labour 2012 - 2018

	2012	2013	2014	2015	2016	2017	**2018**
N	2969	2696	2664	2608	2789	2777	**3016**
%	35.3	33.8	30.9	31.7	33.9	34.8	**37.0**

4.1 Epidural Analgesia in Labour 2018

	Nulliparous		Multiparous		**Total**	
	N	%	N	%	**N**	**%**
Epidural Analgesia	1985	57.9	1329	28.1	**3314**	**40.6**

4.2 Epidural Analgesia in Labour 2012 - 2018

	2012	2013	2014	2015	2016	2017	**2018**
N	3744	3357	3530	3491	3112	3165	**3314**
%	44.5	42.0	40.9	42.5	37.8	39.7	**40.6**

5.1 Fetal Blood Sampling in Labour 2018

	N=
< 7.20	48
> 7.20	538
Total	**586**

5.2 Fetal Blood Sampling in Labour 2012 - 2018

	2012	2013	2014	2015	2016	2017	**2018**
N	758	689	756	783	892	702	**586**
%	9.0	8.6	8.8	9.5	10.8	8.8	**7.2**

6.1 Prolonged Labour 2018

	Nulliparous		Multiparous		**Total**	
	N	%	N	%	**N**	**%**
Prolonged Labour	43	1.3	193	4.1	**236**	**2.9**

6.2 Prolonged Labour 2012 - 2018

	2012	2013	2014	2015	2016	2017	**2018**
N	287	277	316	320	284	275	**236**
%	3.4	3.5	3.7	3.9	3.4	3.4	**2.9**

7.1 Mode of delivery (%) – Nulliparae 2012 - 2018

	2012	2013	2014	2015	2016	2017	**2018**
SVD	41.1	43.2	41.1	40.8	38.9	37.8	**36.9**
Vacuum	16.2	16.1	18.2	17.7	16.9	17.6	**18.1**
Forceps	13.6	11.4	11.2	13.0	11.5	11.0	**9.7**
LSCS	29.5	29.6	29.7	28.4	33.2	34.0	**35.7**

7.2 Mode of delivery (%) - Parous 2012 - 2018

	2012	2013	2014	2015	2016	2017	**2018**
SVD	69.4	68.1	67.1	65.9	64.9	64.3	**62.7**
Vacuum	3.9	3.6	3.6	3.2	3.9	4.1	**3.8**
Forceps	1.7	1.4	1.3	1.4	1.2	1.4	**1.2**
LSCS	25.5	26.9	28.1	29.8	30.0	30.3	**32.4**

7.3 Mode of delivery (%) – all mothers 2012 - 2018

	2012	2013	2014	2015	2016	2017	**2018**
SVD	58.0	58.5	57.0	56.2	54.5	53.4	**51.8**
Vacuum	8.9	8.5	9.3	9.0	9.1	9.6	**9.8**
Forceps	6.4	5.2	5.2	5.8	5.3	5.3	**4.8**
LSCS	27.1	28.0	28.7	29.3	31.3	31.8	**33.8**

8. Episiotomy (%) 2012 - 2018

	2012	2013	2014	2015	2016	2017	**2018**
Nulliparae	28.1	27.7	27.8	29.6	32.0	34.5	**33.8**
Parous	4.5	4.0	3.9	4.0	4.4	6.4	**6.4**
Overall	14.0	13.2	13.2	13.9	15.5	17.9	**17.9**

9.1 Shoulder Dystocia (SD) 2018

	Nulliparous		Multiparous		**Total**	
	N	%	N	%	**N**	**%**
Shoulder Dystocia	28	0.8	37	0.8	**65**	**0.8**

9.2 Shoulder Dystocia (SD) & Birth Weight

	Mothers of babies < 4kg		Mothers of babies ≥ 4kg	
	N	%	N	%
Shoulder Dystocia	37	0.5	28	2.6

9.3 Shoulder Dystocia 2012 - 2018

	2012	2013	2014	2015	2016	2017	**2018**
N	87	64	53	56	53	51	**65**
%	1.0	0.8	0.6	0.7	0.6	0.6	**0.8**

10.1 Third Degree Tears

	Nulliparous		Multiparous		**Total**	
	N	%	N	%	**N**	**%**
Third Degree Tears (overall)	99	2.9	40	0.8	139	1.7
Third Degree Tears (vaginal deliveries)	99	4.5	40	1.3	139	2.6

10.2 Third Degree Tears 2012 - 2018 (Mothers delivered vaginally)

	2012	2013	2014	2015	2016	2017	**2018**
N	130	145	160	166	147	110	**139**
%	2.1	2.5	2.6	2.9	2.6	2.0	**2.6**

11.1 Fourth Degree Tears 2018

	Nulliparous		Multiparous		**Total**	
	N	%	N	%	**N**	**%**
Fourth Degree Tears (overall)	5	0.1	2	0.04	**7**	**0.1**
Fourth Degree Tears (vaginal deliveries)	5	0.2	2	0.1	**7**	**0.1**

11.2 Fourth Degree Tears 2012 - 2018 (Mothers delivered vaginally)

	2012	2013	2014	2015	2016	2017	**2018**
N	6	7	8	9	11	3	**7**
%	0.1	0.1	0.1	0.1	0.2	0.1	**0.1**

12.0 Primary Post Partum Haemorrhage (1˚ PPH) 2012 – 2018

	2012	2013	2014	2015	2016	2017	**2018**
N	1160	1256	1256	1127	1483	1743	**1765**
%	13.8	15.7	14.6	13.7	18.0	21.9	**21.6**

12.1 1˚ PPH – Spontaneous Labour

	2012 %	2013 %	2014 %	2015 %	2016 %	2017 %	**2018 %**	**2018 N**
Nulliparae	11.4	11.6	12.0	12.0	15.1	18.2	**18.2**	**1414**
Parous	6.2	8.3	7.4	8.3	8.4	8.8	**9.4**	**1977**
Overall	8.2	9.6	9.1	9.6	11.0	12.6	**13.1**	**3391**

12.2 1˚ PPH – Induced Labour

	2012 %	2013 %	2014 %	2015 %	2016 %	2017 %	**2018 %**	**2018 N**
Nulliparae	19.1	26.2	22.5	20.1	25.3	30.8	**29.9**	**1554**
Parous	8.9	10.8	9.6	10.9	10.9	12.1	**13.3**	**1462**
Overall	13.8	18.1	16.0	15.3	18.2	21.5	**21.9**	**3016**

12.3 1˚ PPH – SVD

	2012 %	2013 %	2014 %	2015 %	2016 %	2017 %	**2018 %**	**2018 N**
Nulliparae	6.7	7.6	7.9	7.5	10.2	11.5	**11.9**	**1264**
Parous	5.0	6.2	5.7	6.9	6.3	7.4	**7.7**	**2963**
Overall	5.5	6.6	6.3	7.1	7.4	8.6	**9.0**	**4227**

12.4 1° PPH – Ventouse

	2012 %	2013 %	2014 %	2015 %	2016 %	2017 %	**2018 %**	**2018 N**
Nulliparae	10.2	9.4	10.9	8.3	13.3	16.7	**13.4**	**620**
Parous	6.0	9.5	5.3	8.7	8.7	10.4	**11.0**	**181**
Overall	9.1	9.4	9.6	8.4	12.1	15.2	**12.9**	**801**

12.5 1° PPH – Forceps

	2012 %	2013 %	2014 %	2015 %	2016 %	2017 %	**2018 %**	**2018 N**
Nulliparae	17.6	21.9	18.6	18.2	19.4	29.6	**31.2**	**333**
Parous	11.9	19.1	17.6	22.9	21.3	16.4	**15.3**	**59**
Overall	16.8	21.5	18.4	18.9	19.6	27.5	**28.8**	**392**

12.6 1° PPH – Caesarean Section by parity

	2012 %	2013 %	2014 %	2015 %	2016 %	2017 %	**2018 %**	**2018 N**
Nulliparae	33.2	44.0	38.2	33.4	43.2	50.0	**45.6**	**1225**
Parous	23.8	30.2	27.7	23.1	34.1	41.8	**38.5**	**1529**
Overall	28.0	35.8	31.9	26.9	38.0	45.3	**42.8**	**2754**

12.7 1° PPH – with Caesarean Sections (by priority status)

	2012* %	2013 %	2014 %	2015 %	2016 %	2017 %	**2018 %**	**2018 N**
Elective	21.3	27.0	26.5	19.6	32.7	40.9	**36.5**	**1407**
Emergency	34.5	43.7	36.9	35.4	43.7	50.1	**49.3**	**1347**
Overall	28.0	35.8	31.9	26.9	38.0	45.3	**42.8**	**2754**

12.8 1° PPH – Twin Pregnancy

	2012 %	2013 %	2014 %	2015 %	2016 %	2017 %	**2018 %**	**2018 N**
Nulliparae	35.3	59.1	50.0	46.0	50.6	60.5	**58.1**	**86**
Parous	24.1	25.3	43.6	23.5	43.3	39.8	**40.2**	**87**
Overall	29.0	39.4	56.4	33.1	46.9	48.9	**49.1**	**173**

13.0 Manual Removal of Placenta (%) 2012 – 2018

	2012	2013	2014	2015	2016	2017	**2018**
N	102	135	94	108	95	77	**86**
%	1.2	1.7	1.1	1.3	1.2	1.0	**1.1**

13.1 1° PPH in Manual Removal of Placenta 2012 – 2018

	2012	2013	2014	2015	2016	2017	**2018**
N	63	82	59	58	64	48	**60**
%	61.8	60.7	62.8	53.7	67.4	62.3	**70.0**

14.0 Mothers Transfused 2012 – 2018

	2012	2013	2014	2015	2016	2017	**2018**
N	148	181	169	155	200	220	**244**
%	1.7	2.3	2.0	1.9	2.4	2.8	**3.0**

14.1 Mothers who received Massive Transfusions (> 5units RCC) 2012 – 2018

	2012	2013	2014	2015	2016	2017	**2018**
N	15	7	4	4	5	10	**6**
%	0.2	0.1	0.05	0.05	0.06	0.1	**0.1**

15. Singleton Breech Presentation 2012 - 2018

	2012	2013	2014	2015	2016	2017	**2018**
Number of breech in nulliparae	174	150	151	144	180	166	**185**
% LSCS for breech in nulliparae	96.0	96.0	98.7	97.9	93.9	94.6	**97.3**
Number of breech in parous	159	171	167	174	167	157	**160**
% LSCS for breech in parous	93.1	93.0	95.2	91.9	91.0	93.0	**92.5**
Total number of breech	333	321	318	318	347	323	**345**
Total % LSCS	94.6	94.4	96.8	94.6	92.5	93.8	**95.1**

16. Twin Pregnancy 2012 – 2018

	2012	2013	2014	2015	2016	2017	**2018**
Number of Twin pregnancies in Nulliparae	68	71	76	76	87	81	**86**
% LSCS in Nulliparae	66.2	78.9	77.6	68.4	69.0	67.9	**75.6**
Number of Twin pregnancies in Parous	87	99	94	102	90	103	**87**
% LSCS in Parous	49.4	51.5	60.6	52.9	62.2	58.2	**55.2**
Total number of Twin pregnancies	155	170	169	178	177	184	**173**
Total % LSCS in Twin pregnancy	56.8	62.9	68.2	59.6	65.5	62.5	**65.3**

17. Operative Vaginal Delivery in Theatre 2012 - 2018

	2012	2013	2014	2015	2016	2017	**2018**
Operative Vaginal Delivery in Theatre	111	88	89	83	91	80	**69**

18. Classical Caesarean Section, Ruptured Uterus, Hysterectomy in Pregnancy 2012 - 2018

	2012	2013	2014	2015	2016	2017	**2018**
Classical Caesarean Section	2	4	3	6	2	6	**8**
Ruptured Uterus	1	0	2	0	0	3	**2**
Hysterectomy in pregnancy	2	2	0	2	5	3	**6**

19.1 Categories of Caesarean Section (Robson)

	Groups	Number of CS	Number in group	Contribution to total population	% CS
1	Nulliparous, single, cephalic, ≥ 37 wks, in Spontaneous Labour	156	1295	15.9%	12.0%
2	Nulliparous, single, cephalic, ≥=37 wks, induced and CS before labour	751	1698	20.8%	44.2%
A.	Nulliparous, single, cephalic, ≥=37 wks, induced	551	1498	18.4%	36.8%
B.	Nulliparous, single, cephalic, ≥ =37 wks, CS before labour	200	200	2.5%	100.0%
3	Multiparous (excl. prevCS) single, cephalic, ≥ =37wks, in Spontaneous Labour	29	1618	19.8%	1.8%
4	Multiparous (excl. prevCS) single, cephalic, ≥ =37 wks, induced and CS before labour	211	1443	17.7%	14.6%
A.	Multiparous (excl. prevCS), single, cephalic, ≥ =37 wks, induced	76	1308	16.0%	5.8%
B.	Multiparous (excl. prevCS), single, cephalic, ≥=37 wks, CS before labour	135	135	1.7%	100.0%
5	Previous CS, single, cephalic, ≥= 37wks	980	1201	14.7%	81.6%
6	Nulliparous, single, breech	181	186	2.3%	97.3%
7	Multiparous, single, breech (incl. prevCS)	148	160	2.0%	92.5%
8	Multiple pregnancies (incl. prevCS)	115	175	2.1%	65.7%
9	Abnormal Lies, single (incl. prevCS)	12	12	0.1%	100.0%
10	Preterm, single, cephalic (incl. prevCS)	171	363	4.5%	47.1%
	Gestation Not Answered	0	3	0.0%	0.0%
N	**Total CS/Total Mothers Delivered**	**2754**	**8154**	**100%**	**33.8%**

19.2 Vaginal Birth (%) after a single Previous Lower Segment Caesarean Section (VBAC) 2018

	Para 1	Para 1+	**Total**
VBAC	15.4	46.7	**22.7**
Elective LSCS	67.6	38.3	**60.8**
Emergency LSCS	16.9	15.0	**16.5**

19.3 Vaginal Birth (%) after a single Previous Lower Segment Caesarean Section (VBAC) 2012 – 2018

	2012 %	2013 %	2014 %	2015 %	2016 %	2017 %	**2018 %**	**2018 N**
Para 1	21.6	24.1	19.9	19.8	19.7	14.9	**15.4**	**121**
Para 1+	60.3	58.6	58.5	51.5	49.0	51.9	**46.7**	**112**
Overall	32.5	34.1	29.7	27.7	27.6	25.0	**22.7**	**233**

19.4 Caesarean Sections (%) 2012 – 2018

	2012	2013	2014	2015	2016	2017	**2018**
Nulliparae	29.5%	29.6%	29.7%	28.4%	33.2%	34.0%	**35.7%**
Parous	25.5%	26.9%	28.1%	29.8%	30.0%	30.3%	**32.4%**
Total	27.1%	28.0%	28.7%	29.3%	31.3%	31.8%	**33.8%**

20. Apgar score < 7 at 5 mins 2012 - 2018

	2012	2013	2014	2015	2016	2017	**2018**
N	98	97	74	70	67	70	**60**
%	1.2	1.2	0.9	0.8	0.8	0.9	**0.7**

21. Arterial Cord pH < 7 2012 - 2018

	2012	2013	2014	2015	2016	2017	**2018**
N	21	37	41	35	45	40	**35**
%	0.3	0.5	0.5	0.4	0.5	0.5	**0.4**

22. Admission to SCBU/NICU at 38 weeks+ 2012 - 2018

	2012	2013	2014	2015	2016	2017	**2018**
N	454	454	474	423	551	403	**398**
%	5.4	5.7	5.5	5.0	6.7	5.1	**4.9**

23. Born Before Arrival 2012 - 2018

	2012	2013	2014	2015	2016	2017	**2018**
N	22	31	36	29	28	32	**31**
%	0.3	0.3	0.3	0.3	0.3	0.4	**0.3**

24. Antepartum Haemorrhage (APH)*

	N=	PPROM	Preterm Labour	Preterm Delivery	Perinatal Deaths
Placental Abruption	15	2	1	10	1
Placenta Praevia	16	2	1	9	1
Other	359	21	19	47	1
Total**	**390**	**25**	**21**	**66**	**3**

** Table only includes women who presented with an APH*

*** Patients may be included in one or more group*

Addiction & Communicable / Infectious Diseases

Head of Department

Dr. Michael O'Connell, *Consultant Obstetrician & Gynaecologist*

Staff Complement

Orla Cunningham, *CMS Infectious Diseases & Clinic Manager (0.77 WTE)*

Deirdre Carmody, *CMS, Drug Liaison Midwife, HSE, CHO 7, Addiction Service*

Dr Cathy Monteith, *Registrar (Jan-Jul 2018)*

Dr Oxana Hughes, *Registrar (Jul-Dec 2018)*

Tanya Franciosa, *SMSW*

Louise Byrne, *Clinic Administrative Support*

Genitourinary Medicine *(St James's Hospital)*

Prof Fiona Mulcahy

Dr Fiona Lyons

Sinead Murphy *(HIV Liaison nurse)*

Dept. Of Hepatology *(St James's Hospital)*

Prof Suzanne Norris & team

Rainbow Team *(Our Lady's Children's Hospital Crumlin)*

Prof Karina Butler & team

Total Attendees in 2018: 352 women attended Team A Dr O'Connell, the majority of whom were provided with full antenatal care & postnatal follow-up. In addition a number of both antenatal and gynae patients attended for consultation and follow-up regarding positive STI screening.

Infectious Diseases (Hepatitis B & C, HIV, Genital HSV & Treponema pallidum):

- 19 women booked for antenatal care in 2018 tested positive for Hepatitis B virus, of whom 4 were newly diagnosed on antenatal screening. 8 women had a birth place in Eastern Europe, 6 were from Asia & South East Asia, 4 from Africa & 1 the Middle East. 8 further women showed evidence of resolved infection.
- 24 antenatal women tested positive for Hepatitis C, of whom 3 were newly diagnosed on antenatal screening. Of the 24, 12 were PCR positive and 12 were PCR negative. 11 women were born in Ireland, 7 originated in Eastern Europe, 4 from Africa & 2 were born in South East Asia. Of the 3 new diagnoses, 2 women originated from Africa & 1 from Eastern Europe.
- 18 antenatal women tested HIV positive, 2 of whom were newly diagnosed (both from Africa). 10 women in total originated from Africa, 2 from Eastern Europe, 1 from Europe and 5 from Ireland. 1 woman was co-infected with syphilis and 1 woman co-infected with Hepatitis B.
- 102 antenatal women received care with a history or outbreak in pregnancy of genital herpes virus. 51 women had positive PCR/antibody for HSV 1, 47 women had positive PCR/antibody for HSV 2, and 4 women had samples that could not be typed.
- 17 women were confirmed positive for Treponema pallidum, a 100% increase on the previous year. 5 women required treatment in pregnancy as new diagnoses, 4 of whom originated from Eastern Europe and 1 from Ireland. The remaining women had been appropriately treated previously.
- 98 antenatal women required follow up +/- repeat testing due to indeterminate serology attributed to cross-reactivity in pregnancy.
- No recorded incidence of mother to child transmission in 2018*.

Diagnosis and management of an Infectious disease in pregnancy challenges the healthcare provider with a myriad of complexities in the provision of antenatal and follow-up care. The clinic is specifically designed to ensure individualised education & care-planning, specialised counselling as well as disclosure and support services. Women are provided with a specific pathway into specialist on-going care, ensuring treatment and monitoring thereby often preventing disease progression, mother to child transmission and significantly reducing future healthcare costs in this high risk patient cohort.

Addiction

Key Performance Indicators

40 women linked with the DLM and attended our service in the CWIUH in 2018.

- The majority of the 40 women were attending an Addiction clinic for Opioid Substitution Treatment (OST) and were prescribed Methadone; 2 women were prescribed Buprenorphine. 2 women had a pre-

vious history of opiate dependency and chose to stay with Team A. 1 woman attended the clinic for information and support regarding OST and subsequently delivered in Portlaoise Hospital.

- The DLM linked in with 13 women who self-reported the use of cocaine and/or cannabis in pregnancy and were not opiate-dependant. From this cohort group, 3 women chose to attend Team A, Dr O'Connell for their antenatal care.

There were 24 opiate-dependant women who delivered 25 babies (1 set of twins) linked with the DLM. From this group of women:

- 4 babies (16%) were born preterm at less than 37 weeks gestation.
- 16 babies were admitted to ICU/HDU/SCBU and of these, 9 babies needed pharmacological treatment for Neonatal Abstinence Syndrome (NAS). The mean stay in ICU/HDU/SCBU was 25 days, ranging from 1 to 63 days. The mean length of stay for babies who received pharmacological treatment for NAS was 36 days, ranging from 14 to 63 days.

There has been a decrease in the number of women presenting on OST but a continued trend towards an aging heroin population who are presenting with more complex needs. Heroin is the primary drug of abuse and Benzodiazepine use continues to be a problem. There is a worrying increasing in cocaine use among this cohort group.

The Senior Medical Social Worker (SMSW) meets with all patients who attend the hospital with current drug or alcohol addictions. This allows for an individualised, focused, specialist service for these patients. The SMSW continued to be present at the weekly antenatal clinic and undertakes the following:

1) promotes the role within the MDT and increases patients' accessibility to the Medical Social Work Service.

2) provides on-going inter-disciplinary and inter-agency education and training regarding working with women experiencing a current addiction.

3) highlights trends of social complexities experienced by women in addiction which informed practice.

Additional KPIs

- Specialist service was also provided for additional women with high-risk pregnancies e.g. loss in pregnancy, sero-discordant couples, current STI, Tuberculosis.
- Couples continue to be seen in our Conception Clinic, which provides fertility investigations for both sero-positive & sero-discordant couples attempting to optimise conception, while safeguarding risk of transmission of HIV.
- The team continue to be actively involved in undergraduate & postgraduate education, providing speciality conferences at Hospital level and national level.

Achievements in 2018

- As a celebration of 10 years of our service at CWIUH, the team co-ordinated and presented at the esteemed Guinness Symposium, Oct 2018.
- Shared care approach for a number of our high-risk women, under the managed clinical network so they can now attend Portlaoise Hospital/GP services for part of their care, as well as managing referrals from Mullingar & Wexford maternity units.
- CMS ID was accredited with a Lean Green Belt, for her A3 titled 'Efficiency Improvement for a high risk Addiction/Infectious Diseases Antenatal clinic'.
- Dr Nicola O'Riordan & DLM audited outcomes regarding Preterm Births in our Addiction Cohort.
- The SMSW presented a poster 'Audit of Reporting: Infants of Drug Dependent Women attending the Coombe' at a hospital-wide HSCP led research symposium.
- Dr Hughes & CMS ID developed a presentation of 'Infections in Pregnancy' for the new on-line Diploma in Obstetrics & Women's Health being provided by the Royal College of Physicians of Ireland.
- CMS ID organised a site visit to private industry as a benchmarking opportunity as part of Lean Quality Improvement Initiative.

Opportunities for 2019

- CMS ID will undertake to become a Registered Midwife Prescriber, providing full care episodes for women attending our service.
- The SMSW will highlight and pursue the identified gap (in provision of patient-centred care) in relation to patients with infectious diseases. There is a need for a dedicated Medical Social Worker to work with patients with infectious diseases.
- To have the post of CMS Infectious Diseases recognised as being at the level of Advanced Midwife Practitioner.
- Client-led changes to service provision.

**Babies born to mothers who booked late in 2018 will not have testing completed at time of report.*

Community Midwife Service

Heads of Department

Fidelma McSweeney, *Assistant Director of Midwifery*
Annmarie Sliney, *CMM II*

Staff Complement

1 WTE CMM III
2.19 WTE CMM II
14.13 WTE Staff Midwife
2 WTE Clerical Staff

Key Performance Indicators

- We ran 14 antenatal clinics each week.
- We ran 2 antenatal classes each month, attended by 378 women.
- 1806 women were booked in community-based, midwife-led antenatal clinics.
- 4838 follow-up appointments were seen in community-based, midwife-led Antenatal Clinics.
- 1989 women availed of Early Transfer Home.
- 4796 postnatal visits were carried out in women's homes.
- 411 women booked for DOMINO care.
- 38% of DOMINO/ETH women were breastfeeding on day 5.
- Mode of Delivery for women booked for DOMINO Care:
  - SVD: 64%
  - Operative Vaginal Delivery: 20.0%
  - LSCS: 10%
    (Robson Group 1 LSCS: 11.5%).
- The Community Midwifery Service also staff Professor Fitzpatrick's Naas Antenatal Clinic :
  - 307 women booked for antenatal care
  - 1736 women attended for follow up visits
  - 266 women attended for a GTT.

Achievements in 2018

- In 2018 our main focus was maintaining our current antenatal and Early Transfer Home Service while encouraging eligible women to avail of the DOMINO service. There was a 31% increase in women choosing to avail of DOMINO care.
- We continue to provide 24/7 DOMINO midwifery care in the Hospital for women who have opted for the DOMINO model of care.
- We continue to provide community-based antenatal birth preparation classes and assist in the provision of the Hospitals Hypnobirthing Service.
- The Community Midwifery Team are actively engaging with our community partners (GPs, PHNs, Support Services) with the assistance of the Antenatal to Three initiative (ATTI). The team played a key role in the role out of the "Tallaght Welcomes Breastfeeding" initiative, and the launch of the "Dolly Parton Imagination Library" in the Dublin 24 area.

Challenges for 2019

- We are working towards increasing the number of women booking in community-based Antenatal Clinics and hope to secure additional clinic facilities in our catchment area.
- We are delighted to be part of the wider Hospital team supporting the implementation of the National Maternity Strategy at the Coombe Women & Infants University Hospital, and will continue to support this vital work.
- We are working hard to improve awareness and uptake of our DOMINO service.
- We will continue to encourage, support and facilitate breastfeeding with all women in our care.

Delivery Suite

Heads of Department

Dr Aoife Mullally, *Obstetric Lead*
Ms Nora Vallejo, *Acting CMM III (Author)*
Ms Fidelma McSweeney, *Asst. Director of Midwifery & Nursing*

Staff Complement

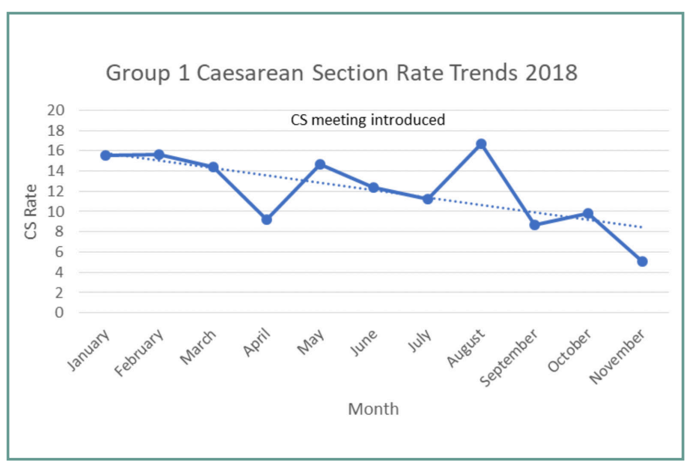
1 WTE CMM III
12.6 WTE CMM II
1.62 WTE Clinical Skills Facilitator
39.7 WTE Staff Midwives
BSc 4th Year Midwifery Interns & Higher Diploma Midwifery Students
6 WTE Healthcare Assistants
1 WTE Auxiliary Staff
Clerical Staff
Portering/Attendant Staff

Key Performance Indicators

- Spontaneous vaginal birth rate of 51.8%.
- Rates of instrumental birth 14.6%.
- Episiotomy rate with spontaneous vaginal births 11%; overall episiotomy rate 17.9%.
- Rates of Obstetric Anal Sphincter Injury (OASI) in vaginal deliveries 2.6% (compared to 2.0% in 2017).

Achievements in 2018

- A Quality Improvement Project was initiated by a multidisciplinary team of Consultant Obstetricians, a Trainee Obstetrician, CMM III and the Quality Manager in 2018. The focus of the project was the Caesarean Section rates in the Robson Group 1 classification. This is a group of primigravid women, in spontaneous labour, ≥ 37 weeks gestation, singleton pregnancy with a cephalic presentation and who undergo a Caesarean delivery (CD). Rates of 13.5% in the first six months of 2018 were the target of the improvement project. A weekly targeted Caesarean Section meeting with anonymous feedback sessions from all stakeholders was introduced. A review of group 1 Caesarean Section cases were analysed, with a view to assessing deviation from usual practice or process. Following each meeting, recommendations have been introduced and deviations from usual process highlighted. Since its introduction in mid-2018, the Robson Group 1 Caesarean Section rate for the month has reduced from a baseline of 13.5% to 8.7% in September, 9.8% in October and 5.1% in November 2018 respectively.



- Facilitating water immersion for labour in 64 women, with 35 births in water under 'The Water Immersion Study', an ongoing research project comparing birth on land vs birth in water.
- Facilitating continuous one-to-one support from a Midwife for women in labour.
- Two multidisciplinary teams represented the Delivery Suite at the 'Labour Ward Leaders' Day in Malahide in December. Both teams have identified projects that will help facilitate improved communication on the Delivery Suite.

Challenges for 2019

- Sustain the achievements of the weekly Caesarean Section group, evident in the reduction in Robson group 1.
- Maintain a focus on OASI to bring rates in line with the national rate of 1.96%.
- Continue to prioritise and facilitate one-to-one midwifery care for all women in labour.

Diabetic Service

Staff Complement

Prof Brendan Kinsley, *Consultant Endocrinologist (Co-Author)*

Prof Sean Daly, *Consultant Obstetrician/Gynaecologist (Co-Author)*

Dr Syeda Farah Nazir, *Registrar in Obstetrics & Gynaecology*

Dr Riwan, *Endocrinology Research Registrar*

Ethna Coleman, *CMS Diabetes*

Cliodhna O'Grady, *CMS Diabetes*

Shunila Elias

Ailbhe McCarthy, *(Co-Author)*

Niamh Ryan, *Senior Dietitian, Diabetes*

Phlebotomy, *Laboratory & Administrative Staff*

Key Performance Indicators

- 2018 was another busy and challenging year for the Diabetic Service.

Type 1

N=	33
Pregnancies	33
Coombe Births	28
Spontaneous Abortions	3
Delivered Elsewhere	2
Preterm Deliveries	16
Term Deliveries	12
Shoulder Dystocia	2
IUD	0
NND	1

Infant Data (Type 1)

N=	28 (Coombe Births)
Gestation at Delivery (weeks)	36.6 ± 3.4
Birth Weight (kg)	3363 ± 1067
< 4kg	21
4.0 – 4.449kg	4
4.5 – 4.99kg	2
> 5kg	1 i.e. 5140g @ 37+5/40
Macrosomia (>95th centile on birth weight)	7
Shoulder Dystocia	2
Congenital Abnormalities	2

Maternal Data (Type 1)

N=	33
Age (years)	30.8 ± 6.5
DM Duration (years)	15.0 ± 8.2
DM Complications	
Hypertension	7
Retinopathy	11
Neuropathy	0
PET	2
PCOS	1
Gestation at OPD Booking (weeks)	7.7 ± 3.3
Booking HbA1c (IFCC)	51 ± 17
Delivery HbA1c (IFCC)	45 ± 8
Booking Fructosamine	297 ± 37
Delivery Fructosamine	247 ± 37
Caesarean Section	23 / 82%

Type 2

N=	24
Pregnancies	24
Coombe Births	19
Spontaneous Abortions	5
Delivered Elsewhere	0
Preterm Deliveries	7
Term Deliveries	12
IUD	0
NND	0

Maternal Data (Type 2)

N=	24
Age (years)	35.8 ± 5.6
DM Duration (years)	4.0 ± 2.7
DM Complications	
Hypertension	3
PET	0
PCOS	1
Gestation at OPD Booking (weeks)	9.9 ± 4.8
Booking HbA1c (%)	36 ± 5
Delivery HbA1c (%)	36 ± 5
Booking Fructosamine	255 ± 50
Delivery Fructosamine	191 ± 14
Caesarean Section	9 / 47%

Infant Data (Type 2)

N=	19
Gestation at Delivery (weeks)	37.6 ± 1.9
Birth Weight (kg)	3109 ± 818
< 4kg	16
4.0 – 4.5kg	2
>4.5kg	1
> 5kg	0
Macrosomia (>95th centile on birth weight)	3
Congenital Abnormalities	1
IUD	0
NND	0

Gestational Diabetes Mellitus

Pregnancies N=	851
Rx with Diet only	365
Rx with Metformin only	244
Rx with Insulin only	100
Rx with Metformin & Insulin (combined)	142

Gestational Diabetes Mellitus Total Group

Coombe live births	867 (including 19 sets of twins, 1 set of triplets)
Delivered elsewhere	4
Spontaneous Abortion	0
Gestation at Delivery (weeks)	37.8 ± 2.2
Birth Weight (kg)	3330 ± 593
IUD	1
NND	2
Congenital Abnormalities	7

Rx with Diet Only

N=	365
Coombe Live Births	369 (including 8 sets of twins)
Delivered Elsewhere	4
Gestation at Delivery (weeks)	38.6 ± 1.9
Birth Weight (kg)	3321 ± 594
Macrosomia (>95th centile on birth weight)	22 / 6.1%
Caesarean Section	127 / 35.5%
Hypertension	51
Congenital Abnormalities	2
IUD / NND	0

Rx Metformin Only

N=	244
Coombe Live Births	247 (including 2 sets of twins, 1 set of triplets)
Delivered Elsewhere	0
Spontaneous Abortion	0
Age	33.6 ± 4.9
Gestation at Delivery	38.8 ± 1.3
Birth Weight	3372 ± 526
Macrosomia (>95th centile on birth weight)	15 / 6.1%
Caesarean Section	75 / 30.7%
Hypertension	14
IUD	1
NND	1
Congenital Abnormalities	1
Shoulder Dystocia	0

Metformin & Insulin (Combined Treatment)

N=	142
Coombe Live Births	147 (including 5 sets of twins)
Delivered Elsewhere	0
Spontaneous Abortion	0
Age	33.4 ± 4.6
Gestation at Delivery	38.4 ± 1.3
Birth Weight	3326 ± 521
Macrosomia (>95th centile on birth weight)	9 / 6.3%
Caesarean Section	53 / 37.3%
Hypertension	6
IUD / NND	0
Congenital Abnormalities	1
Shoulder Dystocia	0

Rx with Insulin Only

N=	100
Coombe Live Births	103 (including 3 sets of twins)
Delivered Elsewhere	0
Spontaneous Abortion	0
Age	34.5 ± 4.7
Gestation at Delivery	38.0 ± 2.2
Birth Weight	3111 ± 670
Macrosomia (>95th centile on birth weight)	3 / 3.0%
Caesarean Section	35 / 35.0%
Hypertension	3
NND	1
Congenital Abnormalities	3

Birth Weights

Based on Total GDM No of Births	868
<4kg	804
4 – 4.499kg	57
4.5 – 4.999kg	7
>5kg	0
Macrosomia (>95th centile on birth weight)	51 / 5.9%

Early Pregnancy Assessment Unit

Head of Department

Dr Mary Anglim, *Consultant Obstetrician/Gynaecologist*

Staff Complement

Dr Nadine Farah, *Consultant Obstetrician/Gynaecologist*
Dr Mei Yee Ng, *Clinical Research Fellow, until July 2018*
Dr Jennifer Hogan, *SpR, from July 2018*
Janice Gowran, *CMM II*
Nicole Mention, *Midwife Sonographer*
Carol Devlin, *Secretary*

Key Performance Indicators

	Total		New		Return	
EPAU visits	4178	(100%)	2451	(58.70%)	1727	(41.30%)
Ongoing pregnancy	1191	(29%)	826	(33.70%)	365	(21.10%)
Pregnancy of uncertain viability	589	(14.10%)	496	(20.20%)	93	(5.40%)
Miscarriages	1669	(40%)	559	(22.80%)	1110	(64.30%)
Pregnancy of unknown location	581	(14%)	495	(20.20%)	86	(5%)
Ectopic pregnancy	66	(1.60%)	25	(1%)	41	(2.40%)
Molar pregnancy	25	(0.60%)	7	(0.30%)	18	(1%)
Gynae	57	(1.40%)	43	(1.80%)	14	(0.80%)

Management of Miscarriage*	
Conservative management	347 (35.5%)
Medical management	236 (24.1%)
Surgical management	395 (40.4%)
Total	**978**

Management of Ectopic Pregnancy	
Laparoscopy	36 (54.4%)
Medical management (Methotrexate)	10 (15.2%)
Conservative management	20 (30.3%)
Total	**66**

**Excluding complete miscarriage*

Achievements in 2018

- The unit provided training for NCHDs in transvaginal early pregnancy ultrasound and facilitated training for 3 Midwifes doing the UCD EPAU module and 1 Midwife completing a Masters in ultrasound.
- 2 poster presentations at the 28th World Congress on Ultrasound in Obstetrics and Gynaecology.
- Audit on medical management of miscarriage, carried out by Dr Jennifer Hogan and Dr Icchya Gyawali, presented at the Master's Medal Competition.

Fetal Medicine and Perinatal Ultrasound Department

Including Fetal Cardiology, Multiple Births, Hemolytic Disease of the Newborn

Heads of Department

Professor Sean Daly, *Director of Perinatal Ultrasound /Fetal Medicine*
Bridget Boyd, *Assistant Director of Midwifery & Nursing with responsibility for Ultrasound Dept.*
Elaine Mc Geady, *Clinical Midwife Manager III*

Staff Complement

1.0 WTE Clinical Midwife Manager
3.82 WTE Clinical Midwife Specialists (CMS)
0.6 WTE Clinical Nurse Specialist (CNS)
5.37 WTE Midwife Sonographers
0.5 WTE Radiographers
1.0 WTE Prenatal Diagnosis Midwife CMM II
5 Consultant Obstetricians & Gynaecologists

Key Performance Indicators

Productivity

A total of 29,620 ultrasound examinations were performed in 2018. This shows a continued increase from 2017. This also includes 961 scans performed in Naas by Jane Durkan CMS. Many thanks to Jane for providing and maintaining an excellent Ultrasound service.

Table 1. Indicators for Ultrasound 2018

	Attendances
First Trimester / Dating Scans	**5979**
Structural Survey at 20-22 wks.	**7950**
Fetal Well-being Assessments (3rd Trimester) Inc. Cervical Length / Pl site / SUA / Pyelectasis	**9292** Growth, Dopplers **548** Cervical lengths **845** Placental sites **841** other (repeat dating / late bookers / follow-up) **(11526)**
NIPT	**752**
NT Screening	**35**
Fetal Medicine	**2417**
Fetal Echo	680 (included above)
Procedures	123 (included above)
Total – Ultrasound Dept	**28659**
Naas Scans	
Anatomy	348
Dating and Third Trimester	613
Total	**961**
Overall Total	**29620**

Table 2. Invasive Procedures

CVS	52
Amniocentesis	66
Amniodrainage	4
Cordocentesis	1

Table 3. Chromosomal abnormalities detected

Abnormality	Number
Trisomy 21	21
Trisomy 18	9
Trisomy 13	4
Monosomy X	2
Triploidy	1
Triple X	1
Di George	2
IsoChromosome 18p	1

Single gene disorders, Barth's Syndrome (Mutation in the TAZ gene) 1

Table 4. Diagnosis of Chromosomal anomalies

Chromosomal Anomaly	Indication for Invasive Testing and Outcome
Trisomy 21 : 21	7 Cystic Hygroma 2 Cardiac 1 Double Bubble 11 High risk NIPT (14 TOP)
Trisomy 18 : 9	1 High Risk NIPT 6 Cystic Hygroma 2 Cardiac 3 Miscarraige/5 TOP/ 1 livebirth
Trisomy 13 : 4	1 High Risk NIPT 1 Cystic Hygroma 2 Multiple Anomalies 1 Term Delivery/ 3 TOP
Monosomy X : 2	Both presented with cystic Hygromas (2 TOP)
Triploidy : 1	Miscarried at 22+5
Triple X:1	Term Livebirth
Di George :2	Both term Livebirths
IsoChromosome 18P	TOP
Barth Syndrome	Livebirth

Table 5. Structural Fetal Abnormalities detected antenatally

Neural Tube Defects	9 4 Spina Bifida 4 Anencephaly 1 Encephalocele
Cystic Hygroma	45
Facial Clefts	6
Cardiac	129 116 structural cardiac abnormalities 13 cardiac arrhythmia
Thorax	5 Diaphragmatic Hernia 3 CCAM
Abdominal wall defect	7 3 Gastroschisis 1 Omphalocoele 2 Pentalogy of Cantrell 1 Limb Body Wall
Renal	15
Multiple abnormalities	2

Service

- Ongoing routine offering of a booking scan to women at their first visit.
- Ongoing routine offering of a fetal anatomy scan at 18-22 weeks to all women.
- The ongoing provision of an outreach Ultrasound Service in Naas, provided by CMS Jane Durkan.
- Increase in number of referrals nationally – the highest number from Portlaoise (High Risk Referrals) and Cardiac referrals for Dr Orla Franklin.
- Tri-hospital Fetal medicine meeting is attended by all Ultrasound staff on a monthly basis. This rotates between the 3 Dublin Maternity Hospitals. These meetings ensure there is specialist input on high-risk cases.
- Perinatal Ultrasound quarterly multidisciplinary meeting co-ordinated and chaired by Felicity Doddy, CMM II on all ongoing high-risk cases.
- Quarterly MRI-MDT was held in conjunction with OLCHC.

Staffing / Professional Development

- Provision of ongoing further education to enhance the service to women.
- 1 Midwife completed Ultrasound Masters, Dec 2018
  1 Midwife commenced the Ultrasound Masters Programme in Ultrasound, Sept 2018.
- 2 Midwife Sonographers completed Graduate Certificate Ultrasound, July 2018.
- Rotational post advertised for commencement 2019.
- Rotational post rotation commenced Dec 2018 to OPD 2 days per week.
- Ongoing development of guideline documents based on best practice, agreed and implemented at department level and available for viewing on Q pulse.
- Continued support, mentoring and Ultrasound training for staff Nurse Portlaoise – due to complete Masters Dec 2019.
- Ongoing on-site support and consolidation for Midwife Sonographer, Portlaoise 1 day per month.
- Recruitment of Admin support for Fetal Medicine.
- Advertisement for Staff Midwife Prenatal Diagnosis role.
- Dr Brendan McDonnell (Bernard Stuart Fellow) began a PhD, developing a new service in the Hospital to stop/reduce cigarette use and explore the benefits of such a programme.
- Dr Sieglinde Mullers was attached to the Hospital as the Rotunda/Coombe/Columbia Subspecialist fellow.

Achievements in 2018

- Maintaining service provision to full capacity despite the reduced staffing numbers and increasing annual activity.
- Midwife Sonographers x 2 attended ISUOG conference in Manchester, Dec 2018.
- Midwife Sonographers x 2 attended Fetal Cardiac Course, Brompton Hospital, London, UK.
- Upgrading of Ultrasound Machine in Naas Oct 2018.
- CMS X 5 attended education series run by NMPDU.
- Continued funding for Education and Professional Development.

Challenges for 2019

- Staff retention.
- Recruitment – 2 posts outstanding at present.
- Facilitate the staff members undergoing the Masters in Ultrasound.
- Training of Midwife Sonographers with view to commencing the Graduate Certificate in Ultrasound (UCD).

Acknowledgements

This was another challenging year in the perinatal ultrasound department with a huge workload but the staff shortages were not so acute as there had been ongoing recruitment and training of new sonographers. This initiative was the result of Elaine McGeady, with the support of Bridget Boyd, and senior nursing/midwifery management. I would like to sincerely thank all of the staff – the midwife sonographers, radiographers, the fetal medicine consultants and Dr Orla Franklin for their hard work and dedication, ensuring that we provided the highest quality of care to the women and their babies. I would like to welcome our newly recruited midwife sonographers and wish them well in their new roles. We are delighted to have them.

We have continued to try and update our equipment and this year have purchased two new machines. The quality of the images continues to improve allowing improved diagnosis and management.

I would like to thank Felicity Doddy our prenatal diagnosis coordinator for all her hard work, caring for the parents who have received distressing diagnoses and coordinating prenatal consults for them both in the Coombe and in OLCHC. In 2018 we employed Leanne Curtis in the role of fetal medicine midwife to help in the workload and we look forward to growing this department in the future. We have also employed Emma Lyons who has been a huge help within the Fetal Medicine Department in an administrative capacity. Felicity, with the help of Catherine Manning has ensured the NIPS service has grown with the workload more than doubling.

I would like to specifically acknowledge Elaine McGeady (CMM3) our clinical midwife manager who is responsible for the running of the ultrasound department. Elaine is not only a superb sonographer but processes the people skills to manage change and implement new services. Ms Catherine Nevin heads up our administration staff and is responsible for the smooth running of the department as a whole.

At the end of 2018 the Termination of Pregnancy bill was passed into law and this is likely to create a new set of challenges for the department going forward. It is vital that we have robust structures in place to deal with this and to ensure the highest quality of care for all our patients.

Professor Sean Daly

Head of Fetal Medicine and the
Perinatal Ultrasound Department

Fetal Cardiology

Heads of Department

Dr Orla Franklin, *Consultant Fetal and Paediatric Cardiologist*

Dr Caoimhe Lynch, *Consultant Obstetrician and Fetal Medicine Specialist*

Midwifery Lead

Felicity Doddy, *CMM II Prenatal Diagnosis Coordinator*

The Department of Fetal Cardiology is a national referral service providing rapid access, expert opinion to women whose pregnancy is complicated by congenital heart disease. 2018 saw further expansion of the referral base and the clinic received referrals from 18 external referral centres including Northern Ireland. 238 women were scanned in the clinic with structural cardiac abnormalities detected in 95 (49%) of pregnancies. An abnormality of cardiac rhythm was detected in a further 9 pregnancies. 37/95 (39%) of abnormalities were detected in women who had originally booked to deliver in another hospital. In these cases the lesion was predicted to be duct-dependent and delivery of the baby was redirected to CWIUH with shared prenatal care with local teams. A prenatal diagnosis of a chromosomal anomaly was detected in 19 pregnancies.

Table 1 – Lesions Detected

Cardiac Diagnosis	N=
Hypoplastic Left Heart Disease	6
Hypoplastic Right Heart disease	3
Double inlet left ventricle	2
Complete Atrioventricular Septal Defect	10
Ventricular Septal Defect	39
Tetralogy of Fallot	8
Transpostion +/- VSD	6
Coarctation =/- Arch hypoplasia	7
Isolated Dextrocardia	2
Rhabdomyomata	2
Cardiomyopathy	1
Ebstein's Anomaly of the Tricuspid Valve	2
Tricuspid Stenosis	3
Mitral & Aortic Stenosis	2
Congentially corrected transposition	1
Truncus Arteriosus	1
Total	**95**

Table 2 – Arrhythmias Detected

Arrthymia	N=
Supraventricular Tachycardia (Inc Atrial Flutter)	3
Congenital Complete Heart Block	1
Atrial Ectopics	5
Total	**9**

This is a diagnostic clinic that serves to define a diagnosis of congenital heart disease that has typically originally been made in one of our many referring units. As such, we would like to acknowledge the contribution of Fetal Medicine Specialists and Obstetric Sonographers from all over Ireland who contribute to the ongoing success of this department.

Multiple Birth Clinic

Head of Department

Professor Aisling Martin, *Consultant Obstetrician and Fetal Medicine Specialist*

There were 193 multiple pregnancies booked at the Coombe in 2018. There were 187 sets of twins, 143 DCDA twins, 43 sets of MCDA twins and one set of MCMA twins. There were 5 pregnancies that started out as triplets however sadly one set delivered spontaneously at 18 weeks gestation. Another woman whose pregnancy started as a natural conception of quadruplets with very early demise of one fetus leaving triplets, ruptured her membranes while in the UK and was subsequently induced at 19 weeks gestation for suspected chorioamnionitis. In another set of DCTA triplets there was early signs of TTTS and the Donor demised leaving twins. Therefore in 2018 we had only two successful triplet deliveries, one DCTA delivering at 31+0 following PPROM and suspected chorioamnionitis and the other TCTA, at 31+4 weeks due to abnormal Dopplers in T2. Both of these sets of triplets had uneventful neonatal courses in the NICU and were discharged home well.

Gestational Age at Delivery for all Multiples

Overall five sets of twins delivered at a previable gestation in the second trimester as did two sets of triplets. Therefore, 182 sets of twins delivered at or beyond 24 weeks gestation. Six sets were lost to follow up as delivered abroad, five DCDA and one MCDA twins.

Of the twins, 31.9% delivered at or beyond 37 weeks of gestation with 77% delivering at or beyond 34 weeks of gestation. Six cases were lost to follow up as they delivered abroad (2.8% of the total).

GA at Delivery (wks)	All Twins N=182	DCDA N=139	MCDA N=43	MCMA N=1	Triplets N=5
>37	58 (31.9%)	54 (38.8%)	4 (9.3%)		
34-36+6	82 (45.1%)	55 (39.6%)	27 (62.7%)		1 (IUD Donor)(20%)
32-33+6	22 (12.0%)	16 (11.5%)	6 (13.9%)		
28-31+6	7 (3.9%)	6 (4.3%)	1 (2.3%)		2(40%)
23-27+6	9 (4.9%)	5 (3.6%)	4 (9.3%)		
<23	4 (2.2%)	3 (2.2%)	1 (2.3%)	1	2(40%)

Mode of Delivery >23 weeks gestation

Mode of Delivery	All Twins N=176	DCDA N=135	MCDA N=41	MCMA N=0	All Triplets N=3
SVD/SVD	28 (15.9%)	21	7	0	
SVD/Breech	11 (6.3%)	8	3	0	
Breech/SVD	0	0	0	0	
Breech/Breech	0	0	0	0	
Instrumental	21 (11.9%)	16	5	0	
Vaginal Delivery of Both babies	60 (34%)	45	15	0	
El LSCS	57 (32.4%)	44	13	0	2
Em LSCS	57 (32.4%)	44	13	0	1
Ventouse/Em LSCS	2 (1.2%)	2	0	0	
CS for one or both babies	116 (66%)	90	26	0	3

Monochorionic Twins

There were 43 sets of monochorionic diamniotic twins in 2018. We had one set of MCMA twins that sadly presented with a double demise at 17^{+2} weeks of gestation. There was one previable loss of MCDA twins at 21^{+2} where there was PPROM and suspicion of chorioamnionitis requiring induction of labour.

We had a number of sad outcomes in our MCDA twins in 2018. In three cases there were intrapartum/early NNDs in both babies, in complex MCDA twin pregnancies. All were preterm deliveries at 25^{+3}, 25^{+5} and 27^{+5} weeks of gestation respectively and all were transfers from other hospitals.

We had a late neonatal death of a preterm baby that had been discharged home from NICU well and died from SIDS a couple of weeks later.

We had six cases of Twin to Twin Transfusion Syndrome (TTTS). Two had lasers performed in the Rotunda and the remaining four that had Stage 1 were managed conservatively. The two that had laser, delivered at 31^{+4} and 35^{+6} respectively. The other four delivered at 27^{+1}, 32^{+2}, 33^{+4} and 35^{+0}. All of the babies from the six pregnancies were discharged home well.

Triplets & Quadruplets

We had four pregnancies that started out as triplets and one as a quadruplet pregnancy. At 9 weeks there was no fetal heart in one of the quads making that a TCTA triplet pregnancy. So that meant we had five sets of triplets , three DCTA and two TCTA. One was a spontaneous conception, two were conceived through IVF, one with Gonal F and one with clomifene citrate. In one of the DCTA triplets, TTTS developed and there was an IUD of the Donor at 19 weeks gestation. That patient went on to have an El LSCS at 34^{+4} weeks gestation and both babies did very well. One patient miscarried all three babies at 18 weeks and another had a PPROM while abroad and was induced at 19 weeks for suspected chorioamnionitis. One of the two remaining had a PPROM at 29^{+6} weeks and was delivered by Em LSCS at 31 weeks for suspected chorioamnionitis, all three babies did very well. The other patient was delivered at 31^{+4} for abnormal Dopplers in triplet 2 and all three babies did very well.

Hemolytic Disease of Fetus and Newborn

Staff complement

Dr Carmen Regan, *Consultant Obstetrician and Gynaecologist*

Ms Catherine Manning, *CMM II, Maternal Medicine*

We use an isoimmunisation guideline to streamline referrals to this clinic. Using our pathway, pregnant women who have newly developed antibodies are monitored with serial quantitation or titres in the Team Clinics and reviewed at the Rhesus Clinic if threshold levels for the development of significant fetal anaemia are reached. Previously affected and at risk mothers are managed in the Clinic.

52 pregnant mothers were referred to the Rhesus Clinic in 2018. Of these, 42 were diagnosed with red cell antibodies for the first time. Fetal intrauterine transfusions are performed at the Rotunda Hospital. One woman with anti-Kell antibodies required 3 fetal intrauterine transfusions, these were referred to the Fetal Unit at the Rotunda Hospital and performed there.

Table 2 – Red Cell Antibodies (N = 52)

Antibody	Number of Patients Affected	DCT Positive	DCT Negative
Anti D	4	2	2
Anti c	1	1	
Anti K	2	1	1
Anti Fya	2	1	1
Anti Fyb	1	1	
Anti Cw	7		7
Anti S	2		2
Anti E	11	3	8
Anti M	20		20
Anti C	1		1
Multiple Antibodies	1	1	

Outcome of pregnancies with RCA

Table 1 – Neonatal Outcomes

Affected neonates (DCT positive at birth)	10
SCBU admissions	7
Phototherapy only	6
Phototherapy, IVIG and RCC transfusion	1

Infant Feeding

Head of Department

Ms Ann MacIntyre, *Director of Midwifery/Nursing*

Staff Complement

Mary Toole, *WTE Clinical Midwife Specialist*
Meena Purushothaman, *WTE Clinical Midwife Specialist*

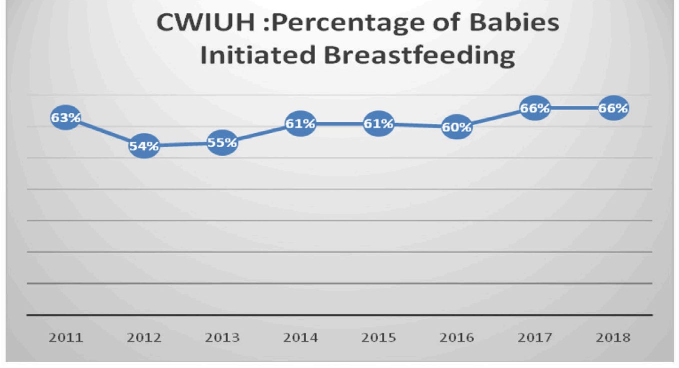
Key Performance Indicators

- Implementing and sustaining an environment that routinely provides breastfeeding supportive practices towards lifelong health and wellbeing, through compliance to the standards of the Baby Friendly Health Initiative (BFHI).
- Maximizing the provision of human milk to all babies.
- Empowering staff through planned education & clinical support to deliver optimum care in Baby Friendly Practices.
- Prenatal screening & counselling of women with potential lactation risks & individualized preparation and planning.
- Comprehensive antenatal identification and follow-up of women with high-risk of lactation challenges through utilization of Antenatal Discussion Checklist & Prenatal Lactation Self-Assessment Tool.
- Critical analysis of indications for re-admission with breastfeeding challenges and corrective measures for prevention of recurrence of same in collaboration with Infection Control Team.
- Continued inter-departmental collaboration to maximize the availability of human milk for high risk babies.
- Provision of structured & impromptu education sessions in CWIUH & Trinity College Dublin to facilitate staff & student development to improve infant feeding outcomes.
- Implemented strategies for effective use of the National Antenatal Infant Feeding Checklist & the Prenatal Lactation Self Assessment Tool, promoting the capacity of pregnant women to obtain, process, and understand information and services needed to make appropriate infant feeding decisions.
- Active participation on the joint Infant Feeding Management Programmes in collaboration with the three Dublin Maternity Hospitals under the auspices of the Centre for Midwifery Education.
- Reduction in excessive weight loss & associated readmissions of breastfeeding mothers & babies through early identification & implementation of individualized care plans during Antenatal & Postnatal period.
- Formalised pathway for referral of babies for assessment and division of anterior Ankyloglossia within the CWIUH, in collaboration with Department of Neonatology.
- Prevention of violations to the code of marketing breastmilk substitutes through adherence to the National Infant Feeding Policy, staff education & provision of all scientific information sessions on formula by the dieticians.

Achievements in 2018

- Promoting and supporting evidence-based practice in infant feeding in line with HSE/National Infant Feeding Policy through structured action plans and support of Infant Feeding Steering Group.
- Developed individualized pathways for women through the implementation of the Making Every Contact Count Framework.
- Provision of Skills Workshop and Clinics facilitating individual consultations.
- Facilitation of Staff Skills Workshops and inter-departmental education sessions for all staff including, doctors, midwives, health care assistants and non-clinical staff.
- All staff are empowered to deliver excellence in infant feeding in line with best practice and BFHI standards.

Figure1: Percentage of babies Initiated breastfeeding



**NB: The figures are calculated from computerised discharges.*

Table 1: Infant feeding Statistics 2012-2018

	2012	2013	2014	2015	2016	2017	**2018**
Total number of live births	8599	8150	8781	8230	8244	8156	**8305**
Number of babies initiated breastfeeding	4610 (54%)	4489 (55%)	5379 (61%)	5094 (61%)	5253 (60%)	5369 (66%)	**5451 (66%)**
Number of babies breastfeeding exclusively at discharge	2097 (24%)	2873 (35%)	3211 (37%)	3145 (38%)	3206 (38.19%)	3000 (37%)	**3110 (38%)**
Number of babies feeding partially/combined feeding at discharge	1192 (14%)	1616 (20%)	1679 (19%)	1706 (21%)	1834 (21.85%)	1914 (23%)	**1988 (24%)**

Figure 2: Breastfeeding Rates

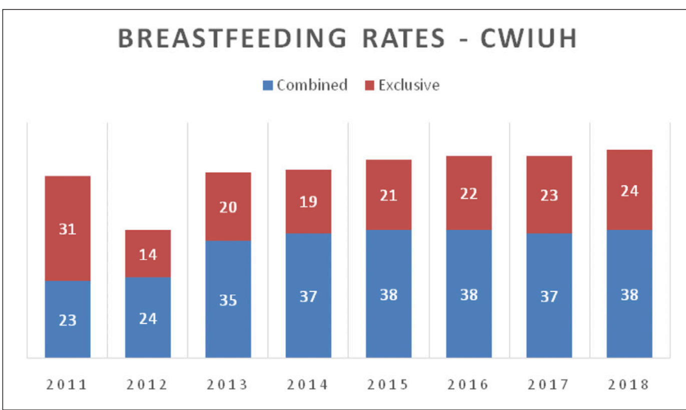
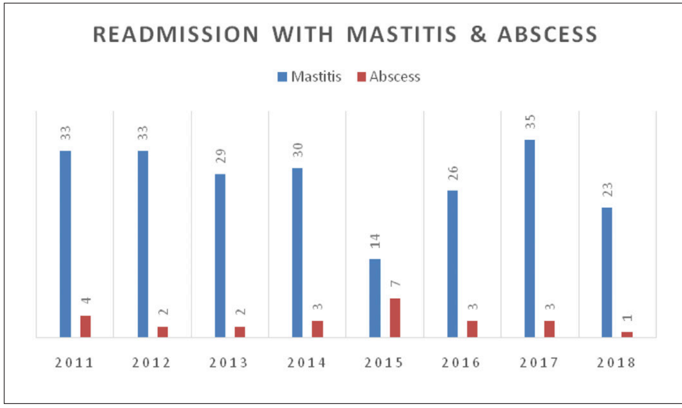


Figure 3: Readmission Rates



Challenges for 2019

- To achieve Baby Friendly Health Initiative Accreditation.
- Increase in the demand for review and support of infants with suspected ankyloglossia and subsequent patient dissatisfaction.
- To meet the demand of expectation from mothers & families with increased awareness of breastfeeding.

Maternal Mortality 2000-2018

Year	No of Maternal Deaths	Total Number of Mothers
2000	0	7958
2001	0	8132
2002	1	7982
2003	0	8409
2004	0	8523
2005	0	8546
2006	0	8633
2007	1	9088
2008	1	9110
2009	0	9421
2010	1	9539
2011	1	9315
2012	3	9175
2013	1	8610
2014	1	9344
2015	1	9001
2016	0	8941
2017	0	8689
2018	1	8827
Total	12	167243
Maternal Mortality Rate	**%**	**0.0072**

2002 Steven Johnson Syndrome and Liver Failure secondary to Nevirapine (HIV+)

2007 RTA

2008 Metastatic Carcinoma of the Colon

2010 AIDS-related Lymphoma

2011 Sudden Unexplained Death in Epilepsy (SUDEP)

2012 Suicide, Sudden Adult Death Syndrome, Amniotic Fluid Embolism

2013 Cardiac Arrest

2014 Amniotic Fluid Embolism

2015 Ruptured Giant Internal Carotid Artery Aneurysm, Systemic Fibromuscular Dysplasia

2018 Coroner's Report Awaited

Maternity Wards

Heads of Department

Fidelma Mc Sweeney, *Assistant Director of Midwifery and Nursing (Author)*

Raji Dominic, *ACMM III*

Staff Complement

1 WTE CMM III
3.87 WTE CMM II
4.48 WTE CMM I
2 WTE Clinical Skills facilitators
63.7 WTE Staff Midwives
13.36 WTE HCAs
3.5 WTE Clerical Staff

Student Midwives

BSc Midwifery 4th year Intern students and Higher Diploma Midwifery students are included in the staffing levels, which vary throughout the year depending on college/clinical commitments.

Key Performance Indicators

- To nurture, lead and manage effective midwifery workforce to deliver evidence-based and women/family-centred safe and quality care, fulfilling our mission statement "Excellence in the care of Women & Babies".
- Promoting confidence among Midwives in their knowledge and skills and encouraging them to understand and respect women's preferences and choices while being mindful of our multicultural patient population.
- Close partnership with Community Midwife Service for the uptake of Early Transfer Home (ETH) by women living in the catchment areas of the Community Midwifery Service. Under this service, the average length of stay for women that had a SVD/Instrumental delivery was 1.5 days, and 3.1 days for women that had a caesarean delivery.

Major Achievements in 2018

Recruitment & Retention

Recruitment for Staff Midwives remained challenging nationally in 2018. The support of the Human Resources Department, the Clinical Midwifery & Nursing Managers and the Practice Development Team enabled regular interviews and a smooth pathway in the recruitment process. We continued to recruit Midwives from Italy but with changes to NIMBI registration requirements in April, this affected International Recruitment.

There was and continues to be a huge drive on retention of staff. The launch of rotation with each Departmental Vision by the CMM IIIs was presented to seventy staff in March. This was received very well by the staff and the presentation also identified the unique opportunities in each department. CMM I posts (4 positions) for maternity floors were recruited and this contributed to staff professional development. The role of the Clinical Skills Facilitators has also contributed to the support and development of staff.

Midwives Clinics

The Domino Clinic was relocated to a newly-refurbished Crumlin Primary Care Centre, which was developed with the support of the Assistant Director of Public Health. This was developed as the women requesting Domino Services has increased.

Lean Healthcare

The Lean Healthcare methodology allows frontline staff of all disciplines & grades to become actively involved in the change process under the umbrella of Quality Improvement Projects (QIPs). Collectively, teams in all areas have identified issues in practice that require improvement. Together these teams have used the tools and philosophy of Lean Healthcare to solve problems at the frontline while eliminating waste, leading to improved quality and standards of care for the women and babies. This has lead to better job satisfaction, engagement and a wonderful sense of pride in our work as Midwives and Nurses.

St Monica's Ward, St Joseph's Ward, St Patrick's Ward, Delivery Suite, Department of Paediatrics and Newborn Medicine and the Outpatient's Department undertook White Belt Projects. The Delivery Suite, Neonatal Unit, Our Lady's Ward, Infectious Diseases CMS and St Monica's Ward commenced Green Belt Projects. Eight members of the Green Belt Team attended the National LEAN Conference in Waterford Institute of Ireland. Certificates were awarded to both White and Green Belt groups in June. On September 4th there was a showcase of LEAN as a QI methodology and the projects were presented to all disciplines within the hospital. LEAN Healthcare was also presented at the International Day of the Midwife in May and one of the White Belt projects won first prize. The project was from St. Patrick's Ward, "Implementation of an education tool

to assist women and their partners during the induction of the Labour Process".

Emergency call bleeps were reviewed and improvements on the smooth functioning was implemented with the support of the Resuscitation Officer and the Multidisciplinary Team and the Switch Board Team.

Renovation work took place in St Monica's Ward, converting Room 5 & 6 for early labourers, allowing more space and birthing aid equipment.

Challenges for 2019

- Midwifery staffing retention and recruitment will continue to be a significant challenge for 2019, particularly with the changes to the registration process with the Nursing & Midwifery Board of Ireland (NMBI). Ongoing recruitment is imperative for the organisation. Our midwifery & HCA staff play a pivotal role in the provision of high quality care to the mothers and babies that we care for. We will continue to encourage, facilitate and support continuous Professional Development of all staff with the support of the NMPDU.
- Staff of the maternity wards are committed to the implementation of the National Maternity Strategy 2016-2026, Sláintecare Report (2017) and working in collaboration with other MDT groups within the organisation towards success of these government policies. In line with these government policies, it is imperative that we carry out a systematic analysis of activity and delivery of care interdepartmentally. This analysis will take into consideration promoting normality in a safe and appropriate manner for the women and babies we care for.
- To continue active engagement of the frontline staff & the MDT in quality initiatives with comprehensive training in Lean Methodology training across all domains within the organisation. This continued development and supporting of staff with QIPs will enhance safe effective quality care.
- The restructure of the Department of Parent Education under the Lean Methodology of the Quality Improvement Framework with MDT Collaboration. The MDT includes Infant Feeding, the Department of Physiotherapy and the Department of Anaesthesia. This ensures that service users have fair and equitable access to antenatal education. It is based on individual needs of the service user and as a result of a collaborative approach, evidence-based education is delivered.
- To facilitate clinical audits and reflective practice to improve the provision of safe high quality care/ improvement of KPIs.
- To promote a shared multi-departmental perception of the importance of patient safety through continuously reviewing clinical incident reports and disseminating the learning points.
- The continuous expansion and support of higher education for breastfeeding under the umbrella of International Board Certified Lactation Consultant (IBCLC).
- Promote & facilitate expansion of the role of the midwife to include the administration of Propess® pessaries by midwives with clear advantages to the woman, midwife and organisation.
- Taking into consideration the high rates of IOL, the impact and challenges that it places on our resources, there needs to be a comprehensive review of the IOL process within the hospital.
- Place a high emphasis on the promotion of good teamwork and leadership at all levels.

I would like to take this opportunity to thank all members of staff for your engagement, hard work, dedication and strong commitment to the mothers and babies that we care for.

Medical Clinic

Heads of Department

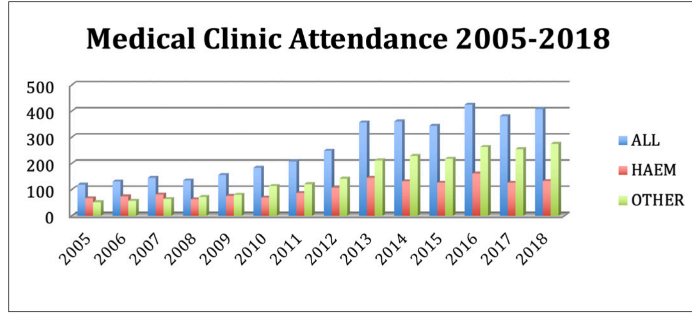
Dr Bridgette Byrne
Dr Caoimhe Lynch
Dr Carmen Regan *(Author)*

Staff Complement

Dr Carmen Regan, *Consultant Obstetrician and Gynaecologist*
Dr Bridgette Byrne, *Consultant Obstetrician and Gynaecologist*
Dr Caoimhe Lynch, *Consultant Obstetrician and Gynaecologist*
Ms Catherine Manning, *CMM II, High Risk Service Liaison Midwife*
Dr Siobhan Corcoran, *(to July 2018) and* Dr Sieglinde Muellers, *(from July 2018), Fellows in Maternal Fetal Medicine, Rotunda Hospital and Coombe Women & Infants University Hospital / Columbia University NYC*
Dr Dana Alshuwaikhat, *RCPI International Clinical Fellow in Maternal Medicine*
Dr Catherine Wall, *Consultant in Renal Medicine*
Dr Kevin Ryan, *Consultant Haematologist (Thrombosis/ Haemostasis)*
Dr Catherine Flynn, *Consultant Haematologist (General Haematology)*
Dr Emma Tuohy, *Consultant Haematologist (General Haematology/Sickle Cell/ Thalassaemia)*
Dr John Cosgrave, *Consultant Cardiologist, St James's Hospital*
Dr Terry Tan, *Consultant in Perioperative Medicine*
Mr Fergus Guilfoyle, *Chief Medical Scientist, Blood Transfusion*
Ms Orla Fahy, *Pharmacist*

Medical Clinic Attendees

(Haematology and others) by year of referral



Key Performance Indicators

- Increasing number of referrals.
- Ongoing audit of care.
- Evidence-based practice.
- Weekly team meetings.
- Quarterly MDTs.
- Quarterly tri-hospital meetings.
- Multidisciplinary input.
- Structured training for MFM Fellowship/RCPI International Clinical Fellow in Maternal Medicine.
- National referral centre for patients with coagulation or bleeding disorders through NCC (National Centre for Coagulation, St James's Hospital).
- National referral centre for patients with Sickle Cell disease through the adult Haemoglobinopathy service at St James's Hospital.
- Convening biennial National Maternal Medicine Meeting.

Achievements in 2018

- Convened Biennial Maternal Medicine Meeting 29th June in St James's Hospital "The Challenges of Managing the Sick Pregnant Woman in the General Hospital Setting".
- Referral centre for high-risk pregnancy.
- Consultant-led care.
- Increased pre-conceptual care referrals.
- National referral centre for management of sickle cell disease in pregnancy.
- Hosted RCPI International Clinical Fellow in Maternal Medicine.
- Development of guidelines and pathways for management of specific medical disorders such as sickle cell disease.
- Engagement with other maternal medicine teams across the Dublin maternity hospitals through quarterly meetings.

Challenges for 2019

- Continued development of care pathways between the Coombe Hospital and St James's Hospital for optimization of care of high-risk patients and sick mothers, advocating the development of a new Maternal Medicine post across both sites.
- Continued provision of optimal care to high-risk pregnant women throughout pregnancy, building referral base and preconceptual consultations.

Diagnoses of new patients referred to the Medical Clinic

In 2018 there were 408 new referrals to the Medical Clinic

Thrombosis/Thromboprophylaxis	53
Pulmonary Embolism (Current Pregnancy)	2
History of VTEs	40
Family History Venous Thrombosis/Embolism	7
Deep Venous Thrombosis In Pregnancy	1
Severe Thrombophlebitis/Varicose Veins	2
Bilateral Tortuous Internal Carotid Arteries	1

Clotting Factor Deficiencies	28
Bleeding Disorder Unknown Aetiology	4
Factor V Deficiency	1
Factor IX Deficiency	1
Factor XI Deficiency	3
Factor XII Deficiency	1
Factor XIII Deficiency	1
Von Willebrands Disease	8
Severe Haemophilia Carrier	4
Family History Haemophilia	1
Family History of Von Willebrand Disease	4

Thrombophilia	16
Apls	2
Thrombophilia	5
Factor V Leiden	1
Protein C Deficiency	2
Anti-Thrombin 3 Deficiency	2
Family History of Thrombophilia	2
Retinal Artery Thrombosis	2

Platelet Disorders	19
ITP	12
Platelet Function Defect	7

Red Cell Disorders	15
Thalassemia	2
Sickle Cell Disease	6
Hereditary Spherocytosis	3
Severe Anaemia	3
Polycythemia Rubra Vera	1

White Cell Disorders	2
Immunodeficiency	1
Leukopenia	1

Hypertensive Disease	43
Essential Hypertension	43

Cardiac Disease	59
Arrhythmias/Palpitations	16
Wolf Parkinson White Syndrome	1
Congenital Heart Disease	17
Heart Murmur	9
Mitral Valve Prolapse	7
Metallic Mitral & Aortic Valve	1
Aortic Stenosis	1
Long Qt Syndrome	1
Pericardestomy	1
Epstein’s Anomaly	1
Co-Artation Of The Aorta	1
Hx Cardiac Arrest	1
Pacemaker In Situ	1
Cardiomyopathy	1

Renal Disorders	31
Chronic Renal Disease	8
Congenital Renal Abnormality	1
History of Hydronephrosis	4
Nephrectomy	2
Severe Proteinuria	7
Renal Transplant	2
Lupus Nephritis	1
Renal Reflux	1
Polycystic Kidney	3
Nephrocalcinosis	1
Alport Syndrome	1

Respiratory	7
Sarcoidosis	2
Severe Asthma	2
Spontaneous Pneumothorax	1

Cystic Fibrosis	1
Mediastinal Mass	1

Connective Tissue Disease	**32**
Systemic Lupus Erythematous	10
Ehlers Danlos Syndrome	1
Rheumatoid Arthritis	13
Ankylosing Spondylitis	2
Sjogren's Syndrome	2
Behcets Syndrome	2
Raynaud's Syndrome	1
Juvenile Arthritis	1

Cerebrovascular Disease/Neurological	**23**
History of Subarachnoid Haemorrage	1
History of Cerebral Haemorrhage	1
Benign Intracranial Hypertension	2
Guillian-Barre Syndrome	1
History of Cva	2
Multiple Sclerosis	10
Vertebral Artery Dissection	1
Epilepsy	1
Severe Migraine	1
History of Brain Aneurysm With Coil	1
Budd-Chiara Malformation	1
Myasthenia Gravis	1

Liver/GI	**39**
Ulcerative Colitis	9
Crohns Disease	22
Fatty Liver Disease	1
Auto Immune Pancreatitis	1
Wilson's Disease	2
Abnormal Lft's	1
Hx Hepatic Rupture	1
Congenital Liver Disease	2

Pre-Conceptual Care	**30**

Genetic Disorders	**5**
Growth Hormone Deficiency	1
Hereditary Angioedema	1
Osteogenesis Imperfecta	1
Beckwith-Wiedeman	1
Kallman Syndrome	1

Oncology	**2**
Breast Cancer	1
Hodgkin's Lymphoma	1

Other	**4**
Glaucoma	1
Hx Anaphylactic Shock	1
Scoliosis	2

Publications

Aspirin In The Prevention Of Pre-Eclampsia: Where Are We Now? Khalid A, Byrne BM. Ir Med J. 2018 Mar 14;111(3):704.

Retrievable Inferior vena cava filters in pregnancy: Risk versus benefit? Crosby DA, Ryan K, McEniff N, Dicker P, Regan C, Lynch C, Byrne B. Eur J Obstet Gynecol Reprod Biol. 2018 Mar;222:25-30.

Letter to the Editor on ***'Angiogenic Factor Profiles in Pregnant Women With a History of Early-Onset Severe Preeclampsia Receiving Low-Molecular-Weight Heparin Prophylaxis.'*** McDonnell BP, Regan C. Obstetrics and Gynaecology. Vol. 131, No. 5, May 2018.

Presentations

International Society of ObstetricMedicine (ISOM), Amsterdam, 2018. A review of Charcot Marie Tooth Disease and Pregnancy. Dr B Byrne.

The impact of a tailored checklist on quality of peripartum care delivered to women with bleeding disorders in pregnancy. C Manning, C Byrne, C Lynch, C Regan, K Ryan.

A Case report of Maternal Sweet Syndrome: a rare complication of pregnancy. L Schaler, A Demaio, B Byrne, C Regan, K Ryan, C Lynch.

British Society of Maternal Fetal Medicine, Brighton, 2018. Can model of care influence obstetric interventions in women with medical disorders in pregnancy? R Keane, C Manning, C Regan, C Lynch, B Byrne.

Adult Outpatients Clinics *(Excluding Colposcopy, Diabetic Service and External Clinics)*

Heads of Department

Dr Sharon Sheehan, *Master/CEO*

Ann MacIntyre, *Director of Midwifery/Nursing*

Frances Richardson, *Assistant Director of Midwifery/ Nursing*

Mary Mc Donald, *Clinical Midwife Manager III (Author)*

Staff Complement

1 WTE CMM III
16.41 WTE Midwives January 2018
17.9 WTE Midwives July 2018
3.5 Healthcare Assistants

The Adult Outpatients Department facilitates public and semi-private antenatal clinics and public gynaecology clinics excluding Colposcopy.

It houses the Emergency Room which cares for women up to 24 weeks gestation and for postnatal and gynaecology patients. The Early Pregnancy Assessment Unit is also located in the OPD.

The specialist Outpatient Services and Clinics are reported separately for the purpose of the annual report.

Key Performance Indicators

Table 1. Activity Levels in Adult Outpatients Clinics 2018

Type of Appointment *(Appointments Offered minus Did Not Attends)*	No of *attendances*	% increase *from 2017*
Antenatal Booking History Appointments Public/Semi-Private	5,786	-2.34%
Public/Semi-private Consultant Led Antenatal Appointment	29,625	-1.7%
Hospital Based Midwife Appointments (Midwifes Antenatal Clinics and Routine Anti-D Prophylaxis Clinic)	4,728	-0.79%
Total Gynaecology Appointments *	7,030	-27% *
New Gynaecology Appointments *	1,843	-34% *
Emergency Room Attendance	9,163	-2%

Note: The significant decrease in Gynaecology appointments facilitated by the OPD (*) can be explained in part by the fact that the Outpatient Hysteroscopy Service in the Colposcopy Clinic was up and running for all of 2018 offering women a consultation, investigation and treatment option at the first (New) appointment.

Achievements in 2018

- The Midwife Manager undertook "Future Leaders in Nursing and Midwifery" course run by the RCSI/National Leadership and Innovation Centre, HSE.
- Two Midwives successfully completed the UCD Early Pregnancy Ultrasound Module with the intention of improving the delivery of care by the Emergency Room.
- An increase in the WTE staffing level allowed for the introduction of a second Midwife to the Emergency Room for the weekend afternoon/evening shifts. This improved Midwifery staffing was necessary to ensure both patient and staff safety and to increase the efficiency of the ER.
- The increase in the WTE staffing level allowed the OPD Manager to assume responsibility for the midwifery staffing of the Perinatal Centre and the Private clinic. This allowed for an improvement in the running of the Perinatal Centre and an improvement in staff satisfaction.
- Further expansion of the role of the Healthcare Assistant in both the antenatal and Gynaecology Clinics occurred. This resulted in career enrichment for the HCAs and allowed for more appropriate use of midwifery skills elsewhere.
- An OPD Team successfully undertook a Lean Green Belt project which resulted in improvements in the organisation of the Gynaecology Clinics with knock-on improvements for the antenatal clinic.
- A multidisciplinary Quality Improvement Project was undertaken which resulted in the implementation of a streamlined check-in procedure for Emergency Room patients.

Challenges for 2019

- Retention of staff to ensure continuation of improvements achieved and to facilitate new improvements in delivery of patient care.
- To further expand Midwifery-Led Services in the OPD and to integrate with Community Midwifery Services/Primary Care Services in line with the National Maternity Strategy.
- To further improve the services of the Emergency Room.
- To progress plans for the refurbishment of the OPD.
- To assist in the planning and development of the new Termination of Pregnancy services.
- To assist in reducing the waiting times for women referred to our Gynaecology Services.

Parent Education & Antenatal Classes

Head of Department

Fidelma McSweeney, *ADoM, Maternity Wards*

Staff Complement

1 WTE Clinical Midwife Manager II, Kathy Cleere (Acting CMM II from Jan-July 2018)
Megan Sheppard CMM II (from Aug – Dec 2018)
0.5 WTE Staff Midwife, Kathy Cleere (from Aug-Dec 2018)
0.5 WTE Clerical Support

Key Performance Indicators

- The provision of high-quality, evidence-based, antenatal education, based on the individual needs of parents, ensuring equitable access to all.
- The provision of individual antenatal education sessions where a need is identified.
- Education and clinical support for Higher Diploma Students and BSc Midwifery students as part of their 3rd year training.
- The provision of Midwives Clinic once a week in Out- Patients Department

Achievements in 2018

- To ensure alignment with recommendations from the Sláintecare Report (2017), National Maternity Strategy 2016-2026, HIQA Standards (2016) and Hospital Strategy, the Department of Parent Education underwent a systematic analysis of services from August to December. This resulted in the complete restructure of the workings of the Department using LEAN methodology as a QI framework. The restructure will facilitate MDT collaboration in the delivery of antenatal education and the development and implementation of further QIP's to improve the service.
- Introduction of Saturday Classes in Naas Hospital from February to facilitate the local community.
- The development of a pathway for CPD within the department in: Antenatal Education Facilitation, IBCLC, Hypnobirthing, Active Birth & LEAN Healthcare training.
- The establishment of the Community Network Working Group to facilitate collaboration across Primary, Secondary & Tertiary care settings.

Service	Attendances
Hospital Tour	285
Day classes	3,118
Saturday Classes	474
Evening Classes	1,094
Refresher Classes	150
VBAC Classes (Vaginal Birth after Caesarean)	72
Hypnobirthing	127
Multiple Birth Classes	67
Early Pregnancy Class	387
1 : 1 Classes	54
Total	**5828**

Challenges for 2019

- The restructure of antenatal classes to include MDT collaboration of Departments of Infant Feeding, Physiotherapy and Anaesthesia.
- Improve methods of data collection for statistical analysis.
- The restructure of community-based classes in collaboration with Primary Care providers to include input from Public Health Nurses, community-based Physiotherapists, CWIUH Parent Education Midwives & Department of Anaesthesia.
- The development of an antenatal class designed to meet the specific needs of long-term antenatal inpatients.
- The development and inclusion of a component in Infant Mental Health in the delivery of antenatal education.
- The development of an Active Birth module promoting normal, physiological birth to be incorporated into the current structure of classes.
- Increase number of one-day Saturday classes to meet demand.
- Increase number of community-based classes to meet demand.

I would like to take this opportunity to sincerely thank the Parent Education team for their incredible passion, commitment & dedication to the development of the department & the care we provide.

Perinatal Day Centre

Heads of Department

Fidelma Mc Sweeney, *ADOM, Maternity Wards*
Raji Dominic, *CMM III (Acting), Maternity Wards*

Staff Complement

Staff Midwife WTE 1.81
Phlebotomist WTE 0.43 (GTT Only)

Key Performance Indicators

Indicator	N=	% Change from 2017
Oral Glucose Tolerance Tests	4,963	+9.3 %
Fasting / Post Prandial Blood Tests	495	+3.0 %
Diabetic Blood Sugar Results “phone –ins”	806	+33.9%
Other Blood Tests	1,060	-3.0%
CTG Fetal Monitoring	2,718	+4.8%
Antenatal steroid Administration	612	-6.5 %
External Cephalic Version	94	+43.6%
Blood Pressure Series	1,485	-5.1%
Wound Review / Dressings	413	-27.8%
Antenatal Visits / Other Visits	353	-42.1%
Referral from Clinics	2,525	+41.74%
Referral from ER	30	+6.6 %
Referral from GP	323	+7.1 %
Other Referrals	353	-1.67 %
24 Urine collection + BP Series	134	+27.9 %
Postnatal reviews	1,001	-3.65 %
Total Attendance Figures	**12,648**	**+3.57%**

Achievements in 2018

- Permanent staffing throughout the year.
- Provided quality and safe care for women.
- Continued regular Phlebotomy Service (15 hours per week) for Glucose Tolerance Tests in the centre.
- Achieved reduced patient waiting times when Obstetrician (shared with OT) assigned to Perinatal Centre were available.
- Achieved quota in place for OGTTs (maximum of 22 patients per day) from previous year’s intake of 27-30 patients.
- Facilitated emergency GTT follow-up on Friday in the centre.

Challenges for 2019

- Sustain achievements.
- To achieve regular assignment/roster of Obstetrician service in the centre.
- Appointment of HCA (1-2 hours) for stocking and other HCA activities.
- Purchase a Phlebotomy chair, which will free up a couch for patient use.

Preterm Birth Prevention Clinic

Head of Department

Professor Sean Daly

There were 149 women who received care in the clinic and delivered in 2018. In general, these women are seen and have cervical length measurements between 16-18 weeks. Women are given the option to have a cerclage placed before 16 weeks. In each case, the risk is evaluated either by cervical length measurements alone or in conjunction with fetal fibronectin and utilizing the QUIPP app.

Individual care plans are made. Cervical sutures are placed up to 25 weeks in women whose cervix is less than the 5th centile when assessed according to the paper Salomon LJ et al. (Ultrasound Obstet Gynecol 2009;33:459-464). This paper was added to Viewpoint in 2018.

In general, Cyclogest 400mg nocte is started after 25 weeks in women with a short cervix and continued until 36 weeks.

Key Performance Indicators

- There were 103 (69%) women whose babies were born at term.
- There were 42 (28.1%) women who delivered babies between 23 and 36 weeks.
- Of the 5 babies born at less than 22 weeks, there was one set of twins born at 21 weeks, all those babies weighed 300g and didn't survive.
- There were 16 cases of Elective CS.
- 16 cases of pre-labour emergency CS.
- 86 cases of spontaneous
- In 31 cases of induction labour was induced.
- In 5 cases of Cyclogest was utilized.
- There were 25 babies (16.8%) who required admission to NICU, 2 subsequently required transfer to paediatric facilities but have done well. Both were delivered after 35 weeks.
- There were no neonatal deaths in babies born after 23 weeks.

Severe Maternal Morbidity & High Dependency Unit Report

Heads of Department

Ms Julie Sloan, *Research Midwife*
Ms Nora Vallejo, *CMM III Delivery Suit*
Dr Bridgette Byrne, *Consultant Obstetrician and Gynaecologist*
Dr Aoife Mullally, *Labour Ward Lead*

Severe Maternal Morbidity (SMM) has been defined using the NPEC national audit criteria. The rate appears to be increasing year on year and this trend reflects national and international figures. 67 women were identified out of 8,154 women who delivered babies weighing 500 grams or more at the CWIUH in 2018, yielding a rate of 8.2 per 1,000. MOH remains the predominant cause of severe maternal morbidity. There were 6 cases of peripartum hysterectomy. There were no cases of eclampsia and the rate of pulmonary embolus remains low. There was one maternal death and the details of this are recorded in another chapter.

Table 1: Number of cases of severe maternal morbidity cared for at the CWIUH in 2018

Organ Dysfunction Categories	
Major Obstetric haemorrhage	40
Pulmonary Embolus	2
Renal or liver dysfunction	10
Uterine rupture	2
Pulmonary oedema	2
Acute respiratory dysfunction	1
Cerebrovascular event	1
Septicaemic shock	4
Eclampsia	0
Other	5
Total	**67**
Management based categories	
ICU/CCU admission	7
Peripartum hysterectomy	6

The cases are categorised according to the primary organ dysfunction. Some women will have multiple organ dysfunction but are categorised under one only. Six of the 67 women had a peripartum hysterectomy and seven of the 67 cases required admission to ICU or CCU.

High Dependency Unit

There were 213 obstetric-related admissions to HDU in 2018. This represents 2.6% of the obstetric population. The leading indications for admission are as usual haemorrhage and hypertension/PET. The data for the year are shown in Table 2.

Table 2: Obstetric - Related HDU Admissions

Indication For Admission	N=
PPH	46
APH	8
MOH	35
PET (± HELLP)	44
Hypertension	3
Threatened PTL	6
Threatened PTL (MgSO4)	11
PTL	2
MgSO4 (Fetal Neuroprotection)	9
Sepsis	8
? Sepsis	14
Septic Shock	3
Anaesthetic Problems	4
Sickle Cell Disease	3
Liver/Renal Dysfunction	3
Miscellaneous	14
Total	**213**

(Miscellaneous included severe anaemia, history of anaphylaxis, increased BMI, IUD unbooked, maternal collapse, renal transplant, myasthenis gravis, methylhaemoglobinemia, etc.)

Key Performance Indicators

- Seven pregnant or recently pregnant women were transferred out to a general hospital ICU or CCU. Details are provided above.

Achievements

- The appointment of Julie Sloan in January 2017 has resulted in improved capture of the severe maternal morbidity data. Julie began prospectively accruing data in 2017 and completing NPEC forms.
- Fourteen midwives have completed the HDU course.
- Multidisciplinary maternal morbidity meetings have been established two monthly to discuss complicated cases.

- A meeting entitled "Managing the sick pregnant woman in a general hospital" was convened at St James's Hospital in June 2018. The aim of the meeting was to highlight the altered physiology and pathology of pregnancy and explore how to optimise care pathways for pregnant or recently pregnant women who present or are transferred to general hospitals.
- A PPH Quality Improvement Project was conducted and no specific issue was identified that could explain the increasing rates of PPH. A proforma for management of PPH was designed to improve quality of care, there was "skills and drills" training in PPH. A PPH trolley was introduced and tranexamic acid has been added to the PPH drugs kit.

Challenges

- PPH rates and blood transfusion rates are increasing.
- Staffing and skill mix remain a challenge.
- Care pathways for women requiring transfer between the CWIUH and SJH continue to be developed. The support of the community midwives in monitoring pregnant women admitted to SJH is greatly appreciated. The creation of staffing posts jointly appointed to the two institutions will further promote quality of care.
- Our research has shown that only one third of those admitted to HDU require Level 2 care. The challenge remains to develop a facility that provides a greater level of care than on the wards but less than HDU care.

Division of Gynaecology

General Gynaecology Report

Table 1: Inpatient Surgery

	2012	2013	2014	2015	2016	2017	**2018**
Patients	6202	6212	6374	6158	6330	6031	**6180**
Operations	8650	8980	8891	8618	8918	8556	**8819**

Table 2: Operation Categories

	2012	2013	2014	2015	2016	2017	**2018**
Obstetrical	3239	3308	3630	3590	3663	3544	**3748**
Cervical	1034	838	882	752	828	844	**872**
Uterine	2668	2897	2696	2704	2761	2543	**2564**
Tubal & Ovarian	1051	1032	916	844	847	812	**775**
Vulval & Vaginal	367	522	408	361	423	360	**427**
Urogynaecology	224	336	328	329	365	410	**377**
Other	60	47	31	38	31	43	**56**
Total	8650	8980	8891	8618	8918	8556	**8819**

Table 3: Obstetrical Operations

	2012	2013	2014	2015	2016	2017	**2018**
Lower Segment Caesarean Section (including those with Tubal Ligation)	2280	2229	2476	2400	2571	2534	**2746**
Classical Caesarean Section (including those with Tubal Ligation)	2	4	3	6	5	6	**8**
Hysterectomy in Pregnancy	2	2	0	2	4	1	**6**
ERPC	433	494	586	596	544	538	**538**
ERPC Postpartum	11	13	19	23	19	14	**26**
Laparotomy for Ectopic *	4	0	1	5	2	1	**1**
Laparoscopy for Ectopic *	75	47	73	78	57	62	**44**
Cervical Cerclage	59	61	61	60	36	41	**59**
Perineal Repair Postpartum in theatre	123	194	196	215	211	166	**165**
Manual Removal of Placenta	79	123	94	90	90	68	**64**
Operative Vaginal Delivery in theatre	111	88	89	83	91	80	**69**
Other	60	53	32	32	33	33	**22**
Total	3239	3308	3630	3590	3363	3544	**3748**

**method of collecting ectopic data changed in 2013*

Table 4: Cervical Operations

	2012	2013	2014	2015	2016	2017	**2018**
LLETZ/NETZ/SWETZ/LEEP (in theatre)	176	127	99	86	87	82	**101**
LLETZ/NETZ/SWETZ/LEEP (in clinic)*	677	538	617	531	563	604	**563**
Cone Biopsy	1	4	7	8	5	2	**6**
Punch & Wedge Biopsy of Cervix	14	16	17	16	17	14	**11**
Cervical Polypectomy	42	47	22	21	56	36	**32**
Diathermy to Cervix	3	8	16	3	4	3	**2**
Other	121	98	104	87	96	103	**157**
Total	1034	838	882	752	828	844	**872**

** Previously only recorded in Colposcopy Clinic Statistics*

Table 5: Uterine Operations

	2012	2013	2014	2015	2016	2017	**2018**
Hysteroscopy:							
– Diagnostic	918	955	867	885	939	856	**853**
– Operative:							
– Myomectomy	11	9	2	4	10	6	**11**
– Resection of uterine septum	12	1	5	2	3	7	**7**
– Resection of uterine adhesions	2	2	1	2	1	3	**1**
– Endometrial polyp	73	46	73	88	49	59	**104**
– Other	2	0	8	5	5	0	**5**
Laparoscopy:							
– Laparoscopic assisted Vaginal Hysterectomy	39	38	36	44	45	34	**28**
– TAH	19	35	88	73	60	52	**40**
– SAH	0	6	9	13	7	5	**1**
– Radical Hysterectomy	0	0	0	0	0	1	**0**
– Myomectomy	5	18	22	27	8	8	**8**
Laparotomy:							
– TAH	82	67	15	12	29	34	**39**
– SAH	7	4	1	1	1	3	**0**
– Radical Hysterectomy	0	0	0	0	0	0	**1**
– Myomectomy	15	16	20	21	16	10	**15**
Other:							
– Vaginal Hysterectomy	60	79	68	44	47	70	**56**
– D&C	735	759	742	779	827	737	**708**
– TCRE	25	23	23	13	24	26	**28**

Table 5: Uterine Operations continued

	2012	2013	2014	2015	2016	2017	**2018**
– Endometrial Ablation	2	44	43	47	71	69	**76**
– Mirena Coil insertion	342	374	341	335	317	279	**290**
– Mirena Coil removal	119	143	147	155	148	121	**156**
– Examination under Anaesthesia	150	214	122	91	97	114	**79**
– Omentectomy	15	11	9	7	2	4	**2**
– Other	32	53	54	56	55	45	**56**
Total	2668	2897	2696	2704	2761	2543	**2564**

Table 6: Tubal and Ovarian Operations

	2012	2013	2014	2015	2016	2017	**2018**
Laparoscopy:							
– Diagnostic	379	340	278	235	234	249	**247**
– Sterilisation	68	88	42	40	44	58	**28**
– Dye Test	131	125	106	78	101	85	**91**
– Tubal Reconstructive Surgery	1	2	0	1	0	0	**0**
– Unilateral Salpingectomy	9	10	16	17	20	12	**14**
– Bilateral Salpingectomy	10	20	35	42	42	26	**39**
– Unilateral Oopherectomy	4	5	13	7	12	4	**12**
– Bilateral Oopherectomy	1	5	1	2	4	1	**4**
– Unilateral Salpingo-oopherectomy	19	14	19	30	19	17	**8**
– Bilateral Salpingo-oopherectomy	93	95	72	69	74	75	**46**
– Unilateral Ovarian Cystectomy	69	49	73	70	51	75	**77**
– Bilateral Ovarian Cystectomy	9	29	15	5	8	7	**6**
– Aspiration of Ovarian cyst(s)	9	15	11	9	15	6	**3**
– Adhesiolysis	69	69	67	77	74	58	**50**
– Ablation/Diathermy	111	105	131	121	110	98	**95**
– Other	13	11	13	11	15	14	**7**
Laparotomy:							
– Sterilisation	1	1	0	3	1	0	**0**
– Tubal Reconstructive Surgery	4	1	2	0	0	0	**0**
– Unilateral Salpingectomy	4	3	2	1	1	1	**3**
– Bilateral Salpingectomy	8	11	1	4	3	4	**11**
– Unilateral Oopherectomy	2	4	3	2	0	0	**2**
– Bilateral Oopherectomy	1	1	0	1	0	0	**1**
– Unilateral Salpingo-oopherectomy	16	11	6	4	7	5	**0**

Table 6: Tubal and Ovarian Operations continued

	2012	2013	2014	2015	2016	2017	**2018**
– Bilateral Salpingo-oopherectomy	0	0	0	0	0	5	**23**
– Unilateral Overian Cystectomy	13	0	8	11	10	6	**4**
– Bilateral Ovarian Cystectomy	0	2	1	2	1	1	**1**
– Adhesiolysis	6	6	0	2	0	2	**0**
– Ablation/Diathermy	1	1	1	0	1	0	**1**
– Other	0	2	0	0	0	3	**2**
Total	1051	1032	916	844	847	812	**775**

Table 7: Vulval and Vaginal Operations*

	2012	2013	2014	2015	2016	2017	**2018**
Simple Vulvectomy	3	2	4	1	4	0	**2**
Vaginal Repair for Dyspareunia/ Vaginoplasty	5	7	5	2	0	0	**5**
Posterior Repair	81	130	91	67	87	76	**90**
Anterior Repair	109	150	105	85	87	105	**95**
Suturing of Vaginal Vault	2	3	0	1	0	0	**0**
Hymenectomy/Hymenotomy	1	1	1	2	3	5	**1**
Excision of Vulval/Vaginal Cysts/Biopsy	78	110	73	86	93	55	**94**
Bartholin's Cyst/Abcess	23	24	35	30	42	24	**16**
HPV	3	3	4	4	2	2	**4**
Labial Reduction	8	9	6	9	5	4	**3**
Fenton's Procedure	5	8	9	4	4	7	**9**
Other cyst/abscess/lesions	10	8	5	14	12	14	**14**
Other	56	67	70	56	84	68	**94**
Total	367	522	408	361	423	360	**427**

**excludes Urogynaecology operations and operations for vault prolapse*

Table 8: Urogynaecology*

	2012	2013	2014	2015	2016	2017	**2018**
Laparoscopic Burch/paravaginal repair	6	10	4	2	0	1	**0**
TVT/TOT/TVTO	70	96	77	84	71	85	**28**
Bulking Injection	21	17	12	10	16	16	**25**
Botox injection	12	11	35	22	39	30	**38**
Vault Suspension:							
* SSLS	11	20	19	15	17	22	**39**
* LSCP	5	10	14	26	24	16	**4**
* Other	13	26	6	4	12	18	**2**
Cystoscopy	86	131	135	147	147	200	**215**
Other	6	15	26	19	39	22	**26**
Total	224	336	328	329	365	410	**377**

**includes prolapse operations only for vault prolapse*
SSLS = sacrospinous ligament suspension LSCP = Laparoscopic sacrocolpopexy

Table 9: Other Operations

	2012	2013	2014	2015	2016	2017	**2018**
Abdominal Wound Dehiscence	0	0	0	1	0	1	**0**
Appendicectomy	15	12	9	7	4	8	**2**
Laparotomy for other indication	18	8	1	2	2	3	**4**
Blood Patch	14	12	10	8	12	9	**9**
Other	13	15	11	20	13	22	**41**
Total	60	47	31	38	31	43	**56**

Table 10: Total Gynaecological Outpatient Attendance

	2012	2013	2014	2015	2016	2017	**2018**
Adolescent	256	143	144	170	203	***	***
Colposcopy	6322	6166	7009	6473	6029	5938	**6011**
Endocrine/Infertility	737	627	464	504	449	483	**494**
General	3392	4328	4728	4469	4981	6155	**5798**
Urogynaecology	1283	1249	1436	1565	1564	1736	**1648**
Anaesthetic	725	905	913	1102	2706	2768	**2690**
Oncology*	3	-	-	-	-	-	**-**
Cervical Screening**	-	-	-	-	-	-	**-**
Total	12708	13418	14694	14283	15932	17080	**16641**

** Oncology consultant sessions transferred to St. James's Hospital, however oncology patients are seen in the Colposcopy Clinic.*

*** Cervical Screening figures are listed as part of the Colposcopy figures.*

****This clinic was merged in 2017 with a General Gynaecology clinic*

Table 11. Gynaecology Complications & Transfer to HDU/ITU

Complication	N
Bladder / Urethral Injury	2
Bowel Injury	0
Uterine Perforation	4
Transfer to HDU	4
Transfer to ITU	0
Blood Transfusion > 5 units	0
Other Organ Injury	0
Wound Dehiscence	0
Total	**10**

Coombe Continence Promotion Unit

Staff Complement

Professor Chris Fitzpatrick, *Director (Author)*

Ms Eva Fitzsimons, *Specialist Urodynamic Midwife (Co-Author)*

Dr Mary Anglim, *Consultant*

Dr Gunther Von Bunau, *Consultant*

Dr Aoife O'Neill, *Consultant*

Dr Faiza Aldarmaki, *RCPI International Fellow*

Dr Alexandra Sobota, *Registrar*

Dr Daniel Galvin, *Specialist Registrar*

Margaret Mason, *Physiotherapy Manager*

Anna Chrzan, *MISCP, Senior Grade 0.5WTE*

Anne McCloskey *BSc MISCP, Senior Grade 0.5WTE*

Clare Farrell BSc MISCP, *Senior Grade 1WTE*

Julia Hayes BSc MISCP, *Senior Grade 0.6 WTE*

Roisin Phipps BSc DPT MISCP, *Senior Grade 1WTE*

Sarah Bevan MISCP, *Senior Grade 0.75 WTE*

Deirdre Kenny BSc MISCP, *Junior Grade 1WTE*

Ciara Black BSc MISCP, *Junior Grade 0.75 WTE*

Sara Birch BSc MISCP, *Junior Grade 1WTE*

Amanda Drumond Martins, *MISCP 0.75WTE*

Description of Unit

The Coombe Continence Promotion Unit was established in 1998 to provide a comprehensive multidisciplinary service to women with continence – related problems/ pelvic floor dysfunction. The Unit has three specialist subdivisions: Urogynaecology (established in 1993), Specialist Nursing Services and Physiotherapy.

Special Interests

- Post-hysterectomy and recurrent prolapse
- Refractory DO
- Stress Incontinence after previous surgery
- Painful Bladder Syndrome

Key Performance Indicators

- 226 first visits and 1072 return visits to Urogynaecology Clinic*; 350 urodynamic evaluations; 377 operative procedures; 427 Day Ward Cystistat bladder instillations; 30 CISC instruction (pre-Botox mainly).

**includes only patients attending Urogynaecology Clinic (CF); does not include Urogynaecology patients attending other Gynaecology OPD Clinics.*

Surgical interventions for stress incontinence were discontinued during 2018 in the context of the pause placed on the use of mid-urethral polypropylene tapes by the Department of Health; although not included within terms of reference of the pause, the use of polypropylene mesh in abdominal reconstructive surgery for pelvic organ prolapse was also discontinued, as well as other operations for stress incontinence

Achievements in 2018

- Over 300 urodynamics evaluations and over 400 operative procedures performed.
- Expansion of Day Ward Cystistat bladder instillations (for patients with Painful Bladder Syndrome, recurrent UTIs and Radiation Cystitis); 217 in 2017, 427 in 2018.
- Appointment of RCPI International Fellow in Urogynaecology.
- Same day admission policy for >98% major cases.
- Fast-tracking triage of GP referrals directly to Physiotherapy.
- Urogynaecology MDT meetings.

Challenges for 2019

- The development of new national guidelines for the treatment of stress incontinence and pelvic organ prolapse.
- Expansion of urodynamic sessions.
- Development of new Urogynaecology service within the proposed Women's Health Unit.
- Expansion of the role of the Urodynamic Specialist Midwife and training of second Urodynamic midwife/ nurse.
- Expansion of Physiotherapy services.
- Development of National Guidelines.

Acknowledgments

I would like to acknowledge the support of the Division of Gynaecology, Department of Peri-Operative Medicine, Theatre & Recovery, OPD, Day Ward, St Gerard's Ward, Radiology, Laboratory, Admissions and the Master in 2018. A special word of thanks to Ms Clare Smart, Mr Aaron Gracey, Ms Emma O'Neill, Ms Sangeetha Nagarajan, Ms Mercy Ninan, Ms Deirdre Doherty, Ms Alison Rothwell and Dr Niamh O'Sullivan.

Table 1 Urodynamic Diagnosis (N =350)

Diagnosis	%
USI	**36**
USI + DO	**24**
USI + HRVD	**2**
DO	**25**
DO + HRVD	**3**
HRVD	**2**
No diagnosis	**8**
Total	**100**

USI = urodynamic stress incontinence
DO = detrusor overactivity
HRVD = high residual voiding dysfunction

Table 2 Urogynaecology Operations* (2012 - 2018)

	2012	2013	2014	2015	2016	2017	**2018**
Laparoscopic Burch/paravaginal repair	6	10	4	2	0	1	**0**
TVT/TOT/TVTO	70	96	77	84	71	85	**28**
Bulking Injection	21	17	12	10	16	16	**25**
Botox injection	12	11	35	22	39	30	**38**
Vault suspension:							
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LSCP	5	10	14	26	24	16	**4**
Other	13	26	6	4	12	18	**2**
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Total	224	336	328	329	365	410	**377**

**Includes prolapse operations only for vault prolapse*
SSLS = sacrospinous ligament suspension
LSCP = laparoscopic sacrocolpopexy

Colposcopy Service – Medical Report

Head of Department

Prof Tom D'Arcy, *Divisional Lead for Gynaecology Department*

Staff Complement

Consultant Colposcopists
Prof Tom D'Arcy
Prof Nadine Farah
Dr Mary Anglim
Dr Waseem Kamran

Nurse Colposcopists
Aoife Kelly

Trainee Nurse Colposcopists
Feba Paul
Yvonne McCudden

Clinical Nurse Manager II
Olivia McCarthy, *leave from May 2018*

Gynaecology Oncology Liaison Nurse
Aidin Roberts, *(0.5WTE), April 2018*
Laura McGovern, *(0.76 WTE) commenced June 2018*

Registered General Nurses
Rani Hilarose, *(0.36WTE)*
Feba Paul, *(0.33WTE)*

Healthcare Assistants
Amanda Kennedy *(leave Oct 2018)*
Maria White
Hayley Mitchell *(leave Oct 2018)*
Michaela Everington *(Oct 2018)*
Lauren Marlow *(Oct 2018)*

Failsafe Officer/Office Manager
Bernie Cummins

Office Administrators
Frances Cunningham
Helen Conlon
Joan McNeaney

Specialist Registrars
As per rotation

The CWIUH Colposcopy service is consultant-led and includes one Nurse Colposcopist, Aoife Kelly. We currently have two trainee Nurse Colposcopists; Feba Paul and Yvonne McCudden who are due to take their final exams in May 2019 to become fully accredited Colposcopists.

Clinic Attendances

In 2018 2170 women were referred for colposcopy, an 8.5% increase on 2017 figures. 1986 patients attended for a first visit. This represented an increase of 7% on 2017 figures. There was a slight decrease of 1% in return visit attendances to the clinic, 4007 patients in 2018 vs 4046 patients in 2017.

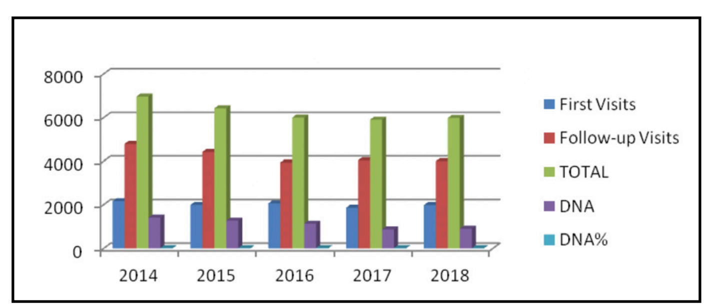
DNA rates for patients attending the clinic for the first time remained unchanged at 169 patients in 2018 vs 167 patients in 2017. Pleasingly, for the fourth year in a row the overall DNA rate has decreased from 17.5% in 2017 to 15% in 2018 for all patient groups.

These figures are summarised in Table 1 and illustrated in figure 1.

Table 1 Colposcopy attendance figures over 5 years

	2014	2015	2016	2017	**2018**
First Visits	2169	1993	2064	1863	**1986**
Follow-up Visits	4801	4428	3942	4046	**4007**
Total	6970	6421	6006	5909	**5993**
DNA	1420	1280	1137	871	**904**
DNA %	20.3	19.9	18.93	17.5	**15**

Figure 1 Attendance at the Colposcopy Clinic at the CWIUH over 5 years



Treatment and Histology

We have seen a continuing trend that the majority of patients with cytological and/or colposcopic evidence of disease are treated within the colposcopy clinic by Large Loop Excision of the Transformation Zone (LLETZ).

In 2018, there was a slight increase in patients who went through Theatre for treatment, 101 patients compared to 82 patients in 2017.

- 77 LLETZ
- 24 NETZ

This includes data for all LLETZ and NETZ procedures done in theatre and includes data from non-colposcopy sources.

Treatment in a Theatre setting is usually indicated by clinical need - more often than not, a repeat treatment requiring a NETZ. This would appear to be a factor in this increase.

We remain within the Target Clinical Standards set out by BSCCP and Cervical Check for outpatient vs. inpatient treatment setting.

Our own mediscan data system documented 49 theatre-based LLETZ and 563 clinic-based LLETZ treatments.

Table 2 Histological breakdown of the transformation zones which were removed by LLETZ in the clinics and in theatre in 2018

LLETTZ	N=
Adenocarcinoma in-situ / CGIN	11
Cancer (including micro-invasive)	6
CIN1	249
CIN2	134
CIN3	154
Inadequate / Unsatisfactory	2
No CIN / No HPV (normal)	56
Total	**612**

Quality Assurance and MDTs

In 2018 we maintained monthly CPC/MDT meetings to discuss challenging cases until the autumn. A variety of operational issues led to a suspension in the regularity of meetings towards the end of the year. In the absence of meetings, patients requiring review were discussed and reviewed by the Lead Clinician and Nurse Colposcopist, and managed appropriately. We aim to re-establish the meetings in early 2019.

Colposcopy service provision is based upon Quality Standards set out by the National Screening Service (NSS), highlighting organisational standards such as facilities, system management, clinical staffing, and administrative management alongside governance structures. Within the CWIUH Colposcopy Department we continually review our practice against these standards and maintain a high level of compliance within these Quality Standards criteria.

Challenges

2018 was a very difficult year owing to the very well publicised CervicalCheck Cancer Audit. Significant pressure was placed on our staff in dealing with the huge increase in telephone enquiries from worried patients and primary care staff. Immediate response reports were required for submission on a daily basis in the immediate aftermath and in the weeks and months that followed.

The unit had no additional resources to assist with the increase in workload and enormous thanks to all staff, especially Aoife Kelly in recognition of the extra work they undertook, whilst maintaining full clinical commitments.

Future plans

Within our own Colposcopy Service, we will continue to review management pathways to ensure optimal use and allocation of colposcopy appointments.

We have strongly adhered to the recommended pathways developed by CervicalCheck which supports the continuous movement of patients through Colposcopy efficiently.

Olivia McCarthy
CNM II
Colposcopy

Prof Tom D'Arcy
Director of Colposcopy

Colposcopy Service – Nurse Colposcopists Report

Head of Department

Prof Tom D'Arcy

Divisional Lead for Gynaecology Department

Staff Complement

Ms Aoife Kelly (Author)

1 WTE Nurse Colposcopist

Ms Feba Paul

1 WTE Trainee Nurse Colposcopist

Ms Yvonne Mc Cudden

0.96 WTE Trainee Nurse Colposcopist

2018 was a challenging year for cervical screening and colposcopy as a result of the CervicalCheck events which led to significant anxiety, uncertainty and stress for patients and staff. The CervicalCheck events significantly increased the office workload for the Nurse/Trainee Nurse Colposcopists due to the volume of phone calls received from anxious patients wishing to discuss their results, care and management and the request from CervicalCheck to return calls to patients who rang their helpline. Additionally, numerous databases for completion were required so that up-to-date information on those affected by the CervicalCheck events could be maintained. These databases were time-consuming to complete and had short deadline time frames for return.

Time spent with each patient in clinic consultations also significantly increased as time was required to reassure patients, provide explanations and answer patient questions.

Special thank you to Nursing Administration, the Master, our Colposcopy Team especially our dedicated Clerical Team and HCAs for all their support.

Due to staffing challenges within the department, additional roles were taken on by the Nurse/Trainee Nurse Colposcopists to maintain our Colposcopy Service.

Key Performance Indicators

- The Nurse Colposcopist is responsible for the management of a caseload of patients in the Colposcopy Outpatient setting, as directed by the Lead Consultant for Colposcopy. This involves running two Nurse-Led Colposcopy Clinics, working alongside four Consultant Colposcopists and in their absence sustaining and maintaining full clinical support.
- The Nurse/Trainee Nurse Colposcopists record, manage and communicate Cytology, Histology and Microbiology results to patients and their G.P.s and arrange follow-up appointments or discharges.
- The Nurse/Trainee Nurse Colposcopists triage the referrals received by the Colposcopy Clinic and determine the urgency of the referral and the appropriate clinic to accommodate the referral.
- Supports the Clinical Lead and Nurse Manager in the on-going review and development of the service.
- Provides a positive learning environment for Trainee Nurse Colposcopists, Registrars and Cervical Screening course students. This includes teaching Colposcopy and providing support.
- Implements evidence-based policies and protocols, which are developed in conjunction with the Nurse Manager and the Clinical Lead, in line with BSCCP and NCSS guidelines.
- Nurse Colposcopists are responsible for the co-ordination and facilitation of the CINCPC/ MDT meetings. These meetings require significant input and planning, with each CPC/MDT meeting having an average of 12 cases for discussion. The co-ordinator is responsible for listing cases, requesting slides, presentation of cases, reconciling outcomes and completion of follow-up management plans afterwards.

Achievements in 2018

Workload of Nurse Colposcopist

Patients Seen	1151 patients (total number) 693 follow-up patients 458 first visit patients
Performed	192 LLETZ treatments 432 diagnostic biopsies
Diagnosed cancers/cGIN	4- Micro invasive carcinoma 1- Invasive squamous cell carcinoma 0- Invasive adenocarcinoma 6- Adenocarcinoma-in-situ of cervix (cGIN)
Prescriptions as a registered nurse prescriber	107 prescriptions written
MDT	Co-ordinated and facilitated 5 meeting
Conference	NICCIA annual meeting April 2018 Recertification by attending the BSCCP annual scientific meeting in April 2018 and submitting the relevant data as necessary Attendance at the BSCCP trainers meeting day April 2018
Personal development	Gave a health promotion lecture to H.Dip midwifery students on cervical screening Supported several smear taker trainees on placement

Challenges for 2019

- Plan to continue to provide the highest standard of Colposcopy Service to an increasingly complex patient caseload.
- Endeavour to perform further audits and presentations in 2019 and attend study days relevant to our clinical field.
- Endeavour to support the Trainee Nurse Colposcopists in their training, clinical and managerial development.

Gynaecology Oncology Liaison Nurse

Head of Department

Prof. Tom D'Arcy

Staff Complement

Aideen Roberts, *until April 2018*

Laura McGovern, *from June 2018 (0.76 WTE)*

Key Performance Indicators from July 2018

Since commencing the post in July 2018 there were a total of 35 newly diagnosed cancers in the CWUIH including one endometrial stromal sarcoma and one low grade follicular lymphoma. Data is not available for earlier in the year.

Cervix	16
Corpus Uteri	13
Cancer of the Ovary	2
Cancer of the Vulva	2
Other	2

Achievements in 2018

- The Gynaecological Oncology Nurse post was taken up by Laura McGovern in June 2018 following the departure of Aideen Roberts who held the post for nine years.
- The CWIUH has strong linkages to St James's Hospital and the Gynaecology Oncology Liaison Nurse is a vital role to ensure ongoing communication between both sites in relation to patient care. One of the main aspects of this role is to ensure that a seamless pathway of care is maintained for the patients diagnosed with a gynaecological malignancy.
- The Oncology Nurse has a visible presence in both the inpatient and outpatient environment, working closely with the team in Colposcopy, St Gerard's Ward and Gynaecology Day Ward. The Oncology Nurse attends Outpatient Clinic in St James's Hospital and the CWIUH each week and is present with Prof D'Arcy and Dr Kamran when women are informed of their cancer diagnosis.
- Contact details are given to patients and ongoing support is provided by way of telephone, email and consultation with the Oncology nurse.

Scope of the role of the Gynaecology Oncology Liaison Nurse

- Attends the Gynaecology Oncology MDT on a weekly basis in St James's Hospital. It is the responsibility of the Oncology Nurse to submit patient information for discussion at MDT each week. This is where all newly diagnosed or suspected cancer cases are discussed and where further management of care is planned.
- Organises the relevant imaging and biopsies that are required for staging purposes in new cases and in cases of suspected recurrence.
- Responsible for the booking of beds for admission for both diagnostic and therapeutic purposes.
- Liaises with all divisions of the Gynae Oncology Team, including the co-ordination of referrals to both radiation and medical oncology, for patients who require adjuvant treatment.
- Meets women and their families both pre and post-operative, providing both verbal and written information and support regarding their gynae-oncology surgery and their possible need for further treatment.

Future Plans

- To implement a referral proforma to improve the referral pathway within the CWIUH.
- To establish a detailed information pack for women that can be provided when initially diagnosed with cancer.

Challenges

- To continue to ensure that a seamless pathway of care is maintained, to ensure that women are supported to reach their proposed treatment plan within the recommended timeframe, given the existing clinical hours and current demands on the service.

Hysterosalpingocontrastsonography (HyCoSy) Service

Consultant

Professor Nadine Farah

Clinical Research Fellow

Dr Jennifer Hogan

Secretary

Ms Aideen O'Connor

Key Performance Indicators

Procedures	N=	%
Procedures Scheduled	201	
Procedures Abandoned	5	2.5
Procedures Inconclusive	7	3.4

Tubal Patency	N=	%
Patency ascertained	157	78.1
Unilateral Occlusion	23	11.4
Bilateral Occlusion	4	2
Previous salpingectomy		
Other tube occluded	3	-
Other tube patent	2	-

Uterine Findings:	N=	%
Submucosal fibroids / endometrial polyps	5	2.5

In 11 cases either one or both of the tubes were initially blocked and were unblocked during the procedure.

Outpatient Hysteroscopy Service

Consultant

Dr Iram Basit *(Locum Consultant)*

Staff Complement

Hysteroscopy Consultants

Dr Iram Basit

Dr Shobha Singh

Clinical Nurse Manager II

Olivia McCarthy, *leave from May 2018*

Registered General Nurse

Birgit Wilmes, *(0.5 WTE)*

Healthcare Assistants

Hayley Mitchell, *leave from Oct 2018*

Maria White

Office Manager

Bernie Cummins

Office Administrator

Marlene Duffy

The CWIUH Outpatient Hysteroscopy Service is a Consultant-led service assessing women aged 40 years and over who are referred with abnormal uterine bleeding or post-menopausal bleeding.

The service was initially established in the summer of 2017 to help reduce the patient waiting list for Gynaecology Outpatients and has grown since then in its own right as a standalone service.

The clinic offers uterine assessment via Transvaginal Ultrasound, Hysteroscopy and pipelle biopsy.

For the purpose of this report data for the first 18 months of service is included; July 2017 to December 2018.

There are 3 clinics per week seeing 6 first visits and 2 return patients per session.

Within 6 months of establishing the service, all patients who had been waiting for an appointment had been assessed clinically. By January 2018 all patients who were on the waiting list were seen and any new referrals to the service were seen within 2 - 4 weeks of referral.

Most patients are discharged after one visit with treatment options arranged with their G.P., generally Mirena coil insertion or oral progesterone.

Patients requiring endometrial ablation are referred to St James's Hospital for treatment.

In October 2018 Myosure for Uterine Polyps was introduced as a treatment in the Outpatient Hysteroscopy setting. 5 cases were successfully done within the ambulatory setting.

Clinic Attendances

Between July 2017 and December 2018, 857 women attended the Hysteroscopy Service; 650 new patients and 207 return patients.

DNA rates for patients attending the clinic for the first time were 14% (96 patients).

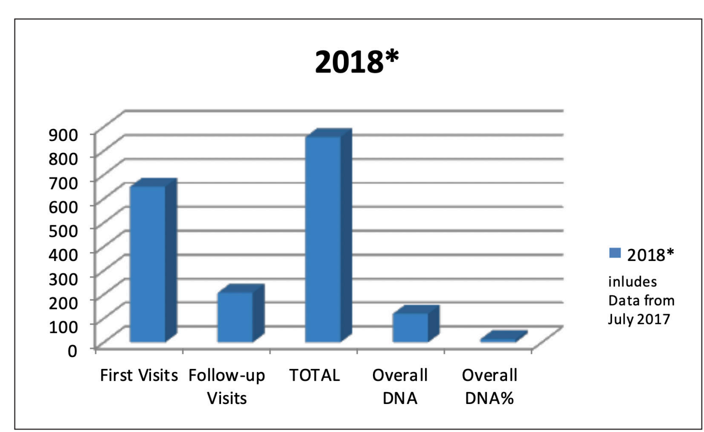
DNA rates for return patients were 11% (23 patients).

The overall DNA rate for all patients was 13%.

Table 1 *attendance figures over the 1st 18 months of service*

	July 2017 – December 2018
First Visits	650
Follow-up Visits	207
Total	**857**
DNA Rate	119 (13%)

Figure 1 *Attendance at the Outpatient Hysteroscopy Clinic for the 1st 18 months of service*



Histology

There were 13 confirmed cancers diagnosed in the clinic from July 2017 to December 2018. Additionally 5 cases of complex hyperplasia were identified.

Quality Assurance

A patient questionnaire was devised to assess patient satisfaction with the service. The overall results from patients were very positive. Patients felt very well supported and rated the service highly in regard to accessing assessment and treatment so quickly.

Future plans

Within the Hysteroscopy Service, we will continue to review management pathways to ensure optimal use and allocation of appointments, and the continuance of ambulatory treatments.

The service will look to include access to the clinic for women less than 40 years of age where clinically indicated.

It is envisioned that the number of clinical sessions will be increased to improve access and reduce waiting times for patients.

We will aim to work in conjunction with the Colposcopy service to provide a dedicated one-stop access clinic for patients with glandular abnormalities, therefore expediting their assessment and management and avoiding the need to go to theatre and undergo general anaesthetic.

Sincere thanks must be given to Birgit Wilmes RGN for her data collection and input in the compiling of this report.

Olivia McCarthy
CNM II
Outpatient Hysteroscopy

Dr Iram Basit
Clinical Lead
Outpatient Hysteroscopy

Operating Theatre Department, including Anaesthetic Clinic

Heads of Department

Prof Tom D'Arcy, *Director of Gynaecology Division*

Dr Terry Tan, *Director of Perioperative Medicine/ Anaesthesia*

Ms Frances Richardson, *Asst. Director of Midwifery & Nursing, Gynaecology*

Ms Alison Rothwell, *CNM III, Theatre Manager, Gynaecology Wards and Anaesthetic Clinic*

Staff Complement

Approved posts – 29 WTE

CNM III x 1 WTE

CMM II x 2 WTE

CNM II (Anaesthetics) x 1 WTE

Staff Midwives x 6.45 WTE

RGN 21.85 WTE

Total as of Dec 2018 was 32.29 WTE

Key Performance Indicators

- The development of information leaflets for women, which cover procedures commonly undertaken at CWIUH is now largely complete.
- This paves the way for the undertaking of the review of the CWIUH consent form, to better reflect best practice standards.
- Further CSSD upgrade works challenged the delivery of surgical services in theatre during the last quarter of 2018. Outsourcing of reprocessing commenced Nov 4th 2018 to facilitate this upgrade.
- Retirements in 2018 had a measurable impact on staff numbers this year and service planning and provision was impacted in the second half of 2018. A significant recruitment initiative was actioned at year-end, with good success in recruiting experienced theatre staff for 2019.

Achievements in 2018

- A Quality Improvement Initiative saw the introduction of a care bundle aimed at reducing the Caesarean Section wound infection rates. A reduction of 50% in the wound infection rate was achieved in 2018.
- Very interesting research studies examining the value of carbohydrate loading and stomach emptying times in the preoperative period are underway in the department.
- Approval to go to design and tender for the building of new Theatres, to reach best practice standards for Operating Theatre Department was achieved.

Challenges for 2019

- To complete the review/revision of the consent form and surgical pack to more closely align with the National (HSE) policy and HIQA standards.
- To gain approval and recruit a 0.5WTE Clinical Skills Facilitator to enhance skill development in the department.

Division of Paediatrics & Newborn Medicine

Division of Paediatrics & Newborn Medicine – Medical Report

Section 1: Admissions

Table 1.1: Admissions – Coombe Women & Infants University Hospital Neonatal Centre

	N*
Total No. of Admissions to Neonatal Centre	1026
No. of Infants > 1.5kg	865
No. of Admissions ≥ 35 weeks gestation	667

** including readmissions*

Section 2: VLBW Infants

Table 2.1 Number of cases reported to the VON 2018 (N = 115)

	All cases	Number of cases excluding congenital anomalies
Infants < 401g but ≥22 wks gestation	2	2
Infants 401-500g	4	4
Infants 501-1500g	106	99
Infants > 1500g but ≤ 29+6 wks gestation	3	0
Total	**115***	**105**

**N = 115 represents total number of VON infants managed by the CWIUH. This reflects both 91 inborn and 24 outborn VON infants. There was a total of 10 newborns with VON defined major congenital anomalies. This number 115 includes all newborns with any sign of life following delivery.*

Table 2.2 Gestational age breakdown and survival to discharge of all infants (501 – 1500g) reported to the VON (including those with congenital anomalies) in 2018 (N = 103*)

Gestational Age	Inborn Infants	Survival to 28 days	Survival to Discharge	Outborn Infants	Survival to 28 days	Survival to Discharge	Total Survival to Discharge
21 wks	0	0	0	0	0	0	0
22 wks	1	0	0	0	0	0	0
23 wks	2	2	1	0	0	0	1 (50%)
24 wks	1	1	0	3	3	2	2 (50%)
25 wks	10	6	6	5	4	4	10 (66.7%)
26 wks	13	12	12	4	4	4	16(94.1%)
27 wks	11	9	9	3	3	3	12 (85.7%)
28 wks	9	9	9	3	3	3	12 (100%)
29 wks	7	7	7	4	4	4	11 (100%)
30 wks	4	4	4	0	0	0	4 (100%)
31 wks	7	7	7	0	0	0	7 (100%)
32 wks	7	6	6	0	0	0	6 (85.7%)
> 32 wks	9	5	4	0	0	0	4 (44.4%)
Total	**81**	**68**	**65**	**22**	**21**	**20**	**85 (82.5%)**

**Total N = 103 infants both inborn outborn infants for whom survival data available at discharge.*

Table 2.3 Birth weight and survival to discharge of all infants reported to the VON (including those with congenital anomalies) 2018 (n = 103*)

Birth Wt	Inborn Infants	Survival to 28 days	Survival to Discharge	Outborn Infants	Survival to 28 days	Survival to Discharge	Total Survival to Discharge
<501g	0	0	0	0	0	0	0
501-600g	4	3	2	2	2	2	4 (66.7%)
601-700g	7	5	4	4	3	2	6 (54.5%)
701-800g	9	6	6	1	1	1	7 (70%)
801-900g	5	5	5	3	3	3	8 (100%)
901-1000g	12	11	11	2	2	2	13 (92.9%)
1001- 1100g	8	6	6	2	2	2	8 (80%)
1101-1200g	11	10	9	4	4	4	13 (86.7%)
1201-1300g	9	8	8	2	2	2	10 (90.9%)
1301-1400g	10	9	9	0	0	0	9 (90%)
>1400g	6	6	6	2	2	2	8 (100%)
Total	**81**	**69**	**66**	**22**	**21**	**20**	**86 (83.5%)**

**Total N = 103 inborn and outborn infants for whom survival data available at discharge.*

VON Definitions

Nosocomial Infection: *defined as any late bacterial infection or coagulase negative staphylococcus infection.*

Any Late Infection: *defined as any late bacterial infection, coagulase negative staphylococcus infection or fungal infection after D3.*

Mortality: *defined as death at any time prior to discharge home or first birthday. It is applicable to all infants for whom survival status is known. In this table, it only includes infants 501-1500g and it includes infants with major congenital anomalies.*

Mortality Excluding Early Deaths: *excludes infants who die within the first 12 hours of birth.*

Survival: *indicates whether the infant survived to discharge home or first birthday.*

Survival without Specified Morbidities: *indicates whether the infant survived with none of the following key morbidities: severe IVH, CLD, NEC, pneumothorax, any late infection or PVL.*

Source: *Vermont Oxford Network Annual Report and Nightingale, the Vermont Oxford Network Internet Reporting Tool.*

Table 2.4: Morbidity figures for infants 501-1500g admitted to NICU in CWIUH (congenital anomalies included) compared to the Vermont Oxford Network and Republic of Ireland (N=106)

Birth Wt	CWIUH 2018	VON 2018 Infants 501-1500g (%)	*ROI _2017_ Infants 501-1500g (%)
Inborn	83 (78.3%)	97.5%	94.3%
Male	59 (55.7%)	50.4%	47.2%
Antenatal Steroids (partial or complete)	99 (94.3%) (n=105)	85.7%	92.6%
C/S	82 (77.4%)	73.5%	68.9%
Antenatal Magnesium Sulphate	80 (76.2%) (n=105)	61.3%	74.3%
Multiple Gestation	39 (36.8%)	25.5%	33.8%
Any major birth defect	7 (6.6%)	6.0%	8.2%
Small for gestational age	23 (21.7%)	25.4%	20.0%
Surfactant in DR	29 (27.4%)	20.9%	29.4%
Conventional Ventilation	54 (53.5%) (n=101)	53.0%	48.3%
High Frequency Ventilation	13 (12.9%) (n=101)	19.2%	9.1%
Any Ventilation	54 (53.5%) (n=101)	55.2%	48.7%
High Flow Nasal Cannula	34 (33.7%) (n=101)	53.8%	45.7%
Nasal IMV/SIMV	0 (0.0%) (n=101)	35.7%	13.1%
Nasal CPAP	92 (91.1%) (n=101)	78.2%	83.9%
Nasal CPAP before ETT Ventilation	70 (75.3%) (n=93)	65.5%	67.1%
Ventilation after Early CPAP	26 (37.1%) (n=70)	37.2%	32.1%
Surfactant at any time	56 (52.8%)	55.6%	57.1%
Steroids for CLD	9 (8.9%) (n=101)	11.1%	7.4%
Inhaled Nitric Oxide	14 (13.9%) (n=101)	5.0%	7.2%
RDS	67 (77.9%) (n=86)	69.2%	74.5%
Pneumothorax	5 (5.8%) (n=86)	2.8%	5.5%
Chronic Lung Disease (at 36 wks)	10 (11.6%) (n=86)	22.7%	21.6%
Chronic Lung Disease, Infants <33 wks	10 (12.3%) (n=81)	24.5%	22.8%
Early Bacterial Infection	1 (1.0%) (n=101)	1.4%	2.7%
Late Bacterial Infection	10 (10.1%) (n=99)	7.1%	7.3%
CONS Infection	4 (4.0%) (n=99)	4.4%	5.9%
Nosocomial Bacterial Infection	13 (13.1%) (n=99)	10.2%	12.0%
Fungal Infection	0 (0.0%) (n=99)	0.8%	0.8%
Any Late Infection (Bacterial or Fungal)	13 (13.1%) (n=99)	11.0%	12.2%
NEC Surgery	4 (4.0%) (n=101)	3.3%	2.6%
PDA ligation	1 (1.0%) (n=101)	2.8%	No data
Surgery for ROP	1 (1.0%) (n=101)	1.9%	4.2%
Any Grade of IVH (Grade I-IV)	21 (21.2%) (n=99)	25.4%	24.2%
Severe IVH (Grade III-IV)	5 (5.1%) (n=99)	7.8%	6.9%
Cystic PVL	0 (0.0%) (n=99)	2.9%	2.0%
Retinopathy of Prematurity	18 (24.3%) (n=74)	29.8%	18.3%

Table 2.4 Contd: Morbidity figures for infants 501-1500g admitted to NICU in CWIUH *(congenital anomalies included)* compared to the Vermont Oxford Network and Republic of Ireland (N=106)

Birth Wt	CWIUH 2018	VON 2018 Infants 501-1500g (%)	*ROI 2017 Infants 501-1500g (%)
Severe ROP (Stage 3 or more)	1 (1.4%) (n=74)	5.4%	4.3%
Anti-VEGF Drug	1 (1.0%) (n=101)	1.5%	1.9%
GI perforation	2 (2.3%) (n=86)	1.3%	No data
Indomethacin	0 (0%) (n=101)	9.6%	0.0%
NEC	8 (7.9%) (n=101)	5.0%	6.1%
PDA	7 (6.9%) (n=101)	24.9%	24.6%
Ibuprofen for PDA	3 (3%) (n=101)	6.2%	6.3%
Probiotics	90 (89.1%) (n=101)	17.2%	44.8%
Mortality	17 (16.5%) (n=103)	12.2%	15.7%
Mortality excluding Early Deaths	11 (11.3%) (n=97)	9.7%	11.2%
Survival	86 (83.5%) (n=103)	87.8%	84.3%
Survival without Specified Morbidities	67 (65.0%) (n=103)	59.2%	57.8%

** At the time of data analysis whilst data was available for VON for year 2018 only data for year 2017 was available for ROI*

Table 2.5: Shrunken Standardized Mortality and Morbidity (SMR) Rates

	SMR (95% confidence interval) For Year 2018	SMR (95% confidence interval) For 3 Years 2016-2018
Mortality	1.2 (0.7 – 1.7)	1.2 (0.9 – 1.5)
Death or Morbidity	0.8 (0.6 – 1)	0.8 (0.7 – 1)
Chronic Lung Disease (at 36 wks)	0.7 (0.4 - 1)	0.7 (0.6 – 1)
NEC	1.2 (0.6 – 1.9)	1.5 (1 – 2)
Late Bacterial Infection	1.1 (0.6 – 1.8)	0.9 (0.6 – 1.3)
Coagulase Negative Infection	0.8 (0.2 – 1.6)	1 (0.6 – 1.5)
Nosocomial Infection	1.0 (0.6 – 1.6)	1 (0.7 – 1.3)
Fungal Infection	0.2 (0 – 1.3)	0.7 (0.1 – 1.9)
Any Late Infection	1.0 (0.6 – 1.6)	0.9 (0.7 – 1.2)
Any IVH	0.8 (0.6 – 1.2)	0.9 (0.7 – 1.1)
Severe IVH	0.8 (0.5 – 1.3)	0.7 (0.5 – 1)
Pneumothorax	1.2 (0.7 – 1.9)	1.2 (0.8 – 1.7)
Cystic PVL	0.4 (0 – 1.1)	0.4 (0.1 – 0.8)
Any ROP	0.8 (0.5 – 1.2)	0.8 (0.6 – 1.1)
Severe ROP	0.6 (0.2 – 1.3)	0.8 (0.4 – 1.3)

Section 3: Hypoxic Ischaemic Encephalopathy and Mortality Tables

Table 3.1: Hypoxic Ischaemic Encephalopathy

	Inborn	Outborn
Hypoxic Ischaemic Encephalopathy (HIE)	15	13
•Mild HIE (Stage 1)	7	0
•Moderate HIE (Stage 2)	6	11
•Severe HIE (Stage 3)	2	2
Therapeutic Hypothermia Outcomes for Hypothermia	**7****	**14***
•RIP	-	4
•Alive & Normal to Date	4	10
•Cerebral Palsy	3	-

** 1 outborn newborn with encephalopathy was diagnosed with GBS sepsis after cooling complete.*

*** 1 inborn HIE Sarnat III was too unstable for cooling and died at a few hours of age.*

Table 3.2: Mortality - Inborn Infants with Congenital Anomalies (N = 12)

Birthweight (g)	Gestational Age	Apgar Scores	Age at Death (day of life)	Place of Death	Abnormality (leading to death)
220	21	1	1	CWIUH	Triploidy
1090	33 + 4	4, 2	1	CWIUH	Pulmonary Hypoplasia, Cloacal Dysgenesis Sequence
1120	34	1, 1	1	CWIUH	Anencephaly
1200*	34	9, 10	41	OLCHC PICU	Preterm, IUGR, Complex Congenital Heart disease
1240	32 + 4	1, 1	1	CWIUH	Anencephaly
1330	35 + 2	1, 1	1	CWIUH	Bilateral Renal Agenesis
1940	36 + 3	3, 1	1	CWIUH	Anencephaly
1980 (PND)	37 + 5	8, 9	25	Hospice	Trisomy 18
2590*	37 + 4	8, 7	6 mth	OLCHC PICU	Severe Airway Obstruction, Tetralogy of Fallot, Rubenstein Taybi
3590	39 + 4	6, 7	2	OLCHC PICU	Transposition of Great Arteries with intact ventricular septum, HIE
3680*	39	8, 9	86	OLCHC ER	Trisomy 21, Complete AVSD
3900 (PND)	33 + 1	3, 6	26	CWIUH	Mucopolysaccharidosis Type VII (Sly disease)

PND – Postnatal Diagnosis. Of nine deaths with congenital anomalies all except for one case were antenatal diagnosis.

** - Infant death*

Table 3.3: Inborn Infants Normally Formed ≤ 1500g (n = 26)

(13 infants - intensive care not started for extreme prematurity and comfort care provided)

Birthweight (g)	Gestational Age	Apgar Scores	RIP (day of life)	Place of Death	Cause of Death
80	18	1	1	CWIUH	Extreme Prematurity – comfort care
134	17 + 5	1, 1	1	CWIUH	Extreme Prematurity– comfort care
180	18	1	1	CWIUH	Extreme Prematurity – comfort care
200	18 + 3	2, 2	1	CWIUH	Extreme Prematurity – comfort care
337	20 + 5	1, 1	1	CWIUH	Extreme Prematurity– comfort care
350	21 + 2	6, 5	1	CWIUH	Extreme Prematurity– comfort care
350	21 + 2	8, 7	1	CWIUH	Extreme Prematurity– comfort care
350	24 + 2	2, 8	5	CWIUH	Extreme Prematurity, IUGR, Severe RDS, Pulmonary Haemorrhages
351	20 + 6	1, 1	1	CWIUH	Extreme Prematurity– comfort care
367	21 + 2	1	1	CWIUH	Extreme Prematurity– comfort care
440	22 + 6	6,3	1	CWIUH	Extreme Prematurity– comfort care
460	27 + 5	2	1	CWIUH	Extreme Prematurity – comfort care
500	22 + 1	2,2	1	CWIUH	Extreme Prematurity– comfort care
500	25 + 4	0,2	26	OLCHC	
538	22 + 3	5, 3	1	CWIUH	Extreme Prematurity – comfort care
540**	23 + 3	6, 8	30	OLCHC PICU	Extreme Prematurity, NEC
600*	26	0, 0	1	BBA	Extreme Prematurity
600	27 + 1	5, 10	28	CWIUH	Extreme Prematurity, Klebsiella sepsis
660	27 + 3	6, 10	6	CWIUH	NEC, Extreme Prematurity, E.coli sepsis, Trisomy 21
670**	25 + 4	5, 9	9 mth	OLCHC PICU	Extreme Prematurity, Bronchopulmonary Dysplasia
680	24 + 3	5, 6	29	CWIUH	Extreme Prematurity, NEC
720	26 + 2	5, 8	4	CWIUH	Extreme Prematurity, Pulmonary Haemorrhage
800	25 + 3	2, 4	1	CWIUH	Extreme Prematurity, E. coli sepsis
920	25 + 5	5, 8	3	CWIUH	Extreme Prematurity, Grade III/IV IVH
780	25 + 5	3, 7	3	CWIUH	Extreme Prematurity, Grade III/IV IVH
1050	27 + 5	4, 6	2	CWIUH	Extreme Prematurity, Grade III/IV IVH

** - Brought By Ambulance (Born at home) ** - Infant death*

Table 3.4: Mortality - Inborn Infants Normally Formed >1500g (N = 5)

Birthweight (g)	Gestational Age	Apgar Scores	Age at Death (day of life)	Place of Death	Cause of Death
1610	30 + 3	2, 2	1	CWIUH	Prematurity, Early onset sepsis
2060*	32 + 1	8, 9	33	Home	SIDS
3250	40	1, 1	1	CWIUH	Pulmonary Hemorrhage with ARDS and HIE Stage III
3260*	34 + 1	2,8	41	OLCHC	Ohtahara syndrome
3770	38	9, 10	11	OLCHC	Encephalopathy due to Parechovirus

Table 3.5: Mortality - Outborn Infants Normally Formed ≤ 1500g (N = 1)

Birthweight (g)	Gestational Age	Apgar Scores	Age at Death (day of life)	Place of Death	Cause of Death (Referring Hospital)
650*	24 + 5	4, 6	75	OLCHC PICU	Extreme Prematurity, NEC (Drogheda)

Table 3.6: Mortality - Outborn Infants Normally Formed > 1500g (N = 4)

Birthweight (g)	Gestational Age	Apgar Scores	Age at Death (day of life)	Place of Death	Cause of Death (Referring Hospital)
2660*	32 + 1	2, 4	4.5 mth	OLCHC PICU	Tracheobronchomalacia, Hydrops, VSD, Down syndrome (Tralee)
3070	41 + 3	0, 0	2	CWIUH	HIE Stage III (Cavan)
3300	37 + 5	1, 1	3	CWIUH	HIE Stage III (Castlebar)
3360	41 + 4	2, 4	6	CWIUH	HIE Stage III (Kilkenny)

** - Infant death*

Section 4: Selected Morbidity Tables for Patients Admitted to Neonatal Centre

Table 4.1 : Term Baby Causes of Respiratory Morbidity (> 37 weeks) (n)

Transient Tachypnea of the Newborn	145
Respiratory Distress Syndrome	250
Pneumothorax	28
Meconium Aspiration Syndrome	13
Aspiration Pneumonia	28
Congenital Pneumonia	7
Congenital Diaphragmatic Hernia	3
Esophageal Atresia/Trachea-Esophageal Fistula	1
Congenital Pulmonary Airway Malformation	2
Pulmonary Hemorrhage (isolated)	11

Table 4.2 : Jaundice in Term Babies (>37 Weeks) (n)

Non-hemolytic	58
Hemolytic	
• ABO	13
• Rh	10

Section 5: Congenital Abnormalities Born in the Coombe Women and Infants University Hospital

Table 5.1 : Gastrointestinal Tract Anomalies (N)

Cleft lip	3
Cleft palate (1 Stickler syndrome)	3
Cleft palate +/- lip	3
Bowel Atresia/Obstruction	6
Anorectal anomalies	4
Exomphalos	3
Gastroschisis	3
Limb Body Wall Disorder	1

Table 5.2 : Urinary and Genital System Anomalies (N)

Renal Agenesis	2
Multicystic kidneys unilateral/bilateral	2
Hydronephrosis	2
Duplex Kidney	1
Posterior Urethral Valve	1
Hypospadias	10
Ambiguous Genitalia	1

Table 5.3 : Renal Agenesis 2

Anencephaly	3
Meningomyelocele +/- ventriculomegaly	3
Agenesis Corpus Callosum + ventriculomegaly	1
Dandy Walker	1

Table 5.4 : Skin Anomalies (N)

Cephalohematoma	7
Subgaleal Hemorrhage	4
Vascular malformation of the skin (extensive)	2

Table 5.5 : Musculoskeletal Anomalies (N)

Congenital deformities of the feet	6
Digital anomalies	4
Developmental Dysplasia of the Hip (requiring treatment)	166
Thantophoric Skeletal Dysplasia	1

Table 5.6 : Cardiac Anomalies (N)

Isolated Perimembranous Ventricular Septal Defect	5
Double Outlet Right Ventricle	1
Hypoplastic Left Heart Syndrome	8
Transposition of Great Arteries	3
Tricuspid Atresia	1
Tetralogy of Fallot	6
Atrioventricular Septal defect	3
Atrial Septal defect	1
Dysplastic aortic valve	1
Pulmonary Stenosis	1
Complex Congenital Heart Disease	1
Pulmonary atresia	2
Situs inversus	1
SVT	1
Total Anomalous Pulmonary Venous drainage	1
Atrioventricular Septal defect	4
Atrial Isomerism	1
Ebstein's anomaly	1

Table 5.7 : Chromosomal Anomalies (N)

Trisomy 21	29
Trisomy 18	4
Trisomy 13	1
DiGeorge	1
XO (Turner)	2
Rubenstein Taybi	1

Table 5.8 : Other Disorders Associated with Dysmorphic Features/Anomalies (N)

Sly syndrome (Mucolipidoses type VII)	1
Jacobsen syndrome	1
Kabuki syndrome	1

The year 2018 featured an expansion of the developmental paediatrics service at the CWIUH with the employment of Dr. Louise Hickey as a part-time clinical psychologist. For the first time in the history of the hospital the department is now able to provide a Bayley developmental assessment to all inborn very low birth premature newborns in addition to those term newborns with HIE who were managed with therapeutic hypothermia. The Bayley developmental assessment is typically performed at approximately two years of age corrected for prematurity.

Dr. Eoghan Laffan joined the hospital as a Consultant in Paediatric Radiology in 2018. He took over from a position previously held by Dr. David Rea. He is employed jointly between the two sites of the CWIUH and CHI Crumlin. Dr Laffan has organized regular Thursday morning pediatric radiology teaching.

Prof. Martin White relinquished his role as Chairman of the Neonatal Clinical Advisory Group as part of the National Clinical Programme for Paediatrics & Neonatology. Dr Anne Doolan took up this role as co-chairperson with Dr Mike Boyle from the Rotunda hospital. Dr Doolan also functions as chair of Parenteral Nutrition for Paediatrics and Neonatology Expert Group.

Prof. Martin White, Prof. Jan Miletin and Prof. Eleanor Molloy continued their respective academic roles within the CWIUH in association with the Royal College of Surgeons, University College Dublin and Trinity College Dublin respectively.

I would like to thank all the nursing, midwifery, medical, orthopaedic, physiotherapy, chaplaincy, dietetic, medical social work, laboratory, pharmacy, information technology, radiology, infection control and bioengineering personnel, as well as the human resources staff and our obstetric colleagues for their continued support and dedication in providing care for infants born at the Coombe Women & Infants University Hospital. I would also like to thank a number of our colleagues from Our Lady's Children's Hospital Crumlin and the Children's University Hospital Temple Street, who continue to consult both pre and postnatally and visit the Unit – often in the late hours. In particular, we are grateful to Dr Orla Franklin, consultant paediatric cardiologist who continues to provide an excellent onsite fetal cardiology and postnatal cardiology consultation service to the neonatal unit. Dr Franklin and her OLCHC consultant cardiology colleagues provide out of hours consultation advice to the NICU in a 24/7 manner. We are grateful to them for this continued service.

Comparison with Previous Reports

For the year 2018 the Coombe hospital cared for 113 premature infants whose birth weights were between 401 - 1500g and/or whose gestational ages were between 22 + 0 weeks until 29 + 6 weeks. This included a few infants with major congenital anomalies. They included both inborn and a minority of outborn infants who were transferred into the Coombe hospital at some point during the first 28 days of their lives. These infants and aspects of their care were all prospectively reported into an international collaborative network known as the Vermont Oxford Network (VON). This number is decreased from the year 2017 when the Coombe hospital cared for 140 such infants.

Of these 113 premature VON infants complete survival/mortality data for 106 of these infants who were admitted to the NICU is known at the point of death/discharge. Of these 106 premature VON infants, 83 were inborn at the CWIUH and 23 were outborn. The total survival to discharge in 2018 was **83.5%** similar to 81.7% for the year 2017.

In 2018 the survival to discharge of such premature infants without specified major morbidities was **65%** which was exactly the same as for the previous year. We are quite pleased that our survival to discharge without specified major morbidities is higher than overall network result of 59.2%. Unfortunately at the time of writing this report the Republic of Ireland VON results for the year 2018 are unpublished. Therefore Table 2.4 features ROI VON data only for 2017 for comparison and unfortunately not data for 2018. Please refer to Figures 1 – 3 for a ten year trend concerning numbers of VON premature newborns and survival outcomes at the Coombe.

The incidence of severe intraventricular/periventricular (PIVH) (grade III/IV) haemorrhages remained low at 5.1%.

There was one infant with retinopathy of prematurity (ROP) that necessitated Anti-VEGF (Evastin) therapy that was performed on site in the Coombe NICU and one infant who required transfer to OLCHC for laser therapy of ROP. We are extremely grateful to our two excellent consultant paediatric ophthalmologists Mr Donal Brosnahan and Dr Kathryn McCreery who pro-

vide for regular retinal screening in addition to Evastin and retinal surgical therapies as required.

The frequency of Chronic Lung disease (defined at 36 weeks gestational age) was decreased at 11.6% compared to the year 2017 when it was higher at 19%. This remains lower than the entire VON network at 22.7%. The Shrunken Standardised Morbidity over the last three years for chronic lung disease is 0.7 (95% confidence interval 0.6 – 1). There is a continuous trend of using non-invasive forms of ventilation.

Concerning the VON Shrunken Standardised Morbidity rate for various infectious performance parameters over the three years 2016-2018, the CWIUH remains within the acceptable normative range. The SMR for "late bacterial infection" is 0.9. The SMR for "coagulase negative infection is 1. The SMR for "nosocomial infection" is 1. The SMR for "fungal infection" is 0.7. This three year steady state concerning neonatal infections likely represents the collaborative efforts of medical, nursing and midwifery staff in promoting hand hygiene, touch surface cleaning, care bundles and early enteral human milk nutrition.

In relation to patent ductus arteriosus (PDA), 6.9 % of our VLBW infants had PDA as defined by the VON definition. This number continues to remain low. The Coombe NICU frequency of PDA diagnosis was much lower than within the VON database of 24.9%. In 2018 there were 3 cases of ibuprofen usage for PDA treatment. We continued with our conservative strategy (started in 2010) and the frequent usage of point of care ultrasound (together with excellent cardiology support from Dr. Orla Franklin); there was one case of PDA surgical ligation in 2018 and a total of two cases overall for the years 2015 - 2018 in total.

In relation to hypoxic ischaemic encephalopathy (HIE), there were six inborn infants classified as HIE grade II and two classified as HIE grade III. Seven of these eight infants were treated with therapeutic hypothermia. One of these inborn HIE infants was too critically sick to be treated by therapeutic hypothermia and died shortly after birth. Our inborn HIE II/III hypothermia treatment number of 8 infants is a decrease from the 10 infants who received hypothermia in the year 2017. There were 14 outborn infants referred to the Coombe for therapeutic hypothermia in 2018. One of these cooled newborns was eventually diagnosed with GBS sepsis. This is a significant increase from the 5 outborn newborns referred to the CWIUH in 2017 for therapeutic hypothermia. The Coombe NICU is a national referral centre for total body hypothermia therapy for infants with defined criteria (TOBY trial criteria), where this therapy would be commenced within six hours of birth. See Table 3.1 for details.

For the first time in an annual report the CWIUH is now able to report in a more comprehensive manner on developmental outcome for VLBW and extremely premature newborns managed at the CWIUH. Two year developmental follow-up assessments using the Bayley Scales of Infant and Toddler Development-III commenced in the November 2019. Assessments were offered to all newborns born under 30 weeks and/or weighing under 1000grams at birth from June 2016 onwards. A total of 39 inborn babies born from June to December 2016 attended for Bayley Assessment at approximately 24-26 months. From this follow-up, 66% did not present as developmentally delayed at 2 years (developmentally delayed defined as two domains (for example cognitive and motor) with a score of 84 and under). It is hoped that in the next annual report for 2019 we will be able to provide for the first time a complete year of newborn follow up data for survival and developmental outcome status for the cohort of VLBW/ extreme preterm newborns born at the CWIUH for the year 2017. This developmental outcome data is courtesy of our clinical psychologist Dr. Louise Hickey.

The Neonatal Centre continues to receive significant numbers of infants diagnosed with congenital abnormalities prenatally, including congenital cardiac disease. The Coombe Women & Infants University Hospital has a close relationship with cardiology, cardiothoracic surgery and paediatric intensive care at Our Lady's Children's Hospital, Crumlin in the care and transfer of these infants. Babies born with significant paediatric surgical problems receive care through the paediatric surgical teams based at the Children's University Hospital, Temple Street and Our Lady's Children's Hospital, Crumlin. There is close co-operation between our team and the foetal/perinatal medicine specialists in the Coombe Women and Infants University Hospital. We have presented within this report all newborns with congenital abnormalities in the Coombe Women and Infants University Hospital.

I would like to thank Ms Julie Sloan (research midwife) for her dedication and hard work in assisting me with this report. Julie also maintains the Vermont Oxford database at the hospital. I am also grateful to Ms Catherine Barnes (administrative assistant) and Ms Emma

McNamee (Information Technology) for their respective roles with this report. I wish to acknowledge the efforts of my consultant neonatology colleagues Prof. Jan Miletin, Prof. Martin White, Dr Anne Doolan, Dr Pamela O'Connor, Dr Jana Semberova, Dr. Hana Fucikova, Dr. Jan Franta, Prof. Eleanor Molloy and Dr Shahid Saleemi for their excellent care of sick infants and their support to the staff and families of the Coombe. In addition a debt of gratitude to the Vermont Oxford Database Co-Ordinator at the CWIUH, Ms Julie Sloan, and Baby Clinic staff, Ms Maureen Higgins, Ms Ciara Carroll, and Ms Catherine Barnes for their invaluable help and assistance in preparing this Annual Report. Jean Cousins (Clinical Midwifery manager) and the other nurses/midwives and administrative staff of the Baby Clinic. In relation to development of guidelines, Ms Anne O'Sullivan ANNP and Mr Peter Duddy, Neonatal Pharmacist, with the help of the Paediatric Drugs & Therapeutics Committee, reviewed our in-house drug policies and protocols. A massive thank you to the inspirational neonatal nurses, neonatal nurse managers, midwives and care assistants who provide a high standard of care for the newborns within the neonatal unit and subsequently on follow up visits in the Baby Clinic. Finally, I would like to thank all staff members and my colleagues in the Neonatal Centre for their hard work throughout 2018.

CWIUH Baby Clinic: Summary of Activity for 2018

The Coombe Department of Paediatrics & Neonatal Medicine runs a busy outpatient clinic that is commonly known as the Baby Clinic. The baby clinic sees newborns and infants for the following indications: medically indicated two and six week checks, weight checks, referrals from General Practitioners and Public Health Nurses/ Midwives regarding issues such as feeding difficulties, breast feeding support, weight loss, orthopaedic follow up for surveillance and management of developmental dysplasia of the hips, antenatal breast feeding education, antenatal paediatric consultations for high risk pregnancies, interval developmental follow up of ex-premature newborns and HIE cooled newborns until 24 months of age corrected for prematurity, consultant provided medical clinics, physiotherapy assessments, and soon to commence clinical psychologist provided Bayley (3rd edition) developmental assessments. On occasional weekends the Newborn Audiology Screening service utilize the premise. The clinic is managed by Ms Jean Cousins (Clinical Midwifery Manager) and Maureen Higgins as the administrative manager. There are additional administrative staff, nurses and midwives who work either solely or mostly in the baby clinic. Most amazing and hardworking staff whom we thank for all their efforts and late hours!

In December 2018 Drs Anne Doolan, Pamela O'Connor and John Kelleher in conjunction with neonatal nurses Jean Cousins and Sonya Gorman in the baby clinic launched the Tongue Tie Assessment & breast feeding support clinic. The clinic runs every Tuesday afternoon in the CWIUH baby clinic and is by appointment only. Typically three or four infants are assessed per clinic. The clinic will review any breast feeding medically stable infant up to six weeks of age corrected for prematurity. Frenotomy procedures are performed on site if required.

For the year 2018 there were a total of 7973 individual patient visits. This amounts to 30.5 patient visits per each working day. The table below denotes the breakdown of these visits. This also included 971 referrals by GP's/Public Health Nurses to our stand alone Senior House officer clinic up from the previous year's number of 531. I believe the CWIUH baby clinic is unique in Ireland in that it provides for paediatric senior house officers and registrars to run a stand-alone clinic. We believe this enhances clinical autonomy and decision making of our non-consultant pediatric hospital pediatric doctors whilst still prioritizing patient safety. The high activity of the CWIUH Baby Clinic compares quite similarly to a local Dublin GP service that sees approximately 3000 children (< 16 years of age) and up to 19000 patient visits per year.

Summary of CWIUH Baby Clinic Activity for 2018 by Clinic Type

Type of Clinic	Number of Patient Visits
Paediatric/Neonatology	4773
Orthopaedic	502
Physiotherapy	1576
Psychologist	12
"Walk in" Paediatric	971
Weight clinic	135
Tongue Tie Assessment	4
Total No. of Individual Patient Visits	**7973***

Research in the Department of Paediatrics & Newborn Medicine 2018

The CWIUH Neonatology department continues to be very active in research. We run numerous research projects ourselves and participate in other multi-centre and international studies. Three research fellows in neonatology worked with us in 2018, Dr. Matthew McGovern, Dr. Mary O'Dea and Dr. Saira Tabassum. The main research projects conducted in the Neonatology department in 2018 are listed below.

PRISM study: PReterm Infection and SysteMic inflammation and neonatal outcomes. This study is focused on newborn infection and inflammation, examining novel blood inflammatory markers. The research is aimed to improve the understanding of the systemic inflammatory response in preterm infants and evaluate possible future therapies. Recruitment continued in 2016. NCH Foundation: Prof Eleanor Molloy (PI): €39,500: 2016-2017. Two international abstract presentations; PhD thesis submitted December 2017.

GENIE study: Gender and Neonatal Inflammation in preterm outcomes. NCRC: Dr Matt McGovern and Prof Eleanor Molloy (PI) €185,875: 2017-2020.

DISCO study: Down syndrome, Infection and Clinical Outcomes. NCH Foundation: Prof Eleanor Molloy (PI) €316,500: 2017-2020.

NEBULA study: Neonatal brain injury: Understanding systemic inflammation and immunomodulation. NCH Foundation: Prof Eleanor Molloy (PI) €39,000: 2016-2017. Four international abstract presentations.

NIMBUS study: Neonatal Inflammation and Multiorgan dysfunction and Brain injury research group. HRB HRA Award: Dr Mary O'Dea and Prof Eleanor Molloy (PI): €328,000: 2015-2018.

CHAMPION study: Childhood multiorgan outcomes after Neonatal encephalopathy. NCH Foundation: Dr Denise McDonald and Prof Eleanor Molloy (Co-PI). €107,562: 2015-2017; four international abstract presentations; Cochrane review ongoing; 2 manuscripts submitted for publication.

SFI SIRG Programme: Dr Eva Jiminez and Prof Eleanor Molloy (collaborator). The sensitivity and specificity of miRNAs as biomarkers of neonatal seizures. €519,636:2015-8

In addition to the prospective studies, we performed numerous retrospective chart reviews. We also performed multiple clinical audits which led to change of our daily practice. Monthly research meetings continue to be a platform to discuss the progress in research studies and audits.

Publications in the Department of Paediatrics & Newborn Medicine 2018

Tabassum S, et al.The relationship between maternal diet and preterm expressed breast milk macronutrient content [abstract]. Welsh Paed J 2018; (49), 197.

Kennedy RAK, Mullaney L, O'Higgins A, McCartney D, **Doolan A,** Turner MJ. The relationship between early pregnancy dietary intakes and subsequent birth weight and neonatal adiposity. Journal of Public Health 2018; 40(4):747-755

Amy C. O'Higgins, **Anne Doolan,** Thomas McCartan, Laura Mullaney, Clare O'Connor, Michael J. Turner. Is birth weight the major confounding factor in the study of gestational weight gain?: an observational cohort study. BMC Pregnancy and Childbirth 2018; 18:218

McGovern M, **Miletin J.** Cardiac Output Monitoring in Preterm Infants. Front Pediatr. 2018 Apr 3; 6:84.

Kieran EA, **O'Sullivan A, Miletin J,** Twomey AR, Knowles SJ, O'Donnell CPF. 2% chlorhexidine-70% isopropyl alcohol versus 10% povidone-iodine for insertion site cleaning before central line insertion in preterm infants: a randomised trial. Arch Dis Child Fetal Neonatal Ed. 2018 Mar;103(2):F101-F106.

Geraghty AA, O'Brien EC, Alberdi G, Horan MK, Donnelly J, Larkin E, Segurado R, Mehegan J, **Molloy EJ**, McAuliffe FM. Maternal protein intake during pregnancy is associated with child growth up to 5 years of age, but not through insulin-like growth factor 1: findings from the ROLO study. Br J Nutr. 2018 Dec;120(11):1252-1261.

Huggard D, McGrane F, Lagan N, Roche E, Balfe J, Leahy TR, Franklin O, Moreno A, Melo AM, Doherty DG, **Molloy EJ.** Altered endotoxin responsiveness in healthy children with Down syndrome. BMC Immunol. 2018 Nov 3;19(1):31.

Molloy EJ, Bearer C. Neonatal encephalopathy versus Hypoxic-Ischemic Encephalopathy. Pediatr Res. 2018 Nov;84(5):574.

Huggard D, **Molloy EJ.** Question 1: Do children with Down syndrome benefit from extra vaccinations? Arch Dis Child. 2018 Nov;103(11):1085-1087.

Bearer CF, **Molloy EJ**. Pediatric research: brief update on key objectives. Pediatr Res. 2018 Jul;84(1):2.

Molloy EJ, Gale C, Marsh M, Bearer CF, Devane D, Modi N. Developing core outcome set for women's, newborn, and child health: the CROWN Initiative. Pediatr Res. 2018 Sep;84(3):316-317.

Brennan K, O'Leary BD, Mc Laughlin D, Breen EP, Connolly E, Ali N, O'Driscoll DN, Ozaki E, Mahony R, Mulfaul K, Ryan AM, Ni Chianain A, McHugh A, **Molloy EJ,** Hogan AE, Paran S, McAuliffe FM, Doyle SL. Type 1 IFN Induction by Cytosolic Nucleic Acid Is Intact in Neonatal Mononuclear Cells, Contrasting Starkly with Neonatal Hyporesponsiveness to TLR Ligation Due to Independence from Endosome-Mediated IRF3 Activation. J Immunol. 2018 Aug 15;201(4):1131-1143. doi: 10.4049/jimmunol.1700956. Epub 2018 Jul 6.

Quinlan SMM, Rodriguez-Alvarez N, **Molloy EJ**, Madden SF, Boylan GB, Henshall DC, Jimenez-Mateos EM. Complex spectrum of phenobarbital effects in a mouse model of neonatal hypoxia-induced seizures. Sci Rep. 2018 Jul 3;8(1):9986.

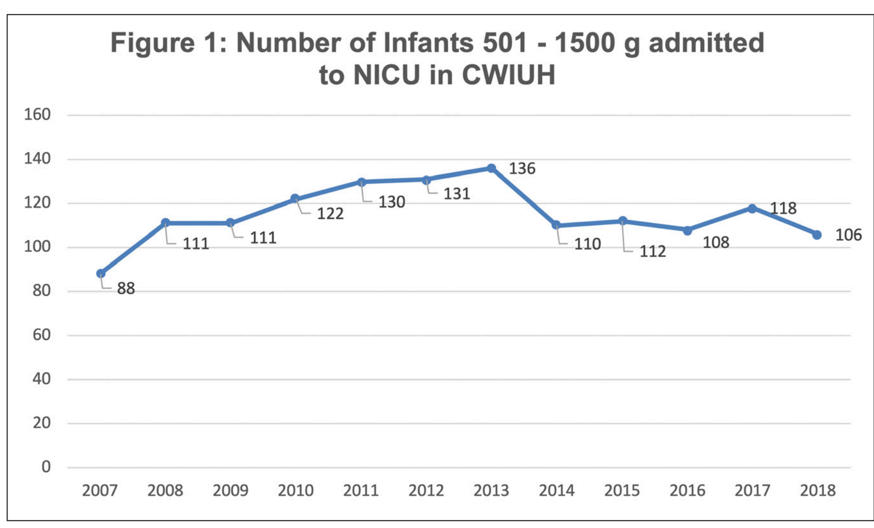
Onwuneme C, **Molloy EJ.** Question 2: Vitamin D intake for preterm infants: how much do they really need? Arch Dis Child. 2018 Aug;103(8):808-811.

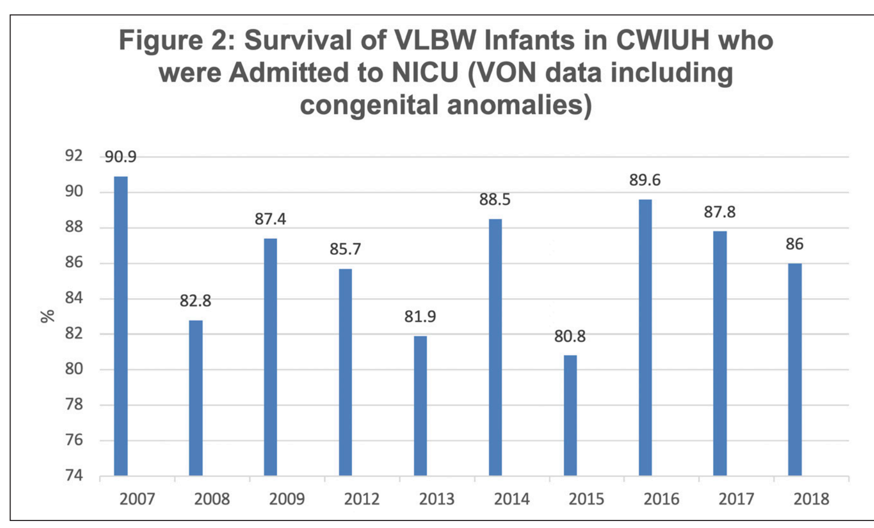
O'Driscoll DN, McGovern M, Greene CM, **Molloy EJ.** Gender disparities in preterm neonatal outcomes. Acta Paediatr. 2018 May 11

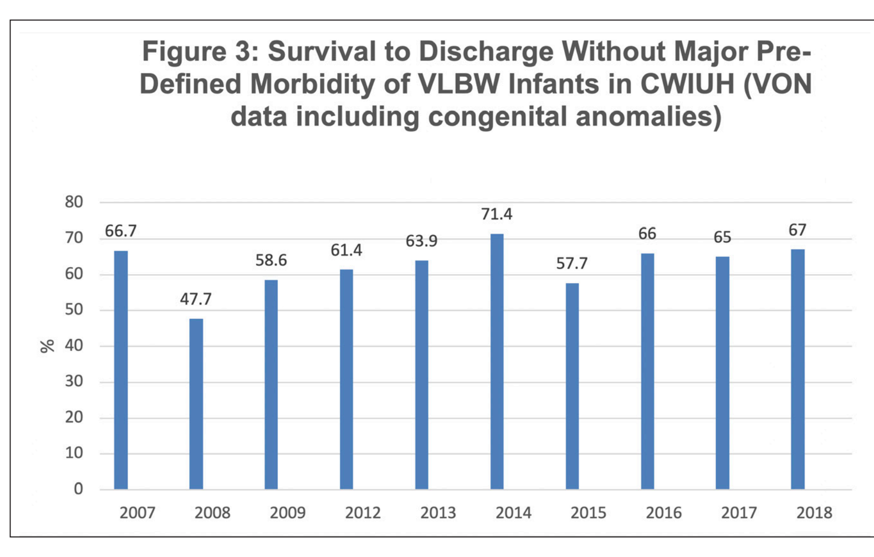
Dr John Kelleher MB BCh BAO MSPH

Director of Paediatrics & Newborn Medicine,

Trends in Very Low Birth Weight (VLBW) Infants in the Coombe Women and Infants University Hospital over the Last 11 Years







Division of Paediatrics & Newborn Medicine – *Midwifery /Nursing Report*

Heads of Department

Dr John Kelleher, *Director of Paediatric & Newborn Medicine*
Bridget Boyd, *Assistant Director of Midwifery & Nursing*
Mary Ryan, *Acting Clinical Midwife Manager III (until March 2018)*
Mary O'Connor, *Acting Clinical Midwife Manager III (from March 2018)*

Staff Complement

Complement of 90 WTE including:
1 WTE Advanced Nurse Practitioner – *Neonatal Nursing*
1 WTE CMM III
6.5 (6.67)WTE CMM/CNM II
7 (3.55) WTE CMM/ CNM I
1 WTE CMS Discharge Planning
1.71 WTE Clinical Skills Facilitators
83.89 WTE Midwives / Nurses
Clerical Staff
Support Staff
6.1 vacancies

Key Performance Indicators

- Coombe Women & Infants University Hospital team are committed to improving the quality and safety of medical and nursing care for all newborn babies and their families.
- Continuously striving to improve the quality of care based on current evidence-based literature to achieve quality improvement and optimize staff development.
- Reduction in nosocomial infection rates.
- Continuing improvement in medication safety management.
- Striving to reduce the number of ventilation days, ultimately decreasing lung injury and thus chronic lung disease.
- Continuing to develop the fundamentals of Family-Centred Developmental Care (FCDC), maintaining each baby's and family's dignity and respect, enhancing the quality of care and their experience in our Neonatal Centre.

Achievements in 2018

- 13 WTE Staff Nurses were recruited; 9 staff resigned, with a retention rate of 88.8%.
- Two staff graduated with the Postgraduate Diploma in Neonatal Intensive Care Nursing and one was facilitated from Limerick University Hospital. Two Staff commenced the programme.
- Three staff completed the MSc in Nursing (Neonatal).
- Eight staff completed the Foundation Programme on Principles of High Dependency and Special Care; six completed level II, Neonatal intensive Care.
- The NNTP team from CWIUH conducted a total of 207 transports representing 36% of the 576 NNTP transports.
- 94% of referrals were accepted.
- 13 staff completed the fifth Family Infant Neurodevelopmental Education (FINE) Level I programme facilitated and coordinated by CWIUH.
- Third Irish FINE Level II course was coordinated from CWIUH.
- The highlight for World Prematurity Day Celebrations 2018 was the NICU Graduate Gathering marking 50 years of Neonatal Intensive Care in the CWIUH. Graduates ranged from 35 years old, to in their twenties, teens to 10 months old. Local celebrations included our annual Prematurity Awareness Symposium, the hospital being illuminated in purple, plus on unit celebrations with parents and staff.

Challenges for 2019

- To reduce infection rates.
- To overcome the ongoing challenge posed by NEC, using Quality Improvement Initiatives expanding to interdepartmental education sessions, fostering preparation and support in obtaining early colostrum.
- To re-invigorate Family-Centred Developmental Care, increasing parental presence and participation in their babies care, facilitating their increasing confidence and competence as discharge approaches.
- Each baby receives individualized supportive care during painful and stressful procedures in conjunction with the best evidence literature, from his nurse and / or parent.
- Each parent is given the choice and facilitated to be their infant's co-regulator.
- To continue to develop, revise and update policies and guidelines in keeping with current best practice.
- Optimize capacity effectively and utilizing the LEAN approach where appropriate.
- To enhance staff retention and promote an ethos of ongoing professional development.
- Preparation for maternal infant electronic charting systems.
- To develop an Emergency Evacuation Plan that addresses the specific needs of NICU, this complies with Health & Safety requirements.

Neonatal Transition Home Service (NTHS)

Department

Dr John Kelleher, *Director of Paediatric & Newborn Medicine*

Bridget Boyd, *Assistant Director of Nursing and Midwifery*

Mary Ryan, *ACMM III (until March 2018)*

Mary O Connor, *ACMM III (from March 2018)*

Sheena Bolger, *ACNS Jan-July 2018, CNS from July 2018, Neonatal Transition Home Service*

Staff Complement

Sheena Bolger, *1 WTE CNS*

Key Performance Indicators

- Provide ongoing support to families of premature babies post discharge, in the form of home visits as required. Weekly phone calls of support between discharge and due date, and fortnightly until 6/52 corrected age. Aim to reduce phone calls from parents, and visits, to baby clinic and GPs.
- Promote parental education in Neonatal Centre to empower parents and enhance readiness for discharge. Twice weekly parent education sessions and CPR workshops are offered and all parents are encouraged to attend, staff is also welcome.
- Facilitate monthly Neonatal Support Group, parents appreciating the 'peer' support. Parents are encouraged to attend prior to discharge. Christmas party, welcoming families of babies who spent time in the neonatal unit over the past few years.
- Breastfeeding champion, encouraging and supporting mothers to produce breastmilk for their premature babies. In collaboration with Lactation Support CMSs, encourage mothers to attend expressing workshops. This support and guidance enhances mothers' chances of successfully providing milk for their babies.
- Provide valued education sessions to Midwives and Nursing Students as part of their curriculum.
- Respiratory Syncytial Virus (RSV) prophylaxis programme with Palivizumab continues over the winter period. Initial administration in hospital and referral to home administration service.

Achievements in 2018

- Completed training to become Lead Hand Hygiene auditor.
- BLS instructors course.
- Recommenced home visits within the Neonatal Transition Home Service.

Challenges for 2019

- Continue to improve our family-integrated care by supporting parents in every way we can.

Registered Advanced Nurse Practitioner

Heads of Department

Dr John Kelleher, *Director of Paediatrics & Newborn Medicine*

Bridget Boyd, *Assistant Director of Midwifery & Nursing*

Mary O Connor, *CNM III*

Staff Complement

Anne O Sullivan, *Registered Advanced Nurse Practitioner (Neonatology), accredited in 2006 (Author), 1WTE.*

Key Performance Indicators

- To enable consistency in standards of health care. This is achieved by having a presence in the clinical area, offering support and guidance to medical and nursing staff, ensuring care is evidence-based, while also managing a caseload. Outcomes are measured by regular audits.
- To promote family-centred care, empowering parents to participate in the care of their infants, education required to support this initiative is on-going.
- To further reduce nosocomial infection rates, monitor antibiotic use and put strategies in place to minimise multidrug resistant organisms (MDROs).
- To further reduce ventilation days and minimize incidence of chronic lung disease in our VLBW infants.
- To promote breast feeding and optimize nutritional management of our infants.
- To promote and facilitate research activities by participating in research studies as a primary researcher, as an investigator or in a support role.

Achievements in 2018

- Presented at national study days on a variety of topics as well as on the STABLE and Neonatal Resuscitation Program.
- Completed the MPROvE Neonatal Simulation Instructor Course.
- In collaboration with Medical and Nursing colleagues, we initiated a number of research studies, completed audits and presented posters at national conferences.
- Participated in education programmes for Higher Diploma and Masters of Science in Nursing/Midwifery (Advanced Practice) programmes in the RCSI, as a member of curriculum development group and as a lecturer.
- Participated in education programmes for Public Health Nurses at UCD.
- Presented at in house education programmes on a range of topics for Neonatal Nurses, Midwives and NCHDs.

Plans for 2019

- NEC rates have remained constant over the last number of years. Reduction of same was proposed as a KPI in 2018 and is a work in progress. Education and support of mothers to produce early colostrum and MEBM is a current and on-going QIP.
- Seek publications to disseminate results of research projects undertaken in 2018.
- To further develop the role of the postnatal ward Liaison Nurse, the role in the NNU is now well established. The challenge for 2019-2020 is to deliver more care at the bedside in the Postnatal Wards. The aim of this initiative is to minimize separation of mothers and babies and to enhance the provision of neonatal care on the post-natal wards and in the delivery suite in conjunction with midwifery staff.
- Improve parent facilities.
- We propose the introduction of a specific area for simulation training to promote 'excellence in the care of women and babies'. Our vision is to have a dedicated area in close proximity to the clinical area to run frequent skills and drills to replace the current adhoc nature of scenario training that will complement the Neonatal Resuscitation Program (NRP).
- To enhance the working relationship with medical and nursing staff in our network hospital as we strive to provide expert neonatal care in the region.
- Prepare for the Introduction of the Maternal & Newborn Clinical Management System Neonatal team to work with Project lead to include all disciplines and super users.

Division of Peri-operative Medicine

Department of Peri-operative Medicine and Anaesthesia

Head of Department

Dr Terry Tan

Staff Complement

Dr Steven Froese, *Consultant, 26 hours*

Dr Niall Hughes, *Consultant, 11 hours*

Dr Nikolay Nikolov, *Consultant, 11 hours*

Dr Terry Tan, *Consultant, 26 hours*

Dr Rebecca Fanning, *Consultant, 13 hours*

Dr Sabrina Hoesni, *Consultant, 39 hours*

Dr Petar Popivanov, *Locum Consultant*

Key Performance Indicators

Theatre

Patients Operated on	Elective	Emergency	N=
Epidural	16	689	**705**
General	2181	255	**2436**
General & Epidural	1	6	**7**
General & No anaesthetic	2	0	**2**
General & Spinal	7	6	**13**
General & Spinal & Epidural	0	1	**1**
Local	94	14	**108**
Local & General	2	0	**2**
Unknown	17	8	**25**
Spinal	1528	772	**2300**
Spinal & Epidural	1	15	**16**
Spinal or epidural	0	2	**2**
Total	**3849**	**1768**	**5617**

Caesarean Sections

Mode of Anaesthetic	Elective	Emergency	Total
GA	1	59	**60**
GA & Spinal	21	14	**35**
GA & Epidural		17	**17**
GA & Spinal & Epidural		7	**7**
Spinal	1384	670	**2054**
Spinal & Other	1		**1**
Spinal & Epidural		50	**50**
Epidural		519	**519**
Epidural & Other		2	**2**
Unknown		9	**9**
Total	**1407**	**1347**	**2754**

Mode of Anaesthesia for Caesarean Section (CS)

Mode of Anaesthetic	Elective	Emergency	Total
GA	1	59	**60**
GA & Spinal	21	14	**35**
GA & Epidural		17	**17**
GA & Spinal & Epidural		7	**7**
Spinal	1384	670	**2054**
Spinal & Other	1		**1**
Spinal & Epidural		50	**50**
Epidural		519	**519**
Epidural & Other		2	**2**
Unknown		9	**9**
Total	**1407**	**1347**	**2754**

Mode of Labour Analgesia

	Mothers Delivered	Epidurals
Primiparae	3429	**1985 (57.9%)**
Parous	4725	**1329 (28.1%)**
Mode of Analgesia / Anaesthesia	**8154**	**3314 (40.6%)**
Each instance of pain relief (not per patient)		
Aromatherapy	6	
Caudal	1	
Epidural – continuous infusion with top up	1615	
Epidural - continuous infusion alone	1445	
Epidural - top ups alone	254	
Hydrotherapy	15	
Hypnotherapy	85	
Inhalational analgesia	5027	
Intrathecal catheter	3	
Lignocaine	2	
No analgesia	640	
Not Answered	1747	
Other	19	
Pethidine	229	
Pudendal block	21	
Remifentanil infusion	20	
Spinal	233	
TENS	486	
Total	**11857**	

Achievements in 2018

- Introduction of talks by Anaesthesiologists on epidural analgesia at all Antenatal Classes.
- Increase in compliance of patients taking their regular medications while fasting for surgery from 42% to 81%.
- Introduction of a new pager system for category 1 Caesarean Sections reducing the decision to delivery interval (DDI) from 18.6 min to 13 min.

Challenges for 2019

- Upgrading the Pre-operative Assessment Clinic to a full Pre-admission Unit for elective surgery.

Publications

- S Stanescu, M Leonard, J Close, F Guilfoyle, T Tan. Agreement between functional fibrinogen on the TEG 6 hemostasis analyser with Clauss method laboratory assay of quantitative fibrinogen in term pregnant women. International Journal of Obstetric Anaesthesia 2018. 35; S20

Division of Laboratory Medicine

Department of Laboratory Medicine Report

Heads of Department

Professor John O'Leary, *Director of Pathology*
Martina Ring, *Laboratory Manager*
Ruth O'Kelly, *Principal Biochemist*
Stephen Dempsey, *Pathology Quality/ IT Manager*

Staff Complement

Pathology Consultants:
Dr Niamh O'Sullivan, *Microbiology*
Dr Catherine Flynn, *Haematology/Transfusion*
Dr Colette Adida, *Histopathology/Cytology*
Dr Vivion Crowley, *Chemical Pathology*
Dr Filip Sokol, *Locum Pathologist [from Dec 2018]*
Dr Peter Kelehan, *Locum Pathologist, Pathology/Morbid Anatomy*
Dr Kevin Ryan, *Locum Consultant Haematologist*

Other Staff:
Medical Scientist & Lab Aide Staff- 38.5 WTE
Biochemists- 3 WTE
Phlebotomist - 3 WTE
Administration / Clerical Staff - 6 WTE
Specialist Registrar [SPR] Histopathology - 1 WTE
Consultant Staff - 3 WTE
Haemovigilence Officer - 0.8 WTE
Surveillance Scientist - 1.0 WTE

Key Performance Indicators: Workload by test request

Area	2013	2014	2015	2016	2017	2018
Microbiology	44,672	44,514	42,573	41,639	44,387	**44,764**
Biochemistry	162,045*	205,475*	218,565*	216,849**	207,686	**213,994**
Haematology	46,877	50,717	53,961	55,111	54,298	**51,418*** **
Transfusion	22,866	25,273	26,537	26,328	29,464	**29,099**
Cytopathology	16,774	27,355	25,589	26,161	26,185	**31,814**
Histopathology	5,696	5,877	6,001	6,331	6,380	**6,796**
Post mortems	41	50	35	33	32	**32**
Phlebotomy	19,931	21,084	23,641	33,812***	37,870	**38,287**
Molecular Pathology [Gynae-Screen]	2,857	4,442	7,147	8,369	7,611	**7,800**

** *= including POCT tests ** = change in referral test counting*

**** = corrected test number, counting method change [late 2017].*

Achievements in 2018

- Maintaining the accreditation of all Pathology Departments and POCT within the hospital.
- The Pathology Dept. continues to provide in-service training to Cytopathology third year DIT Medical Laboratory Science students.
- High level of achievement in research.

Challenges for 2019

- Review of equipment for programmed replacements.
- Continued cost saving and income generation initiatives within the department.
- Continued participation in the National Cervical Screening Service [CevicalCheck].
- CORU registration for all Medical Scientist staff.
- Expanding test repertoires.
- Implement the announcement in Q4 2018, that the CervicalCheck National Cervical Screening Laboratory would be based at the Coombe Women & Infants University Hospital, recognising the unique clinical, research and education ecosystem of excellence that exists in the areas of cervical screening, HPV testing and biomarker generation at the hospital site.
- Preparation for MEDLis and MN-CMS IT systems.

Biochemistry / Endocrinology / Point of Care Testing

Heads of Department

Dr Vivion Crowley, *Consultant Chemical Pathologist*
Ruth O'Kelly, *Principal Clinical Biochemist*

Staff Complement

Ann O'Donnell-Pentony, *Specialist Senior Medical Scientist (1.0 WTE)*

Dr Anne Killalea, *Senior Clinical Biochemist (0.5 WTE)*

Aoife O'Brien, *Senior Clinical Biochemist (0.5 WTE) from August 2018*

James Kelly, *Senior Clinical Biochemist (1.0 WTE)*

Paul Carlyle, *Staff Grade Medical Scientist (1.0 WTE) to August 2018*

Susan Logue, *Staff Grade Medical Scientist (1.0 WTE)*

Ugo Igwagu, *Staff Grade Medical Scientist (from December 2018)*

Key Performance Indicators

Test numbers:

	2017	2018
Biochemistry tests *(including referred tests)*	207686	**213994**
Glucose Tolerance test *(to diagnose Gestational Diabetes)*	4212	**4400**
C-reactive Protein *(to diagnose sepsis)*	5392	**5465**
Thyroid Function tests	5165	**5406**

- Overall testing has increased in spite of a falling birth rate due to increased complexity of patients.
- Increased testing particularly seen in the diagnosis and monitoring of diabetes and maternal sepsis.
- The Biochemistry Department is accredited by the Irish National Accreditation Board to ISO 15189 and Point of Care testing (blood gases) is also accredited to ISO 22159.
- Excellent scores continued to be achieved in our External Quality Assessment Schemes.
- Referral service for specialised tests for external hospitals (Fructosamine and Total Bile acids).

Achievements in 2018

- Maintenance of ISO 15189 and 22159 accreditation status and continued training and re-certification of ward staff in Point of Care testing.
- Senior staff regularly attended multi-disciplinary meetings including the Diabetes team meetings, Point of Care committee meetings and weekly Perinatal review meetings.
- Education and Teaching: Ruth O'Kelly lectured on the Masters in Clinical Biochemistry course (TCD). Ann Pentony is involved in the education of midwifery/medical/paediatric staff. Biochemistry staff have presented at the monthly Journal Club. Transition Year students were facilitated over the year.
- Professional Associations: Ruth O'Kelly represents her professional association (Association of Clinical Biochemists in Ireland) on the Healthcare Standards Consultative Committee (in-vitro diagnostics) of NSAI (National Standards Authority Ireland). Ann O'Donnell is on the Advisory Body of the Academy of Laboratory Medicine and Clinical Science for Point of Care testing.
- Collaboration with research projects within the hospital including "A prospective evaluation of point-of-care measurements of maternal glucose for the diagnosis of gestational diabetes mellitus".
- Collaboration with National Cancer Control Programme – Measurement of serum tumour markers.

Challenges for 2019

- The extended working day continues to pose challenges for the department as we strive to maintain our excellent quality and service to our patients.
- Cost containment.
- The Diabetic service continues to expand due to the increased incidence of risk factors for diabetes in our population.
- Point of Care testing is expanding with the increased demand particularly in the area of maternal sepsis and fetal monitoring during labour.
- A procurement process is underway for the replacement of the main biochemistry analyser.

Cytopathology

Heads of Department

Prof John O'Leary, *Consultant Histopathologist*
Mary Sweeney, *Chief Medical Scientist*

Staff Complement

Dr Colette Adida, *Consultant Histopathologist*
Padma Naik, *Senior Medical Scientist*
Nadine Oldfield, *Senior Medical Scientist*
Roisin O'Brien, *Senior Medical Scientist*
Niamh Cullen, *Medical Scientist*
Elaine Hayes, *Medical Scientist*
Joanna Kakolewska, *Medical Scientist*
Ruth McAlerney, *Medical Scientist (0.5WTE)*
Ita Nolan, *Medical Scientist*
Graham O'Lone, *Lab Aide (0.5WTE)*
Cathy Hannigan, *Lab Aide*
Lola Adeyemo, *Locum Lab Aide (May-Sept)*
Kerry Ann Durbin, *Clerical Officer*
Elizabeth Lynch, *Clerical Officer*

Key Performance Indicators

Specimen Throughput	2016	2017	**2018**
Total number of smears	26161	26185	**31814**
Programme Smears	24751 (95%)	24800 (95%)	**30235 (95%)**
Turnaround Time (TAT)(0-2 weeks)	83 %	54 %	*
Unsatisfactory	1.6 %	3.3%	**4.6%**
Negative	91 %	88 %	**86%**
Low-Grade	6.0 %	6.8 %	**8.8%**
High Grade	1.4 %	2.0 %	**1.8%**

** = TAT monitoring suspended May 2018 by CervicalCheck*

Achievements in 2018

- Maintaining our INAB accreditation status.
- Participation in the Public Health England EQA scheme, U.K. (2 rounds per annum).
- Participation in the Hologic TEQA scheme (2 rounds per annum).
- Visit by Dr Scally Scoping Enquiry.
- Participation in Coombe, Tallaght, Rotunda, NMH Holles St. and Clonmel/Waterford Colposcopy MDT meetings.
- Attendance at the Scottish Cytology Training School, Edinburgh [Ms Padma Naik, Ruth McAlerney, Ms Ita Nolan and Ms Hannah Deering].
- Ms Elaine Hayes and Ms Joanna Kakolewska joining the department.
- Ms Elizabeth Lynch commencing full-time clerical duties within the department.

Challenges for 2019

- 2018 saw an increase of 21% in the number of samples received in the department due to the ongoing CervicalCheck controversy.
- Prepare slides for RCOG review.
- Introduction of Primary HPV screening by the National Cervical Screening Programme, CervicalCheck.
- Laboratory building project [National Cervical Screening Laboratory].
- Introduction of digital cytopathology.

Haematology / Transfusion Medicine

Heads of Department

Dr Catherine Flynn, *Consultant Haematologist*
Fergus Guilfoyle, *Chief Medical Scientist*

Staff Complement

Fergus Guilfoyle, *1 WTE Chief Medical Scientist*
3 WTE Senior Medical Scientists
Gabriel Hyland / Isabel Fitzsimons (0.5 WTE)
Niamh Mullen (0.5 WTE) / Rebecca O'Grady
5 WTE Staff Grade Medical Scientists:
Orla Cormack (A/Senior Jul – Dec)
Eimear McGrath / Niamh Byrne / Shagufa Zaman
Yewande Dosunmu / Eric Tang (Locum Jul – Dec)
Sonia Varadkar, *0.8 WTE Haemovigilance Officer*
Maureen Hand , *0.5 WTE Clerical Officer*

Key Performance Indicators

Specimen Throughput

-Haematology tests: 51,418 (49,802* in 2017) 3% Increase
-Transfusion Medicine tests: 29,099 (29,464 in 2017)
1% Decrease

Due to counting method change, 2017 figure differs from that in 2017 Annual Report

Turn Around Time (TAT)	(TAT) Figures for Haematology				(TAT) Figures for Transfusion Medicine			
Test	Full Blood Count		Coagulation Screen		Crossmatch		Inpatient Group & Screen	
Year	**2018**	2017	**2018**	2017	**2018**	2017	**2018**	2017
Target Max TAT	**60 mins**	60 mins	**120 mins**	120 mins	**240 mins**	240 mins	**240 mins**	240 mins
Average TAT achieved	**23 mins**	19 mins	**39 mins**	34 mins	**59 mins**	52 mins	**100 mins**	111 mins
% within target TAT	**97%**	99 %	**97 %**	97 %	**100 %**	100 %	**100 %**	99 %

Achievements in 2018

- Maintained INAB ISO 15189 accreditation.
- Rolled out Blood Track phase 3 for tracking of red cells & platelets with PDA to increase safety and decrease staff members required for checks.
- Developed in-house guideline for women who decline blood products.
- Joint poster with Rotunda Hospital presented on 'Antecedents of red cell transfusion in a large contemporary obstetric cohort' at the National Haemovigilance Office conference.
- DIT BSc student completed project on detection of subclinical iron deficiency using novel parameters on Sysmex XN2000 FBC analysers.
- Poster presented at Sysmex User Group in Manchester on above project.
- Developed Internal Quality Assurance system for Haematology.
- Introduced some clinical interpretive comments on FBC and Blood Film reports.
- Introduced rotation system for red cells with Tallaght to optimise blood stock management.

Challenges for 2019

- Switch from codabar product barcodes for red cells and platelets to ISBT barcodes to prepare for new format of blood packs.
- Re-configure LIS and Blood Track to allow tracking of plasma with PDAs.
- Increased workload due to implementation of Termination of Pregnancy service, including provision of blood grouping and issue of Anti-D to primary care patients.
- New processes and procedures required in Blood Transfusion to comply with legislation implementing the Falsified Medicines Directive.
- Optimisation of the RAADP program with integration of foetal RHD typing on all RhD Negative antenatal patients.
- Procurement and validation of coagulation analyser.
- Develop Internal Quality Assurance system for Transfusion.
- Quality Improvement Plan to reduce sample labelling errors led by Consultant Haematologist and Laboratory Manager in conjunction with service users.
- Further improvements in management of patients with haemoglobin disorders including a laboratory guideline.
- Development of comments on Transfusion reports to aid clinical interpretation of the potential significance of blood group antibodies.
- The demand for blood film review and clinical consultation for haematological disorders is rising. This includes consultations for anaemia, including sickle cell disease; thrombocytopenia; complex disorders such as NAIT and patients declining blood.
- Regular MDT involvement for haematology patients, including those with haemostasis and thrombosis disorders is challenging. Continued advisory services for RAADP and TOP initiation will be demanding with existing sessional commitments.

Haemovigilance

Head of Department

Dr Catherine Flynn

Staff Complement

Sonia Varadkar, *Haemovigilance Officer (0.8 WTE)*

Key Performance Indicators

Number of Women Transfused	**295**
Number of Women who received 5 or more RCC	**6**
Number of babies who received pedipacks	**59**
Neonatal exchange transfusions	**0**
Neonatal ECMO	**1**
Reports to National Haemovigilance Office	**2**

Achievements in 2018

- Accreditation – ISO 15189.
- 100% traceability of blood components and blood products.
- Implementation of phase 3 of Electronic BloodTrack System for Red Cells and Platelets.
- Develop in-house guideline for women who decline blood products.
- Publication in Journal Perinatal Medicine "Antecedents of red cell transfusion in a large contemporary obstetric cohort".
- Joint poster with Rotunda Hospital presented on "Antecedents of red cell transfusion in a large contemporary obstetric cohort" at the National Haemovigilance Office conference.

Challenges for 2019

- Transfusion rate reduction - staff identifying risk factors early.
- Include administration of plasma on Electronic Blood Track system.
- Education of staff.
- Review guidelines/SOPs relating to blood components and blood products.
- To maintain ISO 15189 (INAB Accreditation).
- Optimisation of the RAADP program with integration of foetal RHD typing on all Rh D negative antenatal patients to confirm suitability for Anti D prophylaxis.
- Introduction of Anti D for Termination of Pregnancy.
- Management of complex cases such as NAIT requiring IVIG and Sickle cell disease.

Histopathology and Morbid Anatomy

Heads of Department

Professor John O'Leary, *Clinical Head of Department*
Jacqui Barry O'Crowley, *Scientific Head of Department*

Staff Complement

Consultant Pathologist

Professor John J. O'Leary
Dr Colette Adida
Dr Filip Sokol, *Locum Consultant (from Dec 2018)]*
Dr Peter Kelehan, *Locum Consultant (Morbid Anatomy)*

Special Registrars

Dr Jon O'Neill
Dr Roisin O'Connor

Scientific Staff

Niamh Kernan, *Senior Medical Scientist*
Claire Maguire, *Senior Medical Scientist*
Trinh Pham, *Medical Scientist*
James O'Keeffe, *Medical Scientist*
Eibhlin Gallagher, *Medical Scientist*
Rosana Alves Fiorino, *Medical Scientist*
Mairéad O'Byrne, *Locum Medical Scientist*
Johnny Savage, *Laboratory Assistant*
Graham O'Lone, *Mortuary Technician*

Clerical Officers

Ursula Mangan *(Jan-Aug)*
Maud Flattery *(Jan-Oct)*
Aoife O'Dwyer
Aaron Gracey-Keogh *(Oct-Dec)*
Helena Lyons *(Private Secretary to Professor J. O'Leary)*

Work Processes

The routine histopathology department has INAB Accreditation to ISO15189 Standard. The volume and type of work processed in the histopathology lab has continued to increase & develop in 2018.

Key Performance Indicators

Specimens	6,796
Blocks	23,208
Post Mortem Cases	32
H&E Stains Special Stains Immunohistochemistry HPV In-Situ Hybridisation & C17 Silver In-Situ Hybridisation	36,000

Specimen Throughput

Specimen Type	Avg. Case Numbers
LLETZ*	649
CXBX**	1,875

* Each case has approximately 6 blocks and each block has 2 level on each block.
** Each block has x 3 level on each block. 30% of LLETZ/CxBx cases have extra levels taken, which is not reflected in the above H & E figures.

Colposcopy Specimens

The workload processed in histopathology continues to increase and changes year on year. There was a 6.2% increase in the number of histopathology samples received & processed in 2018compared to 2017. There is a continuous change in the type of samples received, although there was a 9.3% drop in the number of LLETZ / NETZ /SWETZ biopsies received compared to 2017, there was a significant increase of 10% in Surgicals and 2.5% increase in CxBx. Also there was an increase by 2% in the number of placentae received.

Achievements in 2018

- Histopathology Department was inspected on 10th October 2018 by INAB. The Histopathology Department retained INAB Accreditation to ISO15189 Standards for 2018.
- The Histopathology workload continued to increase in 2018.

- Productivity continues to be challenging with an increasing workload with turnaround times within the quoted times.
- The Histopathology Department continues to offer a panel of ISO 15189 Accredited immunohistochemistry antibodies and molecular probes on Gynaecological (Cervical) Liquid Based Cytology (LBC) samples and Cervical Histopathology samples in the triage of patients referred with abnormal screening results.

1. Molecular Techniques:

- Chromogenic In-situ Hybridisation: Human Papilloma Virus (HPV) In-Situ Hybridisation on LBC Cell Block samples & routinely processed tissue samples.

2. Immunohistochemistry Techniques:

- Immunohistochemical Investigation on routinely processed tisue blocks, LBC smears and LBC Cell Blocks.

3. Immunohistochemistry Dual Staining:

- Dual Ki67/P16 on LBC Cell Blocks.

4. CINtec PLUS Cytology Kit (CINtec PLUS Cervical Cancer Screening test)

- Cytology LBC Smears: CinTec Plus Ki67/p16.

5. LBC Cell Block samples

- The Histopathology Department participates in the following Quality Assurance Schemes:

1. UKNEQAS CPT Scheme
2. NordiQc Scheme for IHC
3. ILEQA Scheme for IHC, Special Stains, H/E, SISH and HPV and CINtec Plus P16/Ki67 Dual Staining.
4. Gynaecological & Perinatal Pathology External Quality Assessment Scheme.
5. Royal College of Pathologists of Australasia Quality Assurance Programs (RCPAQAP).

- All Histopathology Staff are involved in Continuous Professional Development.

Challenges for 2019

- INAB Accreditation Certification for Histopathology with 'Flexible Scope'.
- Proceed with Internal Audits for both Histopathology and the general laboratories.
- Continue the management of the inter-Laboratory IHC Assessment Scheme.
- Continue to support histopathology staff in Continuous Professional Development programmes and complete their MSc in Molecular Pathology.
- Installation and validation of the Roche Vantage Tracking System.
- Expansion of the histopathology laboratory, to facilitate and accommodate the increase in workload.

Microbiology and Infection Prevention and Control

Heads of Department

Dr Niamh O'Sullivan, *Consultant Microbiologist*

Dr Catherine Byrne, *Chief Medical Scientist (until Jan)*

Alma Clancy, *Chief Medical Scientist (March – Dec)*

Rosena Hanniffy, *Assistant Director of Midwifery/Nursing IPC*

Staff Complement

Anne Marie Meenan, *Surveillance Scientist*

KellyAnne Herr, *Senior Medical Scientist (Leave April-Dec)*

Sarah Deasy, *Senior Medical Scientist (Leave May-Dec)*

Vickey Moran, *Senior Medical Scientist (April- Dec) / Medical Scientist (Jan-April)*

Cian Foley, *Senior Medical Scientist (May-Dec) / Medical Scientist (Jan-May)*

Ciaran Byrne, *Medical Scientist*

Mary Barrett, *Medical Scientist (Locum)*

Patrick Morkel, *Medical Scientist (Aug-Dec)*

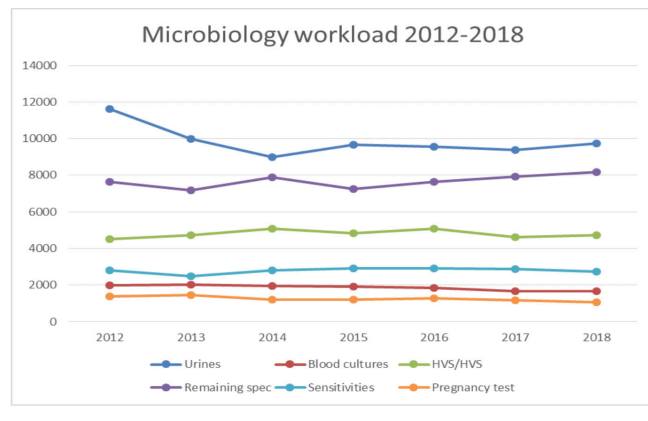
Teresa Hannigan, *Laboratory Aide (0.8 WTE)*

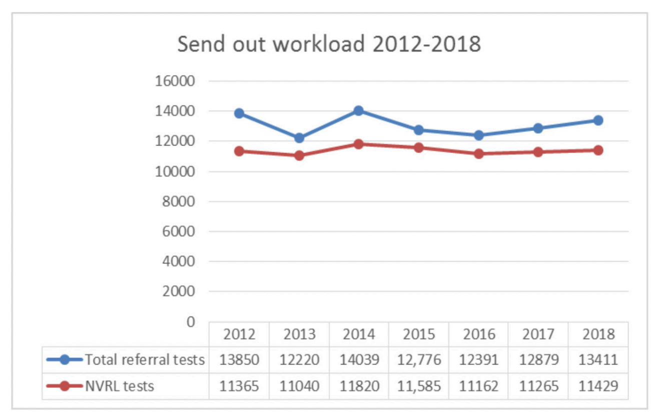
Maureen Hand, *Clerical Officer (0.5 WTE)*

Key Performance Indicators

Microbiology

- The Microbiology Department is accredited by the Irish National Accreditation Board to ISO 15189: 2012 Standard
- Microbiology specimen throughput:
  - Specimens: 28,606
  - Susceptibilities: 2,747
  - Referral tests: 13,411





	2012	2013	2014	2015	2016	2017	2018
Total referral tests	13850	12220	14039	12,776	12391	12879	13411
NVRL tests	11365	11040	11820	11,585	11162	11265	11429

- Environmental screening:
  - Required after building work is completed prior to opening.
  - Essential to allow equipment to be reused post cleaning.
- Turnaround times:
  - Turnaround times were analysed on 21 occasions in 2018.
  - This included blood cultures, urines, microbiology specimens both simple and complex, semens, pregnancy tests and external tests.
  - 19 of these were 100% within their turnaround times.
- External QA:
  - 55 distributions were analysed in 2018.
  - Schemes: pregnancy testing, antifungal ID and susceptibility, general bacteriology, susceptibility testing, genital pathogens, MRSA screening, andrology and urinalysis cell count.
  - Excellent scores continued to be achieved in our External Quality Assessment Schemes.
- Internal quality assurance:
  - Ongoing tests/kits/reagents validation.
  - Batch acceptance of all products.
  - Daily, weekly, monthly and quarterly quality control was carried out covering all microbiology methods, reagents, media and susceptibility testing.
- All microbiology staff are up to date with manual handling, chemical safety and fire training.

Surveillance

- Microbiology and infection prevention and control dashboard is maintained to provide ongoing information on key performance indicators

- Alert organisms
    - Multi-drug resistant organisms
    - Serious infection rates
    - Notifiable diseases
    - Blood borne viral infections

- C/section surgical site infection(SSI) rate.
- Adult blood stream infection rate per 1,000 bed days used (BDU).
- Adult blood culture contamination rate.
- Paediatric late onset primary blood stream infection rate in NICU per 1,000 patient days.
- Paediatric laboratory confirmed early onset blood stream rate per 1,000 live births.
- HCAI Staph aureus and C. *difficile* rates per 10,000 BDU reported to Business Information Unit, HSE.

	2017	2018
C / section SSI rate	4.7	3.4
Adult BSI rate	0.38	0.32
Paediatric NICU late onset BSI rate	4.19	5.3
Paediatric early onset BSI rate	1.4	0.36
S. aureus HAI rate	1.1	0.93
C. difficile HAI rate	0	0

- Resistance patterns of specific organisms reported to EARS-Net (European Antimicrobial Resistance Surveillance Network). This allows comparison with similar hospitals in Ireland and national comparison with other European countries.
- Number of CRE screens performed: Nationally became a KPI in October 2017.

IPC

- Clinical staff compliant with hand hygiene training within past two years
    - 2017: Between 70% and 84%
    - 2018: Between 76% and 82%
- Hand hygiene audits in clinical locations (target 90%):
    - 2017: May-94% Oct-90%
    - 2018: May-91% Oct-93%
- Alcohol gel consumption
    - 2017: 1,859 litres
    - 2018: 1,474 litres

Achievements in 2018

- Maintained INAB accreditation.
- Uncertainty of measurement was continued in 2018.
- Validation and batch acceptance continued for accreditation.
- Staff trained in semenology.
- Ongoing training of ER staff in pregnancy testing.
- Senior staff regularly attend multi-disciplinary meetings within the hospital including Drugs and Therapeutic committee, Antimicrobial Stewardship committee, Infection Prevention and Control committee and POCT.
- Microbiology staff are members of and contribute to many National committees/advisory groups.
- Infection Prevention and Control Dashboard expanded and maintained.
- Adult blood culture contamination rate below 3% for the fifth year in a row.
- Alert organism and environmental screening continued.
- Antibiogram data produced to inform antimicrobial guidelines.
- Annual surveillance and IPC data produced for senior management and HIQA:
    - Annual newsletter
    - Hospital board report
    - Annual C/section SSI report.
- Maternal blood stream infection enhanced surveillance data now required by the HPSC.
- Ongoing data presentations and feedback to multidisciplinary obstetric and paediatric meetings.
- Collaboration with research projects within the hospital.
- Patients with Multi-drug resistant organisms continue to be have alerts added to their records on iPiMS.
- IPC team continues to be involved in the quality improvement project to reduce C/section surgical site infection rates, and rates were down to 3.4% in 2018.
- Continuing to implement and audit the new HIQA standards.
- PVC care bundle audits continued. Staff have access to results on the medical audit system.
- Hand hygiene Day was celebrated on 5th May 2018 raising awareness of hand hygiene and the need to attend training.

- Ongoing training of staff in IPC issues.
- Collaboration with the Centre for Midwifery Education.

Challenges for 2019

- Microbiology and the Infection Prevention and Control Team must continue to respond to changes in patient case load, acuity and Public Health alerts.
- Introduction of molecular technology.
- CSSD Environmental Monitoring Programme.
- Manage increased requirements to comply with ISO 15189 2012 to maintain INAB accreditation.
- Comply with microbiology/pathology internal audit schedule.
- Ongoing policy development and revision.
- Continue to facilitate microbiology staff to partake in Continuous Professional Development.
- Engagement with CORU to facilitate state registration.
- Cost containment.
- Continued engagement with users to reduce sample labelling errors.
- Recognition of emerging complex resistance patterns.
- Ongoing review and implementation of National guidelines as they are issued.
- Maintain annual surveillance and IPC newsletter for senior management and HIQA.
- Ongoing reporting of maternal blood stream infections to HPSC.
- Optimise and audit screening of patients for Multi Drug Resistant Organisms.
- Improve antibiotic stewardship by encouraging compliance with current guidelines.
- Increased information required by BIU, HSE for statistics on multi-drug resistant organisms especially Carbapenemase Resistant Enterobacteriaceae (CRE).
- Feedback of data to clinical teams to reduce HCAI.
- Numbers of patients screened for CRE required for National reporting.
- Input into product procurement and Point Of Care Tests.
- Ongoing hygiene and antimicrobial stewardship audits.

Pathology/Molecular Pathology

Heads of Department

Professor John O'Leary, *Clinical*

Professor Cara Martin, *Scientific*

Staff Complement

Academics: Prof Cara Martin, *Assistant Professor in Molecular Pathology (Trinity College, Dublin)*

Molecular Pathology Manager: Prof Cara Martin, *Assistant Professor in Molecular Pathology (Trinity College, Dublin)*

Research Scientists:
Dr Cathy Spillane
Dr Christine White
Dr Helen Keegan
Dr Michael Gallagher
Ms Loretto Pilkington
Dr Sharon O'Toole *(shared with Obs & Gynae, TCD)*
Dr Prerna Tewari
Dr James O'Mahony
Dr Mairead O'Connor
Mr Alan O'Ceallachair *(CERVIVA researcher at National Cancer Registry, Ireland)*

Research Students:
PhD/MD: Stephen Reynolds, Imogen Sharkey Ochoa, Tanya Kelly, David Nuttall, Melad Aswisi, Sara O'Kane, Laura Edgerton.

Key Performance Indicators

Grants held 2018

Title: Deciphering the most clinically and biologically relevant circulating tumour cells [CTCs] in cancer metastasis [2018-2020]
Awarding Body: Enterprise Ireland Innovation Award with Becton Dickinson
Total Value: €803,000.00

Title: Enhancing the Evidence Base for Cost-Effectiveness Analysis in Ireland: Building Improvements from the Intervention-Specific to System-Wide Levels
Awarding body: Health Research Board. Emerging Investigator Awards (EIA) (2018-2022)
Total Value: : €632,058.00

Title: CERVIVA-Vax: Monitoring the impact of HPV vaccination in Ireland
Awarding Body: Merck Investigator Projects (2018-2021)
Total Value: €200,000.00

Title: CERVIVA-Vax: Monitoring the impact of HPV vaccination in Ireland
Awarding Body: Health Research Board. Investigator Led Projects (2018-2021)
Total Value: €370,000.00

Title: CERVIVA: The HPV Educate Project
Awarding Body: Health Research Board. Knowledge Exchange and Dissemination (KEDS) Awards (2017-2018)
Total Value: €60,000.00

Title: What influences cervical screening uptake in older women and how can screening programmes translate this knowledge into behaviour changing strategies? A CERVIVA-CervicalCheck co-production project
Awarding Body: Health Research Board. Applied Partnership Award (APA) Awards (2017-2019)
Total Value: €119,973.00

Title: CERVIVA: Making Connections and Creating Impact
Awarding Body: Health Research Board. Knowledge Exchange and Dissemination (KEDS) Awards (2016-2017)
Total Value: €60,000.00

Title: CERVIVA Echo Studentship
Awarding Body: The Coombe Women and Infants University Hospital (2016-2019)
Total Value: €68,454.00

Title: NIMBUS group: Neonatal Inflammation and Multiorgan dysfunction and Brain injury research group
Awarding Body: Health Research Board (2016-2019)
Total Value: €329,352.00

Title: CERVIVA: From episodic care to disease prevention and management: Developing analytical skills and interdisciplinary learning from the case of HPV related cancers.
Awarding Body: Health Research Board. Interdisciplinary Capacity Enhancement (ICE) Awards (2015-2019)
Total Value: €748,793.00

Title: CERVIVA 2: building capacity and advancing

research and patient care in cervical screening and other HPV associated diseases in Ireland.
Awarding Body: Health Research Board. Collaborative Applied Research Grant (2012-2019)
Total value: €1,250,000.00

Title: Metabolic syndrome in the metastatic cascade
Awarding Body: Queensland Government (QLD, QLD, Australia) (2014-01 to 2019-01)
Total value: $4,250,000.00 AUS

Title: Evasion of immune editing by circulating tumour cells is an exercise-modifiable mechanism underlying aggressive behaviour in obese men with prostate cancer
Awarding Body: World Cancer Research Fund 2014-2018.
Total value: £249,994.00

Title: Biomarkers in prostate cancer [2015-2018]
Awarding Body: NHMRC
Total value: €549,858.00

Title: Endosomal reactive oxygen species in tumour angiogenesis [2017-2019]
Awarding Body: Roche Diagnostics International Ltd.
Total value: €440,096.00

Publications
In 2018, the Molecular Pathology Group at the CWIUH and St James's Hospital published 13 peer reviewed journal articles and 15 published abstracts [see below].

Post graduate degrees
Post graduate degrees: In 2018, the department had 11 post graduate students pursuing PhD and MD degrees.

Achievements in 2018

Peer reviewed publications for 2018

1. McSherry LA, O'Leary E, Dombrowski SU, Francis JJ, Martin CM, O'Leary JJ, Sharp L; ATHENS (A Trial of HPV Education and Support) Group. Which primary care practitioners have poor human papillomavirus (HPV) knowledge? A step towards informing the development of professional education initiatives. PLoS One. 2018 Dec 13;13(12):e0208482. doi: 10.1371/journal.pone.0208482. eCollection 2018. PubMed PMID: 30543647
2. Duraipandian S, Traynor D, Kearney P, Martin C, O'Leary JJ, Lyng FM. Raman spectroscopic detection of high-grade cervical cytology: Using morphologically normal appearing cells. Sci Rep. 2018 Oct 9;8(1):15048. doi: 10.1038/s41598-018-33417-8. PubMed PMID: 30301922; PubMed Central PMCID: PMC6177468.
3. Clarke L, Adduri RS, Smyth P, Quinn F, Jeffers M, Dunne B, O'Leary J, McKiernan S, Vandenberghe E, Pyne S, Bashyam MD, Sheils O, Flavin R. Potentially important miRNAs in enteropathy-associated T-cell lymphoma pathogenesis: A pilot study. Leuk Res Rep. 2018 Oct 16;10:52-54. doi: 10.1016/j.lrr.2018.10.002. 2018. PubMed PMID: 30989051; PubMed Central PMCID: PMC6446659.
4. Tewari P, White C, Kelly L, Pilkington L, Keegan H, D'Arcy T, Toole SO, Sharp L, O'Leary JJ, Martin CM. Clinical performance of the Cobas 4800 HPV test and the Aptima HPV assay in the management of women referred to colposcopy with minor cytological abnormalities. Diagn Cytopathol. 2018 Oct 3. doi: 10.1002/dc.24066 PubMed PMID: 30284405.
5. O'Connor M, O'Leary E, Waller J, Gallagher P, Martin CM, O'Leary JJ, Sharp L; Iris Cervical Screening Research Consortium (CERVIVA). Socio-economic variations in anticipated adverse reactions to testing HPV positive: Implications for the introduction of primary HPV-based cervical screening. Prev Med. 2018 Oct;115:90-96. doi: 10.1016/j.ypmed.2018.08.017. Epub 2018 Aug 23. PubMed PMID: 30144488.
6. Thompson C, Kamran W, Dockrell L, Khalid S, Kumari M, Ibrahim N, O'Leary J, Norris L, Petzold M, O'Toole S*, Gleeson N*.*Joint senior authors. The Clearance of Serum HumanEpididymis Protein 4 Following Primary Cytoreductive Surgery for OvariannCarcinoma. Int J Gynecol Cancer. 2018 Jul;28(6):1066-1072.. PubMed PMID: 29757874.
7. Murphy K, Murphy BT, Boyce S, Flynn L, Gilgunn S, O'Rourke CJ, Rooney C, Stöckmann H, Walsh AL, Finn S, O'Kennedy RJ, O'Leary J, Pennington SR, Perry AS, Rudd PM, Saldova R, Sheils O, Shields DC, Watson RW. Integrating biomarkers across omic platforms: an approach to improve stratification of patients with indolent and aggressive prostate cancer. Mol Oncol. 2018 Sep;12(9):1513-1525. doi: 10.1002/1878-0261.12348. Epub 2018 Aug 7. PubMed PMID: 29927052; PubMed Central PMCID: PMC6120220.
8. Traynor D, Kearney P, Ramos I, Martin CM, O'Leary JJ, Lyng FM. A study of hormonal effects in cervical smear samples using Raman spectroscopy. J Biophotonics. 2018 Jun;11(6):e201700240. doi: 10.1002/jbio.201700240. Epub 2018 Jan 17. PubMed PMID: 29215211.Woods RSR, Timon, CVI. HPV and the diagnosis and treatment of head and neck cancer –an Irish Perspective. Cancer Professional Vol 11 Issue 2 Summer 2017.
9. Traynor D, Duraipandian S, Martin CM, O'Leary JJ, Lyng FM. Improved removal of blood contamination from ThinPrep cervical cytology samples for Raman spectroscopic analysis. J Biomed Opt. 2018 May;23(5):1-8. doi: 10.1117/1.JBO.23.5.055001. Pub-

Med PMID: 29729092.

10. O'Leary JJ, White C, Spillane C, Naik, P, O'Brien, R, Reynolds, S, Pham, T, Pilkington, L, Sharkey Ochoa, I, Bolger, N, Barry O'Crowley, J, Tewari, P, O'Toole, S, Sweeney, M, Keegan, H, Normand, C, Sharp, L, Flannelly, G, Martin, CM. Cervical screening: A new way forward (tests of risk and tests of disease) [version 1; referees: awaiting peer review]. HRB Open Res 2018, 1:3 (doi: 10.12688/hrbopenres.12794.1)
11. Harrison IP, Vinh A, Johnson IRD, Luong R, Drummond GR, Sobey CG, Tiganis T, Williams ED, O' Leary JJ, Brooks DA, Selemidis S. NOX2 oxidase expressed in endosomes promotes cell proliferation and prostate tumour development. Oncotarget. 2018 Oct 23;9(83):35378-35393. doi: 10.18632/oncotarget.26237. eCollection 2018 Oct 23. PubMed PMID: 30459931; PubMed Central PMCID: PMC6226044.
12. To EE, Erlich J, Liong F, Luong R, Liong S, Bozinovski S, Seow HJ, O'Leary JJ, Brooks DA, Vlahos R, Selemidis S. Intranasal and epicutaneous administration of Toll-like receptor 7 (TLR7) agonists provides protection against influenza A virus-induced morbidity in mice. Sci Rep [Nature]. in press.
13. Traynor D, Duraipandian S, Bhatia R, Cuschieri K, Martin CM, O'Leary JJ, Lyng FM. The potential of biobanked liquid based cytology samples for cervical cancer screening using Raman spectroscopy. J Biophotonics. In-press.

Published Abstracts 2018

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Challenges for 2019

Expand our HPV testing service to meet demand associated with CervicalCheck planned change to primary HPV-based cervical screening in 2019.

Key Performance Indicators
[Including Current Activity]:

1. PhD students (current) [n=7]
2. MD students (current) [n=2]
3. MSc students (current) [n=2]
4. Post-doctoral scientists (current) [n=18]
5. Grant income highlights:
   a. Income in excess of 52.9 million euros over the past 5 years
   b. Total career grant income: >100 million euros
6. Since 1998:
   a. PhD students completed = 43
   b. MD students completed = 11
   c. MSc students completed = 11
7. Industrial links with:
   a. Life Technologies [ThermoFisher]
   b. Affymetrix
   c. Roche Molecular Systems
   d. Roche Oncology
   e. Sanofi Oncology
   f. Glaxo Smith Kline
   g. IonTorrent
   h. Invitrogen
   i. Hologic
   j. Qiagen
   k. Fluxion
   l. Johnson & Johnson
   m. Alere
   n. Illumina
   o. Vaccinogen
   p. Becton Dickinson
8. Research group h-index >70
9. Research group i-10 index >170
10. Total group citations: >15,000

Phlebotomy in OPD

Head of Department

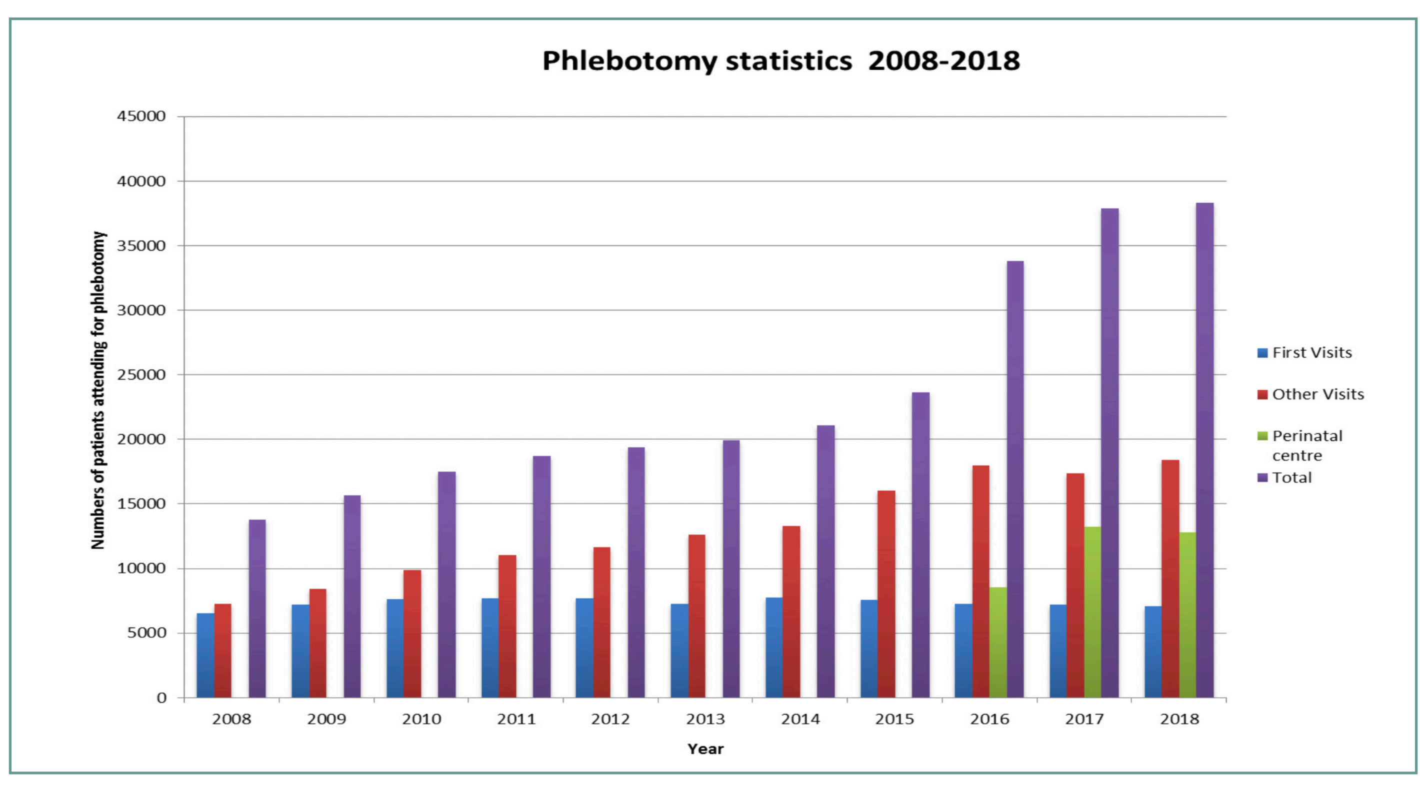
Martina Ring, *Chief Medical Scientist (Laboratory Manager)*

Staff Complement

Artemio Arganio, *1 WTE*
Vladimir Getoyev, *1 WTE*
Roisin Nolan, *1 WTE*

Key Performance Indicators

A smaller increase in throughput of patients in the OPD and Perinatal Centre from 2017 to 2018 - 417 patient episodes taking place. This increase was noted in the OPD. Figures presented are patient episodes and do not reflect actual numbers of samples from each patient.



	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	**2018**
First Visits	6509	7212	7610	7672	7714	7298	7773	7586	7296	7237	**7090**
Other Visits	7269	8450	9856	11060	11680	12633	13311	16055	17954	17369	**18414**
Perinatal Centre									8562	13264	**12783**
Total	**13778**	**15662**	**17466**	**18732**	**19394**	**19931**	**21084**	**23641**	**33812**	**37870**	**38287**

All three Phlebotomists work in the Perinatal Centre and the OPD thus providing cross cover for both areas. The workload within the Perinatal Centre continues to be substantial, >1000 patient episodes per month, although there was a total 481 decrease in patients who attend the clinic for phlebotomy. The workload continues to reflect the level of suspicion of Gestational Diabetes in the population.

Challenges for 2019

- Continue to provide the high-quality patient-focused service with ever increasing demands.
- Assess the feasibility of introducing a hospital phlebotomy service in the wards during the routine day.

Radiology Departments

Adult Radiology

Head of Department

Professor Mary T. Keogan

Staff Complement

I Clinical Specialist Radiographer / PACS Manager

I Clinical Specialist Radiographer *(Ultrasound) – Part Time*

I Locum Clinical Specialist Radiographer *(Ultrasound – Holiday cover)*

Key Performance Indicators

	N=
Adult Ultrasounds	2959
Adult Radiographs	211
Total Adult Examinations	**3170**

Achievements in 2018

- Specialised examinations including hysterosonography and HyCoSy examinations have been introduced and are available routinely.
- Many thanks to department Radiography and Clerical Staff for their hard work in maintaining timely access to diagnostic examinations for all patients.

Challenges for 2019

- There has been a significant increase in workload within the department as demand for imaging, in particular ultrasound, continues to increase each year. Increasing in-house demand follows new Consultant Gynaecologist appointments. There is also increasing demand from GPs who are requesting ultrasound examinations in advance of Gynaecology OPD appointments for which there is a long waiting time.
- Increasing numbers of DNA (non-attenders) noted during the year possibly due to waiting times for examinations vetted as non critical.
- Maintenance of acceptable turnaround times for radiology and ultrasound examinations is increasingly difficult as demand for these services continues to increase.

Paediatric Radiology

Head of Department

Dr Eoghan Laffan

Staff Complement

2 full-time Radiographers shared between Adult and Paediatric services

1 Clinical Specialist Radiographer (CSR) and 1 Senior Radiographer

Key Performance Indicators

	N=
Outpatient Radiographs	2160
Inpatient Radiographs	1472
Inpatient Ultrasounds	2658
Total	**6290**

Achievements for 2018

- Replacement of the end of life Departmental Radiographic Equipment with a Shimadzu Fixed Digital Radiography system and two Shimadzu mobile digital radiography systems, in March 2018.
- Dr Eoghan Laffan commenced in his role as Consultant Paediatric Radiologist in May 2018. He replaces Dr David Rea.
- A weekly Neonatal Radiology case conference has commenced in late 2018. Imaging studies performed on current in-patients in CWIUH, or outpatients imaged in Crumlin, are discussed, with teaching points added where appropriate.
- Johannes Tsages, CSR, has undertaken an online course in Radiation Protection, at UCD.

Challenges for 2019

- EPA Inspection of Radiology Department took place in December 2018. All recommendations have been addressed.
- Increase in Consultant Paediatric Radiology Consultant numbers and support is still required for the Neonatal service at CWIUH and in supporting both undergraduate/postgraduate education on this site.
- National hip ultrasound screening programme for DDH remains outsourced at CWIUH, due to ongoing Radiology staffing shortages.

Allied Services

Bereavement

Head of Department

Ms Brid Shine, *Clinical Midwife Specialist Bereavement & Loss*

Staff Complement

1 WTE Clinical Midwife Specialist Bereavement & Loss

1 WTE Acting Clinical Midwife Specialist Bereavement & Loss

Key Performance Indicators

- Provision of anticipatory bereavement counselling support to parents whose baby is diagnosed with a life-limiting condition in close liaison with the Perinatal Co-ordinator CMM2 Ms Felicity Doddy.
- Provision of bereavement counselling support for parents who experience Early Pregnancy Loss & Perinatal Death. This may be at the time of loss, in the weeks and months that follow, and may include care in relation to subsequent pregnancy anxiety.
- Provision of bereavement counselling support for families returning from abroad following termination of pregnancy for medical reasons.
- Co-ordinating the formal structured follow-up care of bereaved parents who have experienced a Perinatal death following MDT discussion at the Monthly Perinatal Mortality meeting.
- Advocacy role of the needs of bereaved parents, and development of service provision in response to identified needs of bereaved families.
- Development of a holistic approach in Bereavement Care in line with evidence-based practice (NICE 2014).
- Resource & informal support to staff impacted in their care of bereaved families.
- Forged links with the Voluntary Support agencies that provide care to bereaved families in the community, with recognition of their invaluable support of families.

Achievements in 2018

- Bereavement training & education, inputting on Midwifery programmes in the CME, for Staff Midwives, the undergraduate programmes in TCD, post-graduate Neonatal Nurse Programme, staff induction sessions, as well as informal education in the clinical setting.
- Involved in the ongoing work of the End of Life Care Committee.
- Staff involvement in fundraising for bereavement suites, having been nominated as the chosen charity for the Galway Cycle event;
- In-house cyclathon / Grafton Street collection / cake sale in staff dining room / Maynooth to Galway cycle.
- Ms Sarah Gleeson A/CMS Bereavement completed a postgraduate diploma in Bereavement Studies.
- Undertook *"Train the Trainers"* course to deliver the IHF Breaking Bad News programme, facilitating the first roll out with CMM II Grainne McRory for key frontline clinical staff.
- LEAN project training- one day workshop and Bereavement efficiency programme in collaboration with St Gerard's Ward staff.

Challenges for 2019

- Seek a nominated Clinical Leader in the area of Perinatal Death to support service development, research and audit.
- Expanding the role of the CMS within the hospital, in particular the development of an Early Pregnancy Loss clinic with clinician overview.
- Continuing to advocate for end of life care projects to enhance compassionate care afforded to families.
- Continued work to ensure the hospital's bereavement care is in line with the HSE 'National Standards for Bereavement care following Pregnancy Loss and Perinatal Death'.
- Further enhancing the support structures available to staff in the aftermath of critical incidences, with support from senior management.

Chaplaincy / Pastoral Care Department

Head of Department

Renée Dilworth

The Pastoral Care Department provides a supporting ministry to all families in times of sadness and in times of joy. The surrounding parishes provide additional support when possible. The Chaplain understands that everyone has a spiritual dimension and that many may have a religious component. We can contact Ministers and Leaders of other denominations and traditions at the request of patients. Chaplaincy is both a pastoral ministry of the church and an integral and necessary part of the holistic healing process.

The Oratory is located on the fourth floor of the hospital and is open 24 hours a day for use by patients, staff and families. The Book of Remembrance continues to be displayed in the Oratory and is regularly updated.

The Coombe grave in Glasnevin has reached capacity and it is hoped to gain funding for a new grave in the coming months.

Key Performance Indicators

Bereavement Support	232
Funeral Services	172
Baptisms	31
Naming/Blessing Services	35
Appointments for past patients	14
Prayer Services for past miscarriage and loss	6
Referral for support for foetal anomalies	8
Requests for copy of Baptismal Certificates	12
Organise Mass and Services for staff as required	6
Staff Appointments	18
Baby Blessings	30

In 2018 the Department continued to provide support to patients and staff. There has been a notable increase in the demand for staff support. The wards and the NICU were visited daily. Holy Communion when required was provided. Our Service of Remembrance for Bereaved parents and their families continues to be a source of healing and support for all who attend. It was very well attended and members of the Coombe Workplace Choir provided the music. The Department continues to respond to the growing cultural diversity of families attending our hospital. I am committed to ongoing development personally, pastorally and professionally. I attend conferences relevant to the work of the Chaplaincy.

The Chaplain inputs into study days for staff and students. The Department continues to send a sympathy card to families one month following the death of a baby. The feedback is very positive. The support and encouragement of all Staff and Management is deeply appreciated by the Chaplain.

Clinical Nutrition and Dietetics

Head of Department

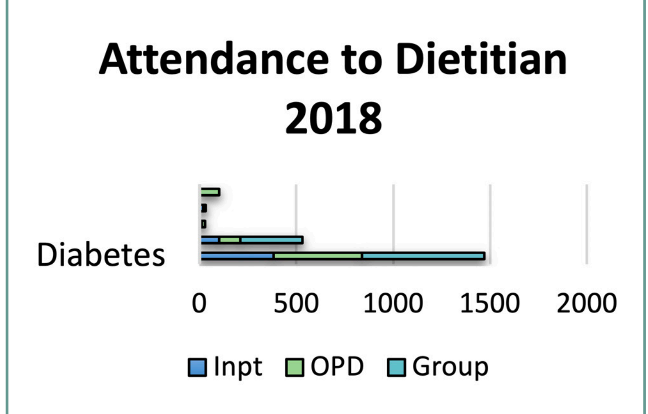
Fiona Dunlevy, *Dietitian Manager*

Staff Complement

Fiona Dunlevy, *Manager*

Niamh Ryan, *Senior Dietitian in Diabetes*

Key Performance Indicators



Patients with new diagnosis of GDM at GTT 2009-2018

1000
500
0
249 273 404 400 490 672 643 773 855 947
2009 2010 2011 2012 2013 2014 2015 2016 2017 2018

Achievements in 2018

- Expansion of department to meet growing demands and improve quality of dietetic service provided in particular in the area of diabetes care.
- Change in record keeping ensuring all dietetic healthcare documentation is now part of the National Maternity Healthcare Record, Gynaecology or Neonatal chart.

Abstracts/ Oral Poster Presentation

- Dunlevy, O'Neill, Aberg, Finn, Nunan, Wallace QI and Me, leading quality improvement at the front line. HSCP Research Conference. Dublin 2018.

Challenges for 2019

- Recruitment of Dietitian for Neonatal Service and development of Neonatal Dietetics Service.
- To manage increasing service demand in Diabetes while maintaining standards for complex diabetes patients.
- To work with multiple stakeholders to improve care of women and infants through optimal nutrition. In particular meeting the nutrition needs of inpatients.

Liaison Perinatal Mental Health

Head of Department

Dr Joanne Fenton, *Consultant Psychiatrist*

Staff Complement

Dr Joanne Fenton & Dr Ann O Grady Walshe, *Consultant Psychiatrist 0.5 WTE*
Suzanne Daly, *1 WTE, Perinatal Mental Health Support Midwife*
Psychiatry Registrar 0.3 WTE

Key Performance Indicators

Patients referred to Perinatal Mental Health Clinic	1495
Patients seen for inpatient consultation	225
Diagnosed with antenatal depression	35%
Diagnosed with postpartum depression	30%
Diagnosed with anxiety disorder	30%
Diagnosed with severe & enduring mental illness	5%

Achievements in 2018

- Active implementation of the Perinatal Mental Health Model of Care.
- Dedicated Mental Health Midwife Clinic with over 400 patient contacts.
- Ongoing research in collaboration with Trinity Health Services.
- Educational programmes provided to medical students and midwives in Perinatal Mental Health.
- Increased collaboration with Dublin Maternity Hospitals and the Midlands Regional Hospital, Portlaoise.
- Recruitment of additional administration support.

Challenges for 2019

- Provide a complete MDT approach to patients with mental health difficulties with recruitment of Consultant Psychiatrist, CMS, CNS & SW.
- Identify designated clinic space for mental health patients.
- Reduce waiting times for patient attending.
- Provide group therapy on-site.

Medical Social Work Department

Head of Department

Rosemary Grant *(Author)*

Staff Complement

Ms Rosemary Grant, *B.S.S., C.Q.S.W. - Principal Medical Social Worker*

Ms. Tanya Franciosa, *B.S.S., N.Q.S.W. - Senior Medical Social Worker*

Ms Denise Shelly, *B.Soc.Sc., C.Q S.W. - Senior Medical Social Work Practitioner*

Ms. Kate Burke, *B.Soc. Sc., M. Soc. Sc., N.Q.S.W.*

Ms Sarah Lopez, *B.A., H Dip.Soc.Pol., MA Social Work, N.Q.S.W. Masters in Child and Adolescent Therapy and Psychotherapy (Part Time/Job Share post)*

Ms Sorcha O'Reilly, *B.S.S., N.Q.S.W. (Part time/Job share post)*

Ms. Gretchen McGuirk, *B.S.S., N.Q.S.W.*

Ms Tara Lynch, *BSS NQSW Temporary*

Ms Lisa Hayes, *Student MSW, December 2018 – December 2018*

Ms Elaine Forsythe, *(Job Share), Receptionist/Secretarial Support*

Ms June Keegan, *(Job Share), Receptionist/Secretarial Support*

Report

During 2018 Ms Kate Burke Medical Social Worker provided a student placement to Ms Lisa Hayes, a Social Work Student at Trinity College Dublin. Ms Hayes' contribution to the work of the department was much appreciated by both patients and staff.

During 2018 the Medical Social Workers continued to provide a social work service to patients, their partners and their families. Continuity of care was considered important by patients and by staff so the attachment of the Medical Social Workers to the Obstetric Teams (Public, Semi-Private and Private) continued where possible. Periodically this proved impossible due to the unpredictability of the caseload generated at any given time by a particular team.

It was still not possible to provide a dedicated Medical Social Worker to all of the obstetric teams. This is particularly true in the case of the specialist clinics including the non-addiction part of Team A Dr O'Connell, Team Multiple Births, Team Diabetes, the Medical Team and Team E. The Medical Social Work service provided care to patients attending these teams and continued to be on a rota basis. The lack of a dedicated Medical Social Worker for these patients continues to be problematic for the patients, the Medical Social Workers and for other members of the interdisciplinary team providing care to these women, their partners and expected babies.

During 2018 the number of patients, who were appropriately referred to the Medical Social Worker by a range of professionals in the hospital and in the community and those who self- referred, continued to increase. The unpredictability involved in the maternity setting continues to challenge the provision of a Medical Social Work service to patients. This is further challenged by the increasing emphasis on Combined Antenatal Care with the patient's General Practitioner, attendance by patients at outlying Clinics and Early Transfer Home. The 'window' enabling patients to access a Medical Social Work service while they are actually in the hospital either as an inpatient or while attending an outpatient clinic is becoming shorter. At the same time the need for assessment of a patient's situation is essential particularly if child protection or other safety concerns are raised. Referrals are prioritised and Domestic Violence and Child Protection concerns continue to receive the highest priority. As a result, the early identification of issues of concern with a consequent referral to the Medical Social Work Department remains crucial.

Child protection issues arise in relation to a wide range of children including:

- babies born in the Coombe Women and Infants University Hospital
- patients attending either the hospital's gynaecological service or obstetric service who are under 18 years
- siblings of babies born in the hospital who are under 18 years
- siblings of patients attending the hospital who are under 18 years
- children who are visiting the hospital who are under 18 years
- unknown children who are under 18 years

The acknowledgement by all hospital staff of the broader concept of children whose protection is in our remit is a very important message for us to promote. Staff find it easier to acknowledge a need to be concerned about babies born here and patients who are under 18 years. It is less obvious that concern should extend to siblings of babies and siblings of adult patients. It can be difficult for people to be aware of

the responsibility to visitors who are not our patients and even more so for children who are not known to us. For example the retrospective disclosure by a patient, now an adult, of abuse as a child, raises potential child protection issues unless the perpetrator is confirmed to have died.

The identification of Child Protection concerns in relation to any of the above groups of children is of extreme importance as is the appropriate referral of the family to their local Child Protection Social Work team for an assessment of the risks /issues involved. Preparation for and attendance at Child Protection Case Conferences both pre-birth and post birth remain an important and time consuming part of the workload of the Medical Social Workers.

The full implementation of Children First on the 7th December 2017 was a major milestone for the protection of children and had huge implications for hospital staff including the need for a Child Safeguarding Statement and the training of all hospital staff irrespective of profession or grade in issues relating to the protection of all children, not just those attending our hospital.

The introduction of a mandatory requirement to report child protection and welfare concerns to Tusla, the Child and Family Agency, for specific professions is a major development for hospital staff. In the Coombe Women and Infants University Hospital, Mandatory Reporters include all Doctors, Midwives and Nurses, Physiotherapists, Chaplains and Medical Social Workers.

Appropriate referrals to the Medical Social Work Department include public, semi-private and private patients who are attending the maternity, neonatal/paediatric and gynaecology departments. Referrals include patients who experience different problematic issues in their lives generally and those where issues arise as a result of pregnancy. They include bereavement, domestic violence, addiction, relationship issues, mental health issues, underage pregnancy, the birth of a baby with special needs, child protection/child care issues, concealed pregnancy, crisis pregnancy and learning disability. Hospital staff, when making decisions about an appropriate referral being made to the Medial Social Work Department, need to take account of all of the people involved and in particular children affected by the issue of concern. As mentioned earlier, affected children are not just the expected babies but include siblings, young parents, and other children whose identities may be unknown.

As a tertiary referral centre, each year we see a number of mothers whose care is transferred from another hospital to the Coombe Women and Infants University Hospital for specialized Obstetric or Neonatal care and may include the need for proximity after birth to Our Lady's Children's Hospital, Crumlin or Temple Street Children's University Hospital. The challenges involved for parents at this time are immense. As well as coping with all the emotions involved in having a baby who may be critically ill, they need to cope with accessing accommodation in the Dublin area, funding this accommodation and their stay in Dublin, making appropriate provision for the care and continued schooling of other children etc. They may not have any support in the Dublin area and may not in fact know Dublin well. All of this occurs within the emotional rollercoaster of having an ill baby. At these stressful times for parents, Medical Social Work staff and staff in the Neonatal Units work tirelessly to try to assist them to work out a support plan which enables them be with their baby as much as is possible. The support of Friends of the Coombe has been invaluable in this regard as is the support of voluntary organisations such as Hugh's House who provide a "home away from home" for parents and siblings of our babies.

During 2018 homelessness and related situations remained a significant issue for many of our patients. Patients reported uncertainty about their living arrangements, an inability to continue to live where they were living, homelessness and the fear of homelessness. Families were unable to continue to rent privately due to either the cost involved or to a lack of suitable accommodation. Some families needed to move back to their family of origin creating space problems and often relationship problems. Families moved into Hostel, B&B or Hotel based accommodation with all the associated difficulties. Parents did their utmost to ensure children continued to attend school despite having to travel long distances a number of times a day with the associated financial implications. Parents tried to provide appropriate nutrition for children despite limited/no access to cooking facilities. Families were often accommodated a distance from their usual supports and floundered without the support of their family and friends.

The homeless crisis affected both our patients born in Ireland and those born abroad. This latter group included asylum seekers who were in the Direct Provision System. This system also hit a crisis with centres threatened with closure and a lack of available accommodation for onward movement of families out of Direct Provision. This then created a difficulty for patients accessing Direct Provision and it often meant patients were in the homeless system without access to transport, finance, health and other supports associated with Direct Provision Centres.

During 2018 the implications of homelessness for our patients became even more challenging than other years with patients reporting sleeping in their cars, having to move from one accommodation to another frequently, having to locate hotels/B&Bs themselves, having to split their children up and arrange for them to stay with various family members/friends for a night at a time and still try to keep all their appointments, get the children to school and not know from day to day

where they were going to be staying. The addition of a new baby and a newly delivered mother to this scenario can be overwhelming. Lack of an address or uncertainty about an address creates difficulties for the safe follow up of mothers and babies. It is difficult for a Public Health Nurse to follow up newborns. It is difficult for new mothers to appropriately access adequate sleep/ rest, food, hygiene facilities etc. Being homeless is a major challenge for all but is often overwhelming for a family with a new baby.

In response to the homeless crisis and its impact on so many of our patients Ms Kate Burke Medical Social Worker and Ms Lisa Hayes Student Medical Social Worker piloted an advice clinic aimed at patients who were homeless or at risk of homelessness. This clinic operates on a monthly basis and the Medical Social Work service is provided by each of the members of the Medical Social Work team on a rota basis. The availability of this service has meant that patients experiencing homelessness receive a more timely and effective Medical Social Work service.

In all of our work with patients, communication and liaison with a wide range of professional groups and voluntary specialist organisations within the hospital and in the community is essential. This liaison continued during 2018 both at individual patient/family level and at a broader level. The Medical Social Work staff continued to liaise with organisations such as the Teen Parent Support Programme, Women's Aid, Focus Ireland, A Little Lifetime Foundation and the Miscarriage Association of Ireland. Ms Rosemary Grant continued to chair the National Advisory Committee of the Teen Parent Support Programme and to represent the hospital on the Dublin Midland Hospital Group Committee Steering Group for Children First.

Within the Hospital the department continued to be represented on the End of Life Care Committee and the Bereavement Committee. Ms Denise Shelly Senior Medical Social Work Practitioner continued with her involvement with the Neonatal Support Group.

Ms Tanya Franciosa Senior Medical Social Worker was part of an interdisciplinary group who presented at the Annual Guinness Research Symposium. The overall presentation concerned 10 years of the specialist obstetric team working in the areas of addiction and infectious diseases. Ms Franciosa's presentation dealt with the role of the Medical Social Worker with women experiencing addiction in pregnancy.

The staff of the Medical Social Work Department continues to be indebted to the members of Coombe Care who provide assistance to patients by way of necessary practical help at the time of a baby's birth. This help may include clothing and toiletries for the mother for her admission and clothing and other items for the baby for its hospital stay and discharge home. They also provide vouchers over the Christmas period to enable patients to buy items for which they would not ordinarily have the resources. The work of the Coombe Care Committee is much appreciated by hospital patients, the staff in all areas of the hospital and in particular by staff of the Medical Social Work Department. Committee members are always willing to engage with the Medical Social Work team to discuss potential areas of need. During 2018 assistance was given to individual families who were in particular need where it was impossible to locate an alternative source of support. The increased pressure on families as a result of the broader economic situation meant that a number of families who had never before been in a position of needing support found themselves in such a position.

During 2018, as in other years I have appreciated the support of the Principal Medical Social Workers in the other Maternity hospitals. There has always been a good liaison between the Medical Social Work Departments, which contributes to the ideal of best practice. The Medical Social Workers assigned to the paediatric units and to patients with addiction issues in each of the three maternity hospitals in Dublin continued to meet on a number of occasions in 2018. There were benefits to all in sharing knowledge and experiences of these particular areas of Social Work in the maternity setting.

In conclusion I would like to express my sincere thanks to those who work in the Medical Social Work Department including the Medical Social Workers and the Receptionists/Secretaries. The level of professionalism and the seeking to attain a standard of best practice demands a major commitment on the part of staff in the Department which is much appreciated. The support of our colleagues in other Departments within the hospital is essential as is the support of our colleagues, both Social Work and non Social Work within the community. I had hoped that when writing the 2018 Annual Report the major challenges posed by the housing situation would have decreased and that our patients would no longer be faced with uncertainty about their accommodation situation at the time of the birth of a new baby. This is not the case. 2018 has provided major challenges with regard to housing and accommodation issues. The feeling of being overwhelmed by the challenges is experienced by patients, by staff and those in all the services aiming to provide shelter and support to those in need.

Rosemary Grant

Principal Medical Social Worker

Pharmacy Department

Head of Department

Mairéad McGuire, *1 WTE Director of Pharmacy Services*

Staff Complement

Peter Duddy , *1 WTE Chief II Pharmacist*
Neonatal Services & Medication Safety
Úna Rice , *1 WTE Senior grade Pharmacist*
Antimicrobial Pharmacist
Orla Fahy, *1 WTE Senior grade Pharmacist*
Joanne Frawley, *1 WTE Basic grade Pharmacist*
Gayane Adibekova, *1 WTE Pharmacy technician*

Key Performance Indicators

1. Clinical obstetric and gynae service provision

- Daily review of patient drug charts on adult and neonatal wards- medicines reconciliation at admission and review of medication charts for potential interactions and safety in pregnancy.
- High Risk Pregnancy Medical clinic- providing medicines information provision and advice regarding safety of medicines pre-conception, during pregnancy and breastfeeding and safe prescribing for patients with complex medical conditions.
- High Risk Pregnancy Medical Clinic- development of a medicines queries log to record medicine queries in the pharmacy department for complex patients to aid workflow and track queries.
- Multidisciplinary Acute pain round/team- patient education regarding appropriate analgesia use and review of medication charts.
- Twice monthly Antenatal GUIDE Clinic.
- Weekly multidisciplinary Nausea & Vomiting (PUQE) rounds.
- Daily Antimicrobial Stewardship rounds

2. Medication safety

- 234 medication safety event reports were submitted by staff in 2018. This has continued the trend of continued improvement in medication safety reporting seen since 2014. The KPI set by the medication safety committee of 200 reports for the year was exceeded by 17%.62% (n=155) of these event reports were actioned during 2018
- 62% (n=155) of these event reports were actioned during 2018
  - » Analgesia guideline review
  - » Business case submitted and approved for pharmacy technician covering Delivery Suite and Theatre
  - » Business case submitted and approved for more infusion pumps
  - » Business case submitted to change IV iron products
  - » Change to practice around storage of misoprostol for EPAU
  - » Change to practice in pharmacy re: labelling of oral solutions
  - » Audit of lipid index use
  - » Discussion of timing of Low Molecular Weight Heparin administration at Drugs & Therapeutics Committee
  - » Education on Gentamicin levels incorporated into antimicrobial induction talk
  - » Mandatory double pharmacist check for all warfarin dispensings
  - » Medicines Reconciliation policy audit
  - » NICU antimicrobial guidelines reviewed
  - » QI group set up Oct'18 to examine neonatal gentamicin
  - » Neonatal vancomycin monitoring reviewed by MDT; changes incorporated into NICU guideline review.
- Regular contribution to issues of quality & safety newsletter for staff.
- Development of patient information sheet for discharge medication from gynae day ward in collaboration with anaesthetics.
- Medication Safety Walkrounds by Medication Safety Pharmacist and Clinical Risk Manager carried out bimonthly.
- Patient suggestion re: medication use on wards and discussion with patients has been forwarded for inclusion in latest version of medication management policy.
- All medication incident reports for 2018 have been classified using the NCC MERP Index. This Medication Error Index that classifies an error according to the severity of the outcome is used in most Irish hospitals. The index considers factors such as whether the error reached the patient and, if the patient was harmed, and to what degree.

3. Antimicrobial Stewardship

- The Antimicrobial Pharmacist continues to be an active member of the Antimicrobial Stewardship and Infection Prevention and Control Committees and Teams.
- The Antimicrobial Pharmacist acts as secretary for the Antimicrobial Stewardship Committee, where the multidisciplinary team meets on a quarterly basis.
- Provisional results available from the HPSC 2018 show a 5% decrease in antimicrobial consumption from Q2 2017 to Q2 2018.

- Continued education provided to staff on the appropriate use of antimicrobials and the importance of stewardship.
- In depth review of the hospital Antimicrobial Prescribing Guidelines for Adult Obstetric and Gynaecological patients.
  - » Review of hospital antibiograms provided by Microbiology.
  - » Review of treatment monographs.
  - » Comprehensive update of safety information of antimicrobial agents in lactation.
  - » Inclusion of Sepsis form samples for adult obstetric and non-pregnant gynaecology patients.
- New editions of the guidelines were printed and provided to all clinical areas within the hospital and the App was updated and maintained.
- The Antimicrobial Pharmacist became a member of the Hospital Sepsis Committee, chaired by a Consultant Anaesthetist.
- In line with National and International recommendations a review of use of Fluoroquinolones was undertaken. Indications where Fluoroquinolones were recommended were reviewed with use being limited. Warnings and memos were circulated to all staff in the hospital.
- An audit of Vancomycin Therapeutic Drug Monitoring in NICU was completed by members of the Pharmacy department and Paediatric NCHDs.
- Continued monitoring of compliance with the hospital Prescribing and Microbiology Guidelines for Obstetrics & Gynaecology, further enhanced by the continued development of the post of antimicrobial pharmacist which has allowed for closer monitoring and documentation of pharmacist intervention in relation to antimicrobial prescribing practice.
- Úna Rice & Orla Fahy participated in the National Antimicrobial Point Prevalence Survey, with the IP&C midwife.

4. The Pharmacy Department were involved in a comprehensive review of the Adult Prescribing Guidelines.

- Antimicrobial sections reviewed by the Antimicrobial Stewardship Committee as described in section 3 above.
- Section on Vaccination during pregnancy reviewed and updated.
- Review of management of Nausea and Vomiting.
- Inclusion of information of medicines for urinary incontinence.
- Inclusion of information for medicines used in EPAU.
- Review and update of HRT section.
- Guidance on warfarin interactions with antimicrobial agents included.

5. Effective and efficient stock management throughout the hospital to achieve cost efficiencies where possible.

6. The department issued stock to wards, outpatients, staff and babies discharged from SCBU on 31,260 occasions, equating to approximately 130 dispensing transactions per day.

7. Work continued on an developing and maintaining a pharmacy risk register.

8. Peter Duddy continued his teaching collaborations with the School of Pharmacy in University College Cork.

9. The department continued provision of Educational sessions to medical staff, NCHDs and Nurses/Midwives e.g. Gentamicin, analgesia, IV medications, parenteral nutrition, smart pumps, epidural safety issues, immunoglobulin use, Propess use and medication management/safety sessions.

10. Continued Educational support to the Centre for Nursing and Midwifery training programmes.

11. Significant increase in workload around the management of drug shortages and supply issues and risk mitigation associated with this.

12. Ongoing involvement with developments in MN-CMS project, national TPN steering group & Clinical programmes.

13. Pharmacy Technician-operated medication Top-up service for wards continue to show improved stock availability, more efficient use of stock and cost efficiencies through the wards.

Achievements in 2018

- The KPI set by the medication safety committee of 200 medication incident reports for the year was exceeded by 17% (n=234).
- Orla Fahy won 1st prize at the annual HPAI conference for her audit 'A retrospective study of prescribing of intravenous iron and clinical outcomes in antenatal patients'.
- Úna Rice continued her role as Vice Secretary of the Irish Antimicrobial Pharmacist Group (IAPG).
- Peter Duddy joined the Irish Medication Safety Network as an attending member representing neonatal pharmacy.
- Easy access to Hospital Prescribing Guidelines via smart technology. Continued operation and update

of Paediatric and Adult smartphone prescribing apps. These apps are available to all staff members in order to provide accurate and up to date guidance on medications directly to the user's phone or tablet, while simultaneously allowing us the flexibility to update medical guidelines and distribute them via this mobile platform, reducing the risk of staff referring to outdated medical information and materials. In the long run, the cost of producing & printing paper copies of guidelines will be eliminated.

- Continued support and development for the National Standard concentration Infusion library in NICU in collaboration with colleagues in the engineering department and the pharmacy department in Our Lady's Children's Hospital Crumlin. This involves the use of Drug Error Reduction software to ensure safe use of infusion in the neonatal population using Smart Pump technology.
- Regular six monthly to annual review of electronic and pdf versions of Prescribing and Microbiology Guidelines and Neonatal prescribing handbook which can now be accessed from the user's Smartphone.
- Continued development of the role of the Pharmacist in the Medical Clinic Team.
- Úna Rice continues to be an active member of the hospital's Research Ethics Committee.
- Continued pharmacist role on Anaesthetic pain rounds and Nausea & Vomiting (PUQE) rounds.
- Introduction of a misoprostol pre-pack and register system in OPD.
- Continued development, revision and monitoring of comprehensive Adult and NICU medication prescribing and administration guidelines through the Adult or Paediatric Drugs & Therapeutics Committee.
- Work continued on the development of a drug chart for the prescribing of insulin to inpatients, in line with best practice recommendations of the Irish Medication Safety Network.
- Continued participation in Clinical Trials (e.g. POPART trial).
- Continued involvement in Risk management and auditing of practices within the hospital to improve patient safety.
- Orla Fahy and Úna Rice acted as Hospital Staff Survey Champions for the National Staff Survey completed in September 2018.
- Continued strong post- graduate education ethos:
  - » Mairead McGuire completed a HSE-HSCP Future Leader Diploma in RCSI
  - » Joanne Frawley continued an MSc in Clinical Pharmacy in UCC
  - » Undergraduate and postgraduate teaching for pharmacy, medical and nursing/midwifery students
  - » Attendance at national and international conferences related to maternity and neonatal pharmacy practice and pharmacy technician practice
  - » Continued strong in-house education ethos
  - » Facilitated and aided nursing and midwifery colleagues in the development of the role of the Registered Nurse Prescriber, ANP & prescriber nurse/midwife in a maternity hospital setting
  - » Facilitation of second and third level students works placements
  - » Expanded in-house training for NCHDs, midwives and nurses
  - » Provision of lectures for National Midwifery Education courses
- The following audits were undertaken:
  - » Out of hours access to the pharmacy
  - » Pharmacist intervention and medication information provision
  - » Improving appropriate VTE prophylaxis for postnatal patients
  - » IV iron prescribing and clinical outcomes in antenatal patients
  - » Compliance with Medication Incident forms
  - » Anaesthetic clinic pre-operative medical assessment
  - » Trends in Medication incident Reporting
  - » National Antimicrobial Point Prevalence Study
  - » Survey of Staff Attitudes to Medication Incident Reporting
  - » Audit of Vancomycin Therapeutic Drug Monitoring in NICU
  - » Audit of use of OPAT
  - » Suitability, cost, staff and patient benefits of technician led medication top-up services
  - » Valaciclovir prescribing for genital herpes in pregnancy
- Continued co-working with the other maternity hospitals in Dublin, as well as those outside of Dublin, particularly Midlands Regional Hospital, Portlaoise
- Continued monitoring of all Pharmaceutical grade fridges in the hospital using web-based Temperature monitoring system

Challenges / Opportunities

- To roll out a comprehensive and sustainable technician led ward stock top-up service to all wards in the hospital.
- To maintain current service levels in the face of increased demands related to increasing complexity of the patient population.
- To maintain sufficient stock of essential medicines despite global shortages and decreased supply due to pharmaceutical manufacturer mergers and take-overs and raw ingredient scarcity.
- To maintain current service levels in the face of increasing demands from a national level.

- To effect cost savings without compromise standards of service provision.
- To minimise waste while maintaining optimum stock holdings.
- To ensure adequate stock of medications on wards outside of pharmacy hours and to empower other staff to ensure sufficient stocks are obtained, where possible, during normal pharmacy hours and reduce burden on pharmacy staff outside hours and also on ADOMs with pharmacy access.
- Promote and advance a culture of medication safety as a priority across CWIUH, in order to enhance patient safety and minimise the potential for medication-related harm.
- To develop and maintain a robust system to highlight risk and reduce medication errors, particularly in advance of the introduction of high risk new technologies in the future.
- Introduce mechanism to empower patients to ask more questions about medicines they are given in hospital.
- Assigning actions to each event throughout the year helps to advance the hospitals strategic plan for medication safety. Improving the numbers of actions assigned will be a new KPI for the medication safety pharmacist and medication safety committee in 2019 and into the future. Improving communication with patients about medication safety events and near-miss reporting are other KPIs which require focus in the future.
- Advancing the medication safety agenda through audit and quality improvement is another area which should be advanced in 2019.
- A review of the medication incident reporting procedure including a simplified medication safety report form and the development of a specific medication safety event reporting guideline with defined, standardised follow-up actions would help to maintain a positive culture around reporting.
- To comply with all legal requirements of the EU Falsified Medicines Directive.

Physiotherapy Department

Heads of Department

Margaret Mason

After 38 years of dedicated service to the Coombe, Margaret Mason retired from the position of Physiotherapy Manager in May 2018.

Anne Graham, *Acting Manager from May 2018*

Staff Complement

Roisin Phipps Consedine, *Senior Physiotherapist*

Julia Hayes, *Senior Physiotherapist*

Sarah Bevan, *Senior Physiotherapist (until July 2018)*

Clare Daly, *Senior Physiotherapist (on leave)*

Anna Chrzan, *Senior Physiotherapist (on leave)*

Velta Vuskane, *Basic Grade Physiotherapist*

Sara Birch, *Basic Grade Physiotherapist*

Service Overview

The Physiotherapy Department strives to provide an evidence-based, accessible Physiotherapy Service to women and babies attending the hospital.

Obstetric Service

The Physiotherapy Team provide essential inpatient and outpatient services to women presenting with musculoskeletal pain and pelvic floor dysfunction in pregnancy and the postpartum period. Antenatal education continues to be a priority for the Physiotherapy Department. In 2018, the Physiotherapy and Parent Education Departments came together to redesign the structure of the antenatal education programme for first time mothers launching January 2019.

Urogynae Service

Women suffering with urinary incontinence, pelvic organ prolapse, dyspareunia and bowel dysfunction are treated by the Physiotherapy Team. Many women are triaged to Physiotherapy while they are on the waiting list for the Urogynaecology Clinics. This allows women to access conservative treatment in a timely manner in line with current best practice. Women attend the bladder information session prior to commencing individual treatment, this continues to be an effective method of improving access to our service.

Paediatric Service

A comprehensive Orthopaedic and Neurodevelopmental Outpatient Service is provided by the Physiotherapy Team. The team continue to play an important role in the clinical pathway for babies with developmental dysplasia of the hip. From May 2018, the Physiotherapy Department was unable to provide a specialist service to the Neonatal Intensive Care Unit.

Aims for 2019

- Recruitment and retention for existing and vacant posts.
- Launch of new Antenatal Education Programme.
- CORU registration to be completed by all staff.
- Pilot MDT pessary clinic.
- Develop role of physiotherapist in the NICU.

Psychosexual Therapy

Head of Department

Donal Gaynor

Staff Complement

One Counsellor *(part-time)*

Key Performance Indicators

	Total
No. of Consultations	195
No. of Return Visits	172
No. of New Visits	23

Dysfunctions treated

- Vaginismus (13%)
- Dyspareunia (36%)
- Female Inhibited Sexual Desire (26%)
- Erectile Dysfunction (5%)
- Female Anorgasmia (6%)
- Male Anorgasmia (9%)
- Sexual Addiction was evidenced in 5% of presentations.

Achievements in 2018

- Successful Treatment for Vaginismus and Inhibited Sexual Desire of patient with BRCA gene mutation and who has had TAH, BSO and DM.
- Treatment of couple with multiple dysfunctions – Dyspareunia, Inhibited Sexual Desire, and Erectile Dysfunction, Male Anorgasmia Situational.
- Attended CPD training in Dublin, Belfast and London.

Challenges for 2019

- Continued support of patient following surgeries for endometrial stromal sarcoma.
- Treatment of couple with Dyspareunia and Male Anorgasmia (Situational)/ISD

Quality & Patient Safety Division

Clinical Risk Management Department

Heads of Department

Ms Anna Deasy, *Clinical Risk Manager*

Ms Michelle McTernan, *(from September 2018), Clinical Risk Manager*

Staff Complement

Ann Byrne, *Assistant Clinical Risk Manager – 1 WTE*

Key Performance Indicators

- To capture and report all clinical risks, near misses, incidents and adverse clinical events which may pose a threat to the safety of the women and babies attending our hospital.
- To investigate all reported risks, near misses and incidents in order to identify possible system vulnerabilities, extract the learning, implement change where indicated and communicate this effectively throughout the process to the multidisciplinary team.
- To work closely with the State Claims Agency and our appointed legal representatives to manage all legal claims on behalf of CWIUH.

Challenges in 2018

- The number of medico-legal cases continues to increase. Likewise the increasing number of Coroner's investigations and Inquests conducted remains high, all of which lead to significant workload and the need for ongoing staff support.
- The requirement to conduct a full System Analysis Review on all of the incidents categorised by the HSE as Serious Reportable Events in a timely fashion remains extremely challenging.

Achievements in 2018

- The CRMs continue to contribute to the Leadership Quality & Safety Walk-Rounds, the Medication Safety Walk-Rounds, the Safety Matters Staff Newsletter and various education sessions for staff and students of the hospital to promote patient safety, effective risk management and provide feedback and learning from clinical incidents, reviews, inquests and medico-legal cases.
- Participation in the various audits conducted by the HSE, HIQA and other bodies.
- The Clinical Governance/Risk Committee Meetings were regularly held throughout the year and all were well attended.

Challenges for 2019

- To maintain and increase current levels of clinical incident reporting across all grades of clinical staff.
- To ensure ongoing compliance with the investigation of serious reportable events.
- To implement a new CWIUH Incident Management Policy in line with the HSE Incident Management Framework (2018).
- To implement a new Incident Report Form in line with NIMS reporting system.
- To encourage the ongoing release of staff to attend the HSE System Analysis and other investigation methods of incident review to enable such investigations to be conducted in a more timely fashion.
- To ensure patients and staff are adequately supported through the various investigation processes such as systems analysis reviews, coronial and medicolegal investigations.

Thanks and Appreciation

We welcome the opportunity to sincerely thank the Clinical Governance/Risk Management Committee for their commitment in promoting patient safety and effective risk management and the Senior Incident Management Team for their continuing support and guidance. We also sincerely thank Ann Byrne, Emma Hopkins and Rita Doran for their administrative support and assistance in the extremely busy area of clinical risk, incident and legal claims management.

Quality, Risk & Patient Safety

Head of Department

Evelyn O'Shea

Staff Complement

6 WTEs:

Evelyn O'Shea, *Quality Manager*
Anna Deasy, *Clinical Risk Manager*
Michelle McTernan, *(from September 2018), Clinical Risk Manager*
Ann Byrne, *Assistant Clinical Risk Manager*
Niamh Dunne, *(from March 2018), Patient Liaison Manager*
Anne Bergin, *(from July 2018), Clinical Audit Co-ordinator*

Achievements in 2018

The Quality and Patient Safety (QPS) Team continued to progress the development, implementation and evaluation of a comprehensive quality, safety and risk programme at CWIUH with associated structures, policies and procedures to provide assurance regarding the delivery of excellence in the care of women and infants in CWIUH. Key achievements in 2018 included:

1. Service User/Patient Experience:

- CWIUH Service User Feedback Policy was revised and launched in 2018 and is in line with the HSE Complaints Policy "Your Service Your Say".
- The hospital's first Annual Report on Service User Feedback was produced for the year 2017. This report was approved by the Complaints Review Group and subsequently fed back to CWIUH staff during 2018. This service user feedback report will be produced annually and fed back to staff.
  - In 2018, 3003 compliments and 247 new complaints were received– of these complaints 117 were written and 130 were verbal. 92% of feedback from patients was positive.
  - The most common themes of our complaints were Communication & Information, Access and Safe & Effective Care. The annual report also included the number and percentage of complaints per discipline and speciality (division), our learnings from what service users are telling us and our actions including Quality Improvement (QI) Projects to improve our service based on service user feedback.
  - In 2018, 98% of all written complaints were acknowledged within 5 working days. 91% of all written complaints were resolved within 30 working days of acknowledgement of the complaint (there is no national target, some hospitals have a target of 70%).
- Office of the Ombudsman:
  - Our completed self-assessment in 2018 against the Ombudsman's Recommendations *"Learning to Get Better, How public hospitals should handle complaints 2015"* demonstrated full compliance.
  - In 2018, CWIUH was one of eight centres nationally audited by the Office of the Ombudsman against the Ombudsman's Recommendations 2015. The outcomes of the National Audit are included in the Ombudsman's *"Learning to get better: Progress Report"* November 2018. The feedback from the Audit was very positive, demonstrating the hospital's compliance with the Recommendations.
- Learnings from Service User Feedback / Quality Improvement Projects:
  - Improving Check-in Experience for Women attending ER
  - Improving Experience of Women with Induction of Labour
  - Reducing Surgical Site Infection Rate for Women having C-Section.
- National Patient Experience (NPE) Survey: On-going QIPs from our in-house managed NPE Survey:
  - Improving Discharge Information for Gynae Patients
  - Improving Nutrition (Food) Service for In-Patients.

During October 2018, all Gynae in-patients were invited to participate in the NPE Survey (partial) to determine if changes made - further to the learnings from the 2017 survey - to the provision of discharge information and the food service resulted in improvements in patients' experience.

- The response rate was 54%. The results were generally very positive.
- 100% of patients reported the "best thing about our hospital" is our staff! Patients mentioned all staff members in their fabulous compliments.
- The results demonstrate that many improvements have been made to our service as a result of the changes identified by our QI work and implemented by all staff on St. Gerard's Ward. The changes that were implemented in St Gerard's Ward are now implemented as standard for all in-patients hospital wards in CWIUH.

The Master, Patent Liaison Manager and Quality Manager participated in HIQA-HSE-DoH focus groups in November 2018 for the preparation of the National Maternity Survey 2020.

- Continued delivery of staff training/education on QPS topics including managing service user feedback at induction and on a one-to-one basis.

2. Leadership Quality & Safety (Q&S) Walk-Rounds:

- The Leadership Q&S Walk-Rounds continued in 2018. A full review of progress of actions from all Walk-Rounds was conducted in Q4 2018 and was fed back to local managers and senior management team (SMT). The progress report for each location also serves as the baseline for subsequent Walk-rounds to that location. Examples of improvements resulting from the Walk-rounds include feeding back directly to local mangers and staff on the excellent work they do, closing the loop on learnings from incidents/complaints/audits from a particular location, learning by SMT about what works well and particular challenges and concerns, infrastructure/environment improvements and improved staff compliance with mandatory training. Patients were included in the Walk-Rounds for the first time in 2018.
- The Leadership Q&S Walk-Rounds were acknowledged by HIQA in their August 2018 (National Maternity Standards) as evidence of compliance with Leadership, Governance and Management standard (page 28).
- A poster on "Effective Leadership Q&S Walk-Rounds in a Hospital Setting" was presented at the State Claims Agency's National Quality, Clinical Risk and Patient Safety Conference 2018.

3. Quality Improvement:

Our most recent HIQA inspection draft report 2018 states that "the hospital had initiated and developed a number of quality improvement projects aimed at improving the quality and safety of maternity care". It also states that "Quality improvement initiatives were developed in response to monitoring of maternal outcomes, clinical incidents and feedback from service users. These initiatives were focused on improving outcomes for women". Some of our on-going QI projects in 2018 are:

- Reducing Caesarean Section Surgical Site Infections (SSI): Following implementation of a CWIUH Reducing SSI Care Bundle, the Caesarean Section wound infection rate reduced by 50% from 6.8% to 3.4% over a sustained 14 month period (up to December 2018). The use of this Care Bundle is now routine practice at CWIUH. The success of this QI project is attributed to frontline ownership and empowerment of patients and staff to reduce the wound infection rate for women having a Caesarean Section. This QI project was awarded first prize at the State Claims Agency's National Quality, Clinical Risk and Patient Safety Conference 2018, and the David Mitchell award at the St. Luke's Symposium 2018. The Master presented the prize to the Theatre and QI team. This QI project was also presented at the Dublin Midlands Hospital Group Quality Leads meeting in 2018. This project is on-going to ensure that the superb results are maintained. Compliance with the CWIUH Care Bundle: Education, Appropriate Timing of Antibiotics and Adequate Drying Time for Skin Preparation will be re-audited in 2019.
- Reducing 3rd and 4th degree perineal tears in childbirth: The overall rate of 3rd and 4th degree tears for 2018 (2.68%) was lower than the 2015 baseline rate (2.99%) but was increased in comparison to the huge success demonstrated in 2017 (2.07%). The rate exceeded 2.5% for 3 separate months in 2018. The QI team will take the learnings from their review of the project in late 2018 into account for 2019. In 2018, this QI work was presented at the State Claims Agency Quality, Clinical Risk and Patient Safety Conference, the National Patient Safety Office Conference and the Nursing and Midwifery Board of Ireland Conference. The QI team are supporting colleagues at the Rotunda and State Claims Agency to share details and spread the learnings from this QI project.
- Improving the Management of Post-Partum Haemorrhage (PPH): The QI team developed a PPH Proforma using the HSE-IOG-RCPI Clinical Practice Guideline "Prevention and management of primary PPH (2012)" and the RCOG "Management of Postpartum Haemorrhage, Green-top Guideline No. 52, December 2016", to record evidence-based best practice management of PPH. This PPH Proforma was implemented in May 2018. As part of the on-going QI review of PPHs, October was designated as "PPH Month" – 19 cases were randomly selected from the 40 women who were identified as having had a PPH >1000ml in October to audit the PPH management against evidence-based best practice. The Audit demonstrated that the management of PPH was appropriate and in line with best practice guidelines.
- Improving Discharge Information for Gynaecology Patients: A post-operative Gynae Discharge Patient Information Leaflet (PIL) was developed and implemented and is given to the woman on her day of discharge, not given in advance of her surgery.
- Improving Food Service for In-Patients: hospital wide improvements include:
  - Evening (7-8.30pm)refreshments, 7 days per week
  - Central tables no longer used for meals in post-op wards
  - Alternative meal option available when a woman misses a meal
  - Breakfast fruit juice is available to all women in all wards
  - Staff reminded to be aware of mealtimes for patients and endeavour to protect mealtimes for patients

- Improving Check-in Experience for Women attending ER: in collaboration with the HSE's Microsystems Facilitator. The outcome of this project is that women attending the ER, check-in 24/7 at the Admissions Office.
- Induction and on-going QI methodology training to initiate and support QI is provided by the Quality Manager to staff on one-to-one/QI team basis.

4. Clinical Audit

- Clinical Audit training was provided on-site to 15 Multi-disciplinary CWIUH staff by the HSE on 8th May 2018.
- Work has commenced on developing a Clinical Audit Programme & Policy for CWIUH. This structured and centralised approach to Clinical Audit will ensure that Clinical Audit is a key component of the quality and patient safety agenda within the hospital, the focus will be on organisational learning and improvement from audit, staff will be assisted to undertake regular audit and multi-disciplinary teamwork will be promoted in relation to audit.

5. National Standards & External Inspections

In 2018, the QPS staff participated in and supported Senior Management in self-assessments/preparations and inspections including:

- Inspection in February 2018 by the Quality Assurance and Verification Division of the HSE against compliance with the National Clinical Handover (Communication) in Maternity Guideline.
- Inspection in April 2018 by the Office of the Ombudsman against the Ombudsman's Recommendations Learning to Get Better, How public hospitals should handle complaints.
- Inspection in August 2018 by HIQA on compliance with the National Standards for Safer Better Maternity Care with a focus on the management of Obstetric Emergencies – a 2 day unannounced inspection.
- Inspection in November 2018 by the Irish Medical Council on compliance with National Standards.

6. "Quality & Safety Matters" Staff Newsletter

- The Quality & Safety Matters staff newsletter was published quarterly in 2018 and is very well received by staff. 2018 editions included updates regarding Clinical Handover (Communication), Flu Vaccination, Medication Safety – high alert medications & Sound Alike Look Alike Drugs (SALADs), Decontamination of Probes, Clinical Audit Training, National Patient Experience Survey, various QI Projects, Health & Social Care Professions Study Day 2018, Incidents & Near Misses, Service User feedback, Out-Patient Hysteroscopy Clinic and Pre-op Medication Management for Gynae Surgery Patients. The 2018 HIQA inspection draft report acknowledges this staff newsletter as part of our compliance with the Safe Care and Support standard.

7. Quality & Safety Board Sub-Committee

- The QPS team attended the Board's Quality, Safety & Risk (QSR) sub-committee meetings throughout 2018. QSR was the subject of a "deep-dive" evaluation by the Board of Guardians and Directors in December 2018. Feedback was very positive from the Board.

Challenges for 2019

- Continue to review our clinical incidents, claims, patient advocacy and complaints, collectively learn from them to inform and improve our service in order to ensure the safety of our women and infants and the delivery of high quality excellent care to them.
- Review our Incident Management policy and Clinical Incident Report Forms.
- Develop a Clinical Audit Programme including a standardised Clinical Audit Proposal Form, Clinical Audit Report Form and a hospital register of all Audits.
- Provide induction and on-going training and support for staff in all aspects of quality and patient safety (incident management including SARs, complaints management, clinical audit and quality improvement).
- Assess the hospital against the National Standards for Safer Better Maternity Services 2016 regarding Service User Feedback (including complaints) Management, Patient Liaison, Patient Advocacy and Patient Engagement.
- The high volume of SARs is demanding – we are challenged to continue to provide support to service users, staff and review teams and the completion of SARs in the context of the enormous workload involved. We endeavour to ensure that we learn from our Serious Incidents and SARs. This workload would be enormously supported by the recruitment of a Legal & Claims Co-ordinator.

We are a new team. We have a huge volume of work to do and it is ever-growing! We also have amazing opportunities – our Master and Leadership team are hugely committed to QPS and delivering excellence in the care of women and babies, our QPS team is very committed & capable and most importantly our staff have already embedded a Quality Culture (woman and baby centred, excellence in everything we do, respect, pride, caring and progressive) in CWIUH! Thank you to all CWIUH staff for your huge support in our work. We appreciate the huge workload and staffing challenges you face on a daily basis. We hugely acknowledge your support in reporting and managing complaints and clinical incidents, writing reports, conducting audits and quality improvement projects, providing us with the data that we need in order to assure the hospital's compliance with required quality and safety standards, proactively working with us to support continuous learning and establish priorities for the delivery of an improved service and putting changes in place to improve patients' overall experience of our hospital and our care.

I wish to welcome Niamh, Michelle and Anne to our QPS team. Thanks also to Ann and Anna for their continued hard work, dedication and enormous contribution to the delivery of a high quality safe care to all of our women and infants.

Evelyn O'Shea

Quality Manager

Academic Departments

Academic Midwifery Report

Head of Department

Ms Ann MacIntyre, *Director of Midwifery & Nursing*

Report

Midwifery Education between the CWIUH and Trinity College Dublin (TCD) continued for both the BScM 4-year Midwifery Programme (pre-registration) and the 18-month Higher Diploma Midwifery Programme (post registration). At the end of December 2018 we had a total of 113 midwifery students undertaking either one of the two programmes. Our sincere thanks to Dr. Denise Lawlor and to Dr. Louise Gallagher for their wonderful support as Director of Midwifery Programmes and to all the staff at the Department of Nursing & Midwifery in TCD, without whose assistance and guidance the programmes would not be possible. To our Practice Development Team led by Ann Bowers, a very sincere thanks for all the support and guidance given to all the Student Midwives. We must also remember all our wonderful midwives and nurses who support, preceptor and guide our student midwives on their journey to becoming the Midwives of the Future.

The Postgraduate Diploma in Neonatal Intensive Care continued as a joint venture between the three Dublin Maternity Hospitals and the Royal College of Surgeons Ireland. We were certainly very sorry to see the coordinator of the programme, Patricia O'Hara who retired in February go and we wish her health and happiness and thank her for the wonderful legacy she has left in the Programme.. We welcome Kevin Mulligan to the Team. We are indebted to both Dr. Linda Nugent and the RCSI Team for the continued success of this Programme which enables nurses and midwives to provide the highest quality of neonatal nursing care in all three tertiary neonatal units.

The Centre of Midwifery Education (CME) is now in its 11th year under the direction of Ms. Triona Cowman, Director of the CME. Due to the excellent collaboration of senior staff from all the three Dublin Maternity Hospitals, another comprehensive Programme of in-service training was provided for all nurses and midwives working in the three Dublin Maternity Hospitals and the greater Dublin area. Sincere thanks are due to Susanna Byrne, Director of the NMPDU and chair of the Board of Management of the CME, and from whom much support is given in respect of practice development and continuing education.

The International Day of the Midwife Celebration took place on the 10th May in the Rita Kelly Conference Centre. The Title of the event was ***Coombe Midwives Leading the Way with Quality Care: Past, Present and Future.***

Awards to Midwives & Nurses in 2018

Best Clinical Educator Awards 2018

Elinor Shields

Awards to Midwifery Students

Gold Medal BSc MidwiferyBSc 2013- 2017

Elizabeth Mc Guigan

Silver Medals BSC Midwifery BSc 2013-2017

Grace Mc Govern

Gold Medal Higher Diploma in Midwifery 2016-2018

Catherine Lauren Crowley

Silver Medal Higher Diploma in Midwifery 2016-2018

Catherine Bourke

Dr. T. Healy Awards – Best Overall Clinical Student Midwife

BSc 2013-2017

Jurgita Dvirnaite

Higher Diploma 2016-2018

Sadie Lavelle Cafferkey

The Trinity College School awards took place on the 21st November and four CWIUH students received highest marks awards, Aoife Swan, 4th year, Edel Herbert 3rd year, Ciara Daly 2nd year and Bronagh O'Farrell Byrne 1st year.

Coombe Women & Infants University Hospital

Excellence in the Care of Women and Babies
Foirfeacht i gCúram Ban agus Naíonán

Coombe Midwives Leading the Way with Quality Care: Past, Present & Future

10th May, Rita Kelly Hall, CME

08.00-08.30	**Registration & Refreshments**	
08.30-08.40	Welcome Address	Ms Ann MacIntyre, DOM&N
08.40-09.00	100 Years of the Midwives Act 1918-2018 in Ireland	Ms Dawn Johnston, DOM, NMBI
09.00-09.20	A career in midwifery.........to date	TBC
09.20-09.35	Midwifery students of today, Midwives of tomorrow	Ms Claire Casby, BSc Midwifery Intern
09.35-10.00	The reflective midwife	Ms Nora Vallejo, CMM 3
10.00-10.30	**Refreshments and poster viewing**	
10.30-10.45	Photovoice to explore the experiences of women facing prolonged hospital isolation in pregnancy	Ms Bronagh O'Connell, RM, RN
10.45-11.00	Barriers to research utilisation among midwifes and nurses in clinical practice	Ms Raji Dominic, CMM 3
11.00-11.15	Systematic review on management of pre labour rupture of membranes at term (PROM)	Ms Sarah Lodola, CPC
11.15-11.30	Recruitment and Retention in Obstetric Ultrasound	Ms Elaine McGeady, CMM 3
11.30-11.45	LEAN Healthcare - Leading quality midwifery care in the CWIUH	Ms Fidelma McSweeney, ADOM&N
11.45-12.00	"Protect your baby with Liquid Gold"; A Quality improvement Initiative to improve the availability of Colostrum	TBC
12.00-12.15	Water Immersion of Labour and Birth	Ms Paula Barry, Research Midwife
12.15-12.30	Reducing practice errors by utilising a tailored bleeding disorder checklist	Ms Catherine Manning, CMS
12.30-12.50	Experience of a recent service user	Ms Síle Seoige
12.50-13.00	Announcement of Poster Winner & Closing Address	Ms Ann MacIntyre
13.00	Musical Finale	TBC
	Event Followed by Light Lunch	

Biological Resource Bank (BRB)

Heads of Department

Dr Sharon Sheehan, *Master/CEO*
Professor Michael Turner

Staff Complement

Ruth Harley, *RM*

Muireann Ní Mhurchú, *RM*

Achievements in 2018

- The Biological Resource Bank worked in close collaboration and under the guidance of Professor Turner in the UCD Centre for Human Reproduction. We continue to audit the bloods and -80 degree freezers to ensure the bloods are frozen correctly and the freezers are running efficiently.
- We work closely with Research Fellows who are undertaking their PhDs or MDs within the UCD Centre for Human Reproduction.
- We worked alongside Dr. Eimer O'Malley as she collected fasting antenatal bloods, and then processed, stored and documented antenatal bloods for future studies.
- We await research projects that are approved by the Ethics Committee to use the biobank bloods that are a valuable resource in the CWIUH.

Opportunities for 2019

- To continue to work alongside Research Fellows within UCD Centre for Human Reproduction. To continue to work on research projects.
- Maintain and ensure the BRB bloods are stored correctly and freezers maintain -80 degrees.
- The BRB is a valuable and unique resource that we have in the CWIUH, we look forward to its utilization for research studies that will benefit mothers and babies in the future.

Centre for Midwifery Education (CME)

Head of Department

Triona Cowman

Staff Complement

Triona Cowman, *Director (1 WTE)*

Judith Fleming, *Midwifery Specialist Coordinator, 19.5hrs (seconded from CWIUH)*

Patricia O'Hara, *Nurse Tutor, 1 WTE (retired February 2018)*

Kevin Mulligan, *Neonatal Specialist Coordinator, 1 WTE (from Feb 2018)*

Charmaine Scallan, *1 WTE to July 2018 (seconded from Ro tunda Hospital)*

Patricia Griffiths, *Secretary, 27hrs (until March 2018)*

Pamela Gaffney, *Secretary, 27hrs (from June 2018)*

Key Performance Indicators

- Appropriate accreditation/approval for all education and training programmes.
- Evaluation of all education and training programmes.
- Number of education and training events delivered.
- Number of attendees.
- Evidence of continuous professional development of the CME Team.
- Minutes of Board of Management, Coordinating Group and Programme Board Meetings.
- Cost effective functioning of the CME.

Achievements in 2018

- In 2018, the CME provided 103 education and training programmes ranging in duration from 5 hours to 9 months. The total recorded attendance for the year was 1,950, the highest attendance rate on record in the CME. This was an increase of 22% compared to 2017, when there were 1,594 attendances. Attendances from outside the three Dublin Maternity Hospitals remains relatively static at 17% (n=340).
- The ONMSD in the HSE approved funding on an ongoing basis for 2.0 WTE Midwifery Specialist Coordinators posts, 1 WTE Midwife Tutor post and 1 WTE Grade 5 Administration Support/Learning Technology post. We anticipate that these posts will be filled by end of first quarter of 2019.

Challenges for 2019

- To successfully fill funded posts.
- An ongoing challenge is to meet all idenitifed education and training needs within the CME remit.

Midwifery & Nursing: Practice Development

Head of Department

Ann Bowers *(Acting)*

Staff Complement

1 WTE Practice Development Co-ordinator

4.2 WTE Clinical Placement Co-ordinators

3.5 WTE Clinical Skills Facilitators

(1.5 WTE: Neonatal Unit, 3 WTE: DS and Maternity Ward Areas)

1 WTE Post-Registration Programme Co-ordinator

0.5 WTE Allocations Liaison Officer

1 WTE Research Midwife

Key Performance Indicators

- The development and maintenance of the clinical learning environment for Bachelor of Science in Midwifery (BScM), Higher Diploma in Midwifery (HDIM) Students and Bachelor of Science (BScN) in Nursing Students undertaking clinical placements at the CWIUH.
- Practice Development issues in midwifery and nursing, particularly in relation to the autonomous role of the midwife and the promotion of pregnancy and childbirth as a normal healthy life event.
- Liaise with the Centre of Midwifery Education (CME) in the provision of continuing educational needs of existing Midwifery and Nursing staff.
- Collaboration with our affiliated HEIs: TCD & RCSI.
- Promotion and facilitation of Midwives Clinics.

Achievements in 2018

- Continued facilitation of the 4-year BSc in Midwifery (BScM), as well as the 18-month Higher Diploma in Midwifery (HDIM) Programmes in conjunction with Trinity College, Dublin (TCD)
    - 10 HDIM Students qualified in 2018.
    - 8 HDIM Students commenced training in March 2018.
    - 12 BScM Students qualified September 2018.
    - 71 BScM Students on clinical placements throughout 2018.
- Continued facilitation and support of 100 BSc Nursing Students on maternity placement from St James's and Tallaght (AMNCH) Hospitals.
- Developed content for and facilitated Clinical Skills Sessions on a weekly basis within the hospital for midwifery students to bridge theory and practice.
- PDD staff were involved in the successful recruitment, induction and continued support of midwives and nurses from Ireland and abroad.
- Continued to support and guide clinical staff in order to provide an optimal learning environment for midwifery and nursing students.
- Continued to encourage staff to embrace evidence-based care and supporting the ethos of research throughout the hospital.
- Members of the Practice Development Team participate on a number of Committees within the hospital and TCD.
- Facilitation of a Midwives Clinic by the Practice Development Team (658 consultations in 2018).
- The entire Department was involved in the organisation of the annual Essence of Midwifery Care Conference to celebrate International Day of the Midwife in May "Midwives leading the way with quality care".
- The Water Immersion Study (WIS) continued throughout the year. More staff became confident caring for women choosing to use water immersion for labour & birth.
- Further funding secured to enhance and promote a culture of Midwifery Research within the CWIUH.
- We welcomed new members of staff to the department: Ms Denise McNamara (CSF) and Ms Helen Castellino (CPC).

Challenges for 2019

- Contribute to the recruitment and retention of staff and students for the CWIUH.
- Work with clinical staff, management, TCD and students to ensure that the CWIUH is a quality and enjoyable learning environment for midwifery and nursing students.
- Continue to meet the clinical learning needs of midwifery and nursing students while on placement in the CWIUH.
- Continue to promote a positive and safe culture for students to learn and develop.

- Continue to support and assist midwifery and nursing staff involved in clinical teaching and preceptorship of midwifery and nursing students.
- Continue to support newly qualified midwives and nurses and midwives new to the CWIUH.
- Continue to promote the midwifery philosophy of "pregnancy, labour, birth and the postnatal period as healthy and profound experiences in women's lives" (Nursing and Midwifery Board of Ireland, 2015).
- Continue to promote midwifery as a career pathway for RGNs.
- Continue to facilitate midwifery and nursing educational programmes and up-dates in collaboration with the CME.
- Continue to promote, increase attendance at and facilitation of midwives clinics.
- To promote and support a positive culture of audit, research, professional development and education among midwifery and nursing staff in order to deliver safe, effective, evidence-based care to women and babies attending the CWIUH.

The Practice Development team would like to thank all midwives and nurses who have worked with students and new staff throughout 2018.

Postgraduate Medical Training – Perioperative Medicine and Anaesthesia

Head of Department

Dr Terry Tan

Postgraduate Tutor

Dr Sabrina Hoesni

The department continues to place a strong emphasis on facilitating learning and training. 11 Specialist Anaesthesiology Trainees from the College of Anaesthesiologists of Ireland (CAI) National Training Scheme rotated through the department fulfilling their obstetric anaesthesia training requirement.

Trainee composition in 2018

	Total
CAI trainees	11
CAI Special interest year trainee	1
Post CSST Fellow	1
Foundation year trainees	4

The formal educational component consists of:

- An Introduction to Obstetric Anaesthesia course delivered by senior staff.
- College of Anaesthesiologists membership and fellowship exam preparations.
- Departmental CEPD schedule, which includes obstetric and non-obstetric related topics.
- Departmental morbidity meetings/case-based discussions meetings.
- Multi-disciplinary morbidity/case-based meetings.
- Research and audit activity.

Achievements in 2018

- 2 Foundation year trainees were successful in their application to the National training scheme.
- Winner of best oral presentation at the Irish Society of Obstetric Anaesthetists Annual Scientific Meeting 2018.
- Winner of best poster presentation at the Irish Society of Obstetric Anaesthetists Annual Scientific Meeting 2018.

Postgraduate Medical Training – Obstetrics & Gynaecology

Head of Department

Prof Nadine Farah

I would like to acknowledge: Dr Azy Khalid in coordinating rosters during the period from January to July and Dr David Crosby in coordinating rosters during the period from July to December.

Key Performance Indicators

- All Doctors in training are assigned to a team and a named trainer.
- January to July we had 8 SPRs, 4 Registrars, 4 Junior Registrars and 11 SHOs.
- July to December we had 9 SPRs, 3 Registrars, 4 Junior Registrars and 12 SHOs.
- We also have within our NCHD staff complement:
  - The Bernard Stuart Research Fellow
  - A UCD and a TCD lecturer
  - Clinical Fellow in Early Pregnancy Scanning
  - International Fellow in Urogynaecology
  - International Fellow in Maternal Medicine
- All Doctors in training (BST level) are prospectively allocated to a two year BST rotation with at least one year in the CWIUH and all BST 3 rotations spend at least 8 months in the CWIUH.
- Three Special Skills modules in Gynaecological surgery one rotating with six months in St James's Hospital and the other two rotating with six months in Tallaght Hospital.

Challenges for 2019

- Maximisation of training opportunities in the context of the EWTD in view of reduced training time and increased staff complement.

Postgraduate Medical Training – Paediatric Medicine

Head of Department

Dr John Kelleher

Nine Specialist Registrars in Paediatrics rotated through the Department of Paediatrics & Newborn Medicine in 2018 in addition to a Higher Specialist Trainee Registrar in Neonatology. Each Specialist Registrar completed 6 months of a 12-month rotation, posts are July to July. The Specialist Registrars are encouraged to undertake specific research projects and participate in audits. Senior House Officers on the Basic Specialty Training Scheme also rotate through the Department. The Department of Paediatrics & Newborn Medicine is a tertiary level Neonatology Centre offering experience in intensive care as well as neonatal transport. Neonatal training is a core component of the Specialist Registrar Programme in General Paediatrics. In 2018 the CWIUH Department of Paediatrics featured two Higher Specialist Trainee Registrar in Neonatology, Dr Claire Murphy and Dr David Staunton. Dr Murphy completed a 12 month rotation in neonatology over the years 2018 – 2019 as part of her planned future career as a consultant neonatologist. Dr Staunton completed his 12 month rotation over the years 2017 – 2018.

The Neonatal Resuscitation Programme coordinated by Ms Margaret Moynihan and Advanced Neonatal Nurse practitioner Ms Anne O'Sulllivan, with large numbers of candidates completing the NRP programme. The Hospital was also closely involved in the STABLE Neonatal Transport training programme under the guidance of our Consultant Neonatologist in Transport Medicine, Dr H Fucikova.

Postgraduate Medical Training – Pathology

[in association with the Faculty of Pathology and CervicalCheck]

Head of Department

Professor John O'Leary

Cytopathology Training School

The training school is based at the Coombe Women and Infants University Hospital, Dublin. The training centre provides education for medical scientists, pathologists, colposcopy nurses and colposcopists working in the area of cervical screening. The training provided covers all areas including: screening, health economics, cytopathology, histopathology, HPV testing, molecular biology and pathology, colposcopy and gynae-oncology. Research is also central to the mission of the training school and researchers associated with the school are among world leaders in the area of HPV biology, cytopathology, molecular and HPV testing. Research work is aimed to inform the CervicalCheck programme.

Over 126 people have been trained in the training school to date and 2 new accredited courses are being launched in 2019:

- Advanced Practitioner course for existing medical scientist working in cytopathology.
- New entrant medical scientists to be trained in Molecular cytopathology.

SpR in Histopathology

The hospital hosts one SpR every 6 months in Histopathology, Cytopathology, Morbid Anatomy and Molecular Pathology. Trainees gain wide experience in all the above areas of Pathology and encouraged to carry out basic scientific research and audit.

Trinity College Dublin, Academic Department of Obstetrics & Gynaecology

Head of Department

Prof Deirdre J Murphy

Administrative Staff

Ms Cristina Boccardo, *Senior Executive Officer*

Academic Staff

Deirdre J Murphy, Professor, *Head of Department, Consultant in Obstetrics*

Richard Deane, *Associate Professor, Consultant Obstetrics & Gynaecology*

Sean Daly, *Clinical Professor, Consultant Obstetrics & Gynaecology*

Clare Thompson, *Locum Associate Professor, Consultant Gynaecologist*

Mei Yee Ng, *Clinical Lecturer, Obstetrics & Gynaecology*

Catherine O'Gorman, *Clinical Lecturer, Obstetrics & Gynaecology*

Oladayo Oduola, *Clinical Tutor / Research Fellow*

Clare Dunney, *Research Midwife / TCD Tutor*

Noreen Gleeson, *Honorary Senior Lecturer, Consultant Gynaecologist*

Tom D'Arcy, *Honorary Senior Lecturer, Consultant Obstetrics & Gynaecology*

Gunther von Bunau, *Honorary Lecturer, Consultant Obstetrics & Gynaecology*

Mary Anglim, *Honorary Lecturer, Consultant Obstetrics & Gynaecology*

Cliona Murphy, *Honorary Lecturer, Consultant Obstetrics & Gynaecology*

Michael Carey, *Specialist Lecturer, Consultant in Peri-operative Medicine*

Joanne Fenton, *Specialist Lecturer, Consultant in Perinatal Psychiatry*

Grant income to 2018

- HRB Mother & Baby Clinical Trials Network 2016-2020; €2.8 Million, Co-Principal Investigators D Murphy (obstetrics) & E Molloy (neonatology).
- HRB Primary Care Research Centre (RCSI/TCD) €4 Million, Co-investigator D Murphy.

HRB Definitive Intervention Award, D Murphy Chief Investigator; €1M.

Achievements in 2018

- Prof Richard Deane – appointed Chair of St James's Hospital / Tallaght Hospital joint Research Ethics Committee
- Prof Deirdre Murphy - International plenary speaker: Russia, St Petersburg: European Congress on Perinatal Medicine. Short and long-term consequence of instrumental vaginal delivery.

Publications in 2018

TCD Academic staff

Original Publications in Peer-Review Journals

1. Adnan N, Conlan-Trant R, McCormick C, Boland F, Murphy DJ. Intramuscular oxytocin versus intravenous oxytocin to prevent postpartum haemorrhage at vaginal delivery - a randomised controlled trial (LabOR trial-(LabOR trial-Labour Oxytocin Route). BMJ. 2018; 362: k3546.
2. Smith V, Begley C, Newell J, Higgins S, Murphy DJ, White MJ, Morrison JJ, Canny S, O'Donovan D, Devane D. Admission cardiotocography versus intermittent auscultation of the fetal heart in low-risk pregnancy during evaluation for possible labour admission – a multicentre randomised trial: the ADCAR trial. BJOG 2018 https://doi.org/10.1111/1471-0528.15448.
3. Smith V, Begley C, Newell J, Higgins S, Murphy DJ, White MJ, Morrison JJ, Canny S, O'Donovan D, Devane D. Authors' reply re: Admission cardiotocography versus intermittent auscultation of the fetal heart in low-risk pregnancy during evaluation for possible labour admission-a multicentre randomised trial: the ADCAR trial. BJOG. 2019 Feb;126(3):429-430.
4. Adnan N, Boland F, Murphy DJ. Intramuscular oxytocin versus intravenous oxytocin to prevent postpartum haemorrhage at vaginal delivery (LabOR trial): study protocol for a randomized controlled trial. Trials 2017 18:541.
5. Hayes-Ryan D, Hemming K, Breathnach F, Murphy DJ et al. PARROT Ireland: Placental growth factor in Assessment of women with suspected pre-eclampsia to reduce maternal morbidity: a Stepped Wedge Cluster Randomised Control Trial Research Study Protocol. BMJ Open 2019;9:e023562. (In press 2018)
6. Mone F, O'Mahony JF, Tyrrell E, Mulcahy C, McParland

P, Breathnach F, Morrison JJ, Higgins J, Daly S, Cotter A, Hunter A, Dicker P, Tully E, Malone FD, Normand C, McAuliffe FM. Preeclampsia Prevention Using Routine Versus Screening Test-Indicated Aspirin in Low-Risk Women. Hypertension. 2018 Dec;72(6):1391-1396.

7. Mulcahy C, Mone F, McParland P, Breathnach F, Cody F, Morrison JJ, Higgins J, Daly S, Dornan S, Cotter A, Dicker P, Tully E, Malone FD, McAuliffe FM. The Impact of Aspirin on Ultrasound Markers of Uteroplacental Flow in Low-Risk Pregnancy: Secondary Analysis of a Multicenter RCT.Am J Perinatol. 2018 Nov 5. doi: 10.1055/s-0038-1675208. [Epub ahead of print.]
8. Mone F, Mulcahy C, McParland P, Breathnach F, Downey P, McCormack D, Culliton M, Stanton A, Cody F, Morrison JJ, Daly S, Higgins J, Cotter A, Hunter A, Tully EC, Dicker P, Alfirevic Z, Malone FD, McAuliffe FM. Trial of feasibility and acceptability of routine low-dose aspirin versus Early Screening Test indicated aspirin for pre-eclampsia prevention (TEST study): a multicentre randomised controlled trial. BMJ Open. 2018 Jul 28;8(7):e022056.

International Textbooks

Murphy DJ. Assisted Vaginal Delivery. In High Risk Pregnancy: Management Options. Cambridge University Press, Updated 2018.

UCD Centre for Human Reproduction

Head of Department

Professor Michael Turner

Staff Complement

Professor Michael Turner, *Professor of Obstetrics and Gynaecology*

Ms Laura Bowes, *Administrator*

Dr Eimer O'Malley, *Clinical Lecturer (From July 2017)*

Professor Mairead Kennelly, *Consultant in Obstetrics and Gynaecology*

Professor Jan Miletin, *Consultant Neonatologist*

Professor Chris Fitzpatrick, *Consultant in Obstetrics and Gynaecology*

Professor Aisling Martin, *Consultant in Obstetrics and Gynaecology*

Professor Michael Carey, *Consultant Anaesthetist*

Professor Nadine Farah, *Consultant in Obstetrics and Gynaecology*

Professor Tom D'Arcy, *Consultant in Obstetrics and Gynaecology*

Professor Anne Doolan, *Consultant Neonatologist*

Research Fellows

Ms Rachel Kennedy (PhD)

Dr Eimer O'Malley (PhD)

Ms Ciara Reynolds (PhD)

Established in 2007, the UCD Centre for Human Reproduction at the Coombe Women and Infants University Hospital was recognised in 2015 by the Academic Council as one of the university's designated research centres. In 2018, the Academic Council in UCD renewed its approval for the UCD Centre for Human Reproduction to continue as one of the University's designated research centres. The Director is Professor Michael Turner and the Centre's Advisory Board include: Dr Brendan Egan, Prof Chris Fitzpatrick, Prof Mairead Kennelly, Prof Richard Layte, Prof Aisling Martin, Prof Jan Miletin, Prof Ann Molloy and Prof Carel le Roux.

The main research focus of the Centre is on modifiable pregnancy risk factors including maternal obesity, gestational diabetes mellitus, aberrant fetal growth, poor maternal diet, inadequate folic acid supplementation, cigarette smoking, infection and physical inactivity. Since 2010, Professor Turner has served as the National Lead for the HSE Clinical Programme in Obstetrics and Gynaecology and, as a result, the Centre has also provided leadership on maternity services implementation science projects.

Key Performance Indicators

- Publications in peer-reviewed journals
- Research Fellows undertaking MD, PhDs

Achievements in 2018

- Maintained research outputs for modifiable risk factors in pregnancy and maternity services quality improvement projects.
- Translated research output into national healthcare policies and guidelines.

Challenges for 2019

- Improve teaching facilities.
- Increase undergraduate gynaecological clinical experiences.

Research

1. Dr Niamh Daly was awarded her PhD for her randomised control trial (RCT), evaluating an intense medically supervised exercise intervention in pregnancy to improve maternal glycaemia. The RCT was published in Obstetrics and Gynecology and showed that the exercise intervention did not improve maternal glycaemia, but did improve gestational weight gain. As an incidental finding, Dr Daly demonstrated the importance of adhering to strict pre-analytical standards in the measurement of plasma glucose. Failure to adhere to these standards may result in the diagnosis of gestational diabetes mellitus being missed which potentially may increase the risk of adverse pregnancy outcomes. Dr Daly continued to represent the speciality of obstetrics and gynaecology on the RCPI Policy Group on physical activity.
2. Ms Ciara Reynolds completed her PhD on smoking cessation in pregnancy which has resulted in several publications in peer-reviewed national journals. Ms Reynold's RCT is to evaluate a customised smartapp to help women stop smoking after presentation for antenatal care. Ciara has published a number of papers on the adverse impact of persistent smoking in pregnancy and the use of breath carbon monoxide (BCO) testing to identify women who have not disclosed their smoking at the first visit. Publications

from this PhD will inform the forthcoming NCEC National Guideline on smoking cessation.

3. Ms Rachel Kennedy completed her RCT evaluating a customised smartapp designed to improve the dietary quality of women in early pregnancy. Ms Kennedy has also published a novel peri-conceptual nutrition score (PENS) to asses dietary intake of micronutrients in early pregnancy. She is planning to submit her PhD in 2019.
4. Dr Eimer O'Malley has converted her planned MD into a PhD. She is evaluating point-of-care maternal glucose and lipid measurements at the end of the second trimester. Dr O'Malley is planning to submit her PhD at the end of Q2 in 2019. She has also continued her work on maternal homocysteine, Vitamin B12, folate and red blood cell folate and examined the relationship between these biomarkers and maternal obesity.
5. Dr Karen Power and Professor Turner continued their collaboration in developing the NCEC Guidelines. The revision of the Irish Maternity Early Warning System (IMEWS) was completed and due for publication in Q1 2019. The IMEWS has generated considerable attention in Norway, Scotland, England and Wales and the United States of America. As part of this work, Dr Catherine O'Regan has developed a novel scoring system for the early detection of maternal infection which was accepted for publication by the European Journal of Gynecology and Obstetrics in Reproductive Medicine. Dr Power is also continuing to work on the development of the NCEC Guidelines for risk stratification in pregnancy as recommended in the National Maternity Strategy Report in 2016. It is planned to complete this work in 2019.
6. Dr Lean McMahon, Project Manager for the Irish Maternity Indicators System (IMIS) and Professor Turner continued their collaboration on this report for hospital performance measurements. This report is produced for individual hospitals, the six networks and nationally and allows each hospital to bench mark themselves nationally and against their own performance in the previous year. This work continues to evolve and improve. Special thanks are due to the individuals from different hospitals who participate actively in the regular workshops.
7. Dr Aoife Brick from the ESRI Health Division and Professor Turner continued their collaboration on escalating caesarean section rates in Ireland.
8. Professor Turner chaired the Department of Health Policy Group on folic acid supplementation and a report revising current recommendations was sent to the Minister for Health at the end of Q2. Professor Turner served as Member of the HSE National Guideline on smoking cessation which has been commissioned by the National Clinical Effectiveness Committee. Professor Turner also served as Member of the HIQA Special Purpose Maternity Advisory Group and as a Member of the RCPI Policy Group on Obesity.

List of Grants received in 2018

Title: CICER/HIQA (Collaborator)

Start/End Dates: 2017 to date

Funder: HRB

Amount: €2,500,000.00

Title: Behavioural intervention to promote smoking cessation in pregnancy (Principal Investigator)

Start/End Dates: Jan 2015-April 2018

Funder: Dublin Institute of Technology

Amount: Circa €50,000.00

Title: Building research capacity in the Maternal health And Maternal Morbidity in Ireland study: Second baby follow-up, Intervention development and testing, and Measurement of costs (MAMMI-SIM) (Collaborator)

Start/End Dates: Oct 2016 (duration approx 40 months)

Funder: Health Research Board

Amount: €869,272.00

Academic Publications 2018

1. McDonnell B, McKeating A, Delaney V, Turner MJ.

An audit of Neural Tube Defects in the Republic of Ireland for 2012-2015.

Ir Med J 2018;111:3. PMID:30376230

2. O'Malley EG, Cawley S, Kennedy RAK, Reynolds CME, Molloy A, Turner MJ.

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  Postnatal screening for maternal smoking.

- JOGS Annual Scientific Meeting, November 2018

Support Services

Human Resources Department

Head of Department

AnneMarie Waldron

Staff Complement

Bridie Horan, *HR Business Partner*
Carthach McCarthy, *HR Executive Assistant*
Gina Elliott, *HR Executive*
Hilda Reddy, *HR Administrative Assistant*
Niamh McGlade, *HR Executive Assistant*
Theresa Dempsey, *HR Executive*
Edisa Mulalic, *HR Executive Assistant*

Key Performance Indicators

- Absence rates
- Labour Turnover
- EWTD compliance rates
- Recruitment times from advertisement to appointment

Achievements in 2018

- Recruitment Activity – 219 staff appointments
- 23 International Midwifery & Nursing appointments from Italy
- Offered permanent contracts to all our Graduate Nurses
- Staff engagement survey increase in participation from 18% to 29 %
- Implementation of electronic clocking system
- Health & Wellbeing Programme of Staff Activities
- Retirement Planning Programmes
- DIME Project for Consultant Posts
- Mandatory retrospective Garda Vetting Campaign completed prior to the deadline of 30th April 2018

Plans for 2019

- Staff engagement workshops
- Local and International Recruitment Campaigns
- Health & Wellbeing Initiatives for staff
- Develop technology usage
- Training Programmes - Attendance Management
- Retirement Planning Programme

Challenges for 2019

- Staff engagement
- Attracting and retaining staff
- Employee Health & Wellbeing
- Training & Development Strategies

Hygiene Services

Head of Department

Vivienne Gillen, *Hygiene Services Manager*

Staff Complement

Household Services Manager
2.2 WTE Assistant Supervisors
38.8 WTE Cleaners
6.5 Multi-task attendants

Key Performance Indicators

- Hygiene Audits carried out by Ward Managers, Household Supervisors and Hospital Management.
- Waste Segregation and Recycling.
- Compliments and Complaints.

Overall Auditing	**92%**
Environmental Auditing	**93%**
Recycling Figure	**76%**

Waste Management:

- Total waste generated by Hospital in 2018 was 490 tonnes.
- Recycling figure has improved to 76%.

Achievements in 2018

- Increased use of Electronic Auditing system throughout Hospital with real-time reports readily available. De-contamination Audit added to the suite of audits available.
- Introduction of 24-hour cleaning service in the Delivery Suite and NICU.
- CSSD – Work commenced in October to upgrade of the CSSD Department to a Class 8 facility. This will be completed in early 2019.
- Maintained sick leave at 4.0%.
- Continuous upgrading of hand hygiene sinks during refurbishment programmes.

Challenges for 2019

- To maintain and improve on current hygiene practices across the campus.
- To identify and implement best available technologies to all aspects of Hygiene.
- To reduce the sick leave figure to 3.5%, in line with HSE requirements.
- Expand on the Medical Audits system with more programmes available.
- Commence upgrading of cleaning equipment on a phased basis over 2019.

Information Communications Technology (ICT) Department

Head of Department

Melissa Lawlor, *ICT Manager*

Tadhg O'Sullivan, *retired as ICT Manager in 2018 with over 20 years service to the hospital.*

Staff Complement

Emma McNamee, *Business Intelligence Analyst*

Eamonn Sheridan, *Systems Administrator*

Carol Cloonan, *Technical Support Officer*

Gordon McMahon, *Technical Support Officer (0.67 WTE Fixed Term Contract)*

Anne Clarke, *IT Midwife (0.5 WTE job-sharing)*

Key Performance Indicators

- Ensure high availability of ICT equipment and services.
- Ensure integration of systems and services.
- Prompt response and resolution to user ICT service requests.
- Compliance with HSE & Hospital reporting requirements through the provision of monthly data returns, Robinson Report, etc.
- Provision of an effective business intelligence service to clinical and business services through creation of clinical audit, statistical or activity requests.

Achievements in 2018

- Ongoing maintenance of the hospital's core operational and technical environment.
- Extension of the hospital's data storage (SAN).
- Upgrade of iPM from V3 toV5.
- Upgrade of G2 Speech.
- Upgrade of Remote Access.
- Implementation of a new Backup solution.

Challenges for 2019

- A review of the hospital's ICT infrastructure will be undertaken in the first quarter of 2019, by an external consulting company. The output of this will determine the priorities for a refresh of the ICT infrastructure.
- Ongoing involvement and engagement in national ICT clinical and infrastructure projects most notably MN-CMS (Maternal & Newborn Clinical Management System). Other projects include the implementation of solutions to meet requirements of Falsified Medicines Directive (FMD).
- Implementation of hospital projects, e.g. Wi-Fi, Firewall replacement, Upgrade of CliniSys Data Manager (Instrument Manager), Mediscan upgrade.
- Replacement of Windows 7 PCs which will be out of support in Jan 2020.

Friends of the Coombe

Friends of the Coombe

Head of Department

Ms Ailbhe Gilvarry, *Chair*

Staff Complement

Liz Burke

2018 was an exceptional year for Friends of the Coombe, the highlight of which was the Galway Cycle, an annual event organised by current and former students of Maynooth University which, to date, has raised more than €1m for Irish children's charities.

Friends of the Coombe was honoured to have been chosen as the Galway Cycle's 2018 charity partner which saw both organisations join forces to raise more than €100,000 to help the Coombe Women & Infants University Hospital to develop hospice-style bereavement suites to create a family-friendly home away from home for bereaved parents.

Friends of the Coombe would like to thank not just the Galway Cycle, but also each and every member of staff at The Coombe who took part as a cyclist, collector, volunteer or supporter. We would also like to thank everyone who organised and supported the Christmas bake sale, hospital cyclethon and street collection, as well as those who held fundraising events and activities outside the hospital in support of this initiative.

We would also like to extend our deepest gratitude to the Fahey family for nominating us for the 2018 Galway Cycle charity partnership, as well as the Galway Cycle president and committee members for their commitment to raising as much money as possible for this important project.

This year also saw a significant increase in the number of women taking part in the annual Vhi Women's Mini Marathon in support of Friends of the Coombe which not only generated restricted and unrestricted donations, but also a new state-of-the-art incubator which we were delighted to present to the Coombe's Neonatal Unit.

Examples of the support provided during 2018

- Neonatal Unit Assistance: Ongoing accommodation support for parents, staff attendance at key teaching and training conferences and the provision of a new incubator.
- Support for the voluntary Neonatal Support Group.
- Support for the Palliative Care and Bereavement Service.
- Research funding to facilitate *The STOP project: Smoking cessation through optimisation of clinical care in pregnancy*, a study being carried out by clinicians at the Coombe Women & Infants University Hospital.

Opportunities for 2019

- Developing the level of support we provide to families and individuals who would like to raise funds for Friends of the Coombe.
- A campaign to raise €75,000 to purchase a Paul Simulator for the Coombe Women & Infants University Hospital to transform the way in which doctors and neonatal nurses develop and maintain critical clinical skills, as the first phase of a larger campaign to enable the hospital to develop a state-of-the-art clinical skills laboratory.
- Further engagement with the hospital and its departments in relation to equipment, education and research requirements.
- Development of an advocacy strategy to allow the charity to more effectively engage in issues relating to the health and wellbeing of women and babies.
- Build and protect reputation, particularly in the digital space.
- Board recruitment and development.

Appendices

Appendix One

Outline History of the Coombe Women and Infants University Hospital

1770 Foundation stone laid on 10th October by Lord Brabazon for new general hospital in the Coombe

1771 Hospital opened in the Coombe known as "The Meath Hospital and County Dublin Infirmary"

1822 Meath Hospital transferred to Heytesbury Street to a site known as "Dean Swift's Vineyard"

1823 Old Meath Hospital bought by Dr. John Kirby and opened in October under the name of "The Coombe Hospital"

1826 Maternity service founded in The Coombe Hospital by Mrs. Margaret Boyle

1829 Hospital bought from Dr. John Kirby and opened on February 3rd as "The Coombe Lying-in Hospital"

1835 Dublin Ophthalmic Infirmary established in outpatient department (until 1849)

1839 Gynaecology ward opened in hospital

1867 Royal Charter of Incorporation granted to the Coombe Lying-in Hospital on November 15th

1872 Due to the benevolence of the Guinness family, a new wing, including gynaecology beds, known as "The Guinness Dispensary" opened on April 24th

1877 Coombe Lying-in Hospital rebuilt and reopened by the Duke and Duchess of Marlborough on May 12th

1903 Weir Wing in hospital opened

1911 Pembroke dispensary for outpatient care of children opened July 6th

1926 Hospital centenary celebrated by first international medical congress to be held in Dublin

1964 Foundation stone laid for new Hospital in Dolphin's Barn on May 14th by Minister for Health, Mr. McEntee

1967 New Coombe Lying-in Hospital opened on July 15th

1976 Celebration of the 150th birthday of Hospital held in October.

1987 Maternity service in St. James's Hospital transferred to Coombe Lying-in Hospital on October 1st

1993 Hospital renamed the 'Coombe Women's Hospital' on December 8th

1995 UCD Department of General Practice opened in February

2001 175th Anniversary of the Coombe Women's Hospital

2008 Hospital renamed 'Coombe Women & Infants University Hospital' on January 1st

2013 First Female Master took up position

2017 Celebrated the Hospital's Golden Jubilee on the current site

Appendix Two

Masters of the Coombe Lying-in Hospital/Coombe Women's Hospital/Coombe Women & Infants University Hospital

Richard Reed Gregory	1829 - 1831
Thomas McKeever	1832 - 1834
Charles Joseph O'Hara	1835 - 1835
Hugh Richard Carmichael	1835 - 1841
Robert Francis Power	1835 - 1840
William Jameson	1840 - 1841
Michael O'Keeffe	1841 - 1845
John Ringland	1841 - 1876
Henry William Cole	1841 - 1847
James Hewitt Sawyer	1845 - 1875
George Hugh Kidd	1876 - 1883
Samuel Robert Mason	1884 - 1890
John Colclough Hoey	1891 - 1899
Thomas George Stevens	1900 - 1907
Michael Joseph Gibson	1907 - 1914
Robert Ambrose MacLaverty	1914 - 1921
Louis Laurence Cassidy	1921 - 1928
Timothy Maurice Healy	1928 - 1935
Robert Mulhall Corbet	1935 - 1942
Edward Aloysius Keelan	1942 - 1949
John Kevin Feeney	1949 - 1956
James Joseph Stuart	1956 - 1963
William Gavin	1964 - 1970
James Clinch	1971 - 1977
Niall Duignan	1978 - 1984
John E. Drumm	1985 - 1991
Michael J. Turner	1992 - 1998
Sean F. Daly	1999 - 2005
Chris Fitzpatrick	2006 - 2012
Sharon R. Sheehan	2013

Appendix Three

Matrons & Directors of Midwifery & Nursing at Coombe Women & Infants University Hospital

Over a period of 151 years since the granting of the Royal Charter of Incorporation to the Coombe Lying In Hospital in 1867, there have been 16 Matrons or Directors of Midwifery & Nursing (DoM&N) as follows;

Mrs Watters	Matron	1864 – 1874
Kate Wilson	Matron	1874 – 1886
Mrs Saul	Matron	1886 – 1886
Mrs O'Brien	Matron	1886 – 1887
Mrs Allingham	Matron	1887 – 1889
Annie Hogan	Matron	1889 – 1892
Annie Fearon	Matron	1892 – 1893
Hester Egan	Matron	1893 – 1909
Eileen Joy	Matron	1909 – 1914
Genevieve O'Carroll	Matron	1914 – 1951
Nancy Conroy	Matron	1952 – 1953
Margaret (Rita) Kelly	Matron	1954 – 1982
Ita O'Dwyer	DoM&N	1982 – 2005
Mary O'Donoghue	DoM&N – Acting	2005 – 2006
Patricia Hughes	DoM&N	2007 – August 2016
Ann MacIntyre	DoM&N	August 2016 – Present

Appendix Four

Guinness Lectures

1969 The Changing Face of Obstetrics
Professor T.N.A. Jeffcoate, University of Liverpool

1970 British Perinatal Survey
Professor N. Butler, University of Bristol

1971 How Many Children?
Sir Dougald Baird, University of Aberdeen

1972 The Immunological Relationship between Mother and Fetus
Professor C.S. Janeway, Boston

1973 Not One but Two
Professor F. Geldenhuys, University of Pretoria

1978 The Obstetrician/Gynaecologist and Diseases of the Breast
Professor Keith P. Russell, University of Southern California School of Medicine

1979 Preterm Birth and the Developing Brain
Dr. J. S. Wigglesworth, Institute of Child Health, University of London

1980 The Obstetrician a Biologist or a Sociologist?
Professor James Scott, University of Leeds

1981 The New Obstetrics or Preventative Paediatrics?
Dr. J. K. Brown, Royal Hospital for Sick Children, Edinburgh

1982 Ovarian Cancer
Dr. J. A. Jordan, University of Birmingham

1983 The Uses and Abuses of Perinatal Mortality Statistics
Professor G.V.P. Chamberlain, St. George's Hospital Medical School, London

1984 Ethics of Assisted Reproduction
Professor M. C. McNaughton, President, Royal College of Obstetricians and Gynaecologists

1985 Magnetic Resonance Imaging in Obstetrics and Gynaecology
Professor E. M. Symonds, University of Nottingham

1986 Why Urodynamics?
Mr. S. L. Stanton, St. George's Hospital Medical School, London

1987 Intrapartum Events and Neurological Outcome
Dr. K. B. Nelson, Department of Health & Human Services, National Institute of Health, Maryland

1988 Anaesthesia and Maternal Mortality
Dr. Donald D. Moir, Queen Mothers Hospital, Glasgow

1989 New approaches to the management of severe intrauterine growth retardation
Professor Stuart Campbell, Kings College School of Medicine & Dentistry, London

1990 Uterine Haemostasis
Professor Brian Sheppard, Department of Obstetrics and Gynaecology, Trinity College, Dublin

1991 Aspects of Caesarean Section and Modern Obstetric Care
Professor Ingemar Ingemarsson, University of Lund

1992 Perinatal Trials and Tribulations
Professor Richard Lilford, University of Leeds

1993 Diabetes Mellitus in Pregnancy
Professor Richard Beard, St. Mary's Hospital, London

1994 Controversies in Multiple Pregnancies
Dr Mary E D'Alton, New England Medical Center, Boston

1995 The New Woman
Professor James Drife, University of Leeds

1996 The Coombe Women's Hospital and the Cochrane Collaboration
Dr Iain Chalmers, the UK Cochrane Centre, Oxford

1997 The Pathogenesis of Endometriosis
Professor Eric J Thomas, University of Southampton.

1998 A Flux of the Reds - Placenta Prevail Then & Now
Professor Thomas Basket, Nova Scotia

1999 Lessons Learned from First Trimester Prenatal Diagnosis
Professor Ronald J Wagner, Jefferson Medical College, Philadelphia

2000 The Timing of Fetal Brain Damage: The Role of Fetal Heart Rate Monitoring
Professor Jeffrey P Phelan, Childbirth Injury Prevention Foundation, Pasadena, California

2001 The Decline & Fall of Evidence Based Medicine
Dr John M Grant, Editor of the British Journal of Obstetrics & Gynaecology

2002 Caesarean Section: A Report of the U.K. Audit and its Implications
Professor J.J Walker, St James's Hospital, Leeds

2003 The 20th Century Plague: it's Effect on Obstetric Practice
Professor Mary-Jo O'Sullivan University of Miami School of Medicine, Florida

2004 Connolly, Shaw and Skrabanek - Irish Influences on an English Gynaecologist
Professor Patrick Walker, Royal Free Hospital, London

2005 Careers and Babies: Which Should Come First?
Dr Susan Bewley, Clinical Director for Women's Health, Guys & St Thomas NHS Trust, London

2006 Retinopathy of Prematurity from the Intensive Care Nursery to the Laboratory and Back
Professor Neil McIntosh, Professor of Child Life and Health, Edinburgh, Vice President Science, Research & Clinical Effectiveness, RCPCH, London

2007 Schools, Skills & Synapses
Professor James J. Heckman, Nobel Laureate in Economic Sciences
Henry Schultz Distinguished Service Professor of Economics, University of Chicago, Professor of Science & Society, University College Dublin

2008 Cervical Length Screening For Prevention of Preterm Birth
Professor Vincenzo Berghella, MD, Director of Maternal-Fetal Medicine, Thomas Jefferson University, Philadelphia

2009 Advanced Laparoscopic Surgery: The Simple Truth
Professor Harry Reich, Wilkes Barre Hospital, Pennsylvania; Past President of the International Society of Gynaecologic Endoscopy (ISGE)

2010 Magnesium – The Once and Future Ion
Professor Mike James, Professor and Head of Anaesthesia
The Groote Schuur Hospital, University of Capetown

2011 Pre-eclampsia: Pathogenesis of a Complex Disease
Professor Chris Redman, Emeritus Professor of Obstetric Medicine, Nuffield
Department of Obstetrics and Gynaecology, University of Oxford

2012 Non-invasive prenatal diagnosis: from Down syndrome detection to fetal whole genome sequencing
Professor Dennis Lo, Director of the Li Ka Shing Institute of Health Sciences, Department of Chemical Pathology, Prince Of Wales Hospital, Hong Kong

2013 A procedural approach to perceived inappropriate requests for Medical Treatment. Lessons from the USA.
Prof Geoffrey Miller, Professor of Pediatrics and of Neurology; Clinical Director Yale Pediatric Neurology, Co-Director Yale/MDA Pediatric Neuromuscular Clinic Yale Program for Biomedical Ethics

2014 "THE CHANGE", Highlighting the change in diagnosis and management in the past thirty years
Prof C.N. Purandare , MD,MA Obst.(IRL),DGO,DFP, DOBST.RCPI(Dublin),FRCOG(UK) ,FRCPI (Ireland), FACOG (USA), FAMS, FICOG,FICMCH, PGD MLS(Law), Consultant ,Obstetrician & Gynecologist
President Elect FIGO

2015 Why you shouldn't believe what you read in medical journals
Dr Fiona Godlee, Editor in Chief, British Medical Journal

2016 'We are such stuff as dreams are made on': Imagination & Revolution – the Epiphany of a Photograph
Professor Chris Fitzpatrick, Consultant Obstetrician & Gynaecologist CWIUH, Clinical Professor UCD School of Medicine

2017 'Women; the journey is far from over'
Professor James Dornan, MD (Hons) FRCOG FRCPI, Chair Health & Life Sciences UU
Emeritus Chair Fetal Medicine QUB

2018 'Domestic Violence and the Obstetrician'
Professor Stephen Lindow, Division Chief of Obstetrics at Sidra Medical and Research Centre, Qatar

Guinness Lecture Symposium	
Date:	**Friday 19th October 2018**
Time:	**12.30pm – 17.15pm**
Venue:	**Rita Kelly Conference Centre** **Coombe Women and Infants University Hospital**
12.30	Registration & light lunch Introductions & Chair of event, Dr Michael O'Connell, CWIUH
13.00	Welcome & Conference Opening Dr Sharon Sheehan, Master/CEO, CWIUH
13.05	'Addiction at the Coombe, 10 years on' Deirdre Carmody, Drug Liaison Midwife, HSE, CHO 7, Addiction Service & Tanya Franciosa, SMSW, CWIUH
13.20	'NAS. The Neonatologist Perspective.' Prof Martin White, Consultant Neonatologist, CWIUH & OLCHC
13.40	'In-patient Stabilisation in Pregnancy' Dr Mike Scully, Consultant Psychiatrist, HSE Addiction Services
14.00	'Emerging Strategies for Addiction' Dr Eamon Keenan, Consultant Psychiatrist, National Clinical Lead Addiction Services, HSE
14.20	'Infectious Diseases at the Coombe, 10 years on' Orla Cunningham, CMS Infectious Diseases & Clinic Manager
14.30	'HIV transformation in Management' Prof Fiona Mulcahy, Consultant in GU Medicine & HIV, Guide Clinic Director, SJH
14.50	'HIV and Reproductive Health' Dr Fiona Lyons, Consultant in GU Medicine & HIV, Guide clinic SJH & Clinical Lead in Sexual Health, HSE Sexual Health and Crisis Pregnancy Programme
15.10	'Neonates and HIV: Reeling in the Years' Prof Karina Butler, Consultant Paediatrician & Infectious Diseases Specialist, Rainbow Clinic, OLCHC
15.30	'New horizons in Management of Hepatitis' Prof Suzanne Norris, Consultant Hepatologist & Gastroenterologist, SJH
15.50	Questions & Answers
16.00	Light Refreshments
16.15	**Guinness Lecture - 'Domestic Violence and the Obstetrician'** Prof Stephen Lindow, Division Chief of Obstetrics at Sidra Medical and Research Centre, Qatar
17.15	Closing Remarks Dr Michael O'Connell, CWIUH

Appendix Five

Winner of the Dr James Clinch Prize for Audit 2018

Congratulations to Joanne Frawley, winner of the Dr James Clinch Prize for Audit 2018, and her supervisor Fiona Dunlevy. Her audit was entitled “Audit on adherence to the Clinical Practice Guideline Hyperemesis and Nausea/ Vomiting in Pregnancy".

This audit was undertaken to determine compliance with the hospital guidelines and the National Hyperemesis and Nausea/Vomiting in Pregnancy Guideline. The 2018 audit is combined with previous audits in 2012, 2015 and 2016 to demonstrate compliance with the guideline over time and the impact of actions taken.

Submission for Dr James Clinch Prize

Audit Title: Audit on Adherence to the Clinical Practice Guideline Hyperemesis and Nausea/ Vomiting in Pregnancy

<table>
<tr><td>Title of Audit:</td><td colspan="3">Audit on Adherence on to the Clinical Practice Guideline Hyperemesis and Nausea/Vomiting in Pregnancy</td></tr>
<tr><td>Audit lead:</td><td colspan="3">Joanne Frawley</td></tr>
<tr><td>Supervisor:</td><td colspan="3">Fiona Dunlevy</td></tr>
<tr><td>Speciality:</td><td>Pharmacy and Dietetics</td><td>Will a re-audit be conducted by you or someone in your department? (answer Yes or No)</td><td>Yes</td></tr>
<tr><td>Date of report:</td><td>2012, 2016, 2018</td><td rowspan="2">Proposed Re-audit date:</td><td rowspan="2">Ongoing</td></tr>
<tr><td>Key Stakeholders:</td><td>Pregnant women with nausea vomiting in pregnancy.
Midwifery and Nursing staff on St. Gerard’s ward.
Master of the CWIUH.</td></tr>
</table>

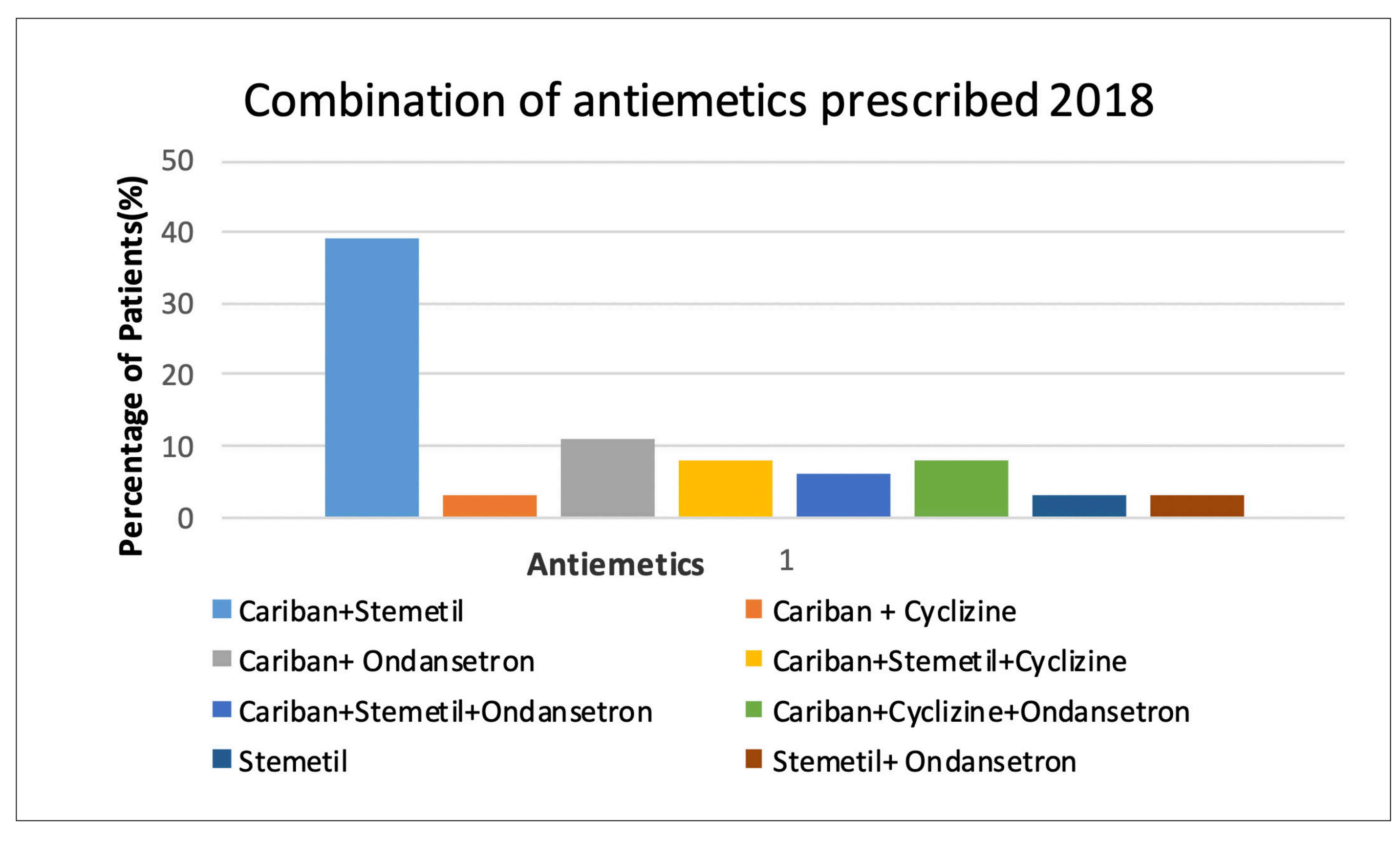
Introduction: Say why the audit was done. Perhaps a problem had been identified? Statement of what the project is trying to achieve:	Hyperemesis Gravidarum (HG) is a severe form of nausea and persistent vomiting in pregnancy (NVP). NVP affects up to 80% of pregnant women and is one of the most common indications for hospital admission among pregnant women, with typical stays of between 3 and 4 days1. HG needs to be managed effectively to reduce the risk of complications and morbidities, to improve maternal psychological welfare and to limit nutrition deficits. In addition, HG results in a financial burden to both the hospital and the patient, which can be minimised by appropriate management. In 2012, the CWIUH introduced local guidelines to ensure safe effective management of HG. These incorporated a screening tool adopted from Canadian guidelines and a medication treatment algorithm, which were also incorporated into the 2015 national guidelines. This audit, was undertaken to determine compliance with the hospital guidelines in 2012 and the National Hyperemesis and Nausea/Vomiting in Pregnancy Guideline (2015). The 2018 audit, is combined with previous audits in 2012, 2015 and 2016 to demonstrate compliance with the guideline over time and the impact of actions taken.
Methodology: State • Chosen population • How sample selected • Retrospective or prospective • Sample size • Describe tool Used • State the standard(s) or guideline(s) you are auditing against.	Aim: To determine compliance with the CWIUH Guidelines and the National Guideline Hyperemesis and Nausea/Vomiting in Pregnancy **Sample population:** Women admitted to hospital with NVP. In 2012, 2015, 2016 samples of 50 patients' charts were selected at random, retrospectively from HIPE data admissions. In 2018, the sample was collected prospectively during weekly ward rounds with HG patients. **Tool:** Key performance indicators (KPIs) were selected from the national guidelines and compliance measured. The KPI's collected were prescription of Cariban ®, completion of Pregnancy-Unique Quantification of Emesis and nausea (PQUE) score, weight check and use of IV vitamin solutions. Other parameters collected in 2018 included an analysis of the combination of antiemetics prescribed to patient. Data was collated and analysed using Microsoft Excel. **The standard** used was the "Clinical Practice Guideline Hyperemesis and Nausea/ Vomiting in Pregnancy" Institute of Obstetricians and Gynaecologists, RCPI and the Clinical Strategy and Programmes Division, Health Service Executive. 2015.
Results: (State the results. Start with total number (n=). Data may be presented visually (graphs, tables)	2012 n = 50 2015 n = 50 2016 n= 50 2018 n = 55 additional data collected on n= 36 (combination of antiemetics prescribed) Percentage compliance, with the KPI's taken from the guidelines, over the four audits can be seen in the graph below Fig 1. Additional data in 2018 collected of a select cohort of patients illustrated the combination of antiemetics prescribed for patients (refer to Fig. 2).

Compliance with guideline recommendations

2012 2015 2016 2018

100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%

Prescribed Cariban
Prescribed Solvito
PQUE score completed
Weight recorded



Conclusion: (List key points that flow from results)	This audit tracks KPI's over time allowing continuous improvement to ensure guidelines are implemented. The poor outcomes observed in 2015 prompted education session on the admission ward. These education sessions discussed importance of the guidelines and adherence to the treatment algorithm, weight checks and use of the PQUE score. This resulted in improved metrics in all areas in 2016. The most recent audit in 2018 has shown that while prescription for Cariban ® remains high (85%) other metrics have dropped. In particular, a lack of PQUE score screening and weight checks. In addition, Fig 2 (2018) reveals that a low percentage of patients received a combination of antiemetics to treat HG. Data analysed in 2018 revealed that 39% of patients only received a combination of Stemetil ® and Cariban ® on an inpatient basis. If treatment fails of a single antiemetic it is important that the medical team are aware to proceed to the next step of the algorithm and consider treatment of a HG patient with a combination of antiemetics. This audit demonstrates the benefit of brief education or prompt reminders for staff to ensure guidelines are implemented. We have fed back the results to the key stakeholders. We plan to improve the metrics though planned education for NCHD's at their education meeting. We also intend to provide brief pop up education sessions in OPD on the use of the guideline. We will reinforce the importance of weight checks and work with ward managers to ensure improvements are made. We also aim to work with stakeholders to alter checklist/ PQUE score sheet by providing an improved proforma/ checklist to prompt the medical team on appropriate medication usage. In addition, we will discuss the possibility of a standardised location for this screening tool and checklist within the medical chart. Our 2018 audit and future audits are collected prospectively in a systematic way to evaluate current practice against the standards during a weekly ward round. This allows for immediate correction of any non-compliance with the guideline and provision of direct information to patients and medical staff. We will continue to collate once weekly metrics prospectively and will analyse these quarterly. The analysis will be feedback regularly to the Key stakeholders and strategies for improvement will be implemented as required.

References:

1. Clinical Practice Guideline Hyperemesis and Nausea/Vomiting in Pregnancy Institute of Obstetricians and Gynaecologists, Royal College of Physicians of Ireland and the Clinical Strategy and Programmes Division, Health Service Executive Version 1.0 Publication date: Nov 2015 Guideline No: 12 Revision date: Nov 2018

ACTION PLAN		
Action Required	**Person(s) Responsible**	**Timeframe**
Education: **Annual Education session on the guideline for NCHD's at their weekly education meeting.** **Pop up education sessions for staff in OPD rotating into ER.**	Joanne/ Fiona	Dec 2018
Weight: **Work with Ward management to improve weight checks for patients admitted post hydration.**	Fiona	Dec 2018
Improvement of current proforma / checklist to prompt doctors of the medication to chart/ procedure to follow in the treatment of HG. Provide additional information/clearer guidance on when a combination of antiemetics should be used.	Joanne/ Fiona	March 2019
Ongoing Prospective audit at weekly ward rounds. Quarterly review of metrics to ensure improvements in compliance with guidelines and prescribing patterns. **These metrics will be shared with staff in the area.**	Fiona/ Joanne	Jan 2019 and ongoing

Appendix Six

Glossary of Terms

Booked patient: a patient who is seen at the antenatal clinic, other than the occasion on which she is admitted. This includes patients seen by the consultant staff in their consulting rooms.

Miscarriage: expulsion of products of conception or of a fetus weighing less than 500 grams.

Maternal Mortality: death of a patient for whom the hospital has accepted medical responsibility, during pregnancy or within six weeks of delivery (whether in the hospital or not). Maternal mortality is calculated against the total number of mothers attending the hospital including miscarriages, ectopic pregnancies and hydatidiform moles.

Stillbirths (SB): a baby born weighing 500 grams or more who shows no sign of life.

First week neonatal death (NND): death within seven days of a live born infant weighing 500 grams or more.

Late neonatal death (late NND): death between 7 and 28 days of a live born baby weighing 500 grams or more.

Perinatal Mortality: the sum of stillbirths and first week neonatal deaths as defined above. The perinatal mortality rate refers to the number of perinatal deaths per 1,000 total births infants weighing 500 grams or more in the hospital.

The following abbreviations are used throughout the report:

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ABG	arterial blood gas
ABG	arterial blood gas
ACA	anticardiolipin antibody
AC	abdominal circumference on ultrasound
AEDF	absent end diastolic flow in uterine arteries
AMNCH	Adelaide, Meath, incorporating the National Children's Hospital (Tallaght Hospital)
Amnio	amniocentesis
ANA	antinuclear antibody
ANC	antenatal care
APH	antepartum haemorrhage
ALPS	anti-phospholipid syndrome
ARM	artificial rupture of membranes
ASD	atrial septal defect
ATIII	Anti-thrombin III
BBA	born before arrival
BPP	biophysical profile
CANC	combined antenatal care
CIN	cervical intraepithelial neoplasia
CBG	capillary blood gas
CNM	clinical nurse manager
CNO	chief nursing officer
CMM	clinical midwife manager
Cord pH (a)	arterial cord pH
Cord pH (v)	venous cord pH
CPD	cephalopelvic disproportion
CPR	cardio-pulmonary resuscitation
CRP	c reactive protein
CTPA	computerised axial tomography pulmonary arteriography
Cryo	cryoprecipitate
CT	Chlamydia trachomatis
CTG	cardiotocograph
CWIUH	Coombe Women & Infants University

Hospital

DCDA	dichorionic diamniotic
D&C	dilatation and curettage
DIC	disseminated intravascular coagulopathy
DoH	Department of Health
DMHG	Dublin Midlands Hospital Group
DVT	deep venous thrombosis
EBL	estimated blood loss
ECV	external cephalic version
ECHO	echocardiogram
EEG	electroencephalogram
EFM	electronic fetal monitoring
EFW	estimated fetal weight
EPAU	early pregnancy assessment unit
ERPC	evacuation of retained products of conception
ETT	endotrachial tube
EUA	examination under anaesthetic
FAS	fetal assessment scan
FBS	fetal blood sample in labour
FHNH	fetal heart not heard
FM	fetal movement
FMNF	fetal movement not felt
FTA	failure to advance
FV Leiden	factor V Leiden
GA	general anaesthesia
HB	haemaglogin
HCG	human chorionic gonadotrophin
Hep B	Hepatitis B
Hep C	Hepatitis C
HFOV	high frequency oscillatory ventilation
HRT	hormone replacement therapy
HVS	high vaginal swab
HIV	infection with human immuno deficiency virus
Hx	history of
INAB	Irish National Accreditation Board
IOL	induction of labour
IPPV	intermittent positive pressure ventilation
IPS	Irish Perinatal Society
ITP	idiopathic thrombocytopoenia
IUCD	intrauterine contraceptive device
IUD	intrauterine death
IUGR	intrauterine growth retardation
IVH	intraventricular haemorrhage
LFD	large for dates
LLETZ	large loop excision of the transformation zone
LMWH	low molecular weight heparin
LSCS	lower segment caesarean section
LV	liquor volume
MSU	mid stream urinalysis
NAD	no abnormality detected
NEC	necrotising enterocolitis
NETZ	needle excision of transformation zone
NG	neisseria gororrhoea
NICU	neonatal intensive care unit
NNC	neonatal centre
NND	neonatal death
NO	nitric oxide
NR	not relevant
NS	not sent
NTD	neural tube defect
NWIHP	National Women and Infants Health Programme
OGTT	oral glucose tolerance test
OFC	occipitio-frontal circumference
OLCHC	Our Lady's Children's Hospital Crumlin
OP	occipito-posterior
PCO	polycystic ovary
PET	pre eclamptic toxemia
PDA	patent ductus arteriosus
Pg	prostaglandin
PIH	pregnancy-induced hypertension
PMB	post menopausal bleeding
POP	persistent occipito posterior
PPH	postpartum haemorrhage
PPHN	persistent pulmonary hypertension of the newborn
PTL	preterm labour

PVB	per vaginal bleeding
QII	Quality Improvement Initiative
QIP	Quality Improvement Project
RBS	random blood sugar
RCSI	Royal College of Surgeons in Ireland
RDS	respiratory distress syndrome
RV	right ventricle
Rx	treated with
SB	stillbirth
SCBU	special care baby unit
SE	socio economic group
SFD	small for dates
SIDS	sudden infant death syndrome
SIMV	synchronised intermitent mandatory ventilation
SJH	St James's Hospital
SOL	spontaneous onset of labour
SpR	specialist registrar
SROM	spontaneous rupture of membranes
SVD	spontaneous vaginal delivery
TAH	total abdominal hysterectomy
TCD	Trinity College Dublin
TPA	transposition of the great vessels
TTTS	twin to twin transfusion syndrome
TVT	tension free vaginal tape
UCD	University College Dublin
US	ultrasound
USS	ultrasound scan
UTI	urinary tract infection
VBAC	vaginal birth after caesarean section
VBG	venous blood gas
VG	volume guaranteed
VE	vaginal examination
VSD	ventriculo-septal defect

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Coombe Women & Infants University Hospital
Ospidéal Ollscoille Ban agus Náionán an Chúim
Excellence in the Care of Women and Babies
Foirfeacht i gCúram Ban agus Naíonán