Coombe Women & Infants University Hospital

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

ANNUAL CLINICAL REPORT 2014

Coombe Women & Infants University Hospital

Ospidéal Ollscoile Ban agus Naíonán an Chúim

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

ANNUAL CLINICAL REPORT 2014

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Acknowledgements

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Introduction from the Master

Introduction from the Master

Welcome to this year's Annual Clinical Report

I would like to begin by thanking each and every member of staff for the support and commitment that they have shown throughout 2014, ensuring that our mission of "excellence in the care of women and babies" is achieved. As a tertiary-referral university-teaching hospital, in 2014 the Coombe Women and Infants University Hospital cared for 9344 mothers, 8819 infants weighing ≥500g and operated on 6212 women, making it one of the largest providers of women and infants healthcare in Europe. The corrected perinatal mortality rate was 4.3/1000.

The year started with the shock announcement of the closure of Mount Carmel Hospital, affecting hundreds of staff and patients alike. The Coombe responded immediately, liaising with hospital staff, the HSE and the Department of Health to develop a sustainable solution to ensure the seamless transfer and on-going care of the pregnant women who had booked at Mount Carmel. Within a week of the initial announcement, the first mother who transferred her care to the Coombe was safely delivered here. Over the course of the following months, in excess of 500 mothers who had booked at Mount Carmel Hospital were cared for at the Coombe. A number of Mount Carmel staff also joined our Hospital and we were delighted to welcome them to the Coombe. I wish to acknowledge the hard work and support of staff at the time who worked tirelessly to ensure a smooth transition for the patients and the staff, from organising hospital tours to booking visits after hours and at weekends.

There is no doubt that over the course of the year, each of us has felt the pressure of the sudden increase in patient numbers, the challenges posed by increased patient complexity, the considerable reduction in our allocation, the difficulties in attracting and retaining staff, the continued effect of the recruitment moratorium and the Haddington Road Agreement, and the harsh focus of media attention. Despite all of these obstacles, our staff have worked harder than ever to provide the highest quality care for our patients. I wish to acknowledge their unrelenting commitment to our Hospital and our patients.

I wish to extend my sincere thanks to the Senior Management Team for the tremendous role they play in ensuring the smooth running of our Hospital; Mr Patrick Donohue, Secretary and General Manager, Ms Patricia Hughes, 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. No challenge is too daunting and I cannot thank them enough for their support, encouragement and enthusiasm.

I would like to thank Ms Laura Forde, my PA, for all her hard work and support throughout the year. It is a pleasure to work alongside Laura and as I write this, I am deeply indebted to her for all her help in compiling this annual report. I would also like to thank Ms Emma McNamee and Ms Mary Holden for their diligence and attention to detail in providing our data.

I would like to thank Mr Aidan O'Hogan, the outgoing Chairman, and all of the members of the Board of Guardians and Directors for their support. They work tirelessly throughout the year, on a completely voluntary basis, advocating for the women and infants we care for. I would like to acknowledge all of the years of service that Mr O'Hogan has given to the Board and to thank him especially for his support and leadership. Mr John Gleeson took over as Chairman in January 2014 and it has been a pleasure to work with him over the course of the year.

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

Clinical Risk Management is an essential part of our Hospital, underpinning quality, safety and continuous improvement. I would like to sincerely thank our Clinical Risk Manager, Ms Susan Kelly, for her drive, diligence, commitment and innovation in managing clinical risk within the Hospital and also for the support that she provides to all staff in relation to clinical risk matters.

I am delighted to welcome a number of new Consultants onto the staff and wish to congratulate them on their appointment to the Hospital during the year – Dr Jan Franta, Consultant Neonatologist and National Neonatal Transport Lead (CWIUH, NMH, Rotunda), Dr Sabrina Hoesni, Consultant Anaesthetist (CWIUH), Dr John Kelleher, Consultant Neonatologist (CWIUH & OLCHC), Dr Rachel Crowley, Consultant Endocrinologist (CWIUH & SVUH), Dr Waseem Kamran, Consultant Obstetrician & Gynaecologist (CWIUH & SJH), Dr Aoife Mullally, Locum Consultant Obstetrician & Gynaecologist (CWIUH), Dr Valerie Donnelly, Locum Consultant Obstetrician & Gynaecologist (CWIUH), Dr Andrea Nugent, Locum Consultant Obstetrician & Gynaecologist (CWIUH),

Dr Saulius Satas, Locum Consultant Neonatologist (CWIUH & OLCHC), Dr Salih Bakheit, Locum Consultant Pathologist (CWIUH), Dr Iram Basit, Locum Consultant Obstetrician & Gynaecologist and Senior Lecturer (CWIUH, AMNCH & TCD) and Dr Anne Doolan, Locum Consultant Neonatologist (CWIUH & OLCHC). I wish them every success in the years ahead. I would also like to congratulate Professor Eleanor Molloy on her appointment as Chair of Paediatrics, Trinity College Dublin. It is hoped that in the near future Professor Molloy will have a sessional commitment here at the Coombe.

Friends of the Coombe continued to provide much-needed support to the Hospital during the year and I wish to thank the Chair, Ms Ailbhe Gilvarry, and all of the Board members for their commitment during 2014. I would also like to acknowledge the work of Coombe Care, a voluntary Committee which works closely with our Medical Social Workers to provide much needed support to those mothers and families most in need of assistance.

Achievements in 2014

The Minister for Health, Dr James Reilly TD officially opened the new Delivery Suite and Emergency Obstetric Theatre on 24th January 2014. Since becoming fully operational, the new facilities have greatly enhanced the experience of our mothers during labour and delivery. The improvements are immense and all of our patients are afforded comfort, safety and privacy at this most special time in their lives. Feedback from staff and patients has been excellent. Increased Consultant presence on the Labour Ward and ensuring high quality handover remain a priority with the new build, in addition to enhancing multi-disciplinary emergency obstetric training for all staff. The Birthing Pool continued to be used for pain relief by labouring women and the first water birth took place in May. A total of 24 women delivered their babies in water by the end of the year. I would like to thank Dr Bridgette Byrne, Labour Ward Lead, Angela Dunne, ADoMN, Fidelma McSweeney, Acting ADoMN, Ann Fergus, CMM III and all of the staff for their dedication and teamwork.

We were delighted to introduce a Developmental Dysplasia Hip (DDH) service in January, despite an initially unsuccessful funding application to the HSE. DDH encompasses a spectrum of neonatal hip joint instability and malformation, affecting 1-2% of newborns, and leading to premature osteoarthritis in later life. Early diagnosis can lead to a more successful outcome for children and a reduced need for surgical intervention. Screening for DDH is carried out using both clinical and ultrasound examination of the hip joints. Prior to the rollout of this service, babies had a clinical examination of their hips performed in addition to a later X-ray. All "at risk" babies now have an additional screening ultrasound examination, which represents the gold standard of care. I would like to thank all of the staff involved in the rollout of this service.

A number of other quality improvements were undertaken within the Hospital throughout the year and with great results. The success of the staff in implementing LEAN methodology through the introduction of the Productive Ward in Our Lady's Ward was extended to the Outpatients Department. In recognition of the increasing numbers of patients attending our Outpatients Department, we embarked on a LEAN improvement process to improve waiting times and the overall experience for patients and staff alike. Our success was rewarded with receipt of a Commendation at the Irish Healthcare Awards 2014. I wish to extend my warmest congratulations and sincere thanks to all of the staff and MCO Projects who worked so hard to drive the changes and improvements.

A new radiology image management system "NIMIS" was introduced in 2014 to enable electronic ordering and viewing of radiology images. This quality and safety initiative is part of a national rollout by the HSE and I would like to express my appreciation to all staff involved in its implementation.

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 and Departmental Heads and NCHDs met regularly throughout the year with the HSE and IMO to explore the difficulties in achieving full compliance with EWTD. Staffing challenges (recruitment and retention) worsened across all specialties (medical, midwifery and nursing) both locally and nationally during the year. 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.

Our Services

There is little doubt that the patient complexity continued to increase in 2014 and this hospital now provides the busiest dedicated consultant-provided maternal medicine clinic in the country with multidisciplinary specialists from the Coombe, St James's and Tallaght hospitals providing a regional and national service to mothers with serious co-morbidities. This high quality service is complimented by the new state-of the art HDU and ready access to the intensive care services

in St James's Hospital. A Maternal Medicine Study Day was held in February entitled "Maternal Medicine - Clinical Cases and Best Practices". Guest speakers attended from the Coombe and other Dublin Hospitals, with the keynote speaker, Dr Lucy MacKillop, travelling from Oxford. Many thanks to Drs Caoimhe Lynch, Bridgette Byrne and Carmen Regan for arranging a most interesting and informative meeting.

The Perinatal Ultrasound and Fetal Medicine departments continue 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. Our hospital uniquely operates a tertiary referral combined Perinatal and Paediatric Fetal ECHO service, with nationwide referrals. I wish to thank the Consultants, NCHDs, Midwives, Nurses, Administration and Support Staff who make this care possible.

There was an astounding 56% increase in the number of patients attending the Combined Clinic for Diabetes. Revised diagnostic criteria, increased BMI and changing demographics have contributed to this increase. A number of service changes were made throughout the year, with further plans for 2015 to streamline the clinics and enable more time for those high risk patients, most in need of the multidisciplinary care model. I wish to thank Professor Sean Daly, Professor Brendan Kinsley, Ethna Coleman, Cliodhna Grady, Fiona Dunlevy and all of the staff involved in this service.

The Preterm Birth Clinic was established by Professor Sean Daly in 2014 for those women at risk of delivering prematurely. Combining cervical length screening and fetal fibronectin testing, individualised care plans are designed in an attempt to prevent preterm birth and reduce the morbidity and mortality associated with prematurity. The clinic has been established as part of a UK-based preterm birth network which seeks to expand the knowledge base relating to this challenging area of perinatal medicine.

In 2014, we continued to provide highly specialised Neonatal Intensive 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 120 very low birth weight infants (<1500g). The Neonatal Care Team launched a day of activities to commemorate World Prematurity Day on November 17th and highlighted the issues of prematurity for infants, their families and their caregivers. I was delighted to open the Prematurity Awareness Symposium which featured an extensive line up of speakers who spoke about recent updates in neonatal and perinatal care. Other events arranged during the day included a balloon launch, a coffee morning and the illumination of the Hospital in purple lighting (the universal colour representing premature babies). I would like to thank Dr Jan Miletin, Director of Paediatrics and Newborn Medicine, Bridget Boyd, ADoMN, Ann MacIntyre CMM III and all of our neonatal staff for their continued hard work and dedication.

We continued to provide a most extensive surgical gynaecology service in 2014 and it is essential that we look to expand capacity in the Coombe given the movement of benign gynaecology away from St James's Hospital as it focuses on the management of gynaecological cancer. The demand for Gynaecology Outpatient Clinics continued to far outweigh our current capacity. Much work was conducted throughout the year to maximise capacity and reduce waiting lists through the re-design of clinic templates and waiting list validation. My thanks to Clare Smart, Emma O'Neill, Susan Dowling, Ann Shannon, Siobhan Lyons, Mary Nolan and all involved in these projects. The significant rise in minimal access surgery continued throughout the year, with more operations than ever performed laparoscopically. A business case for redevelopment of the Operating Theatre Department was submitted to the HSE this year and it is hoped that we will get approval to progress this development in 2015. I wish to thank Dr Tom D'Arcy, Director of Gynaecology, Dr Michael Carey, Director of Peri-operative Medicine, Frances Richardson, ADoMN, Alison Rothwell, CNM III and all of the staff who continue to build our extensive gynaecology service.

With the most modern purpose-built Colposcopy Unit and the National Cytology Training Centre, the workload in Cytopathology continued to increase with contract work from the National Cervical Screening Programme (NCSS). By the end of the year, the overall number of smear tests processed by the Laboratory in 2014 was in excess of 27,000.

The Irish National Accreditation Board inspected and approved the Hospital Laboratories in September. I wish to congratulate Professor O'Leary and all of the staff who work tirelessly to deliver laboratory services of the highest quality.

Research is vital to innovation in healthcare and we value our position as a leading hospital for research in all aspects of women and infants' healthcare. The Research Laboratory at the Coombe has an international reputation for cutting edge molecular medicine with grant income in this area exceeding €33 million. 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.

Our Allied Healthcare Professionals make a tremendous contribution to excellence in patient care and I wish to thank them for their dedication and support throughout 2014.

The backbone of our hospital is made up by our Support Staff and I would like to acknowledge how vital their work is to the success of our hospital. I wish to express my gratitude to each of them for their continued commitment.

Other Events in the Coombe Calendar

A joint Coombe Women and Infants University Hospital and Kildare GP Study Group evening was held in Naas General Hospital during the year to discuss the integration of Primary and Hospital Care. A number of Coombe Consultant Obstetricians and Gynaecologists spoke at the event and I would like to thank Dr Chris Fitzpatrick for organising this successful event. I hope to further develop these GP study evenings in the coming years.

The Hospital's Inaugural "Moot Court" was held this year and I would like to express my sincere thanks to Ms Aisling Crowley, Junior Counsel, for her organisation of this exciting event. Judge John Quirke chaired the proceedings in which a number of staff "gave evidence", with Mr Pat Hanratty and Ms Eileen Barrington acting as Senior Counsels. It was a thoroughly enjoyable evening and heartfelt thanks to all who took part.

"First Impressions, Communication and Customer (Patient) Focus Symposium" took place in the Hospital in March with Senator Feargal Quinn (Superquinn and Seanad Éireann) and Mr Vincent Brightling (Gate Theatre) sharing their insights and experiences of customer care with staff. Staff from every department in the Hospital attended and were thoroughly entertained by their interesting stories and their candour.

Ms Patricia Hughes, Director of Midwifery and Nursing organised the 7th Annual Essence of Midwifery Care Conference, entitled "Collaboration in Maternal and Neonatal Care". I had the honour of speaking at this event and I thoroughly enjoyed listening to the other talks which ranged from resilience to mindfulness.

The Guinness Lecture Symposium incorporating the Guinness Lecture was held on November 14th. Speakers included Dr Nikhil Purandare (HARI Unit), Dr Niamh Daly (CWIUH and UCD), Dr Matt Hewitt (CUMH) and Dr Valerie Donnelly (CWIUH). The 42nd Annual Guinness Lecture was delivered by Professor CN Purandare, President-Elect of the International Federation of Gynecology and Obstetrics (FIGO). Professor Purandare and his wife, Gita, spent some time in the Hospital in the days before the lecture, meeting with staff and visiting the campus. He is a Consultant Obstetrician and Gynaecologist and trained in both Ireland and India. His lecture was entitled "The Change" and he enthralled the audience with the changes seen in Obstetrics and Gynaecology over the past 30 years.

I would like to extend my congratulations to Ms Lillian Broderick, winner of the Inaugural Dr James Clinch Award for Audit 2014. Lillian's audit was audit entitled "Haemoglobinopathy screening; are current procedures in place in the CWIUH adequate to identify mothers and babies with sickle cell disorders?".

I would also like to offer my congratulations to Dr Amy O'Higgins, winner of the Master's Medal 2013/2014 for her research entitled "Gestational weight gain and neonatal body composition". Congratulations also to Dr Patrick Maguire who won the prize for Best Clinical Audit on the night for his audit entitled "Is the IMEWS an effective early warning system?".

The Annual Friends of the Coombe Golf Classic, organised by Emer McKittrick, was held in Killeen Castle Golf Club. It was a most enjoyable and successful day. The Coombe Art Exhibition, in aid of Friends of the Coombe, was also a great success, showcasing the works of almost 30 artists. Many thanks to Ms Ann Louise Mulhall who organised this event.

Without doubt, one of the greatest highlights of the year was the Christmas cinematic production, written by the ever-talented Dr Chris Fitzpatrick. Ms Anita Comerford deserves an Oscar for Best Director for her masterly editing and production skills, with Dr Niamh Daly in line for awards and a career in journalism. It captured the imagination of all staff and I want to thank Chris, Anita, Niamh and everyone who was involved in making it such an enormous success.

National Context

Maternity services were rarely out of the media again this year. The Protection of Life During Pregnancy Act which had dominated the airwaves in 2013 was finally commenced just before the new year started.

Following an RTÉ Primetime Investigates programme on the maternity services at the Midland Regional Hospital Portlaoise, the Hospital Board was approached by the HSE to consider the feasibility of the Coombe assuming responsibility for the governance, management and delivery of women and infants' services at the Midlands Regional Hospital, Portlaoise (MRHP). The Chief Medical Officer, Dr Tony Holohan, published his report in February on the Maternity Services at Portlaoise "HSE Midland Regional Hospital, Portlaoise. Perinatal Deaths (2006-Date)" and a further review was commenced by HIQA later in the year investigating the "Safety, quality and standards of services provided by the Health Service Executive to patients in the Midland Regional Hospital Portlaoise".

Following Due Diligence and discussions with the Department of Health and the HSE, a Memorandum

of Understanding (MOU) is being developed which will facilitate the implementation of the Holohan Report recommendation that the women and infants' services at the Midlands Regional Hospital Portlaoise should become part of a Managed Clinical Network under the governance of the Coombe Women and Infants University Hospital. It is anticipated that this MOU will be signed in the New Year and that the necessary funding supports and structures will be put in place to ensure the delivery of high quality and safe services for women and infants across both hospitals.

Despite a number of meetings to progress the development a National Maternity Strategy as mandated by HIQA in 2013, this has not yet commenced but it is hoped that this will get underway in the New Year. We must ensure that this strategy delivers excellence in patient care with safety at its core.

HIQA conducted an unannounced inspection of the Hospital against the National Standards for the Prevention and Control of Healthcare Associated Infections in March and throughout the year we continued to use these standards and the National Standards for Safer Better Healthcare to inform and drive quality improvements.

Professor Kevin Imrie, President-Elect, Royal College of Physicians and Surgeons of Canada, visited the Hospital in March with a delegation of the Royal College of Physicians of Ireland. This visit formed part of a commissioned review of postgraduate training and the training programmes within the RCPI, and he met with the Hospital's Senior Management team, Consultants and Trainees. Professor Imrie's findings and recommendations were launched in July with the publication of his report "Training 21st Century Clinical Leaders".

During the year, the World Health Organisation reported on the extensive and ongoing outbreak of Ebola Virus Disease (EBV) affecting a number of countries in West Africa including Sierra Leone, Guinea and Liberia. Ebola Virus Disease is a severe, often fatal infectious disease caused by infection with the Ebola virus. As the potential exists for Ebola to spread to Ireland, mandatory training for all staff at the Coombe has been introduced to prepare for any potential cases or suspected cases. Appropriate personal protective equipment (PPE) has been purchased by the Hospital and our preparations are updated in line with emerging advice from the Health Protection Surveillance Centre (HPSC).

While a spotlight has been shone on severe maternal morbidity over the last decade as an important quality indicator of obstetric care and maternal well-being in high-resourced countries, learning from morbidities is equally important; looking at what went wrong and what went well, recognising when patients do receive exceptional care and when adverse outcomes are avoided as a result of this care.

Review and oversight in relation to the provision of high quality maternity services are welcome. Each of the three Dublin Maternity Hospitals produces Annual Clinical Reports which are not only published but are peer-reviewed and externally assessed each year. In addition, 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 State Claims Agency, the National Perinatal Epidemiology Centre and now most recently, the Quality Assurance Programme of the HSE Clinical Care Programme in Obstetrics and Gynaecology.

A new Quality Assurance Report (QA1) was introduced into all maternity units in Ireland in July. Its introduction marked the first phase of the HSE Quality Assurance Project and will be used to measure clinical activity in maternity services in a standardised manner. These allow assessment of performance over time and most importantly, benchmark each individual hospital's performance against national rates.

Throughout the year, the three Dublin Maternity Hospitals continued to meet formally through the Joint Standing Committee of the Dublin Maternity Hospitals. I would like to acknowledge the support of Mr Don Thornhill, Chairman, Ms Breeda Doyle, Secretary and our colleagues in the other hospitals.

I continued to attend the Trinity Health Ireland meetings which strengthen the links between the Coombe, St James's Hospital, Tallaght Hospital and Trinity College Dublin.

A new Minister for Health was appointed during the year, Dr Leo Varadkar TD. Dr Varadkar held a series of consultation events with Hospital Managers throughout the year, outlining his short and medium-term strategies for health and Hospital Groups. His positive engagement is most welcome.

The Coombe was selected as one of the hospitals to be visited as part of the Ombudsman review into how complaints are handled in acute public hospitals. The review will be published next year.

The historical practice of Symphysiotomy in the 1950s and 1960s featured extensively in the media and Judge Yvonne Murphy continued her national review of issues relating to Symphysiotomy. The Hospital has sought approval from the Minister for Health to delegate authority for any Symphysiotomy claim to be managed by the State Claims Agency under the terms of the Clinical Indemnity Scheme on the basis that the Hospital does not have the ability to meet any potential liability.

Dr Frank Dolphin continued in his role as Chairman of

the Dublin Midlands Hospital Group with a number of meetings held between the Chairs, CEOs and Clinical Directors from the constituent hospitals and Trinity College, our academic partner. Towards the end of the year, Dr Susan O'Reilly was appointed to the position of CEO of the Group. I would like to wish Dr O'Reilly every success in her new role and I look forward to working with her in 2015.

We continued to work closely with the HSE throughout the year and I would like to sincerely thank Mr David Walsh, Regional Director of Performance and Integration for HSE Dublin Mid-Leinster, and our other colleagues in the HSE, Ms Susan Temple, Ms Carol Cuffe, Mr Michael O'Keeffe and Mr Michael Quirey for their support to the Hospital.

In Memory

The year was also tinged with sadness, Dr Joe Stuart sadly passed away in March. Dr Stuart was the son of former Master, Dr Joe Stuart (deceased), and brother of retired Consultant Obstetrician & Gynaecologist, Professor Bernard Stuart. He made an enormous contribution to the Department of Laboratory Medicine and to the hospital. He fought his illness bravely and with dignity, and will be greatly missed. May he Rest in Peace.

Going forward in 2015

Undoubtedly, 2015 will bring a new set of challenges, in addition to the current ones, and will also bring new opportunities. We strive to deliver safe high-quality care to our patients and their families within the context of reducing allocations and staff shortages, all the while under the media spotlight.

Recruitment and retention of healthcare staff must be prioritised at a national level to guarantee the safe provision of women and infants' healthcare into the future. Staffing levels in maternity units in this country are of major concern. We have a highly-skilled and talented workforce in our Hospital and in Irish maternity services. Our doctors, midwives, nurses and allied healthcare professionals have always held the reputation of being the best educated and trained internationally. It is not surprising therefore that other countries look to our highly skilled staff to staff their own hospitals and maternity units. Promotion and integration of education, training, research and innovation are essential components of high quality clinical care and should be included in all clinical strategic considerations and planning. An integrated approach to workforce planning in maternity services is essential.

Patient safety is a clinical and corporate responsibility and care must be founded on the principles of good corporate and clinical governance, with strong leadership driving clinical excellence, quality, safety and clear accountability. I firmly believe that the Mastership model in the three Dublin maternity hospitals works extremely well and should be maintained and expanded to the Hospital groups. We must seize the opportunities afforded by our Hospital Group and continue to deliver our mission of "Excellence in the care of women and babies".

Investment in our Hospital and maternity services must be prioritised; investment in models of care, technologies, equipment, facilities, and most importantly, in our staff.

It is a privilege to serve as Master of this great organisation and I thank the Board for giving me this honour.

Dr Sharon Sheehan

Master/CEO

Awards

Awards

Dr Sharon Sheehan

Master

Congratulations to Dr Aisling Martin and Catherine Manning who were named as best in their field in national award ceremonies in 2014.

Dr Martin scooped the Top Obstetrician award at the Mums and Tots Awards and Catherine Manning was voted Midwife of the Year at the Maternity and Infant Awards lunch, which was filmed by TV3.

Both Aisling and Catherine were nominated by patients who felt they were fully deserving of these titles.

Dr Aisling Martin – Top Obstetrician Award

Catherine Manning – Midwife of the Year

Irish Healthcare Awards – Commendation

Congratulations to our Outpatients Staff and MCO Projects on the success of their LEAN initiative and for working so hard to drive the changes and improvements in the overall patient experience in the Outpatients Department.

IRISH HEALTHCARE AWARDS 2014

Commendation

Presented to

Coombe Women & Infants University Hospital & MCO Projects

for their entry in the **2014 Irish Healthcare Awards**

Outpatient Initiative of the Year

which has been recognised by the 2014 Awards Adjudication Panel for its focus on improving patient care, innovation and collaboration.

Mr David Kelly, Publisher, Irish Medical Times

Master's Medal 2013/2014

Well done to Dr Amy O'Higgins, winner of the Master's Medal 2013/2014 for her research entitled "Gestational weight gain and neonatal body composition". Congratulations also to Dr Patrick Maguire who won the prize for Best Clinical Audit on the night for his audit entitled "Is the IMEWS an effective early warning system?".

Dr James Clinch Prize for Audit

Congratulations to Ms Lillian Broderick, winner of the Inaugural Dr James Clinch Award for Audit 2014. Lillian's audit was audit entitled "Haemoglobinopathy screening; are current procedures in place in the CWIUH adequate to identify mothers and babies with sickle cell disorders?". *(Please see appendix VI for full report)*

Other Awards to Midwives, Nurses and Midwifery Students

Congratulations to all of our Midwives, Nurses and Midwifery Students for their outstanding achievements during 2014.

Mary Drumm Scholarship

Anne O' Sullivan

Ann Louise Mulhall Scholarship

Ruth Banks, CSF

Best Clinical Teacher Award

Raji Dominic, A/ CMM2

Gold Medal BSc Midwifery

Sophie Clare

Silver Medal BSc Midwifery

Megan Sheppard

Gold Medal Higher Diploma in Midwifery

Laura Andrews

Silver Medal Higher Diploma in Midwifery

Ana Alonso

Dr. T. Healy Award – Best Overall Clinical Student Midwife

Anne Jane McBrien

Executive Summary

Executive Summary

Obstetrical activity

A total of 9344 mothers attended the Hospital in 2014, 8632 mothers delivering 8819 infants weighing ≥ 500g, including 166 sets of twins, 7 sets of triplets, and 120 infants ≤ 1500g.

Following the closure of Mount Carmel Hospital in February 2014, more than 500 pregnant women transferred their care to the Coombe Women and Infants University Hospital.

Obstetrical demographics

28.4% of mothers who booked in the Hospital in 2014 were born outside the Republic of Ireland; (30.1% in 2013; highest in 2011: 31.6%). 23.0% of mothers were unemployed; an increase from 21.5% last year (highest in 2010: 26.3%). Communication difficulties were reported in 6.4% of mothers at booking (7.8% in 2013). 0.5% of mothers were < 18 years (no significant change over the last 7 years); 5.7% of mothers were ≥ 40 years (highest in 7 years; lowest in 2009: 4.3%). Nulliparae accounted for 38.6% of mothers (highest in 2008: 42.4%). 27.7% of pregnancies were unplanned (a reduction from 31.2% in 2013); 52.6% of mothers had not taken pre-conceptual folic acid prior to booking for antenatal care (> 50% were not taking folic acid over the last 7 years); 10.5% were current smokers; this was the lowest percentage over 7 years (highest in 2008:16.7%) ; 1.5% reported consuming alcohol at the time of booking (highest in 2010: 3.5%); 0.5% were taking illicit drugs or methadone (range over 7 years: 0.6% - 1.2%); 8.3% had a history of previous drug use (compared to 6.4% in 2008); 16.6% of mothers had a history of psychological/ psychiatric disorders (a slight reduction from 18.0% in 2013) including 4.7% with a history of post-natal depression (4.0% in 2013); 1.0% had a history of domestic violence (range over 7 years: 0.9% - 1.2%). At booking just over half (52.5%) were in the healthy weight range, 2.0% were underweight (BMI < 18.5) and 26.8% were defined as overweight (BMI 25-29.9). Overall 15.3% were obese (Class 1-3), with 1.5% defined as morbidly obese (Class 3). 13.8% had history of one previous Caesarean section at booking (highest in 7 years: range 11.0-13.8%) and 4.0% had a history of two or more sections (highest in 7 years: range 2.0% - 4.0%).

Obstetrical Interventions and Outcomes

The induction rate in 2014 was 30.9% (33.8% in 2013 compared to 28.1% in 2008). The percentage of nulliparae having a spontaneous vaginal delivery was 41.1%; a slight decline from 43.2% in 2013. The percentage of parous mothers having a spontaneous vaginal delivery was 67.1%; there has a decrease since 2008 (highest in 2008: 70.4%). Since 2007 there has been a marked reduction in forceps deliveries in nulliparae (17.0% in 2008; 11.2% in 2014). There has been increase in ventouse deliveries in nulliparae compared to last year (18.2% in 2014; 16.1% in 2013).

The rate of LSCS in 2014 (28.7%) was the highest rate in the last 7 years (lowest rate: 24.1% in 2008). The rate of LSCS in nulliparae (singleton with cephalic presentations) in spontaneous labour was 10.6%; induction in nulliparae significantly increased the risk of LSCS (31.2% in 2014). The overall VBAC rate for mothers with one previous LSCS continues to decline and was 29.7% in 2014 (highest in 2008: 42.5%). 59.9% of mothers with one previous LSCS (and no previous vaginal delivery) had an elective repeat LSCS (56.3% in 2013); the VBAC rate for mothers with one previous LSCS and at least one vaginal delivery was 58.5% (64.0% in 2008). There has been a marked decline in overall VBAC rates over the past 7 years.

The number of operative vaginal deliveries conducted in theatre this year compared to last year remained stable (89). There were 3 Classical Caesarean sections performed in 2014 (range over last 7 years: 2-7).

It is of note that 1461 mothers had their booking appointments completed in the community based clinics; this represents 15.6% of all bookings (17% in 2013). This decline may be explained by the transfer of 500 Mount Carmel patients who had already booked into hospital for maternity care. Uptake of the Early Transfer Home (ETH) Scheme continued to be high at 49.7% in 2014; the average length of stay for mothers availing of ETH was 1.4 days for those who had a spontaneous/operative vaginal delivery and 2.9 days for those delivered by Caesarean section; the calculated savings in bed-days in 2014 was 3253 days; the readmission rate for mothers was 0.2% and infants was 0.5% (0.8% and 0.4% in 2013). A DOMINO scheme, introduced in 2012, continued its expansion in 2013. 67% of women booked in the DOMINO scheme had a spontaneous vaginal delivery and the caesarean section rate was 16%. The community midwives continued to support the hospital-based antenatal clinics in 2014, to assist the hospital in achieving EWTD compliance for NCHDs. The Community Midwife Service was extended to include a weekly antenatal clinic in Trim during 2014.

Exclusive breastfeeding rates (37%) remain low by international standards and have significant socio-economic and ethnic patterns; an additional 19% of babies were fed by a combination of breast and formula; a comprehensive breastfeeding support service is available; educational programmes for healthcarers have been extended to include student nurses on obstetric placement, medical students and healthcare assistants.

Obstetrical Complications

There was a welcome fall in the reported incidence of primary post-partum haemorrhage (PPH) in 2014 to 14.6%.

Prior to 2014, the rate had been increasing year on year over the past 6 years (3.3% in 2008; 15.7% in 2013). There was an increase in the PPH incidence in spontaneous labour in nulliparae (12.0%; 11.6% in 2013) but a reduction in the incidence in induced labour in nulliparae (22.5%; 26.2% in 2013). The reported incidence of PPH in nulliparae delivering by spontaneous vaginal delivery or by ventouse were higher than in 2013 (7.9% v 7.6% and 10.9% v 9.4% respectively), whereas the incidence was reduced in nulliparae delivering by forceps or by caesarean section compared to 2013 (18.6% v 21.9% and 38.2% v 44.0% respectively). Caesarean section (elective 26.5%, emergency 36.9%) was still associated with high rates of PPH although an improvement on the 2013 rates overall (31.9% v 35.8%). The overall rate of PPH in twin deliveries was the highest in the last 7 years (56.4% in 2014; 4.8% in 2008). While the incidence of manual removal of the placenta reduced in 2014 (1.1%; 1.7% in 2013), the percentage of women having a PPH increased in this group(62.8%; 60.7% in 2013). The percentage of admissions to HDU for obstetric haemorrhage was 28% in 2014 (37.2% in 2013), identical to the percentage of admissions for hypertension. The incidence of transfusion (1.4% in 2008; 2.0% in 2014) and transfusion > 5 units (0.1% in 2008; 0.05% in 2014) remains at a very acceptable level.

The rate of severe maternal morbidity decreased from 5.8/1000 in 2013 to 4.7/1000 in 2014. Massive obstetric haemorrhage remains the leading cause of severe maternal morbidity but reassuringly there were no peripartum hysterectomies performed. In 2014 there were 25 cases of Massive Obstetric Haemorrhage (33 in 2013) defined according to revised criteria (estimated blood loss > 2.5L and/or treatment of coagulopathy). It is of note that between February 2008 and June 2010 the Hospital was a major centre for the ECSSIT Trial (Oxytocin bolus versus bolus and infusion for control of blood loss at elective Caesarean section; double blind, placebo controlled, randomised trial); the conduct of this trial may have had an overall positive influence on the accuracy of blood loss estimation at delivery.

There were 275 obstetrical admissions to the High Dependency Unit (180 in 2013); 28% of these admissions were related to haemorrhage (37.2% in 2013) and 28% were due to hypertension (27.8% in 2013). Of note 26 patients were admitted for MgSO4 for fetal neuroprotection for anticipated premature delivery. There were no cases of eclampsia. A total of 46 women were admitted to HDU with sepsis, and three cases of septic shock. There were two cases of uterine rupture. There were 5 mothers transferred to ICU in St. James's Hospital: sepsis (1) acute renal failure and sepsis (1), sickle cell crisis (1), pulmonary embolism (1) and respiratory dysfunction (1).

There was one maternal death which was attributable to cardiac arrest and disseminated intravascular coagulopathy (amniotic fluid embolism).

There was a marked increase in the number of patients attending the Combined Clinic for Diabetes (713 in 2014, 461 in 2013). Increased BMI, demographic changes and revised diagnostic criteria have contributed to this increase. A number of service changes were made including the launch of a group education programme delivered by midwifery, dietetic and physiotherapy staff. Oral hypoglycaemic therapy (Metformin) was introduced in 2013 and has resulted in a reduction in the number of women requiring admission and insulin therapy. A total of 672 mothers developed Gestational Diabetes; 169 were treated with insulin, 242 with Metformin and 261 with Diet. There was a small increase in the number of infants born weighing ≥4500g in 2014 (151; 131 in 2014) despite the significant increase in the diagnosed incidence of Gestational Diabetes. The incidence of shoulder dystocia remains relatively unchanged over the last 7 years.

The recorded incidence of third degree tears was 1.9% (1.8% in 2013). A total of 8 (0.09%) fourth degree tears were reported (7 in 2013).

In 2014 there were 344 new referrals to the multidisciplinary Medical Clinic. 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 (124), cardiac disease (50), renal/ hypertensive disease (41), cerebrovascular disease (35) and liver/GI disease (22). The number of women attending for preconceptual care almost doubled (28 in 2014; 15 in 2013).

The Preterm Birth Clinic was established in 2014 by Professor Sean Daly for those women at risk of preterm delivery. A total of 143 women attended 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 was established as 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 4656 visits to EPAU in 2014; 2640 new and 2016 return attendances. Dr Aoife Mullally completed her Clinical Fellowship in July 2014 and Dr Sasi Selvamani commenced her Clinical Fellowship at that time. A total of 1485 miscarriages were seen in the unit and of these, 24% were managed conservatively, 27% were managed medically and 49% were managed surgically. A total of 68 ectopic pregnancies were diagnosed in the unit with 52% requiring surgical management.

Fetal Medicine

The Fetal Medicine service has continued to see significant expansion in 2014 with a total of 26,039 scans performed. All mothers booked at CWIUH are offered both routine dating and a 20-22 week structural scan. 256 structural abnormalities and a total of 43 cases of aneuploidy were diagnosed. A total of 135 invasive prenatal procedures were performed (98 amniocenteses, 33 chorionic villus samples, 3 amnioreductions and 1 vesicocentesis), with one procedure-related loss (a miscarriage within one week of amniocentesis).

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. A total 647 fetal echocardiograms were performed in 2014 (614 in 2013); 103 structural cardiac abnormalities were detected in addition to 11 major rhythm disturbances. Almost two-thirds of all single ventricle pathologies undergoing cardiothoracic surgery in Ireland were diagnosed in this clinic (33 in 2014; 20 in 2013).

At the Multiple Birth Clinic, led by Dr Aisling Martin, a total of 173 multiple pregnancies were looked after in 2014; 166 sets of twins and seven sets of triplets. 81.9% of twins were delivered at or beyond 34 weeks gestation. The preterm delivery rate in the multiple pregnancies overall was 57.2%.

In 2014 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 6.1/1000; the corrected PMR rate was 4.3/1000. Ten of the 28 normally formed stillbirths weighed ≤ 2500g, with six of these weighing ≤1500g; cord accident (9) placental abruption (7) and hypoxia (6) were the most frequent causes of death among the normally formed stillborn infants. There was one intra-partum death, which occurred in a baby with a known fetal anomaly (Trisomy 18).

Infection (5), congenital malformation (3) and prematurity with respiratory problems (3) were the main causes of early neonatal death (13); 10 of the 13 early neonatal deaths occurred in normally formed infants, with 6 of these babies weighing < 1000g. There were two late neonatal deaths; one baby weighed 700g at delivery and died from Necrotising Enterocolitis and Klebsiella infection and the other baby died from a Urea Cycle Defect.

There were 1087 admissions to the Neonatal Centre. 117 infants were reported to the Vermont Oxford Network in 2014. The overall survival for VLBW infants in 2014 was 88.5% and importantly survival of VLBW infants without specified morbidities was 70.8%. The low incidence of chronic lung disease at 36 weeks (12.7% v VON 24.8%) appears to correlate with the low rate of invasive ventilation. Patent Ductus Arterious (PDA) was identified in 13.6% of VLBW infants; with no baby requiring ligation (v 4.5% 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 (4.6%).

Although late onset bacterial infection remains a significant clinical challenge, the multidisciplinary initiative to reduce this - including decreased blood sampling, customised care bundles, infection control precautions and the promotion of non-invasive ventilation – seems to be having a significant beneficial effect (8.3%; 9.9% in 2013).

Four neonatal deaths occurred in normally formed infants born weighing ≥ 1500g: HIE Grade III (day 2), NEC probably secondary to ascending infection (day 1), neonatal pneumonia and severe ascending infection (day 1) and extensive congenital CMV infection (day 1).

Seven inborn infants were classified with HIE grade II/III; all were treated by Total Body Cooling according to TOBY trial criteria; one infant died on day 2 of life. One infant had mildly abnormal neurodevelopmental follow-up at 6 months of age; the other five infants had normal neurodevelopmental follow-up (follow-up range 8 to 16 months of age).

Gynaecology

In 2014 there were 5230 gynaecological operations performed (5618 in 2013). 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 new Emergency Obstetric Theatre has helped to alleviate some of the infrastructural challenges posed.

There has been a marked increase in the number of minimal access surgeries performed in the hospital over the last six years. The overall number of laparoscopic hysterectomies (laparoscopic-assisted vaginal, total, subtotal and radical hysterectomy) continues to rise dramatically (55 in 2009; 133 in 2014), with a marked decrease in the number of open hysterectomies (vaginal, total abdominal, subtotal and radical hysterectomy) from 226 in 2009 down to only 16 in 2014. Similar trends have been seen in tubal/ovarian surgeries over the past six years, with a total of 892 procedures performed laparoscopically in 2014 compared to only 24 open procedures.

Urogynaecology operations remained prevalent in 2014 to

328 (336 in 2013) with the expansion of treatment options for women with complex pelvic floor dysfunction continued – 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, introduced in 2013, continued during the year. There was an increase in the number of botox treatments for refractory Detrusor Overactivity (35; 11 in 2013).

There were 2169 first visit attendances at the Coombe Colposcopy Clinic in 2014, a 14.8% increase compared to 2013 and the highest number over the past decade; a total of 617 excisional procedures were performed in the clinic and 99 in theatre.

The National Cervical Screening Programme (NCSS) began sending GP smears and other NCSS designated clinic smears to the Cytopathology Department from April 2013. This resulted in a significant increase in workload from 16,774 specimens in 2013 to 27,355 in 2014.

Gynaecological surgical complications during 2014 included bladder injury (4), bowel injury (4), other organ injury (2), uterine perforation (8), wound dehiscence (3), transfer to HDU (6), transfer to ITU (1). There was no reported incidence of blood transfusion > 5L.

Peri-operative Medicine

During 2014, 3530 epidurals were sited in labour; the epidural rate was 40.9%,the lowest rate in the last 7 years (highest in 2008, 47.2%); 98.5% of elective Caesarean sections and 95.6% of emergency Caesarean sections were performed under regional anaesthesia. The Emergency Obstetric Theatre on the Delivery Suite which opened in August 2013, 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 (established in 2008) continued to operate effectively in 2014; 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 enabling all women scheduled for major gynaecology surgery and day case surgery with co-morbid disease to undergo an appropriate anaesthetic review continued to greatly facilitate same day admission for all routine major gynaecology patients. Following the refurbishment and equipping of a dedicated facility for this clinic during the year, it is hoped that this service will be expanded to all patients undergoing surgery in 2015. The Chronic Pain Clinic 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 Michael Carey, have continued to attract anaesthetic trainees.

Academic

The clinical and academic activities remained priorities during 2014. In addition to providing tertiary maternal-fatal, 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 the UCD and TCD attend the Hospital; the campus hosts the Centre for Midwifery Education for the Greater Dublin Area. The National Cytology Training Centre 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 of approximately €33.7m; in 2014 the Laboratory hosted 13 postgraduate students pursuing PhD/MD degrees, four MSc students and had 29 research associates. The Molecular Pathology Group published 19 peer reviewed journal articles with 32 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), Dr Mairead Kennelly (UCD Centre for Human Reproduction and Perinatal Ireland), Professor Deirdre Murphy (TCD), Professor Sean Daly (TCD and Perinatal Ireland), Dr Michael Carey (Peri-operative Medicine) and Dr 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 2014 the Hospital hosted/co-hosted a series of highly successful multidisciplinary conferences (see Introduction for details) including the 7th Annual Essence of Midwifery Care Conference, the Prematurity Awareness Symposium, the "First Impressions, Communication and Customer Focus" Symposium and the Guinness Lecture Symposium.

Hospital Overview

Members of the Board of Guardians and Directors – 2014

Board Members	Date of Election
John Gleeson	2013 (Chair from January 2014)
Geoff Bailey	2010
Prof Cecily Begley	2013
Carol Bolger	2013
Dr Michael Carey	2012
Paul Donnelly	2002
Mary Donovan	2014
Dr Margret Fine-Davis	2005
Eileen Gleeson	2007
Prof Linda Hogan	2010
Cliona Mullen	2007
Aidan O'Hogan	2007
Michael O'Neill	2014
Maura Quinn	2014
Dr Margaret Sheridan-Pereira	2006
Prof Michael Turner	2013

Ex-Officio Members

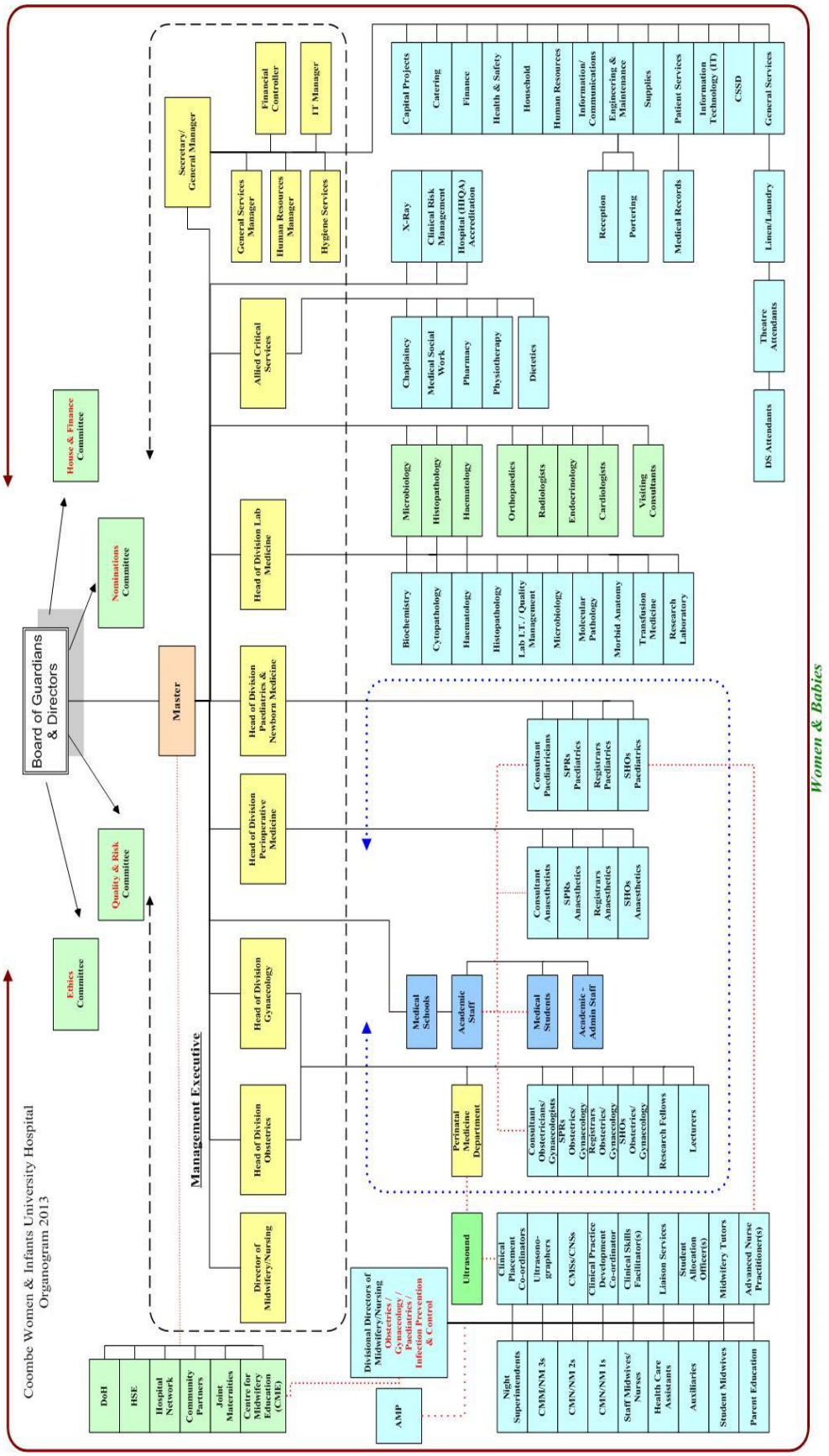
THE LORD MAYOR OF DUBLIN

The Rt Hon Lord Mayor Councillor Oisín Quinn

MASTER / CHIEF EXECUTIVE OFFICER

Dr Sharon Sheehan, from January 2013

Organisational Chart



MEMBERS OF STAFF

CONSULTANT OBSTETRICIANS/ GYNAECOLOGISTS

Dr. Sharon Sheehan, Master

Dr. Christopher Fitzpatrick

Professor Michael Turner

Dr. Hugh O'Connor

Professor Sean Daly

Dr. Noreen Gleeson

Dr. Mary Anglim

Dr. Bridgette Byrne

Dr. Carmen Regan

Dr. Thomas D'Arcy

Professor Deirdre Murphy

Dr. Michael O'Connell

Dr. Gunther Von Bunau

Dr. Mairead Kennelly

Dr. Cliona Murphy

Dr. Aisling Martin

Dr. Caoimhe Lynch

Dr. Aoife O'Neill

Dr. Nadine Farah

Dr. Shobha Singh

Dr Waseem Kamran

Dr. Iram Basit*

Dr. Andrea Nugent*

Dr. Valerie Donnelly*

Dr. Aoife Mullally*

CONSULTANT ANAESTHETISTS

Dr. Michael Carey (Director of Perioperative Medicine)

Dr. Niall Hughes

Dr. Steven Froese

Dr. Nikolay Nikolov

Dr. Rebecca Fanning

Dr. Terry Tan

Dr. Sabrina Hoesni

CONSULTANT NEONATOLOGISTS

Dr. Jan Miletin (Director of Paediatrics & Newborn Medicine)

Professor Martin White

Dr. Pamela O'Connor

Dr. John Kelleher

Dr. Joanne Balfe*

Dr. Clodagh Sweeney*

Dr. Saulius Satas *

Dr. Jan Janota *

Dr. Anne Doolan *

Dr. Suzanne Kelleher*

CONSULTANT PAEDIATRICIAN IN PALLIATIVE MEDICINE

Dr. Mary Devins

CONSULTANT RADIOLOGIST (ADULT)

Prof. Mary T. Keogan

CONSULTANT RADIOLOGIST (PAEDIATRIC)

Dr. David Rea

Dr Clare Brenner

DIRECTOR OF PATHOLOGY

Professor John James O'Leary

CONSULTANT HISTOPATHOLOGIST

Dr. Colette Adida

Dr. Salih Bakheit*

CONSULTANT MICROBIOLOGIST

Dr. Niamh O'Sullivan

CONSULTANT HAEMATOLOGIST

Dr. Catherine Flynn

Dr. Kevin Ryan

CONSULTANT DIABETOLOGIST

Dr. Brendan Kinsley

CONSULTANT ENDOCRINOLOGIST

Dr. Mensud Hatunic

Dr. Jean O'Connell*

Dr. Rachel Crowley*

CONSULTANT NEPHROLOGIST

Dr. Catherine Wall

CONSULTANT CARDIOLOGIST

Dr. Niall Mulvihill

CONSULTANT PSYCHIATRIST

Dr. Joanne Fenton

Dr. Ann O'Grady Walsh*

Dr. Marina Bowe*

CONSULTANT ORTHOPAEDIC SURGEONS

Dr. Paula Kelly

Dr. Jacques Noel

VISITING CONSULTANTS

Dr. Orla Franklin

Dr. Enda McDermott

Dr. Katherine McCreery

Dr. Donal Brosnahan

Dr. Thomas Lynch

Prof Andrew Greene

Dr Fiona Mulcahy

Dr Fiona Lyons

Dr Colm Bergin

NON-CONSULTANT HOSPITAL DOCTORS 2014

SPECIALIST REGISTRARS IN OBSTETRICS/ GYNAECOLOGY

Dr. Gillian Ryan

Dr. Katie Field

Dr. Mark Hehir

Dr. Nicola Maher

Dr. Gbenga Oluyede

Dr. Aoife Freyne

Dr. Mark Dempsey

Dr. Rupak Sarkar

Dr. Uzma Mahood

Dr. Workineh Tadesse

REGISTRARS IN OBSTETRICS/ GYNAECOLOGY

Dr. Sasikala Selvamani

Dr. Faiza Shafi

Dr. Mudathir Abdelmaboud

JUNIOR REGISTRARS IN OBSTETRICS/ GYNAECOLOGY

Dr. David Crosby

Dr. Aoife McSweeney

Dr. Sorca O'Brien

Dr. Suzanne Smyth

Dr. Catherine O'Gorman

Dr. Breffini Anglim

Dr. Eimer O'Malley

UCD RESEARCH FELLOW IN EMERGENCY OBSTETRICS

Dr. Patrick Maguire

UCD RESEARCH FELLOW IN HUMAN REPRODUCTION

Dr. Aoife McKeating

UCD RESEARCH FELLOW IN OBS/GYNAE

Dr. Niamh Daly

CLINICAL/ AUDIT FELLOW IN EARLY PREGNANCY ULTRASOUND

Dr. Aoife Mullally

Dr. Sasikala Selvamani

UCD LECTURER IN OBS/GYNAE

Dr. Amy O'Higgins

SENIOR HOUSE OFFICERS IN OBSTETRICS/ GYNAECOLOGY

Dr. Eimear O'Malley

Dr. Michelle Ni Mhurchu

Dr. Ciara McCormick

Dr. Sara Muddasser

Dr. Amal Ali

Dr. Syeda Farah Nazir

Dr. Suzanne Smyth

Dr. Meabh Horan

Dr. Alison Demaio

Dr. Nikita Deegan

Dr. Amy Fogarty

SENIOR HOUSE OFFICERS IN GENERAL PRACTICE

Dr. Karol Laffan

Dr. Orla McGowan

Dr. Muireann Clifford

Dr. Emma Nolan

Dr. Clare Shields

Dr. Niall Clancy

THE BERNARD STUART RESEARCH FELLOWSHIP IN PERINATAL ULTRASOUND

Dr. Maria Farren

SPECIALIST REGISTRARS IN PAEDIATRICS

Dr. Aisling Walsh

Dr. Sheena Durnin

Dr. Catherine Diskin

Dr. Elaine Reade

Dr. Siobhan Whelan

Dr. Matthew McGovern

Dr. Mary O'Dea

Dr. Tinta Deasy

REGISTRARS IN PAEDIATRICS

Dr. Bola Diya

Dr. Peter Kopp

Dr. Zohra Reyani

Dr. Kafil Shadani

Dr. Halim Kassim

Dr. Christopher Iro

Dr. Atif Elmahi

Dr. Lana Altabari

Dr. Rashid Ghori

Dr. Muhammad Islam

SENIOR HOUSE OFFICERS IN PAEDIATRICS

Dr. Robert Kernan

Dr. Annika Gibbons

Dr. Caroline Fox

Dr. Fazal Subhani

Dr. Camelia Ciubotariu

Dr. Lana Altabari

Dr. Nosheen Akhtar

Dr. Ikram Hafiz

Dr. Elena Blanaru

Dr. Niamh O'Brien

Dr. Bryony Treston

Dr. Seamus Mac Farland

Dr. Graham King

Dr. Ailise Carleton

Dr. Sinead O'Sullivan

Dr. Cladiu Stanciu

CLINICAL RESEARCH FELLOW IN NEONATOLOGY

Dr. Georsan Caruth

RESEARCH FELLOW IN NEONATOLOGY

Dr. Jana Semberova

NEONATAL TUTOR

Dr. Anne Doolan

Dr. Murwan Omer

SPECIALIST REGISTRARS IN ANAESTHETICS

Dr. Loay Alhamdan

Dr. Bartoliej Andrzej Fiszer

Dr. Michelle Walsh

Dr. Przemyslaw Walczuk

SENIOR REGISTRARS IN ANAESTHETICS

Dr. Ashley Fernandes

Dr. Mathew Leonard

REGISTRARS IN ANAESTHETICS

Dr. Ilankathir Sathivel

Dr. Petar Popivanov

Dr. Santosh Kumar Malhi

SENIOR HOUSE OFFICERS IN ANAESTHETICS

Dr. Andrea Haren

Dr. Zameer Pirani

Dr. Samahir Mohamed

Dr. Elena Veliciu

Dr. Amir Mohammad

Dr. Caoimhe Duffy

Dr. Janna Eve Finlay

Dr. Greta Gormley

Dr. David Burke

Dr. Anna Michasik

CLINICAL FELLOW IN OBSTETRIC ANAESTHESIA

Dr. Muhammad Ajmal

Dr. Petar Popivanov

Dr. Ilankathir Sathivel

SPECIALIST REGISTRARS IN HISTOPATHOLOGY

Dr. Kevin O'Hare

Dr. Ciara Ryan

MIDWIFERY & NURSING

DIRECTOR OF MIDWIFERY & NURSING

Patricia Hughes

DIRECTOR OF CENTRE OF MIDWIFERY EDUCATION

Triona Cowman

ASSISTANT DIRECTORS OF MIDWIFERY & NURSING

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

Angela Dunne, Assistant Director of Midwifery & Nursing with responsibility for Maternity Services including community midwifery till 2nd March 2014.

Fidelma McSweeney (Acting), Assistant Director of Midwifery & Nursing with responsibility for Maternity Services including Community Midwifery from 3rd March 2014.

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

Ann Noonan, Night Superintendent

ADVANCED NURSE PRACTITIONER – NEONATAL NURSING

Anne O'Sullivan

INFECTION PREVENTION & CONTROL NURSE

Rosena Hanniffy

PRACTICE DEVELOPMENT CO-ORDINATOR

Paula Barry

CLINICAL MIDWIFE / NURSE MANAGERS 3

Ann Fergus, CMM3 Delivery Suite

Bernadette Flannagan, CMM3, Community Midwifery

Ann MacIntyre, CMM3, NNC

Fidelma McSweeney, CMM3 Maternity Wards till 2nd March 2014

Elaine McGeady, CMM3, Fetal Medicine & Perinatal Ultrasound from 30th June 2014

Mary Nolan, CMM3 OPD

Joanne O'Riordan (Acting), CMM3 Maternity Wards from 24th March 2014 to 28th September 2014.

Alison Rothwell, CNM3 Theatres

Anitha Selvanayagam (Acting), CMM3 Maternity Wards from 29th September 2014.

MIDWIFE MANAGER FOR PPGs, AUDIT, STATISTICS & PERSONNEL

Anne Jesudason

MIDWIFERY EDUCATION

Ann Bowers, CPC, 0.7 WTE

Emma Davoren, CPC

Judith Fleming, CPC

Ann Leonard (Acting), CPC

Frances Mulrooney, Post Registration Programme Facilitator from 20th Jan 2014

Mary Rodgerson, CPC

Denise Kiernan, Allocations Liaison Officer, 0.5 WTE

Patricia O'Hara, Co-ordinator Post Graduate Diploma in Intensive Neonatal Nursing Programme

CLINICAL MIDWIFE / NURSE MANAGERS 2

Rhoda Billones, NNC

Vivienne Browning, Community Midwifery

Niamh Buggy, NNC

Ita Burke, Delivery Suite

Carmel Byrne, NNC

Helen Curley, Delivery Suite from 28th July 2014

Raji Dominic (Acting), St Patricks ward

Suzanne Daly, Parent Education

Felicity Doddy, Perinatal Diagnosis Co-ordinator

Sinead Finn, Delivery Suite

Sinead Gavin, Delivery Suite

Fiona Gilsenan, Theatre

Janice Gowran, Early Pregnancy Assessment Unit

Mary Holohan, Community Midwifery

Breege Joyce, Community Midwifery

Elizabeth Johnson, (Acting), Delivery Suite

Deirdre Kavanagh, Delivery Suite

Ann Kelly, NNC (0.5 WTE)

Bridget Kirby (Acting), St Gerard's Ward (0.8 WTE) from 29th September 2014

Kathleen Lynch, Gynaecology Day Ward

Suzi McCarthy, Delivery Suite

Olivia McCarthy, Colposcopy

Elaine McGeady, Ultrasound till 29th June 2014

Mary McMorrow, St Joseph's

Gráinne McRory, Delivery Suite

Nicole Mention, Community Midwifery

Anne Moyne, Delivery Suite

Geraldine Mulvany, St Patrick's Ward

Jean Murray, Our Lady's Ward till 15th June 2014

Fiona Noonan, Delivery Suite

Margaret O'Brien, Perinatal Centre till 28th December 2014

Mary O'Connor, NNC

Louise O'Halloran (Acting), Delivery Suite from 14th July 2014

Joanne O'Riordan (Acting), Our Lady's Ward

Monica O'Shea, Delivery Suite

Sunita Panda (Acting), Delivery Suite

Maureen Revilles, Delivery Suite

Patricia Ryan, Theatre

Mary Ryan, NNC (0.5 WTE)

Clare Smart, Gynaecology Services Co-Ordinator from 2nd June 2014

Anitha Selvanayagam (Acting), St Gerard's Ward till 28th September 2014

Gráinne Sullivan, Delivery Suite

Fiona Walsh, Community

Sarah Ann Walsh, Theatre

HAEMOVIGILANCE OFFICER

Sonia Varadkar

MIDWIFE CO-ORDINATOR HIGH RISK MIDWIFERY TEAM

Catherine Manning

CMM2 GYNAECOLOGICAL ONCOLOGY LIAISON

Aideen Roberts

CLINICAL MIDWIFE OR NURSE SPECIALISTS (CMS/CNS)

Sinead Cleary, CMS, Colposcopy

Ethna Coleman, CMS Diabetes

Jane Durkan Leavy, CMS US

Aoife Kelly, CMS, Colposcopy

Christine McLoughlin, CMS designate, Ultrasound Department

Clare McSharry, CMS, Ultrasound from 5th May 2014

Margaret Moynihan, CMS, Adult & Neonatal Resuscitation

Siobhán Ni Scannaill, CMS, US

Orla Phelan, CMS, Infectious Diseases

Meena Purushothaman, CMS, Lactation

Feena Sheeran, CMS, Ultrasound

Brid Shine, CMS designate (0.5 WTE) Perinatal Mental Health & (0.5 WTE) Bereavement

Mary Toole, CMS, Lactation

Barbara Whelan, CMS, Neonatal Transition Home Service

Louise Warren, CMS, Diabetes

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

CLINICAL MIDWIFE / NURSE MANAGERS1

Violeto Basco

Jean Cousins

Geraldine Creamer Quinn

Grace Cuthbert

Helen Curley till 28th July 2014

Luisa Daguio

Majella Denehan (Acting) till 6th July 2014

Maureen Doherty

Deborah Duffy

Marie Foudy

Minimol George

Carmel Healy

Bridget Kirby till 28th September 2014

Manju Kuzhivelil

Nova Lacondola

Sangeetha Nagarajan

Althea Noble

Alice O'Connor

Louise O'Halloran, till 14th July 2014

Marion O'Shaughnessy

Monikutty Rajan

Helen Saldanha Castelino

Anitha Selvanayagam

ON SECONDMENT to HEALTH SERVICE EXECUTIVE

Angela Dunne, Director of Midwifery, Midland Regional Hospital, Portlaoise from 3rd March 2014

Joan Malone, Quality and Patient Safety Directorate, Sept 2009 to 30th September 2012 &

Maternity & Neonatal Clinical Management System (MN-CMS) in Maternity Units from 1st October 2012 to date

ON SECONDMENT to TRINITY COLLEGE DUBLIN

Karen Hill, Midwifery Tutor from 15th April 2013

Ann O'Connor, Midwifery Tutor from 21st October 2013

HONORARY MIDWIFERY RESEARCH FELLOWS

Professor Declan Devane, Professor in Midwifery, NUIG

Dr. Valerie Smith, Dept of Midwifery & Nursing, TCD

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 (Career Break to Sept. 2014)

Mary Treacy, Medical Social Worker

Kate Burke, Medical Social Worker

Berit Andersen, Medical Social Worker (To August 2014) *

PHYSIOTHERAPISTS

Margaret Mason, Physiotherapy Manager

Julia Hayes, Senior Chartered Physiotherapist

Anne Graham (McCloskey), Senior Chartered Physiotherapist

Eibhlin Mulhall, Senior Chartered Physiotherapist

Clare Farrell, Senior Chartered Physiotherapist (From February 2014)

Roisin Phipps Considine (From June 2014)*

Clara Caplice, Chartered Physiotherapist (From August 2014)*

DIETICIAN/CLINICAL NUTRITIONIST

Fiona Dunlevy (employed by St. James Hospital)

PHARMACISTS

Mairead McGuire, Chief Pharmacist (Seconded to HSE June 2014)

Peter Duddy, Senior Pharmacist (To June 2014, Chief Pharmacist (From June 2014)*

Una Rice, Basic Grade Pharmacist (To June 2014, Senior Pharmacist From June 2014 to November 2014)*

Una Rice, Senior Pharmacist Antimicrobial (From November 2014)

Gayane Adibekova, Temporary Pharmacy Technician*

Orla Fahy, Basic Grade Pharmacist (From June 2014)*

Anna Colthorpe, Senior Pharmacist (From December 2014)*

CHIEF MEDICAL SCIENTISTS

Martina Ring, Laboratory Manger

Noel Bolger, Cytology

Stephen Dempsey, Pathology Quality/IT

Catherine Byrne, Microbiology

Fergus Guilfoyle, Haematology/Blood Transfusion

Jacqui Barry O'Crowley, Histopathology

PRINCIPAL BIOCHEMIST

Ruth O'Kelly

SECRETARY & GENERAL MANAGER

Patrick Donohue

FINANCIAL CONTROLLER

John Robinson

HUMAN RESOURCES

Graham Finlay, HR Manager, part-time (To December 2014)

AnneMarie Waldron, Assistant HR Manager

Stephen Dunne

Lindsay Cribben

Gina Elliott

Sandra Plummer

GENERAL SERVICES MANAGER
Anita Comerford

PATIENT SERVICES MANAGER
Siobhan Lyons/Ann Shannon

DEPUTY PATIENT SERVICES MANAGER/ HEALTHCARE RECORDS MANAGER
Niamh McNamara

HYGIENE SERVICES MANAGER
Vivienne Gillen

HOUSEHOLD SUPERVISOR
Jonathan Roughneen

ASSISTANT HOUSEHOLD SUPERVISOR
Arlene Kelly
Olive Lynch
Rita Greene, Acting Assistant Household Supervisor

ENGINEERING OFFICER
Ian Lapsley (To April 2014)

CAPITAL PROJECT CO-ORDINATOR
Katrina Seery (To July 2014 and From December 2014)*

RESEARCH PROJECT MANAGERS
Lean McMahon*
Karen Power*
Jean Kilroe (To December 2014)*
Julia Anne Bergin*

CLINICAL RISK MANAGER
Susan Kelly

SUPPLIES MANAGER
Robert O'Brien

CATERING MANAGER
Thomas Dowling

COMMUNICATIONS OFFICER
Mary Holden

INFORMATION TECHNOLOGY MANAGER
Tadhg O'Sullivan

HEALTH & SAFETY OFFICER
Tom Madden

MASTER'S & SECRETARY & GENERAL MANAGER'S PERSONAL ASSISTANT
Laura Forde

** Locum/Temporary position*

Staff Retirements in 2014

Ian Lapsley
Engineering Officer

Margaret O'Byrne
Midwife

Neil Ryan
Principal Clinical Engineering Technician

Deidre Magenis
Clinical Specialist Radiographer

Paul Moorehead
Staff Grade Medical Scientist

Claire Sutcliffe
Linen Keeper

Maura Hynes
Catering Domestic

Margaret O'Brien
Clinical Midwife Manager II

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 retired from the Hospital in 2014 for their enormous contribution during their years of dedicated professional service.

Dr Sharon Sheehan

Master/CEO

Director of Midwifery and Nursing

Director of Midwifery and Nursing - Corporate Report

Head of Department

Patricia Hughes, Director of Midwifery & Nursing

Title of Post	In post on 31st December 2014 (WTE)	In post on 31st December 2013 (WTE)
Director of Midwifery & Nursing	1	1
Assistant Director of Midwifery & Nursing	7.56	6.56
Advanced Nurse Practitioner-Neonatal Nursing	1	1
Midwifery & Nursing Practice Development Co-ordinator	1	1
Postgraduate Neonatal Programme Co-ordinator	1	1
Director Centre for Midwifery Education	1	1
Clinical Midwife/Nurse Manager 3	9	7
Clinical Midwife/Nurse Manager 2	37.43	37.43
Clinical Midwife/Nurse Specialists	13.58	12.94
Clinical Skills Facilitators	3.5	2.5
Haemovigilance Officer	0.77	1
Clinical Placement Coordinators	4.2	2.5
Post Registration Programme Facilitator	1	1
Allocation Liaison Officer	0.5	0.5
Clinical Midwife/Nurse Manager 1	15.58	19.22
Midwives & Nurses	222.8	211.67
Midwifery Students	15	18.5
Total	335.92	325.82

Staff Complement

Total Approved Complement for Midwives & Nurses as of 31st December 2014 was 344 WTE.

Key Performance Indicators

- To lead, manage and develop a workforce (midwifery, nursing & healthcare assistant) that is educated, skilled and empowered to deliver a safe, effective service which delivers on our Mission Statement, Excellence in the Care of Women & Babies.
- Ensure the provision of evidence-based, women/family-centred midwifery and nursing care.
- Monitor standards to ensure care is in accordance with National Standards for Safer Better Healthcare and NMBI Standards for Nurses and Midwives.
- Develop and promote both a research culture and a partnership approach to service delivery including all stakeholders especially women and their families who choose to use the services provided at the CWIUH.
- Collaborate with partners, HEIs and other external agencies as required to ensure all of the above.

Overview of 2014

2014 presented the Hospital with some unique challenges, most notably the sudden announcement of the closure of the Mount Carmel Hospital (MCH) on 24th of January 2014 which necessitated the immediate transfer of over 500 pregnant women to the care of the Coombe Women & Infants University Hospital. All women had booked for care at the Coombe within 3 weeks of the closure of MCH. Just over a month later, the Chief Medical Officer at the Dept of Health published a report into services at the maternity unit in the Midland Regional Hospital, Portlaoise. The findings resulted in the requirement on the HSE to provide a dedicated team to work with existing staff and to lead out on the required changes in the interests of safety of women and babies. This involved the secondment of two senior staff members from this hospital as negotiations began between the HSE and the Board of this Hospital to agree a Memorandum of Understanding in relation to the development of a proposed clinical network between the Coombe and the maternity and neonatal services at Portlaoise. By year end, agreement was nearing completion. Finally the impact of the Ebola virus outbreak in Sub Saharan Africa was felt throughout the world and resulted in national public health measures being undertaken in the unlikely but possible presentation of people to the health services in Ireland who had been infected by the virus. At the Coombe, this required the provision of awareness sessions for all staff, additional specific training for dedicated teams of staff, provision of supplies of particular protective equipment, signage for the public and collaboration with the National Isolation Unit at the Mater Hospital, as well as with HSE and other agencies.

The impact of the first two changes resulted in an overall 5% increase in maternity activity at this hospital. As always the staff responded admirably to the challenges as we sought to continue to strive to deliver on our Mission Statement, "Excellence in the Care of Women & Babies". The details of inputs and outcomes are detailed throughout the various departmental reports in this Annual Clinical Report. Such work would not have been not possible without the energy and commitment of all staff.

It has been noted that it is becomingly increasingly difficult to fill student places both on the undergraduate and post-registration midwifery programmes. This is happening nationally and has been raised at group level and with the HSE. Unless reversed, this could potentially lead to shortages in numbers of available midwives within the next 3-5 years.

There was one maternal death which also resulted in the death of the woman's baby. Such events, whilst rare, are stark reminders of the fragility of life and of the need to provide excellent care to women and their families throughout. All maternal deaths are reported into national statistics and each case history is examined in detail to see if care was as it should have been or whether there is learning for the future.

It was also with great sadness that we learned of the untimely death of one of our past Midwives, Ms. Róisin Boyle on the 18th February 2014. Róisin completed her training here from Sept 2005 to Sept 2007 and took up a post as a staff midwife until November 2009. She worked in St Joseph's ward most recently. May she Rest in Peace.

Achievements in 2014

Following ongoing discussions with HSE and DOH, a National Midwifery Workforce Planning group was established to review midwifery staffing needs in Irish maternity hospitals. The HSE funded the study and commissioned Dr. Marie Washbrook, of Birthrate Plus along with Richard Griffin, economist to undertake the study. The study involved a 4-month prospective collection of data re specific inputs and outputs of midwifery care based on need. The Coombe was one of the 7 study hospitals and we are indebted to both Sinead Gavin CMM2 DS who collected the data and also to Anne Jesudason for her assistance on the project. It is expected that we will have a final report and recommendations by early 2015.

The hospital upheld a strong commitment to supporting education and in-service training for midwives, nurses and healthcare assistants throughout 2014. This included a foundation course in theatre nursing, a foundation course in neonatal nursing, NIDCAP training, PG diploma in Neonatal Nursing, prescribing, MSc in Nursing, MSc in Midwifery, PhD in midwifery, as well as in-service training in perineal suturing, Hypnobirthing, and a range of mandatory training (BLS, NRP, Interpretation of Fetal Heart Rate Monitoring).

The birthing pool which was commissioned for use in March 2013 was initially used by laboring women. The first water birth took place in May 2014. By year end, 24 water births had taken place. There is evidence of benefits to mother and baby from the use of the birthing pool and requests from women to use it are increasing. We have had several presentations and workshops provided on site by Dr. Ethel Burns, UK expert clinical midwife, researcher and author on this work. In summary, the evidence shows first time mothers who use the pool for labour are more likely to give birth without epidural or further interventions such as operative birth. This is consistent with international research findings. There has been ongoing collaboration between senior midwifery staff at the Ulster Hospital in Dundonald where they have used pools for several years. There is ongoing training including the guideline for practice, drills, inclusion at a planned waterbirth & audit.

The National Early Warning Score (NEWS) was rolled out in CWIUH on 18th March 2014. This initiative was rolled out nationwide a year ago but because maternity hospitals at that time, were involved in rolling out a national IMEWS (Irish Maternity Early Warning Score), the hospital management had alerted the HSE to the need to phase in one followed by the other. On preparation for implementation of the NEWS, several risks were escalated to HSE in relation to the use of

two very different forms within the one work setting which are different, in look, layout, use and intuition. Efforts were taken at national level to address these issues. The Quality & Safety Dept of the HSE then conducted a national audit of the use of the Irish Maternity Early Warning Score (IMEWS) which was introduced into practice in April 2013 (arising from one of the recommendations of the HIQA Report into the death of Savita Hallapanavar). CWIUH was one of 6 hospitals chosen by HSE in which to conduct an audit and this took place on Monday 26th May 2014. There was growing concern nationally regarding the use of different early warning scores, particularly if they differed in logistics, layout and use. Currently two EWS are used in CWIUH, the IMEWS (for use in pregnant women and in women who have delivered/ given birth within last 42 days) and the NEWS (for the non pregnant woman or woman who delivered/ gave birth more than 42 days ago). The forms are different in layout and use and there was a concern that this may induce inherent risks. Two further forms are also under development at national level, PEWS (paediatric early warning score) and a specific one for Emergency Depts. The hospital re-audited its compliance with the IMEWS several months later and although there had been improvements across all areas, we still have further work to do to achieve full compliance with completion and action of same.

HIQA conducted an inspection in relation to Hygiene Standards at this hospital on Thursday 20th March 2014.

Minor capital works were completed in Our Lady's Ward which were part of the plan with the ongoing Productive Ward Initiative. The results included the provision of an enhanced central office incorporating a reception area for women and families and a purpose-designed paediatric clinical assessment room. It is a huge improvement on what previously existed and thanks are due to Friends of the Coombe for their support in making this ward a safer, better ward for women, babies and their families and for the staff who work there.

The Lean project in OPD resulted in very significant improvements in work flow and in better services for women and their families.

A number of women who sought home births via the HSE scheme but who did not meet the eligibility criteria transferred their care to the hospital however continued to be anxious about hospital care. Staff sought to provide evidence-based care in partnership with women in order to have safe and happy birth experiences. As a result the hospital received very positive feedback from the women and / or their birth partners. We will continue to listen to women and to seek to work with them in order to achieve safe and healthy outcomes for them and their babies using best available evidence.

Sunita Panda, CMM2 in DS has had her first article published in the British Journal of Midwifery regarding an audit of the outcomes of women who present at our assessment room in Non Established Labour and how we may best meet their particular needs. Sunita was granted funding from FOC to complete a PhD in Midwifery.

The 5th Bi-ennial Art Exhibition was organised and run by Ms Ann Louise Mulhall, (retired) on the 4th - 6th December 2014. Ms Rose Henderson, Actor, (Fr Ted, Fair City, Singlehanded) formally opened the exhibition which was attended by staff and visitors. 29 Artists exhibited 93 paintings in aid of Friends of the Coombe.

The Director of Midwifery & Nursing attended the International Confederation of Midwives held in Prague 1-5th June 2014 which was attended by almost 4,000 midwives from 160 countries.

Dr. Sheehan, Master/ CEO organised a hospital wide talk entitled "First Impressions, Communication & Customer Focus" presented by Senator Feargal Quinn and Mr. Vincent Brightling, Gate Theatre. The talk was well attended and the contents very much appreciated.

Challenges for 2015

- The biggest challenge to the organisation in 2015 will continue to be the impact on funding of the health service arising from the current and changing economic status of the country together with the need to reconfigure as per government proposals.
- Recruitment and retention is likely to remain a challenge as the economy recovers and mobility of staff increases with the raising of the HSE moratorium.
- Increasing the uptake nationally of midwifery student places.
- Enable midwives to practice the full scope of the role of the midwife.
- BFHI accreditation.

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

** Does not include all spontaneous miscarriages*

Mothers delivered ≥ 500 grams	8632
Mothers delivered < 500 grams & miscarriages	632*
Gestational Trophoblastic Disease	6
Ectopic pregnancies	74
Total mothers	9344

2. Maternal Deaths

**cardiac collapse & disseminated intravascular coagulopathy following amniotic fluid escape into the maternal circulation*

Amniotic Fluid Embolism*	1

3. Births ≥ 500g

**excludes babies <500g*

Singletons	8463
Twins*	336
Triplets*	20
Quadruplets	0
Total	8819

4. Obstetric Outcome (%)

Spontaneous vaginal delivery	57.0
Forceps	5.2
Ventouse	9.3
Caesarean Section	28.7
Induction	30.9

5. Perinatal Deaths ≥ 500g

Antepartum Deaths	40
Intrapartum Deaths	1
Stillbirths	41
Early Neonatal Deaths	13
Late Neonatal Deaths	2
Congenital Anomalies	17

6. Perinatal Mortality Rates ≥ 500g

Overall perinatal mortality rate per 1000 births	6.12
Perinatal mortality rate corrected for lethal congenital anomalies	4.32
Perinatal mortality rate including late neonatal deaths	6.35
Perinatal mortality rate excluding unbooked cases	5.33
Corrected perinatal mortality rate excluding unbooked	3.98

7. Age

Age (Years)	Nulliparous* N	Parous* N	Total N	Total %
< 20 yrs	147	19	166	1.9
20-24 yrs	487	315	802	9.3
25-29 yrs	817	925	1742	20.2
30-34 yrs	1201	1910	3111	36.1
35-39 yrs	572	1692	2264	26.2
40+ yrs	148	399	547	6.3

**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 N	Parous N	Total N	Total %
Para 0	3372		3372	39.1
Para 1		3022	3022	35.0
Para 2-4		2120	2120	24.6
Para 5+		118	118	1.4

9. Country of Birth & Nationality

Country	N	%
Ireland	6229	72.2
Britain	201	2.3
EU	1014	11.7
EU Accession Countries 2007	158	1.8
Rest of Europe (including Russia)	77	0.9
Middle East	39	0.5
Rest of Asia	453	5.2
Americas	94	1.1
Africa	334	3.9
Australasia	10	0.1
Uncoded	23	0.3
Total	8632	100

10. Socio-Economic Groups

Socio-Economic Group	N	%
Higher Profession	708	8.2
Lower Profession	2598	30.1
Clerical	1301	15.1
Skilled	771	8.9
Semi-Skilled	582	6.7
Unskilled	321	3.7
Unemployed	2109	24.4
Unsupported	65	0.8
Military	9	0.1
Not Classified	56	.7
Not Answered	112	1.3
Total	8632	100

11. Birth Weight

Grams	Nulliparous N	Parous N	Total N	Total %
500 – 999	29	28	57	0.6
1000 – 1499	30	33	63	0.7
1500 – 1999	61	68	129	1.5
2000 – 2499	164	211	375	4.3
2500 – 2999	514	712	1226	13.9
3000 – 3499	1263	1735	2998	34.0
3500 – 3999	1028	1873	2901	32.9
4000 – 4499	321	598	919	10.4
≥ 4500	43	108	151	1.7
Total	3453	5366	8819	100

12. Gestational Age

Weeks	Nulliparous N	Parous N	Total N	Total %
< 26	7	8	15	0.2
26 – 29 + 6 days	28	29	57	0.7
30 – 33 + 6 days	54	63	117	1.3
34 – 36 + 6 days	163	222	385	4.5
37 – 41 + 6 days	3083	4916	7999	92.7
42+	35	20	55	0.6
Not Answered	2	2	4	0.04
Total	3372	5260	8632	100

13. Perineal Trauma after Spontaneous Vaginal Delivery (SVD)

	Nulliparous		Parous		Total	
	N	%	N	%	N	%
Episiotomy	176	12.7	89	2.5	265	5.4
First degree tear	191	13.8	716	20.3	907	18.4
Second degree tear	662	47.7	1202	34.0	1864	37.9
Third degree tear	57	4.1	47	1.3	104	2.1
Fourth tear	2	0.1	1	0.02	3	0.1
Other	365	26.3	462	13.1	827	16.8
Intact	217	15.6	1331	37.7	1548	31.5
Total Spontaneous Vaginal Deliveries	1387		3531		4918	

14. Third Degree Tears (n = 160)

	Nulliparous	Parous	Totals*	
	N	N	N	%
Occurring spontaneously	57	46	103	64.4
Associated with episiotomy	17	4	21	13.1
Associated with forceps	21	6	27	16.9
Associated with ventouse	18	5	23	14.4
Associated with ventouse + forceps	7	0	7	4.4
Associated with O.P. position	8	3	11	6.9

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

15. Perinatal Mortality in Normally Formed Stillborn Infants (N= 28)

	Nulliparous	Parous	Total
Cord accident	4	5	9
Abruption	1	6	7
Hypoxia	5	2	6
Uteroplacental Insufficiency	1	1	2
Diabetes	0	2	2
Feto-maternal Haemorrhage	1	0	1
Coroner's Report Awaited	1	0	1

16. Perinatal Deaths in Infants with Congenital Malformation (N= 17)*

	Nulliparous	Parous	Total
Chromosomal	4	6	10
Hydrops	1	1	2
Neural tube defects	0	1	1
Renal	1	0	1
Congenital Diaphragmatic Hernia	0	1	1
Other	1	1	2

**13 SB, 3 END, 1LND*

17. Neonatal Deaths (N= 15)

	Nulliparous	Parous	Total
Congenital	2	2	4
Infection	1	4	5
NEC/Infection	1	1	2
Extreme Prematurity	0	1	1
Severe RDS/PPHN/extreme prematurity	0	1	1
Pulmonary haemorrhage/ extreme prematurity	1	0	1
Hypoxia	0	1	1

18. Overall Autopsy Rate 58%

19. Hypoxic Ischaemic Encephalopathy - Inborn (Grade II and III) 7

20. Severe Maternal Morbidity (n = 43)

	Nulliparous	Parous	Total
Massive obstetric haemorrhage	9	16	25
Emergency hysterectomy	0	0	0
Transfer to other institution	2	3	5
Other	5	8	13

21. Financial Summary at 31st December 2014

Income	€000	€000
Department of Health Allocation 2014	48,886,148	
Patient Income	12,894,216	
Other	5,394,157	
		67,174,521
Pay		
Medical	9,472,548	
Nursing	20,285,398	
Other	22,061,966	
		51,819,912
Non Pay		
Drugs & Medicines	1,990,091	
Medical & Surgical Appliances	4,562,506	
Insurances	241,351	
Laboratory	2,134,833	
Other	7,226,314	
		16,155,095
Net Deficit 2014		800,486
Taxes paid to Revenue Commissioners Year ended 31st December 2014		
PAYE & USC		9,737,210
PRSI EE		1,505,549
PRSI ER		3,832,853
Withholding Tax		120,738

Does not include any deficit balances carried forward from previous years

Statistical Summaries

Dr. Sharon Sheehan, Master

1. Mothers Attending Hospital

	2008	2009	2010	2011	2012	2013	**2014**
Mothers delivered ≥ 500 grams	8287	8652	8768	8536	8419	7986	**8632**
Mothers delivered < 500 grams and Miscarriages	734	676	663*	638*	627*	563*	**632***
Gestational Trophoblastic Disease	10	12	19	26	19	14	**6**
Ectopic Pregnancies	79	81	89	115	110	89**	**124**
Total Mothers	9110	9421	9539	9315	9175	8610	**9344**

** Does not include all spontaneous miscarriages*
*** method of collecting ectopic data changed in 2013*

2. Maternal Mortality

	2008	2009	2010	2011	2012	2013	**2014**
Maternal Deaths	1[1]	0	1[2]	1[3]	3[4]	1[5]	**1[6]**

[1] Carcinoma of the colon
[2] AIDS related lymphoma
[3] Sudden unexplained death in epilepsy (SUDEP)
[4] Suicide, Sudden Adult Death Syndrome (SADS) and Amniotic Fluid Embolism
[5] Cardiac arrest brought about by hyperkalaemia
[6] Amniotic Fluid Embolism (cardiac collapse and disseminated intravascular coagulopathy following amniotic fluid escape into the maternal circulation)

3. Births ≥ 500g

	2008	2009	2010	2011	2012	2013	**2014**
Singleton	8095	8496	8615	8371	8258	7810	**8463**
Twins	366	304	293	313*	309*	338*	**336***
Triplets	21	12	17	21	18	18	**20***
Quadruplets	0	0	0	4	0	4	**0**
Total	8482	8812	8925	8709	8585	8170	**8819**

**excludes babies <500g*

4. Obstetric Outcomes

	2008	2009	2010	2011	2012	2013	**2014**
Induction of Labour	28.1%	30.3%	32.0%	33.3%	35.3%	33.8%	**30.9%**
Episiotomy	16.6%	15.7%	16.0%	15.4%	14.0%	13.2%	**13.2%**
Forceps Delivery	8.5%	7.2%	7.7%	7.2%	6.4%	5.2%	**5.2%**
Ventouse Delivery	9.4%	10.4%	9.7%	7.8%	8.9%	8.5%	**9.3%**
Caesarean Section	24.1%	25.1%	25.8%	27.7%	27.1%	28.0%	**27.8%**

5. Perinatal Deaths ≥ 500g

	2008	2009	2010	2011	2012	2013	**2014**
Stillbirths	40	38	35	33	33	31	**41**
Early Neonatal Deaths	26	13	18	17	20	29	**13**
Late Neonatal Deaths	5	6	4	8	8	6	**2**
Total	71	57	57	58	61	66	**56**

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

	2008	2009	2010	2011	2012	2013	**2014**
Overall PNMR	7.8	5.8	6.0	5.7	6.2	7.3	**6.1**
PNMR corrected for lethal malformation	4.6	4.4	3.9	3.7	3.7	4.7	**4.3**
PNMR including late neonatal deaths	8.4	6.5	6.5	6.7	7.1	8.1	**6.4**
PNMR excluding unbooked cases	7.1	5.5	5.6	4.9	5.0	5.6	**5.3**
Corrected PNMR excluding unbooked	4.2	4.1	3.5	3.3	3.3	3.0	**3.8**

7. Statistical Analysis of Obstetric Population

7.1 Age

Age (Years)	Nulliparous* N	Parous* N	Total N	Total %
<20	147	19	166	1.9
20 – 39	3077	4842	7919	91.8
40+	148	399	547	6.3
Total	3372	5260	8632	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	Total %
Public	2520	3878	6398	74.1
Semi-Private	330	498	828	9.6
Private	522	884	1406	16.3
Total	3372	5260	8632	100

7.3 Birthplace

Mother's Country of Birth	N	%
Republic of Ireland	6229	72.1
EU	1373	15.9
Non EU	1007	11.7
Uncoded	23	0.3
Total	8632	100

7.4 Parity

	Nulliparous* N	Parous* N	Total N	Total %
Para 0	3372		3372	39.1
Para 1		3022	3022	35.0
Para 2-4		2120	2120	24.6
Para 5+		118	118	1.4

7.5 Birth Weight

	Nulliparous* N	Parous* N	Total N	Total %
500 – 999	29	28	57	0.6
1000 – 1499	30	33	63	0.7
1500 – 1999	61	68	129	1.5
2000 – 2499	164	211	375	4.3
2500 – 2999	514	712	1226	13.9
3000 – 3499	1263	1735	2998	34.0
3500 – 3999	1028	1873	2901	32.9
4000 – 4499	321	598	919	10.4
4500 – 4999	41	99	140	1.6
> 5000	2	9	11	0.1
Total	3453	5366	8819	100

7.6 Gestational Age

	Nulliparous* N	Parous* N	Total N	Total %
< 26 weeks	7	8	15	0.2
26-29 weeks + 6 days	28	29	57	0.7
30-33 weeks + 6 days	54	63	117	1.3
34-36 weeks + 6 days	163	222	385	4.5
37-41 weeks + 6 days	3083	4916	7999	92.7
42+ weeks	35	20	55	0.6
Not Answered	2	2	4	0.04
Total	3372	5260	8632	100

8. Statistical Analysis of Hospital Population, 2008 – 2014

8.1 Age, 2008 – 2014

Age at Delivery (Years)	2008 (n=8287)	2009 (n=8652)	2010 (n=8768)	2011 (n=8536)	2012 (n=8419)	2013 (n=7986)	**2014 (n=8632)**
<20	3.9%	3.6%	3.6%	3.9%	2.6%	2.1%	**1.9%**
20 – 24	13.5%	13.8%	13.2%	12.2%	11.7%	10.6%	**9.3%**
25 – 29	23.2%	24.4%	25.0%	24.8%	23.3%	22.7%	**20.2%**
30 – 34	33.9%	32.8%	32.1%	32.7%	34.4%	35.6%	**36.1%**
35 – 39	21.5%	21.2%	21.8%	22.2%	23.0%	23.4%	**26.2%**
>40	4.0%	4.2%	4.2%	4.1%	5.0%	5.6%	**6.3%**

8.2 Parity, 2008 – 2014

Parity	2008 (n=8287)	2009 (n=8652)	2010 (n=8768)	2011 (n=8536)	2012 (n=8419)	2013 (n=7986)	**2014 (n=8632)**
0	40.8%	41.5%	42.4%	40.6%	40.2%	38.7%	**39.1%**
1,2,3	55.4%	54.9%	54.3%	56.0%	56.5%	57.7%	**57.7%**
4+	3.8%	3.6%	3.3%	3.4%	3.3%	3.6%	**3.2%**

8.3 Birth Weight, 2008 – 2014

Birth Weight (grams)	2008 (n=8482)	2009 (n=8812)	2010 (n=8925)	2011 (n=8709)	2012 (n=8419)	2013 (n=8170)	**2014 (n=8819)**
500 - 999	0.7%	0.6%	0.6%	0.7%	0.7%	0.7%	**0.6%**
1000 – 1499	0.7%	0.8%	0.7%	1.0%	0.8%	1.0%	**0.7%**
1500 – 1999	1.6%	1.4%	1.6%	1.4%	1.4%	1.7%	**1.5%**
2000– 2499	3.9%	3.8%	3.5%	3.6%	4.3%	4.6%	**4.3%**
2500– 2999	13.0%	13.2%	13.2%	13.4%	13.8%	12.9%	**13.9%**
3000– 3499	33.0%	33.5%	34.6%	34.0%	33.4%	33.4%	**34.0%**
3500– 3999	33.1%	32.3%	32.5%	32.6%	33.0%	32.8%	**32.9%**
4000– 4499	11.3%	12.1%	11.3%	11.6%	10.7%	11.3%	**10.4%**
>4500	2.7%	2.3%	2.0%	1.7%	1.9%	1.6%	**1.7%**
Unknown	0%	0%	0%	0%	0.7%	0.0%	**0.0%**

8.4 Gestation, 2008 – 2014

Gestation (weeks)	2008 (n=8482)	2009 (n=8652)	2010 (n=8768)	2011 (n=8536)	2012 (n=8419)	2013 (n=8170)	**2014 (n=8819)**
<28 weeks	0.6%	0.5%	0.6%	0.7%	0.5%	0.6%	**0.5%**
28 – 36	6.8%	6.1%	6.1%	6.1%	6.0%	6.7%	**6.2%**
37 – 41	91%	92.3%	92.0%	92.6%	93.2%	92.3%	**92.7%**
42+	1.5%	1.1%	1.2%	0.5%	0.3%	0.4%	**0.6%**
Unknown	0.1%	0.1%	0.1%	0.1%	0%	0.0%	**0.04%**

9. In-patient Surgery, 2008 – 2014

	2008	2009	2010	2011	2012	2013	**2014**
Obstetrical	2918	3023	3185	3300	3239	3308	**3630**
Cervical	687	1261	1062	1190	1034	838	**882**
Uterine	3015	2416	2683	2553	2668	2897	**2696**
Tubal & Ovarian	999	968	1036	936	1051	1032	**916**
Vulval & Vaginal	500	445	437	400	367	522	**408**
Urogynaecology	181	244	261	226	224	336	**328**
Other	59	0	86	47	60	47	**31**
Total	8364	8364	8733	8652	8650	8980	**8891**

10. Out-patient Attendances, 2008 – 2014

	2008	2009	2010	2011	2012	2013	**2014**
Paediatric	8511	9558	9027	9075	9378	8,690	**8,587**
Obstetrical / Gynaecological	74025	89261	93796*	99228*	101448*	111,204*	**110,985***

**excludes Colposcopy and Perinatal Centre*

11. In-patient Admissions*, 2008 – 2014

	2008	2009	2010	2011	2012	2013	2014
Obstetrics	15971	16467	17051	17342	17185	16,746	**17,637**
Gynaecology	1003	975	1127	1015	1082	1,182	**1,028**
Paediatrics	1207	1188	1095	1023	1057	1,124	**1,106**

**Figure based on discharges*

12. Bed Days (Overnight admissions), 2008 - 2014

	2008	2009	2010	2011	2012	2013	2014
Infants	11182	11497	12035	12497	12653	12,200	**11,765**
Adults	44835	45980	46046	46492	45626	43,530	**41,198**

13. Day Case Admissions, 2008 - 2014

	2008	2009	2010	2011	2012	2013	2014
Obstetrical	9552	10154	9828	12222	12741	10,092	**12,268**
Gynaecological	1670	1432	7432	8148	8045	11,997	**9,850**
Total	11222	11586	15260	20370	20786	22,089	**22,136**

14. Adult Emergency Room (ER) & Early Pregnancy Assessment Unit (EPAU), 2008 - 2014

	2008	2009	2010	2011	2012	2013	2014
ER	8010	8159	7168	7346	7802	8,136	**9,457**
EPAU	3137	3599	3687	2381	4293	4,368	**4654**

15. Perinatal Day Centre attendances (PNDC) & Perinatal Ultrasound (PNU)*, 2008 – 2014

	2008	2009	2010	2011	2012	2013	2014
PNDC	13803	14486	10112	11841**	12372**	11,534**	**12,217****
PNU	16223	19270	25164	27781*	28701*	27,732*	**26,039***

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

16. Laboratory Tests, 2008 – 2014

	2008	2009	2010	2011	2012	2013	2014
Microbiology	49463	46897	44185	44535	44672	44672	**44514**
Biochemistry	167484	113709	108102	203818*	172734*	162045 *	**205475***
Haematology	44949	47523	45173	45546	45718	46877	**50717**
Transfusion	24548	24544	24406	22010	22076	22866	**25273**
Cytopathology	17401	14934	13604	12409	10428	16774	**27355**
Histopathology	4999	5601	5843	5036	5606	5696	**5877**
Post mortems	70	50	45	34	40	41	**50**
Phlebotomy	13877	15662	17466	18732	19394	19931	**21084**

** includes POCT tests*

Perinatal Mortality and Morbidity

Dr. Sharon Sheehan, Master
Dr Jan Miletin, Director of Paediatrics and Newborn Medicine

A. Overall Statistics

1. Perinatal Deaths ≥ 500g

Antepartum Deaths	40
Intrapartum Deaths	1*
Stillbirths	41
Early Neonatal Deaths	13
Late Neonatal Deaths	2
Congenital Anomalies	17**

** Known Trisomy 18*
*** 13 SB, 3 END, 1 LND*

2. Perinatal Mortality Rates ≥ 500g

Overall perinatal mortality rate per 1000 births	6.12
Perinatal mortality rate corrected for lethal congenital anomalies	4.32
Perinatal mortality rate including late neonatal deaths	6.35
Perinatal mortality rate excluding unbooked cases	5.33
Corrected perinatal mortality rate excluding unbooked	3.98

3. Perinatal Mortality in Normally Formed Stillborn Infants (N=28)

	Nulliparous	Parous	Total
Cord accident	4	5	9
Abruption	1	6	7
Hypoxia	4	2	6
Uteroplacental insufficiency	1	1	2
Diabetes	0	2	2
Feto-maternal Haemorrhage	1	0	1
Coroner's report awaited	1	0	1

4. Intrapartum Deaths ≥500g (n=1)

Para 2+0, Known Trisomy 18, IOL for worsening maternal respiratory symptoms, 36 weeks, 1840g

5. Perinatal Deaths in Infants with Congenital Malformation (N= 17)*

	Nulliparous	Parous	Total
Chromosomal	4	6	10
Hydrops	1	1	2
Neural tube defects	0	1	1
Renal	1	0	1
Congenital Diaphragmatic Hernia	0	1	1
Other	1	1	2

** 13 SB, 3 END, 1 LND*

6. Neonatal Deaths ≥500g (N= 15)*

	Nulliparous	Parous	Total
Congenital	2	2	4
Infection	1	4	5
NEC/infection	1	1	2
Extreme Prematurity	0	1	1
Severe RDS/PPHN/extreme prematurity	0	1	1
Pulmonary haemorrhage/extreme prematurity	1	0	1
Hypoxia	0	1	1

** 13 END, 2 LND*

7. Overall Autopsy Rate – 58%

8. Hypoxic Ischaemic Encephalopathy - Inborn (Grade II and III) – 7

Division of Obstetrics

General Obstetric Report – Medical Report

Head of Division

Dr Sharon Sheehan, Master

1. Maternal Statistics

	2008	2009	2010	2011	2012	2013	**2014**
Mothers booking	9206	9484	9262	9113	8761	8554	**9333**
Mothers delivered ≥ 500g	8287	8652	8768	8536	8419	7986	**8632**

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

	2008	2009	2010	2011	2012	2013	**2014**	**N = 9333**
Born in RoI	69.4	68.4	69.3	68.4	69.2	69.9	**71.6**	**6677**
Born in rest of EU	14.8	15.3	16.2	17.0	16.8	16.9	**15.9**	**1486**
Born outside EU	15.4	16.1	14.4	14.3	13.8	13.2	**12.5**	**1169**
Country not known	0.5	0.2	0.2	0.3	0.2	0.01	**0.0**	**1**
Resident in Dublin	65.9	66.5	66.4	67.2	65.9	65.7	**64.6**	**6032**
< 18 years	1.0	1.0	0.9	0.7	0.6	0.5	**0.5**	**44**
≥ 40 years	4.3	4.3	4.6	4.8	5.7	5.7	**6.3**	**592**
Unemployed	26.0	21.6	26.3	26.0	25.5	21.5	**23.0**	**2143**
Communication difficulties reported at booking	5.9	6.2	6.6	6.0	7.1	7.8	**6.4**	**593**

2.2 Maternal Profile at booking – general history (%)

	2008	2009	2010	2011	2012	2013	**2014**	**N = 9333**
BMI Underweight: <18.5	-	2.2	1.9	1.6	1.8	2.1	**2.0**	**183**
BMI Healthy: 18.5 – 24.9	-	52.3	51.3	52.1	53.3	51.6	**52.5**	**4896**
BMI Overweight: 25-29.9	-	28.8	29.8	29.1	28.2	28.9	**26.8**	**2497**
BMI Obese class 1: 30-34.9	-	10.5	11.4	11.3	11.1	11.0	**9.9**	**926**
BMI Obese class 2: 35 – 39.9	-	3.4	3.9	4.0	3.7	4.3	**3.9**	**365**
BMI Obese class 3: ≥ 40	-	1.5	1.4	1.8	1.6	1.8	**1.5**	**144**
Unrecorded	-	1.3	0.3	0.1	0.3	0.3	**3.5**	**322**
Para 0	42.4	38.9	41.2	40.8	39.4	39.1	**38.6**	**3604**
Para 1-4	55.8	52.5	57.3	57.9	59.1	59.3	**60.0**	**5601**
Para 5 +	1.7	1.1	1.5	1.3	1.5	1.6	**1.4**	**128**

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(cont'd from previous page)	2008	2009	2010	2011	2012	2013	2014	N = 9333
Unplanned pregnancy	32.2	32.6	31.5	30.9	30.5	31.2	**27.7**	**2582**
No pre-conceptual folic acid	56.8	55.6	56.1	56.6	56.5	56.6	**52.6**	**4911**
Current Smoker	16.7	16.1	14.5	14.2	13.5	12.8	**10.5**	**976**
Current Alcohol Consumption	–	–	3.5	2.6	1.5	1.4	**1.5**	**137**
Taking illicit drugs / methadone	1.2	0.7	0.6	0.7	0.8	0.7	**0.5**	**41**
Illicit drugs/Methadone ever	6.4	7.0	7.1	7.8	7.9	8.7	**8.3**	**778**
Giving history of domestic violence	0.9	1.2	1.2	1.1	1.0	0.9	**1.0**	**95**

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

	2008	2009	2010	2011	2012	2013	2014	N = 9333
Pregnancy Induced Hypertension	12.2	8.3	7.3	8.5	7.5	7.7	**7.5**	**649**
Pre-eclampsia	6.2	5.9	4.6	4.1	3.8	2.8	**3.3**	**286**
Eclampsia	0.02	0.06	0.02	0.0	0.01	0.06	**0.00**	**0**
Pregestational Type 1 DM	0.5	0.3	0.3	0.5	0.5	0.38	**0.3**	**26**
Pregestational Type 2 DM	0.2	0.2	0.2	0.4	0.2	0.23	**0.17**	**15**
Gestational DM	2.8	2.9	3.0	4.7	6.6	4.4	**7.8**	**672**
Placenta praevia	0.5	0.6	0.5	0.4	0.4	0.4	**0.4**	**31**
Abruptio placentae	0.2	0.2	0.1	0.1	0.2	0.3	**0.2**	**17**
Antepartum haemorrhage	1.0	1.2	1.1	1.3	4.4	5.6	**6.6**	**612**
Haemolytic antibodies	0.4	0.9	0.5	0.3	0.5	0.5	**0.5**	**44**
Hep C +	0.7	0.8	0.7	0.9	0.8	0.6	**0.5**	**40**
Hep B +	0.6	0.8	0.5	0.7	0.5	0.6	**0.4**	**33**
HIV +	0.2	0.4	0.3	0.3	0.2	0.3	**0.2**	**19**
Sickle cell trait	0.5	0.5	0.4	0.4	0.4	0.4	**0.3**	**29**
Sickle cell anaemia	0.02	0.01	0.02	0.01	0.1	0.02	**0.1**	**7**
Thalassaemia trait	1.1	1.3	1.3	0.7	0.6	0.4	**0.3**	**27**
Delivery < 28 weeks	0.5	0.5	0.6	0.7	0.6	0.6	**0.5**	**39**
Delivery < 34 weeks	2.2	2.3	2.3	2.5	1.3	2.7	**2.2**	**189**
Delivery < 38 weeks	12.3	13.1	13.1	13.5	14.3	13.9	**13.6**	**1178**
Delivery < 1500g	1.4	1.3	1.4	1.5	1.5	1.4	**1.2**	**106**
Delivery < 2500g	6.3	6.0	6.7	6.1	6.5	6.9	**6.4**	**553**
Unbooked mothers	1.0	1.4	1.8	1.8	1.7	1.3	**1.6**	**135**
LSCS	24.1	25.1	25.8	27.7	27.1	28.0	**28.7**	**2479**
Admissions to HDU	1.9	1.6	1.6	1.9	1.5	2.1	**2.0**	**174**
Severe Maternal Morbidity	0.3	0.5	0.4	0.5	0.5	0.5	**0.5**	**43**
Maternal Deaths (N)	1[1]	0	1[2]	1[3]	3[4]	1[5]	**1[6]**	**1**

2.3 Maternal Profile in index pregnancy – notes

[1] *Carcinoma of the colon*

[2] *AIDS related lymphoma*

[3] *Sudden unexplained death in epilepsy (SUDEP)*

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

[5] *Cardiac arrest brought about by hyperkalaemia*

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

3.1 Induction of Labour 2014

	Nulliparous		Multiparous		Total	
	N	%	N	%	N	%
Inductions	1324	39.3	1340	25.5	2664	30.9

3.2 Induction of Labour 2008 - 2014

Inductions	2008	2009	2010	2011	2012	2013	**2014**
N	2328	2628	2803	2846	2969	2696	**2664**
%	28.1	30.4	32.0	33.3	35.3	33.8	**30.9**

4.1 Epidural Analgesia in Labour 2014

	Nulliparous		Multiparous		Total	
	N	%	N	%	N	%
Epidural Analgesia	1967	58.3	1563	29.7	3530	40.9

4.2 Epidural Analgesia in Labour 2008 - 2014

Epidurals	2008	2009	2010	2011	2012	2013	**2014**
N	3915	3925	3906	3855	3744	3357	**3530**
%	47.2	45.4	44.5	45.2	44.5	42.0	**40.9**

5.1 Fetal Blood Sampling in Labour 2014

	N=
< 7.20	72
> 7.20	684
Total	756

5.2 Fetal Blood Sampling in Labour 2008 - 2014

FBS	2008	2009	2010	2011	2012	2013	**2014**
N	621	714	993	986	758	689	**756**
%	7.5	8.3	11.3	11.5	9.0	8.6	**8.8**

6.1 Prolonged Labour 2014

	Nulliparous		Multiparous		Total	
	N	%	N	%	N	%
Prolonged Labour	266	7.9	50	1.0	316	3.7

6.2 Prolonged Labour 2008 - 2014

Prolonged Labour	2008	2009	2010	2011	2012	2013	**2014**
N	297	266	254	266	287	277	**316**
%	3.6	3.1	2.9	3.1	3.4	3.5	**3.7**

7.1 Mode of delivery (%) – Nulliparae 2008 - 2014

	2008	2009	2010	2011	2012	2013	**2014**
SVD	41.1	40.9	40.8	41.8	41.1	43.2	**41.1**
Vacuum	16.2	18.4	16.8	14.4	16.2	16.1	**18.2**
Forceps	17.0	14.8	14.9	15.0	13.6	11.4	**11.2**
LSCS	26.3	26.2	27.7	29.3	29.5	29.6	**29.7**

7.2 Mode of delivery (%)- Parous 2008 - 2014

	2008	2009	2010	2011	2012	2013	**2014**
SVD	70.4	69.4	68.5	41.8	69.4	68.1	**67.1**
Vacuum	4.7	4.8	3.3	14.4	3.9	3.6	**3.6**
Forceps	2.6	1.8	1.8	15.0	1.7	1.4	**1.3**
LSCS	22.6	24.3	26.6	29.3	25.5	26.9	**28.1**

7.3 Mode of delivery (%) – all mothers 2008 - 2014

	2008	2009	2010	2011	2012	2013	**2014**
SVD	58.4	57.5	57.1	57.7	58.0	58.5	**57.0**
Vacuum	9.4	10.4	9.7	7.8	8.9	8.5	**9.3**
Forceps	8.5	7.2	7.7	7.2	6.4	5.2	**5.2**
LSCS	24.1	25.1	25.8	27.7	27.1	28.0	**28.7**

8. Episiotomy (%) 2008 - 2014

	2008	2009	2010	2011	2012	2013	**2014**
Nulliparae	31.4	31.4	30.3	30.0	28.1	27.7	**27.8**
Parous	6.3	4.5	5.5	5.5	4.5	4.0	**3.9**
Overall	16.6	15.7	16.0	15.4	14.0	13.2	**13.2**

9.1 Shoulder Dystocia (SD) 2014

	Nulliparous		Multiparous		Total	
	N	%	N	%	N	%
Shoulder Dystocia	31	0.9	22	0.4	53	0.6

9.2 Shoulder Dystocia (SD) & Birth Weight

	Mothers of babies < 4kg		Mothers of babies ≥ 4kg	
	N	%	N	%
Shoulder Dystocia	25	0.3	28	2.6

9.3 Shoulder Dystocia 2008 - 2014

Shoulder Dystocia	2008	2009	2010	2011	2012	2013	**2014**
N	59	66	74	66	87	64	**53**
%	0.7	0.8	0.8	0.8	1.0	0.8	**0.6**

10.1 Third Degree Tears

	Nulliparous		Multiparous		Total	
	N	%	N	%	N	%
Third Degree Tears	103	3.1	57	1.1	160	1.9

10.2 Third Degree Tears 2008 - 2014

Third Degree Tears	2008	2009	2010	2011	2012	2013	**2014**
N	77	51	87	160	130	145	**160**
%	0.9	0.6	1.0	1.9	1.5	1.8	**1.9**

11.1 Fourth Degree Tears

	Nulliparous		Multiparous		Total	
	N	%	N	%	N	%
Fourth Degree Tears	5	0.1	3	0.1	8	0.1

11.2 Fourth Degree Tears 2008 - 2014

Fourth Degree Tears	2008	2009	2010	2011	2012	2013	**2014**
N	4	8	8	10	6	7	**8**
%	0.05	0.1	0.09	0.1	0.1	0.09	**0.1**

12.0 Primary Post Partum Haemorrhage (1˚ PPH) 2008 – 2014

PPH	2008	2009	2010	2011	2012	2013	**2014**
N	270	439	542	850	1160	1256	**1256**
%	3.3	5.1	6.2	10.0	13.8	15.7	**14.6**

12.1 1˚ PPH – Spontaneous Labour

	2008 %	2009 %	2010 %	2011 %	2012 %	2013 %	**2014 %**	**2014 N**
Nulliparae	3.6	5.0	6.9	9.4	11.4	11.6	**12.0**	**1661**
Parous	2.7	4.2	5.8	5.4	6.2	8.3	**7.4**	**2699**
Overall	3.1	4.5	6.3	7.0	8.2	9.6	**9.1**	**4360**

12.2 1˚ PPH – Induced Labour

	2008 %	2009 %	2010 %	2011 %	2012 %	2013 %	**2014 %**	**2014 N**
Nulliparae	5.5	7.1	8.6	16.4	19.1	26.2	**22.5**	**1324**
Parous	3.6	5.0	6.4	7.3	8.9	10.8	**9.6**	**1340**
Overall	4.5	6.0	7.5	11.8	13.8	18.1	**16.0**	**2664**

12.3 1˚ PPH – SVD

	2008 %	2009 %	2010 %	2011 %	2012 %	2013 %	**2014 %**	**2014 N**
Nulliparae	4.0	4.4	5.0	5.5	6.7	7.6	**7.9**	**1387**
Parous	2.9	4.4	5.3	4.3	5.0	6.2	**5.7**	**3531**
Overall	3.2	4.4	5.2	4.7	5.5	6.6	**6.3**	**4918**

12.4 1° PPH – Ventouse

	2008 %	2009 %	2010 %	2011 %	2012 %	2013 %	**2014 %**	**2014 N**
Nulliparae	3.8	8.0	7.3	12.6	10.2	9.4	**10.9**	**613**
Parous	3.4	6.6	6.1	5.9	6.0	9.5	**5.3**	**187**
Overall	3.7	7.7	7.0	10.9	9.1	9.4	**9.6**	**800**

12.5 1° PPH – Forceps

	2008 %	2009 %	2010 %	2011 %	2012 %	2013 %	**2014 %**	**2014 N**
Nulliparae	7.3	7.1	11.9	16.7	17.6	21.9	**18.6**	**377**
Parous	4.6	1.1	10.8	5.3	11.9	19.1	**17.6**	**68**
Overall	6.8	6.3	11.7	14.9	16.8	21.5	**18.4**	**445**

12.6 1° PPH – Caesarean Section by parity

	2008 %	2009 %	2010 %	2011 %	2012 %	2013 %	**2014 %**	**2014 N**
Nulliparae	2.6	5.4	7.5	21.0	33.2	44.0	**38.2**	**1003**
Parous	1.4	5.4	5.4	18.1	23.8	30.2	**27.7**	**1476**
Overall	1.9	5.4	6.4	19.4	28.0	35.8	**31.9**	**2479**

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

	2008 %	2009 %	2010* %	2011* %	2012 %	2013 %	**2014 %**	**2014 N**
Elective	0.6	3.9	1.1	13.3	21.3	27.0	**26.5**	**1171**
Emergency	3.0	6.5	12.6	24.6	34.5	43.7	**36.9**	**1308**
Overall	1.9	5.4	6.4	19.4	28.0	35.8	**31.9**	**2479**

** Method of measuring blood loss in theatre changed - 2010*

12.8 1° PPH – Twin Pregnancy

	2008 %	2009 %	2010 %	2011 %	2012 %	2013 %	**2014 %**	**2014 N**
Nulliparae	7.0	11.5	14.7	31.2	35.3	59.1	**50.0**	**76**
Parous	2.9	12.1	7.6	13.6	24.1	25.3	**43.6**	**94**
Overall	4.8	11.8	10.9	22.1	29.0	39.4	**56.4**	**140**

13.0 Manual Removal of Placenta (%) 2008 - 2014

	2008	2009	2010	2011	2012	2013	**2014**
N	112	95	111	106	102	135	**94**
%	1.4	1.1	1.3	1.2	1.2	1.7	**1.1**

13.1 1˚ PPH in Manual Removal of Placenta 2008 - 2014

	2008	2009	2010	2011	2012	2013	**2014**
N	24	42	56	64	63	82	**59**
%	21.4	44.2	50.5	60.4	61.8	60.7	**62.8**

14.0 Mothers Transfused 2008 – 2014

	2008	2009	2010	2011	2012	2013	**2014**
N	120	165	189	176	148	181	**169**
%	1.4	1.9	2.2	2.1	1.7	2.3	**2.0**

14.1 Mothers who received Massive Transfusions (> 5units RCC) 2008 – 2014

	2008	2009	2010	2011	2012	2013	**2014**
N	8	13	14	15	15	7	**4**
%	0.1	0.1	0.2	0.2	0.2	0.1	**0.05**

15. Singleton Breech Presentation 2008 - 2014

	2008	2009	2010	2011	2012	2013	**2014**
Number of breech in nulliparae	160	142	152	165	174	150	**151**
% LSCS for breech in nulliparae	91.9%	94.4%	93.4%	94.5%	96.0%	96.0%	**98.7%**
Number of breech in parous	159	152	133	151	159	171	**167**
% LSCS for breech in parous	93.7%	92.1%	93.2%	96.0%	93.1%	93.0%	**95.2%**
Total number of breech	319	294	285	316	333	321	**318**
Total % LSCS	92.8%	93.2%	93.3%	96.5%	94.6%	94.4%	**96.8%**

16. Twin Pregnancy 2008 – 2014

	2008	2009	2010	2011	2012	2013	**2014**
Number of Twin pregnancies in Nulliparae	84	61	68	77	68	71	**76**
% LSCS in Nulliparae	58.3%	67.2%	70.6%	53.2%	66.2%	78.9%	**77.6%**
Number of Twin pregnancies in Parous	101	91	79	81	87	99	**94**
% LSCS in Parous	39.6%	54.9%	51.9%	50.6%	49.4%	51.5%	**60.6%**
Total number of Twin pregnancies	185	152	147	158	155	170	**169**
Total % LSCS in Twin pregnancy	48.1%	59.9%	60.5%	51.9%	56.8%	62.9%	**68.2%**

17. Operative Vaginal Delivery in Theatre 2008 - 2014

	2008	2009	2010	2011	2012	2013	**2014**
Operative Vaginal Delivery in Theatre	55	52	83	103	111	88	**89**

18. Classical Caesarean Section, Ruptured Uterus, Hysterectomy in Pregnancy 2008 - 2014

	2008	2009	2010	2011	2012	2013	**2014**
Classical Caesarean Section	7	6	4	7	2	4	**3**
Ruptured Uterus	6	1	3	3	1	0	**2**
Hysterectomy in pregnancy	3	7	3	6	2	2	**0**

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	160	1503	17.4%	10.6%
2	Nulliparous, single, cephalic, ≥=37 wks, induced and CS before labour	564	1444	16.7%	39.1%
A.	Nulliparous, single, cephalic, ≥=37 wks, induced	388	1268	14.7%	30.6%
B.	Nulliparous, single, cephalic, ≥ =37 wks, CS before labour	176	176	2.0%	59.1%
3	Multiparous (excl. prevCS) single, cephalic, ≥ =37wks, in Spontaneous Labour	31	2189	25.4%	1.4%
4	Multiparous (excl. prevCS) single, cephalic, ≥ =37 wks, induced and CS before labour	160	1280	14.8%	12.5%
A.	Multiparous (excl. prevCS), single, cephalic, ≥ =37 wks, induced	45	1165	13.5%	3.9%
B.	Multiparous (excl. prevCS), single, cephalic, ≥=37 wks, CS before labour	115	115	1.3%	100.0%
5	Previous CS, single, cephalic, ≥= 37wks	948	1273	14.7%	74.5%
6	Nulliparous, single, breech	148	150	1.7%	98.7%
7	Multiparous, single, breech (incl. prevCS)	159	168	1.9%	94.6%
8	Multiple pregnancies (incl. prevCS)	122	176	2.0%	69.3%
9	Abnormal Lies, single (incl. prevCS)	23	53	0.6%	43.4%
10	Preterm, single, cephalic (incl. prevCS)	163	392	4.5%	41.6%
	Gestation Not Answered	1	4	0.0%	25.0%
N	Total CS/Total Mothers Delivered	2479	8632	100%	28.7%

19.2 Vaginal Birth (%) after a single Previous Lower Segment Caesarean Section (VBAC) 2014

	Para 1	Para 1+	Total
VBAC	19.9	58.5	29.7
Elective LSCS	59.9	26.1	51.3
Emergency LSCS	20.2	15.4	19.0

19.3 Vaginal Birth (%) after a single Previous Lower Segment Caesarean Section (VBAC) 2008 – 2014

	2008 %	2009 %	2010 %	2011 %	2012 %	2013 %	**2014 %**	**2014 N**
Para 1	31.7	23.7	25.0	23.0	21.6	24.1	**19.9**	**871**
Para 1+	64.0	58.8	59.5	55.1	60.3	58.6	**58.5**	**299**
Overall	42.5	35.6	35.8	33.3	32.5	34.1	29.7	1070

19.4 Caesarean Sections (%) 2008 – 2014

	2008	2009	2010	2011	2012	2013	**2014**
Nulliparae	26.2%	26.2%	27.7%	29.3%	29.5%	29.6%	**29.7%**
Parous	22.6%	24.3%	24.4%	26.6%	25.5%	26.9%	**28.1%**
Total	24.1%	25.1%	25.8%	27.7%	27.1%	28.0%	**28.7%**

20. Apgar score < 7 at 5 mins 2008 - 2014

	2008	2009	2010	2011	2012	2013	**2014**
N	86	70	84	82	98	97	**74**
%	1.0	0.8	1.0	1.0	1.2	1.2	**0.9**

21. Arterial Cord pH < 7 2008 - 2014

	2008	2009	2010	2011	2012	2013	**2014**
N	36	35	50	36	21	37	**41**
%	0.4	0.4	0.6	0.4	0.3	0.5	**0.5**

22. Admission to SCBU/NICU at 38 weeks+ 2008 - 2014

	2008	2009	2010	2011	2012	2013	**2014**
N	617	554	470	412	454	454	**474**
%	7.3	6.4	5.4	4.8	5.4	5.7	**5.5**

23. Born Before Arrival 2008 - 2014

	2008	2009	2010	2011	2012	2013	**2014**
N	24	29	27	22	22	31	**36**
%	0.3	0.3%	0.3%	0.3%	0.3%	0.3%	**0.3%**

24. Antepartum Haemorrhage (APH)*

	N=	PPROM	Preterm Labour	Preterm Delivery	Perinatal deaths
Placental Abruption	9	0	0	2	2
Placenta Praevia	11	0	1	6	0
Other	593	23	52	81	1
Total**	612	23	53	89	3

** table only includes women who presented with an APH*
*** patients may be included in one or more group*

Addiction & Communicable Diseases

Head of Department

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

Staff Complement

Orla Cunningham, *CMS Infectious Diseases (1 WTE)*

Deirdre Carmody, *CMS, Drug Liaison Midwife, HSE Mid Leinster*

Dr. Nicola Maher, *Specialist Registrar (Jan-Jul 2014)*

Dr. Suzanne Smyth, *Registrar (Jul-Dec 2014)*

Tanya Franciosa, *MSW*

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)

Prof. Karina Butler & team

Total Attendees in 2014: 278 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 and Treponema pallidum):

Key Performance Indicators

- 36 women booked for antenatal care in 2014 tested positive for Hepatitis B, of whom 10 were newly diagnosed on antenatal screening. 70% of new diagnoses had a birth place in Eastern Europe.
- 52 women tested positive for Hepatitis C, of whom 8 were newly diagnosed on antenatal screening. Of the 52, 21 were PCR positive and 29 were PCR negative. 2 women who were not tested for PCR status, had miscarried. Of the 8 new diagnoses, 4 women originated from Eastern Europe, 3 from Ireland and 1 from Pakistan.
- 24 women tested HIV positive, all of whom had been previously diagnosed. 4 women were co-infected with HCV. No women were co-infected with hepatitis B or syphilis.
- 12 women were confirmed positive for Treponema pallidum. 3 women required treatment in pregnancy, 2 as new diagnoses and 1 woman required retreatment. The remaining had been appropriately treated previously.
- 68 antenatal women required follow up +/- repeat testing due to indeterminate serology attributed to cross-reactivity in pregnancy.
- 2 MTCT diagnosis of hepatitis C in 2014.

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

- 64 women linked with the DLM and attended the ancillary clinic in the CWIUH in 2014.
- 41 women delivered 41 live babies in the CWIUH who were linked with the DLM.
- 12% of babies born preterm (less than 37 weeks gestation)
- 20 babies were admitted to ICU/HDU/SCBU and of these 15 babies needed pharmacological treatment for Neonatal Abstinence Syndrome (NAS).
- The mean stay in the baby unit was 29 days, ranging from 1 to 48 days. The mean length of stay in the baby unit for babies who received pharmacological treatment for NAS was 32 days, ranging from 18 to 48 days.

As with previous years, the majority of women linked with the DLM were booked in early to the CWIUH, received adequate antenatal care and the majority of women had a positive neonatal outcome. While heroin continues to be the primary substance used, cocaine and benzodiazepines continue to be a problem. There were 6 women looking for treatment for opiate abuse during their pregnancy.

Additional KPIs

- 33 women with high-risk pregnancies also attended this service for specialist care e.g. haemophilia carrier status, CIN 3, PET, Herpes simplex virus, sero-discordant couples.
- 13 couples were referred to & seen in our Conception Clinic, which provides fertility investigations for both seropositive & 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, national level and a Higher Specialist Training Day in the Royal College of Physicians.

Achievements in 2014

- Success from our Conception clinic with four of our sero-discordant & serology positive couples becoming delighted parents.
- Development of a hospital guideline for the management of Genital Herpes in pregnancy, which has been adopted for use on a National basis.
- CMS Infectious Diseases partook in CWIUH inaugural MBSR 8-week course for staff members, which has proven to be a valuable personal tool in the provision of support & counselling for women attending the clinic.
- Annual national Addiction / Infectious diseases study day, with An Bord Altranais approval, took place with hugely positive feedback.
- The Addiction MSW provided training regarding Child Protection to Paediatric NCHDs, midwives & nurses from the three Dublin Maternity Hospitals, as well as presenting to the Diploma in Child Protection class in Trinity College Dublin, regarding the Medical Social Worker role within the specialist antenatal clinic for women with current drug addictions.
- On-going audit & data submission used as part of both National & International surveillance programmes (NSHPC & HPSC).

Opportunities for 2015

- Provide consultation for an over-arching national document for the Prevention of Perinatal Transmission of HIV, HBV, HCV, syphilis and HSV.
- Extend the provision of specialist care to include the management of Genital Herpes in Pregnancy.
- To continue to provide Addiction, Child Protection & Infectious Diseases training to the NCHDs in the hospital and at specialist training days & to the wider midwifery & nursing staff via the Centre for Midwifery Education.
- Investigate the outcomes of hepatitis B exposed infants discharged to follow up in Primary Care.
- Client-led changes to service provision.

Community Midwife Service

Head of Department

B Flannagan, CMM III

F Mc Sweeney, Assistant Director of Midwifery & Nursing, Obstetrics Division

Staff Complement

1 WTE	CMM3
2.28 WTE	CMM2
10.36 WTE	Midwives
2 WTE	Clerical Support

Key Performance Indicators

- Provision of antenatal midwifery care to women and their families in a clinic near to where they live and post-natal care at home for women who avail of the Early Transfer Home (ETH) scheme.
- Provision of the Coombe Domino Service which is a midwifery-led model of care for low risk women who may have their antenatal care provided by the team of community midwives in partnership with their GP. A midwife from the team will care for the woman during labour and birth. After transfer home, the woman continues to have midwifery support at home until the 5th postnatal day when care is discharged to the public health nurse and GP.
- Number of booking appointments.
- Number of follow-up appointments.
- Uptake of ETH.
- Bed days saved.
- Re-admission rates at Day 5.
- Breastfeeding rates at Day 5.

Achievements in 2014

- Outcomes for women booked for the Coombe Domino Service in 2014 were SVD = 67%, Instrumental birth = 16%, Caesarean Section = 16%.
- The Community Midwife Service extended the service to include a weekly antenatal clinic in Trim.

Trends in Activity 2012-2014

	2012	2013	**2014**
Number of women booked	1490	1460	**1461**
Community Midwife clinic follow-up appointments seen	6542	6249	**7443**
ETH women who availed of the service	2361	2351	**2512**
% uptake of ETH in areas where it is available	49.8%	51.4%	**49.7%**
Average length of stay (days): all ETH women	1.8	1.9	**1.8**
Average length of stay (days): SVD and Instrumental birth	1.5	1.5	**1.4**
Average length of stay (days): C-Section	3.1	3	**2.9**
Number of bed days saved	2815	2875	**3253**
Readmission rate: women	0.8%	0.8%	**0.2%**
Readmission rate: babies	0.3%	0.4%	**0.5%**
Breastfeeding rate at Day 5	38%	41.4%	**37.8%**
Women booked for Coombe Domino Service	141	157	**263**
Births in Coombe Domino Service	25	32	**42**

Challenges for 2015

- To promote the uptake of the Coombe Domino Service at booking clinics in both the community and OPD booking clinics.
- To increase the number of women attending the community midwife clinics.
- To promote and support women to initiate and continue breastfeeding at antenatal education classes, clinics and postnatal visits in order to increase the breastfeeding rate.
- Review the provision of the community-based antenatal education classes in order to offer a service that meets the needs of women and partners.
- To support midwives to maintain their professional development and gain new skills in the use of the birthing pool, perineal repair and hypno-birthing.
- To continue to provide safe midwifery care to mothers and babies to a population with increasingly more complex clinical needs.

Combined Service for Diabetes Mellitus – Medical Report

Head of Department

Prof Brendan Kinsley, Consultant Endocrinologist
Prof Sean Daly, Consultant Obstetrician
Specialist Diabetes Registrar
Workineh Tadesse, Obstetric Registrar
Ethna Coleman, Diabetes Midwife Specialist
Cliodhna Grady, Diabetes Midwife
Fiona Dunlevy, Senior Dietician
Ailbhe McCarthy, CNM 1 Research

Pre-existing Diabetes

Pregnancy Outcomes

N =	Type 1	Type 2
Pregnancies	26	15
Coombe Deliveries	18	11
Delivered Elsewhere	2	0
Preterm Deliveries	8	3
Caesarean Section	10	6
Term Deliveries	12	8
Congenital Abnormalities	2	0
Shoulder Dystocia	1	0
IUD	1	0
PND	0	0

Maternal Data

N =	26	15
Age	31.7+/-6.0	35.7+/-3.7
DM Duration (Years)	16.2+/-6.7	2.3+/-2.0
DM Complications		
Hypertension	1	4
Retinopathy	5	2
Nephropathy	0	1
Neuropathy	0	1
PET	0	0
PCOS	1	1
Gestation at OPD Booking (wks)	734+/-5.9	11.1+/-6.9
Booking HbA1c	60 +/- 16	47 +/- 9
Delivery HbA1c	51 +/- 18	254 +/- 38
Booking Fructosamine	346 +/- 75	44 +/- 6
Delivery Fructosamine	284 +/- 64	225 +/- 16

Infant Data

N =	Type 1	Type 2
Coombe Deliveries	20	11
Gestation at Delivery (weeks)	3.3+/-1.1	37.7+/-3.5
Birth Weight (kg)	3.3+/-1.1	3.2+/-1.0
<4kg	14	9
4.0 – 4.49kg	5	1
4.kg – 4.99kg	1	1
>5kg	0	0
Macrosomia	3	2
Shoulder Dystocia	1	0
Congenital Abnormalities	2	0
IUD	2*	0
PND	0	0

**Please refer to Perinatal Morbidity and Mortality Report for details*

Gestational Diabetes

	N=
Pregnancies	672
Rx with Insulin	169
Rx with Diet	261
Rx with Metformin	242

Pregnancy Outcomes

N =	Rx with Insulin	Rx with Diet/Metformin
Pregnancies	169 (6 sets of twins)	503 (22 sets of twins)
Coombe Deliveries	169	493
Delivered Elsewhere	0	5
Spontaneous Abortions	0	0
Gestational at Delivery (weeks)	38.3 +/- 1.7	38.4 +/- 1.8
PET	2	13
Hypertension	6	9
Birth Weight (kg)	3489 +/- 670	3355 +/- 573
Caesarean Section	80	199
Congenital Abnormalities	2	11
Shoulder Dystocia	2	7
IUD	0	2
NND	0	0
BMI < 30	74	257
BMI > 40	22	27

Birth Weights GDM

	Rx with Insulin	Rx with Diet/ Metformin
< 4kg	139	457
4.0 – 4.49kg	20	30
4. kg – 4.99kg	7	6
>5kg	3	0

Combined Service for Diabetes Mellitus – Midwifery Report

Head of Department

Professor S. Daly, *Consultant Obstetrician and Gynaecologist*

Professor B. Kinsley, *Consultant Endocrinologist*

Staff Complement

2 WTE Clinical Midwife Specialists

1 WTE Clinical Midwife Specialist: E. Coleman 39 hours/ week and 1 WTE Midwife: C. Grady 39 hours/week

1 WTE Dietetian: F. Dunlevy until September 2014, then M. Walsh from September onwards.

Phlebotomy, laboratory and administrative staff

Key Performance Indicators

- 2014 was another busy and challenging year for the Diabetes service. There was a significant rise in the number of women diagnosed with Gestational Diabetes Mellitus on previous years.
- Continuation of the use of oral hypoglycaemic therapy has significantly reduced the numbers of women requiring admission to hospital for education and supervision in relation to initiating insulin therapy.

Achievements in 2014

- Continued to provide lifestyle education programme to women diagnosed with Gestational Diabetes Mellitus.
- The midwife-managed Diabetes clinic continued.
- The diabetes CMS continued to facilitate the tri-hospital Diabetes study days, providing lectures and workshops on diabetes to nurses and midwives from the three Dublin maternity hospitals, and from outside the Dublin area.
- C. Grady R.M. submitted her CPA to NMBI.
- The Diabetes midwives continue to update their own education by attending national conferences and symposia on Diabetes Mellitus.
- Decision was made to book women with a history of GDM in a previous pregnancy into routine clinics. This required development of information leaflets for the women, and consultation with staff in OPD regarding developing a system whereby these women would be booked in for appropriate follow-up.
- We continued to commence women on insulin therapy as outpatients where possible.
- We continued to provide advice and support by phone to patients, and to colleagues in other hospitals, and to take referrals from other hospitals, G.P.s and self-referrals.
- We continued to work with, and provide education and support to midwife colleagues, as well as those from other disciplines.
- Worked on the Diabetes patient database and statistics for the department.
- The Diabetes multi-disciplinary team continued to have regular team meetings to review progress and plan developments in patient management.
- C. Grady commenced H Dip Diabetes Nursing in U.C.D.
- A policy regarding management of thyroid disease was developed by the consultants.
- A sharps safety checklist was developed in conjunction with R. Hanniffy (Infection Control) and S. Kelly (Risk Manager) and was introduced for use with in-patients who were using sharps in an effort to minimize sharps injury risk to patients and staff.
- A patient information leaflet about sharps safety was developed by R. Hanniffy at the request of the diabetes midwives, and is being given to all women who are being educated about sharps safety.
- A single-use safety lancet was sourced and introduced for use with in-patient women who are checking their blood sugar levels, with staff training provided.

Challenges in 2014

- Many non-attenders to clinic/lifestyle education/postnatal clinic visits. Significant time and effort spent following up these women. This results in a frequent need for midwives to provide education during clinics to women who did not attend the lifestyle programme.
- Many clients with BMI ≥ 40.0 requiring bariatric and anaesthetic clinic referrals.
- Increasing requirement for interpreters during education sessions.
- The closure of Mount Carmel Hospital created an increase in numbers of patients attending CWIUH with GDM.
- Withdrawal of the Long Term Illness and Disability Scheme cover for women with Gestational Diabetes continued to cause a lot of hardship and distress for women, some of whom could not afford to cover the cost of blood glucose test strips, etc. Team consultants took part in a televised interview to try and highlight the problem, and continued efforts to meet with the Dept. of Health to discuss the issue were unsuccessful.

- Despite the new thyroid policy there were still a lot of inappropriate referrals to the diabetes service.

Plans for 2015

- To get computer access in the consulting rooms.
- C. Grady to complete H Dip Diabetes Nursing in U.C.D.
- To set up a modified education programme for women booking in for ante-natal care who have a previous history of gestational diabetes mellitus.
- To refine the Diabetic Keto-Acidosis protocol.
- To plan for the transfer of the care of women with Gestational Diabetes Mellitus, who are diet controlled, to their routine teams for obstetric care, and the Diabetes Midwife Specialists for diabetes care.

Delivery Suite

Head of Department

Dr. Sharon Sheehan, Master/ CEO
Ann Fergus, CMM 3 (Author)
Dr. Bridgette Byrne, Lead Obstetrician
Angela Dunne, Asst DoM&N until March 2014
Fidelma McSweeney, A/Asst DoM&N from March 2014

Staff Complement

Total Midwifery WTE: 52.82

CMM 3 – 1 WTE
CMM 2 – 10.17 WTE
CMM 1 – 5 WTE
Clinical Skills Facilitator – 1 W.T.E.
Staff Midwives – 37.65
BSc 4th year Interns & Higher Diploma Midwifery Students [dependant on college commitments]
HCA – 4 WTE
Auxiliary Staff – 2WTE [night duty]
Attendant Staff - 2.5 WTE
Clerical Staff – 1 WTE on duty Monday-Friday. A number of part-time staff cover evenings and weekends. Night-Duty cover is shared with the Admission Office.

Key Performance Indicators

- Spontaneous Vaginal Delivery rate was 57% [excluding elective caesarean sections].
- The Episiotomy rate for Spontaneous Vaginal Deliveries was 5.4% which is within the accepted range of less than 10%.
- The overall epidural rate was 40.9%. There was a rate of 58.3% for nulliparous women and a rate of 29.7% for multiparous women. This reflects an overall decrease of just over 1% on the 2013 rate.
- A 3rd degree tear rate of 1.9% is similar to the last year of reporting and is felt to reflect the improved reporting and classification of same.
- Skin to Skin contact rate was 83% compared to a rate of 89% last year.

Achievements in 2014

On January 24th 2014, the Minister for Health, Dr. James Reilly officially opened our newly refurbished Delivery Suite. This encompassed a newly built Obstetric Emergency Theatre, two High Dependency Rooms, and a room suitable for bariatric use. Ten birthing rooms with en suites, including one room with a birthing pool were part of this plan which had commenced in November 2011.

On the same day, January 24th 2014, the closure of Mount Carmel Hospital in Dublin was announced. It led to the transfer of care of the mothers attending Mount Carmel Hospital to the Coombe Women and Infants University Hospital. This naturally resulted in a surge in our activity levels throughout the year. Many of the midwives from MCH joined our ranks as staff in the hospital.

The practice of Hypnobirthing was introduced to midwives on the Delivery Suite with introductory sessions in January by Tracey Donegan RM, founder of GentleBirth, Ireland. It was followed by a 3-day training session run by the Centre of Midwifery Education for midwives in the 3 Dublin Maternity Hospitals. The course was facilitated by Judith Flood [BSc Hons, RM, DipIHyp], Founder of Association of Hypnobirthing Midwives.

The High Dependency Unit had a total of 269 admissions of which 26 were for a magnesium sulphate infusion for fetal concerns only. This number steadily increases every year reflecting the rising complexity.

The first water birth in our birthing pool took place in May 2014. A total of 84 women used the pool for pain relief, with 24 of those women birthing in the pool.

An induction of labour working group involving obstetricians and midwives was established in March 2014 to review practices regarding induction of labour in our hospital. An audit reviewing timing, criteria and outcomes was carried out over the following months. Members of the working group then divided into sub groups to review if changes were necessary and how these may be implemented in 2015.

Challenges for 2015

- To continue to provide women with a better range of choices for labour and birth in an enhanced environment. This includes encouraging mobility, use of birthing aids and hydrotherapy/birthing pool.
- Review our induction of labour rate within a multidisciplinary group and to audit same with a view to challenging and curbing our rising trend.
- Facilitate and increase the number of midwives in the Delivery Suite developing their skills in Perineal Suturing.
- To increase our rate of skin to skin for mothers and babies following birth.
- To continue to review the reporting of Clinical Incidents in order to promote a shared perception of the impor-

tance of patient safety and disseminate the learning points. Further use of auditing to improve the quality of service we provide.

- To work within the current budgetary constraints while continuing to provide excellence in care to our women and infants.
- To encourage participation in educational study days outside of mandatory training in order to enhance our knowledge and skills in order to benefit our labouring women and their families.

Early Pregnancy Assessment Unit

Head of Department

Dr Mary Anglim, Consultant Obstetrician/Gynaecologist

Other Consultant Staff

Dr Nadine Farah, Consultant Obstetrician/Gynaecologist
Dr Aoife Mullally, Locum Consultant Obstetrician/Gynaecologist

Clinical Research Fellow

Dr Sasikala Selvamani (from July 2014)
Dr Aoife Mullally (until July 2014)

Clinical Midwife Specialist

Janice Gowran

	TOTAL		NEW		RETURN	
EPAU visits	4656		2640	(57%)	2016	(43%)
Ongoing pregnancy	1444	(31%)	835	(32%)	609	(30%)
Pregnancy of uncertain viability	749	(16%)	588	(22%)	161	(8%)
Miscarriages	1485	(32%)	433	(16%)	1052	(52%)
Pregnancy of unknown location	802	(17%)	661	(25%)	141	(7%)
Ectopic pregnancy*	68	(1.5%)	27	(1%)	41	(2%)

**excludes patients who were admitted directly to theatre from the ER or who were diagnosed with an ectopic pregnancy outside normal working hours.*

Management of Miscarriage**	
Conservative management	233 (24%)
Medical management	257 (27%)
ERPC	467 (49%)

Management of Ectopic pregnancy	
Laparoscopy	35 (52%)
Medical management (Methotrexate)	13 (19%)
Conservative management	20 (29%)

***excluding complete miscarriages*

Achievements in 2014

Janice Gowran (CMM2) commenced a Masters in Bereavement Studies in conjunction with the Irish Hospice Foundation and Royal College of Surgeons in Ireland.

Fetal Medicine and Perinatal Ultrasound Department

including Fetal Cardiology, Multiple Births, Hemolytic Disease of Fetus and Newborn

Members of Staff

Dr Mairead Kennelly, Director of Perinatal Ultrasound / Fetal Medicine

Professor Sean Daly, Fetal Medicine Specialist

Dr Carmen Regan, Fetal Medicine Specialist

Dr Aisling Martin, Fetal Medicine Specialist

Dr Caoimhe Lynch, Fetal Medicine Specialist

Dr Orla Franklin, Visting Paediatric Cardiologist (OLCHC),

Professor Fionnuala Breathnach, Visiting Fetal Medicine Specialist Coombe/ Rotunda/Crumlin Cardiology Clinic)

Dr Maria Farren, Bernard Stuart, Fellow in Perinatal Ultrasound

Dr Jennifer Donnelly, Subspecialist Fellow (Rotunda/ Coombe/Columbia) (to June 2014)

Elaine Mc Geady, Clinical Midwife Manager III

Christina Mc Loughlin, Clinical Midwife Specialist in Ultrasound

Feena Sheerin, Clinical Midwife Specialist in Ultrasound

Siobhan Ni Scanaill, Clinical Midwife Specialist in Ultrasound

Jane Durkin, Clinical Midwife Specialist in Ultrasound

Clare Mc Sharry, Clinical Midwife Specialist in Ultrasound

Ciara Caldwell, Midwife Sonographer

Aoife Metcalfe, Midwife Sonographer

Michelle Kelleher, Senior Radiographer

Edwina Quinlan, Senior Radiographer

Contact Details

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Clinical Activity and Service Expansion

- In 2014 both routine dating and a 20-22 week structural scan were offered to all mothers booking at the CWIUH in the Perinatal Ultrasound Department.
- There continues to be a significant expansion in the perinatal ultrasound /fetal medicine service in 2014 with a total of 26,039 scans being performed.

Table 1 Indications for Ultrasound in 2014

First trimester / dating scans	7702*
Structural survey scan at 20-22 weeks	8345
Fetal growth / assessment / Doppler	6802
Cervical length	399
Placental Site	525
Fetal Echo	647
First trimester screen	268
Procedures	135
Naas scans	1216**
TOTAL	26039

**Excludes scans performed in EPAU*
***Dating, structural and fetal assessment scans performed in Naas General Hospital*

First Trimester Screening

- In 2014 there were 268 first trimester screening examinations performed at 11-14 weeks (429 in 2013).
- The NT was > 3 mm in 17 cases, in 5 cases this was associated with aneuploidy : Turners Syndrome, Trisomy 21 (3) and Trisomy 18. In 2 cases this was associated with a euploid cardiac defect.
- This service was delivered by seven members of staff accredited by the Fetal Medicine Foundation for FTS screening.

Cystic Hygroma < 20 weeks

- Twenty cases of cystic hygroma were detected in early pregnancy; 7 were associated with aneuploidy; Trisomy 21 (6) and Trisomy 18 (1).

Structural Anomalies

- There were 256 structural anomalies identified in 2014 (229 in 2013). Anomalies were classified according to the RCOG classification.
- There were 35 cases of Nuchal Fold > 6mm (8 amnios and 1 case T21).
- The breakdown of cardiovascular anomalies is also reported in the Fetal Echo section of the report.

Table 2 Structural fetal abnormalities detected in 2014

Anencephaly	3
Other brain	15
Spine	8
Face	8
Neck (mass)	5
Cystic Hygroma	13
Thorax	14
Major structural cardiac anomalies	103
AWD	17
GIT	6
Echogenic bowel	7
Renal	29
Extremities	11
Skeleton	3
Multiple	10
Placental	4
TOTAL	256

Invasive Prenatal Procedures (n=135)

There were 135 invasive procedures performed in 2014 (137 in 2013) which included 98 amniocentesis and 33 chorionic villus samples. There were 3 amnioreductions and 1 vesicocentesis performed.

- There was one procedure-related loss (miscarriage within one week of amniocentesis).
- There were 43 cases of aneuploidy identified.

Table 3 Aneuploidy

Trisomy 21	22
Trisomy 18	12
Trisomy 13	5
Triploidy	1
Balanced reciprocal translocation	2
47XXX	1
TOTAL	43

Research and Training

- A comprehensive portfolio of research was undertaken in 2014 with a significant focus on diabetic pregnancy, fetal growth trajectories and maternal body composition.
- In 2014 Dr Maria Farren was appointed as the third Bernard Stuart Research Fellow and commenced her PhD investigating the role of a food supplement in those at risk of developing Gestational Diabetes.
- Dr Jennifer Donnelly was attached to the Perinatal Ultrasound Department as the successive Rotunda/ Coombe/Columbia Subspecialist Fellow.
- The multi-centred Perinatal Ireland study, Genesis study continued in 2014 under the supervision of Prof Sean Daly and Prof Michael Turner.
- Graduate certificate training modules in Obstetric ultrasound were provided in the Perinatal Ultrasound Department in addition to the MSc under the auspices of UCD.

MDT Meetings

- Multidisciplinary Fetal Medicine / Perinatal meetings were held quarterly in-house to discuss all ongoing fetal medicine cases with input from Paediatrics, Genetics, Palliative care, Social Work and Physiotherapy Departments. Individual care plans were outlined for all high risk cases.
- The tri-hospital Fetal medicine meeting was held on a monthly rotational basis in the three Dublin Maternity Hospitals. These meetings enable specialist input from all disciplines and have proven to be helpful in the management of rare / complex cases. This forum facilitated the generation of consensus clinical guidelines.

Acknowledgements

I would like to thank all of our multidisciplinary team of fetal medicine specialists, paediatric cardiologist, clinical midwife specialists, sonographers for their continued hard work, professionalism and dedication during 2014. It proved to be another busy year with continued expansion of the service and an increase in external referrals. In particular, I would like to acknowledge the significant contribution of Ms Elaine Mc Geady (CMM III) for the efficient running of the Perinatal Ultrasound Department.

Division of Obstetrics

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- Ryan, HM; Morrison, JJ; Breathnach, FM; McAuliffe, FM; Geary, MP; Daly, S; Higgins, JR; Hunter, A; Burke, G; Higgins, S; Mahony, R; Dicker, P; Manning, F; Tully, E; Malone, FD. The influence of maternal body mass index on fetal weight estimation in twin pregnancy. Am. J. Obstet. Gynecol., 2014 vol. 210(4) pp. 350.e1-6
- Unterscheider, J; Daly, S; Geary, MP; Kennelly, MM; McAuliffe, FM; O'Donoghue, K; Hunter, A; Morrison, JJ; Burke, G; Dicker, P; Tully, EC; Malone, FD. Definition and management of fetal growth restriction: a survey of contemporary attitudes. Eur. J. Obstet. Gynecol. Reprod. Biol., 2014 vol. 174 pp. 41-5.
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- Flood, K; Unterscheider, J; Daly, S; Geary, MP; Kennelly, MM; McAuliffe, FM; O'Donoghue, K; Hunter, A; Morrison, JJ; Burke, G; Dicker, P; Tully, EC; Malone, FD. The role of brain sparing in the prediction of adverse outcomes in intrauterine growth restriction: results of the multicenter PORTO Study. Am. J. Obstet. Gynecol., 2014 vol. 211(3) pp. 288.e1-5.
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Dr. Mairead Kennelly

Head of Fetal Medicine and Perinatal Ultrasound Department

Fetal Cardiology

Heads of Department

Professor Sean Daly
Dr Orla Franklin
Professor Fionnuala Breathnach
Ms Felicity Doddy

The Fetal Cardiac Service is the largest national referral service for prenatal diagnosis of Congenital Heart Disease in Ireland and is an integral part of the fetal medicine services at the Coombe and the Rotunda hospitals. In 2014 there was a further increase in the number of children diagnosed by the service with 103 structural cardiac anomalies and 11 rhythm abnormalities identified. 33 single ventricle abnormalities were diagnosed, an increase from 20 in 2013. This represents 63% of all single ventricle pathologies undergoing cardiothoracic surgery in Ireland in 2014.

The service consists of both diagnostic fetal echocardiography and screening fetal echocardiography. 358 fetal echo assessments were performed in the Fetal Cardiac Clinic with a further 289 screening fetal echo assessments undertaken.

Screening fetal echoes are performed by fetal medicine specialists and when an abnormality is suspected, referral is made to the fetal cardiology clinic. The clinic runs weekly and all patients are seen within 7 days of referral.

The Fetal Cardiac Clinic is led by Dr Orla Franklin, Consultant Paediatric Cardiologist (OLCHC), Professor Sean Daly (Fetal Medicine Specialist CWIUH) and Professor Fionnuala Breathnach (Fetal Medicine Specialist Rotunda Hospital). Following confirmation of a cardiac anomaly, parents are counselled regarding the nature of the abnormality and advised as to the prognosis, procedural risk and long-term morbidity and mortality. As all scans are undertaken with both a fetal medicine specialist and a cardiologist present, a comprehensive anatomic survey is performed to detect extra-cardiac anomalies and the likelihood of an associated chromosomal or genetic syndrome is explained, with advice to proceed to amniocentesis if indicated. On the second visit, a meeting is arranged with the clinical nurse specialists in the Children's Heart Centre is Crumlin with which there are strong links.

In 2014 the appointment of Ms Felicity Doddy, Prenatal Diagnosis Coordinator at the Coombe has further enhanced the service.

The antenatal detection of congenital heart disease improves outcome. Where appropriate, this allows for a planned delivery in the Coombe or the Rotunda in order to facilitate immediate transfer of the neonate to the Children's Heart Centre. Without the skill and expertise of all sonographers and fetal medicine specialists all over Ireland who refer cases to us, this would not be possible.

In 2015, we will welcome Dr Caoimhe Lynch, Fetal Medicine Specialist to the service at the Coombe. Referrals will continue to be received via fetalecho@coombe.ie.

Table 1 – Lesions Detected

Lesion	2013	2014
HLHD	14	19
HRHD	6	14
cAVSD	15	12
VSD	23	21
Outlet Lesions AS	2	4
Isomeric Lesions (Single Ventricle)	5	3
Coarctation	5	5
Cardiac Tumours	1	1
Truncus Arteriosus	3	2
Tetralogy of Fallot	8	8
Cardiomyopathy	1	5
Ebsteins Anomaly	1	1
TGA	5	4
Bilateral SVC (Isolated)	1	1
Primum ASD	-	2
Interrrupted Aortic Arch	1	1
TOTAL	93	103

Table 2 – Arrhythmias Detected

Arrhythmia	2013	2014
Congenital Complete Heart Block	2	0
SVT	3	3
Atrial Ectopics	6	8
TOTAL	11	11

Fetal MRI service

- A comprehensive Fetal MRI service is provided by the dedicated team in OLCHC (Dr David Rea, Dr Eibhlin Phelan, Dr Clare Brenner).
- A total of 11 fetal MRI scans were performed in 2014 for complex CNS and thoracic anomalies.

Multiple Birth Clinic

Head of Department

Dr Aisling Martin

There were 176 multiple pregnancies delivered in the Coombe in 2014 and a few more that ended up delivering elsewhere. There were 169 sets of twins and 7 sets of triplets. Of the twins, 145 were dichorionic diamniotic (DCDA), 20 were monochorionic diamniotic (MCDA) and one set were monochorionic monoamniotic (MCMA). We had twins transferred from a number of other units around the country. We looked after three sets of twins transferred from Portlaoise, one from Sligo and one from the Rotunda. We had a patient transferred from Antrim who had started out as a triplet pregnancy but had an IUD in triplet one at about 20 weeks and then delivered that triplet. She remained pregnant and was transferred to the Coombe at 24+6 weeks gestation and subsequently delivered with us (see cases below).

We had six sets of triplets, five of whom were trichorionic triamniotic (TCTA) and two which were dichorionic triamniotic (DCTA).

Gestational Age at Delivery for all Multiples

Overall 74 of 173 (42.7%) multiple pregnancies delivered at or beyond 37 weeks of gestation, with 99 of 173 multiple pregnancies delivered prior to 37 weeks, giving a preterm delivery rate of 57.2%. Taking the twins alone 93 of 166 (57%) delivered before 37 weeks gestation with 30 delivering prior to 34 weeks gestation (18%).

GA at Delivery (wks)	All Twins N=166	DCDA N=145	MCDA N=20	MCMA N=1	All Triplets N=7	TCTA N=5	DCTA N=2
≥37	74	66	8				
34-36+6	62	55	7		1	1	
32-33+6	7	5	1	1	4	3	1
28- 31+6	14	13	1		1		1
24-27+6	9	6	3		1	1	
<24							

Mode of Delivery

Mode of Delivery	All Twins	DCDA	MCDA	MCMA	Triplets
SVD/SVD	27	23	4	0	0
SVD/Breech	20	18	2	0	0
Breech/Breech	1	1	0	0	0
Instrumental	7	7	0	0	0
Vaginal Delivery of Both Babies	55	49	6	0	0
EL LSCS	55	51	4	0	2
EM LSCS	55	44	10	1	5
VAG/EM LSCS	1	1	0	0	0
CS of One or Both Babies	111	96	14	1	7

Hemolytic Disease of Fetus and Newborn

Staff complement

Dr Carmen Regan

Ms Catherine Manning, CMM2

Dr Carmen Regan is the consultant in charge of this service. Catherine Manning CMM II is the Specialist Midwife. The management of patients with red cell antibodies (RCA) that may cause haemolysis in pregnancy involves antibody quantitation, paternal genotyping and fetal genotyping when indicated. At risk pregnancies are followed with antibody levels, and where appropriate, middle cerebral artery Dopplers for assessment of moderate to severe fetal anaemia. Intrauterine transfusions are conducted at the Rotunda Hospital/National Maternity Hospital in consultation with other maternal fetal medicine specialists.

In 2014 there were 44 referrals to the rhesus clinic. 31 of these patients were diagnosed with red cell antibodies for the first time.

Outcome of pregnancies with RCA

Intrauterine transfusion of HDFN: 4

(2 patients received 1 IUT, 1 patient received 2 IUTs, 1 patient received 3 IUTs)

Table 1 – Neonatal Outcomes

Affected neonates (DCT positive at birth)	20
SCBU admission	17
Phototherapy only	11
Phototherapy and IVIG	3
Phototherapy, IVIG and RCC transfusion	3

Flow cytometry for post-natal quantification of FMH is available at the CWIUH, the national implementation of prophylactic ante-natal Anti-D is awaited.

Table 2 – Red Cell Antibodies (N=44)

Anti D	12
Anti C	4
Anti K	3
Anti U	2
Anti M	5
Anti E	67
Anti Cw	7
Anti Fya	2
Anti S	1
Anti Jkb	1

Infant Feeding

Head of Department

Ms Patricia Hughes, *Director of Midwifery / Nursing*

Staff Complement

Mary Toole, *WTE Clinical Midwife Specialist*

Meena Purushothaman, *WTE Clinical Midwife Specialist*

Key Performance Indicators

- Compliance to the standards of the Baby Friendly Health Initiative (BFHI).
- Reduction in re-admission with breastfeeding problems.
- Maximizing the provision of human milk to all babies.
- Empowered staff to deliver optimum care in Baby Friendly Practices.

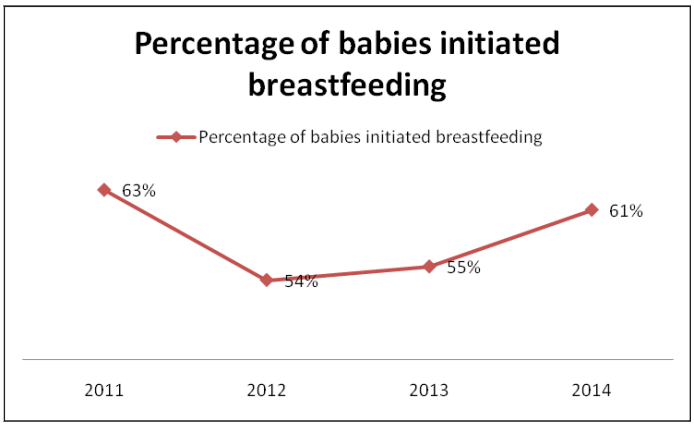
Achievements in 2014

- 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 comprehensive frame work for direct care of women with high risk of lactation challenges.
- Enhancing the provision of individualized holistic quality patient care based on best practice by empowering all staff to deliver excellence in direct care in infant feeding.
- 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, promoting the capacity of pregnant women to obtain, process, and understand information and services needed to make appropriate infant feeding decisions.

Table 1: Infant Feeding Statistics 2011-2014

	2011	2012	2013	**2014**
Total number of live births	8668	8599	8150	**8781**
Number of babies initiated breastfeeding	5498	4610	4489	**5379**
Number of babies breastfeeding exclusively at discharge	1978	2097	2873	**3211**
Number of babies feeding partially/combined feeding at discharge	2719	1192	1616	**1679**
Babies initiated breastfeeding	63%	54%	55%	**61%**
Number of babies initiated breastfeeding	5498	4610	4489	**5379**
Babies breastfeeding exclusively at discharge	23%	24%	35%	**37%**
Babies combined feeding at discharge	31%	14%	20%	**19%**

Figure 1: Percentage of babies initiated breastfeeding



NB: The figures during 2012, 2013 & 2014 are calculated from computerised discharges wheres 2011 data is based on intention to breastfeed as oppose to breastfeeding initiated.

Figure 2: Breastfeeding Rates

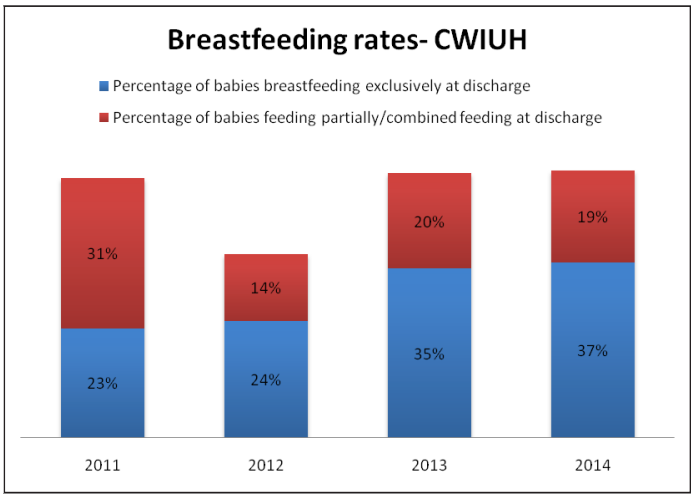
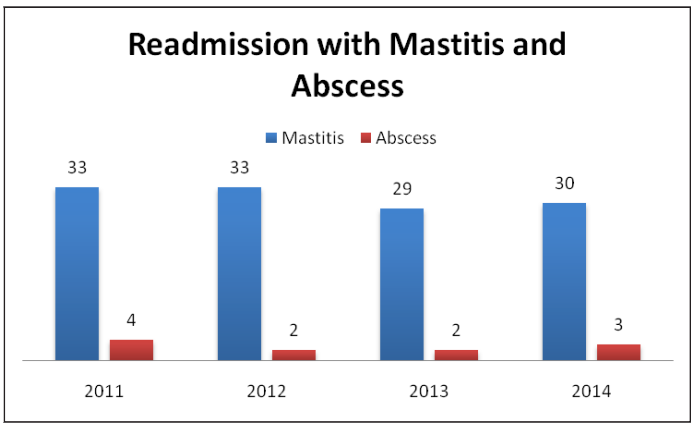


Figure 3: Readmission Rates



Challenges for 2015

To achieve Baby Friendly Health Initiative Accreditation.

Maternal Mortality 2000-2014

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
Total	10	131785
Maternal Mortality Rate	0.0076%	

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 brought about by Hyperkalemia

Maternity Wards

Head of Department

A. Dunne, Assistant Director of Midwifery and Nursing (Jan – March 2014)

F. Mc Sweeney, Acting Assistant Director of Midwifery and Nursing (March 2014 to Year End) (Author)

Staff Complement

69.76	WTE
1	WTE Acting CMM3
3.85	WTE CMM2
6	WTE CMM1
1	WTE Clinical Skills Facilitator
42.51	WTE Staff Midwives
11.9	WTE HCAs
3.5	WTE Clerical Staff

Student Midwives

BSc Midwifery 4th year Intern students (16) and Higher Diploma Midwifery students (17) are included in the staffing levels, which varies throughout the year depending on college/clinical commitments.

Key Performance Indicators

- Leading, developing and managing midwifery staff, that are qualified in the delivery of safe effective and evidence-based care, to women and babies, that we as an organisation care for.
- Providing services that encompass and are 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.

Achievements in 2014

- Leading, developing and managing midwifery staff, "Releasing Time to Care" is a quality improvement initiative which aims to empower 'frontline' staff to drive forward improvements in health services through redesigning and streamlining the way staff and services deliver care with emphasis on patient safety (HSE, 2012).
- Our journey with" Productive Ward: Releasing Time to Care" through 2014 continued to be very successful. All improvements were led by different members of the ward teams. Productive Ward training sessions were carried out bi-annually incorporating an MDT attendance.

What was measured/achieved:

- The completion of the major refurbishment of a new staff office, new paediatric examination room and milk room, all of which have enhanced the clinical working environment for all MDT staff members.
- Additional clinical equipment obtained.
- More time "Released to Care".
- Improved patient satisfaction.
- Improved clinical outcomes - identified using data collection, clinical audit/bench marking against our KPIs.
- Financial gains for the ward and organisation – reduction in unnecessary clinical stock, stock control of medication, improved patient outcomes, improved discharge planning.
- Increased staff morale - autonomy and demonstration of ownership.
- Increased Midwifery direct Time to Care: 41% in 2012, 54% in 2013, 72% in 2014.
- Increased HCA direct Time to Care: 51% in 2012, 65% in 2013, 69% in 2014.

Major Achievements

- The introduction of Clinical Handover at the bedside, which commenced in November 2013, has been a very successful initiative to improve patient safety. Clinical handover, at the bedside has emerged to improve the accuracy of handover communication. It promotes a woman-centred approach to care, with direct contribution from the woman, improved safety for women and their babies, increased satisfaction for women and staff. It enables midwives to work in partnership with women. This initiative has assisted in streamlining the discharge process in a more efficient and effective manner, which contributes to better efficiency in the organisation as a whole.
- The allocation of Health Care Assistants to night duty has been an invaluable additional resource.

All our efforts centre around "Releasing Time to Care" in a safe, effective and efficient manner.

Medical Clinic

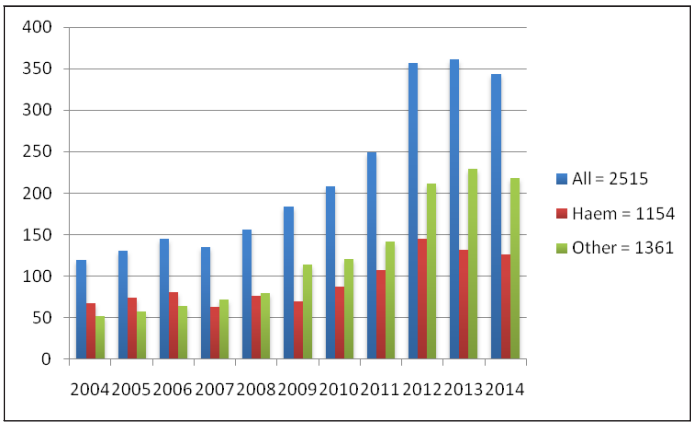
Head of Department

Dr Bridgette Byrne
Dr Caoimhe Lynch
Dr Carmen Regan

Staff Complement

Dr Carmen Regan, Consultant Obstetrician and Gynaecologist
Dr Bridgette Byrne, Consultant Obstetrician and Gynaecologist
Dr Caoimhe Lynch, Consultant Obstetrician and Gynaecologist
Dr Jennifer Walsh, Fellow in Maternal Fetal Medicine, Rotunda Hospital and CWIUH/Columbia University NYC
Dr Etaoin Kent, Fellow in Maternal Fetal Medicine, Rotunda Hospital and CWIUH/Columbia University NYC
Dr Catherine Wall, Consultant in Renal Medicine
Dr Kevin Ryan, Consultant Haematologist (Thrombosis/ Haemostasis)
Dr Catherine Flynn, Consultant Haematologist (General Haematology)
Dr Niall Mulvihill, Consultant Caridologist, St James Hospital
Dr Terry Tan, Consultant in Perioperative Medicine
MrFergus Guilfoyle, Chief Medical Scientist, Blood Transfusion
Ms Una Rice, Pharmacy
Ms Catherine Manning, CMM2, High Risk Service Liaison Midwife

Medical Clinic attendees (Haematology and others) by year of referrral



The Medical Clinic is consultant led high risk service which provides preconceptual, antenatal and postnatal care to women with medical conditions. It is an established referral clinic for complex medical disorders in pregnancy and is the largest of its kind in Ireland. Over two and a half thousand women have been referred to the clinic and this our eleventh Annual Report. Three hundred and forty-four new patients were referredin 2014. The service is comprehensive and includes a dedicated in-patient team with access to three maternal medicine consultants, a liaison high risk midwife, a maternal fetal medicine fellow, a specialist registrar and a multidisciplinary team including haematology, cardiology, renal medicine, pharmacology, blood transfusion and perioperative medicine.

The medical clinic continues to work closely with the NCHCD at St James's Hospital and we acknowledge the huge contribution by our haematological colleagues at in the provision of care to our patient with bleeding and thrombotic disorders. Dr Kevin Ryan co-manages women with haematological disorders and Dr Catherine Wall, consultant in renal medicine, provides expertise in the management of renal disease in pregnancy.

In February 2014 we held a national meeting dedicated to medical disorders in pregnancy entitled "Maternal Medicine – Clinical Cases and Best Practice". The meeting was very well attended and covered a wide range of medical disorders in pregnancy and included discussion on interesting cases. The guest speaker was Lucy Mackillop, Consultant Obstetric Physician from the Womens Centre, Oxford Radcliffe Hospitals, UK who spoke on the "Challenges in Maternal Medicine: 2014 and Beyond", which was well received. This is the second such meeting hosted by our service and generated enthusiasm for future events such that we plan to make it a biannual event.

Key Performance Indicators

In 2014 there were 344 new referrals to the medical clinic many of whom had complex medical conditions. The continued increase in referrals for preconceptual counselling and of pregnant women non haematological conditions reflects recognition of the clinic as a centre of excellence in the care of medical disorders in pregnancy.

Achievements in 2014

- Provision of a consultant led and delivered multidisciplinary clinical service to high risk mothers.
- Dedicated maternal medicine team
- Liaison across a variety of specialties including cardiology, neurology and haematology.
- Optimization of patient care achieved by ease of referral and access to the clinic.
- Monthly multidisciplinary team meetings to discuss

patient management plan involving obstetric, anaesthetic, midwifery and maternal medicine.

- Maintenance of a detailed database for the purpose of research and education
- Continued haematological and non haematological external referrals.
- Recognition of Medical clinic as key element in structured training for Maternal Medicine Fellowship (Coombe Women and Infants Hospital / Rotunda Hospital / Columbia University, NY)
- Development of care pathways for common medical conditions.
- The adaptation of a checklist for women with bleeding disorders, developed by our team as a quality assurance document, for the new national electronic chart.

Challenges for 2015

- In the past few decades our ability to predict and avert adverse obstetric outcome has increased greatly. Women with high risk pregnancies can potentially benefit from increased care and should be identified early in pregnancy. Providing care to high risk patients presents certain challenges.
- The identification of the patient at increased risk is fundamental and ideally should occur preconceptually. High risk patients often have more than one underlying medical condition and are often on disease modifying therapies. Initial consultation in pregnancy should be early in pregnancy when risks can be assessed and a management plan outlined.
- A multidisciplinary team approach and communication with other disciplines is the cornerstone of care in these complex cases. A small number of patients are deemed to be best delivered on a general hospital site for the purpose of access to general or vascular surgery and interventional radiology and we are indebted to our Gynaecological and Anaesthetic colleagues at St James Hospital for their involvement in the care of these women.

Diagnoses of new patients referred to the Medical Clinic

In 2014 there were 344 new referrals to the Medical Clinic.

HAEMATOLOGICAL DISORDERS:

THROMBOSIS/THROMBOPROPHYLAXIS	**59**
HISTORY OF PULMONARY EMBOLISM	21
HISTORY OF DEEP VENOUS THROMBOSIS	17
HISTORY OF MULTIPLE VTEs	2
HISTORY OF SAGITTAL SINUS THROMBOSIS	1
PULMONARY EMBOLISM IN THIS PREGNANCY	6
DEEP VENOUS THROMBOSIS IN THIS PREGNANCY	3
FAMILY HISTORY VENOUS THROMBOSIS EMBOLISM	8
HISTORY OF THROMBOPHLEBITIS	1
CLOTTING FACTOR DEFICIENCIES	**28**
BLEEDING DISORDER UNKNOWN AETIOLOGY	1
FACTOR IX DEFICIENCY	1
FACTOR X DEFICIENCY	1
FACTOR XI DEFICIENCY	4
FACTOR XII DEFICIENCY	1
FACTOR VIII DEFICIENCY	3
VON WILLEBRANDS DISEASE	9
SEVERE HAEMOPHILIA CARRIER	2
FAMILY HISTORY VON WILLEBRANDS DISEASE	3
FMHX FACTOR IX DEFICIENCY	1
PARTNER HAS HAEMOPHILIA	2
THROMBOPHILIA	**12**
APLS	6
PROTEIN S DEFICIENCY	1
PROTEIN C DEFICIENCY	2
FACTOR V LEIDEN	3
PLATELET DISORDERS	**12**
ITP	4
NON-SPECIFIC PLATELET ANTIBODY	1
GESTATIONAL THROMBOCYTOPENIA	5
HX OF NAIT	1
THROMBOCYTOSIS	1
RED CELL DISORDERS	**13**
THALASSEMIA	1
SICKLE CELL DISEASE	2
HEMOCHROMATOSIS	2
HEREDITARY SPHEROCYTOSIS	2
SEVERE ANAEMIA	3
APLASTIC ANAEMIA	1
NEUTROPENIA	2
ONCOLOGY:	**2**
HISTORY OF OVARY TERATOMA	1
HISTORY OF HODGKIN'S LYMPHOMA	1
CARDIAC DISEASE:	**50**
CO-ARCTATION OF THE AORTA	1
ARRHYTHMIAS/PALPITATIONS	16
HISTORY OF CARDIOMYOPATHY	5
CONGENITAL HEART DISEASE	5
HEART MURMUR	8
MITRAL VALVE PROLAPSE	7
MI	1
AORTIC STENOSIS	2
POSTURAL ORTHOSTATIC TACHYCARDIA SYNDROME	1
FMHX AORTIC ANEURYSM	1
FMHX CARDIOMYOPATHY	2
HX CARDIAC ARREST	1
DERMATOLOGY:	**3**
PUSTULAR PSORIASIS	2
EPIDERMOLYSIS BULLOSA	1
HYPERTENSIVE DISEASE:	**20**
ESSENTIAL HYPERTENSION	20
RENAL DISORDERS:	**21**
CHRONIC RENAL DISEASE	5
RENAL CONGENITAL ABNORMALITY	1
DUPLEX KIDNEY	1
HISTORY OF NEPHRECTOMY	4
HISTORY OF RECURRENT UTIs	2
IGA NEPHROPATHY	1
POLYCYSTIC KIDNEY DISEASE	1
SEVERE PROTEINURIA	2
CONN SYNDROME	1
RENAL TRANSPLANT	1
RENAL STENOSIS	1
FOWLERS SYNDROME	1

Diagnoses of new patients referred to the Medical Clinic (cont'd)

CONNECTIVE TISSUE DISEASE:	**21**
SYSTEMIC LUPUS ERYTHEMATOUS	8
EHLERS-DANLOS SYNDROME	2
SPONDYLITIS	1
RHEUMATOID ARTHRITIS	7
MUSCULAR DYSTROPHY	1
PSORIATIC ARTHRITIS	2
RESPIRATORY:	**5**
SARCOIDOSIS	3
LYMPHANGIOLEIOMYOMATOSIS	1
SPONTANEOUS PNEUMOTHORAX	1
CEREBROVASCULAR DISEASE:	**35**
BENIGN INTRACRANIAL HYPERTENSION	4
EPILEPSY	1
HISTORY OF CVA	6
MULTIPLE SCLEROSIS	9
BRAIN TUMOUR	3
HISTORY OF TIA	3
HISTORY OF SYNCOPE	1
ANEURYSM	1
CEREBRAL AVM	2
DOPA RESPONSIVE DYSTONIA	1
SEVERE MIGRAINE	3
VON HIPPEL LINDAU SYNDROME	1

LIVER/GI:	**22**
ULCERATIVE COLITIS	6
CROHN'S DISEASE	9
PRIMARY BILIARY CIRRHOSIS	1
SEVERELY ELEVATED LFTs	2
CONGENITAL IMPERFORATE ANUS	1
LIVER TRANSPLANT	1
PKU	2
PRECONCEPTUAL CARE:	**28**
RECURRENT FETAL LOSS:	**3**
IMMUNOLOGY	2
NON-SPECIFIC AUTOIMMUNE DISEASE	1
COMMON VARIABLE IMMUNOLOGY DISORDER	1
OTHER:	**8**
CADASIL SYNDROME	1
SCHEUERMANNS DISEASE	1
HEREDITARY HAEMORRHAGIC TELANGIECTASIA	1
BEHCET'S	2
SPINE BIFIDA	2
BILATERAL DISLOCATED CRYSTALLINE LENSES	1
AUTO ANTIBODY	1

Adult Outpatients Clinics (Excluding Colposcopy & External Clinics)

Head of Department

Dr Sharon Sheehan – Master/CEO
Dr Tom D'Arcy – Head of Gynaecology Division
Dr Mary Anglim – Lead Consultant EPAU
Dr Michael Carey – Director of Peri-Operative Medicine
Patricia Hughes – Director of Midwifery/Nursing
Frances Richardson – Assistant Director of Midwifery/Nursing
Mary Nolan – Clinical Midwife Manager III

Staff Complement

Midwifery/Nursing Staff [18.5 WTE];
- 1 – CMM III
- 2 – CMM II [EPAU & Gynae Services Coordinator]
- 1 – CMM I
- 13 – Staff Midwives [11.85 WTE]
- 7 – Registered General Nurses
- 2 – Student Midwives
- 1 – Health Care Assistant

Clerical Staff [9 WTE];
- 1 – Grade V
- 7 – Grade IV
- 1 – Grade III [.5 x 2]

Medical Records Staff [3.5 WTE];
- 1 – Grade VI
- 2.5 – Grade III

Achievements in 2014

- Reduction in Did Not Attend [DNA] rates at all Clinics.
- Completion and Implementation of the Lean Process.
- Receipt of Commendation for the Lean Project at Irish Healthcare Awards 2014 in conjunction with MCO Projects.
- Decreased the overall and variability of Patient Experience Times [PET].
- Improved working environment for both patients and staff with the addition of educational television screens in the waiting area.
- Upgraded computers in all Clinic rooms with access to both iPims and NIMIS.
- Diabetic & Antenatal Endocrine Clinic reorganised with increased expansion of the Diabetic Midwives Clinic and Diabetic Education Classes.
- Relocation of Anaesthetic Clinic to a larger refurbished designated area.
- Established a Pre Term Birth Prevention Clinic.
- Appointment of Gynaecological Services Coordinator (CMM II) from June 2014.
- Validation of Gynaecological waiting list commenced in November 2014.
- Continued ongoing education of staff.


IRISH HEALTHCARE AWARDS 2014

Commendation

Presented to

Coombe Women & Infants University Hospital & MCO Projects

for their entry in the **2014 Irish Healthcare Awards**

Outpatient Initiative of the Year

which has been recognised by the 2014 Awards Adjudication Panel for its focus on improving patient care, innovation and collaboration.

Mr David Kelly, Publisher, Irish Medical Times

Challenges for 2015

- To cope with the increasing complexity of cases with diminishing resources.
- Further reduce the DNA rate.
- Full compliance with HIQA Standards.
- Continued validation of Gynaecology waiting list.
- Continued improvement in providing patient information in both leaflet and electronic form.
- Continued upgrading of patient facilities and up-to-date equipment with diminishing resources.
- Continued Staff education.
- Further expansion of Anaesthetic clinic to daily appointments.

Key Performance Indicators

Table 1 - Activity Levels in OPD Adult Clinics 2014

Type of Consultation	Number of women attending or % value where indicated	% increase or decrease compared to 2013
Antenatal Booking History Appointments Made – Public/Semi Private	6716 / 1029	-6.31%
Antenatal Booking History Appointment Attendance – Public/Semi Private	6202 / 984	-2.7% / +13%
Did Not Attend Rate	7.65%	-3.35%
Total Consultant Appointments Made – New, Return, Public, Semi Private, Ante and Post Natal (excludes Diabetic Clinic)	37,666	-7.09%
Did Not Attend Rate	10.68%	-1.02%
Appointments Seen	33,642	-6%
Hospital Based Midwife Appointments Made	3,423	+7.7%
Did Not Attend Rate	8.4%	-1.58%
Diabetic Clinic Appointments Made	5,121	-9.64%
Did Not Attend Rate	15.66%	-2.24%
Diabetic Midwives Appointments Made	718	+37.54%
Did Not Attend Rate	23.39%	-4.01%
Mental Health & Bereavement Appointments Made	647	1st Year on iPMS
Did Not Attend Rate	22.79%	-
Total Ante & Post Natal Appointments Made	54,291	-4.83%
Early Pregnancy Assessment Unit [EPAU] Appointments Made	4,365	-7%
EPAU Manual Seen	4,676	-0.39%
Did Not Attend Rate	8%	-
Anaesthetic, Pre-Op and Pain Clinic Appointments Made	1,017	+4.62%
Did Not Attend Rate	10.2%	-
Total Gynaecology Appointments Made	8,610	-3.42%
Did Not Attend Rate	18.8%	-4.59%
Gynaecology New Appointments Made	2,960	+13.75
Did Not Attend Rate	20.57%	-
Total Appointments in Adult OPD Clinics & Emergency Room Attendance	77,829	-3.9%
Emergency Room Attendance (Manual Count)	9,546	+2.4%

Parent Education & Antenatal Classes

Head of Department

Ms Patricia Hughes, Director of Midwifery & Nursing

Staff Complement

1 WTE Clinical Midwife Manager Grade II: Susanne Daly
0.23 WTE Staff Midwife: Kathy Cleere
0.5 WTE Clerical Support

Key Performance Indicators

- Provision of a comprehensive, parent-focused antenatal education service for women and their partners.
- Provision of an easily accessible family friendly service that reflects parents' needs.
- Individualised education and support where a need is identified
- Resource and support to all clinical staff
- Education and clinical support for Higher Diploma and BSc Midwifery students both in hospital and university – the department provides 2 Parent Education Lectures annually in Trinity College and participates in the clinical assessment of students facilitating Parent Education Classes as required by their curriculum.
- Provision of a Midwives Clinic every Monday in the Outpatient Department.

Achievements in 2014

- 2014 saw an overall increase of attendances to classes to 4,616 (4,316 in 2013).
- Staff trained and became Hypnobirthing Instructors / Members of the Association of Hypnobirthing Midwives / accredited with the RCM

Service	Attendances
Hospital Tour	314
Saturday Class	470
Refresher Class	115
Evening Classes	1776
Introductory Classes	225
Day Classes (Donore)	1572
Multiple Birth Classes	54
1:1 Classes	90
Total	4616

Challenges for 2015

- Introduction of VBAC Workshops
- Introduction of Hypnobirthing Workshops

Perinatal Day Centre

Head of Department

S. Nagarajan, CMM I

Staff Complement

1 WTE CMM1 as above
1 WTE Staff Midwife
0.82 WTE Staff Midwife (M. McDonald)
1 WTE Clerical Staff (K.A. Durbin)

Key Performance Indicators

Indicator	Number
Total number of attendances	12,217
Oral Glucose Tolerance tests	4,044
Fasting Post Prandial bloods	1,087
Cardiotocograph Monitoring	2,661
Blood Pressure series	2,111
Other blood tests	2,700
Diabetic phone ins	1,183
External Cephalic Versions	81
Wound reviews/dressings	429
Admissions	272

Achievements in 2014

- The majority of the performance indicators were increased on 2013. This means that patients were facilitated in having some of their care managed on an ambulatory basis thus reducing the need for admission.
- There was no change in WTE during the year.

Challenges for 2015

To upgrade sanitary ware to comply with hygiene standards.

Preterm Birth Prevention Clinic

Head of Department

Professor Sean Daly

The Preterm Birth Prevention Clinic was established in March 2014.

Indications for referral

- History of PPROM or PTB
- Two LLETZ procedures
- Cone Biopsy
- Known Uterine abnormality
- Trachelectomy

In 2014, the clinic saw 143 patients prior to 30 weeks gestation. After 30 weeks, the patients were seen at a Fetal Medicine Clinic. At each visit, a cervical length measurement is obtained. The clinic utilises quantitative Fetal Fibronectin tests after 18 weeks and uses this information, combined with cervical length measurements, to create individualized care plans of steroids and other management to prevent preterm birth and try to reduce the morbidity associated with early delivery. If the cervix is less than 25mm before 24 weeks a cerclage is offered. Vaginal progesterone is considered after 24 weeks. The clinic is part of a UK based Preterm Birth Network who hope to generate a database which can be used across all sites in the network. This will facilitate data collection and permit easier measurement of outcomes.

Severe Maternal Morbidity & High Dependency Unit

Head of Department

Ms Ann Fergus, CMM III, Delivery Suite

Dr Cliona Murphy, Consultant Obstetrician/Gynaecologist

Dr Bridgette Byrne, Consultant Obstetrician/Gynaecologist

Severe maternal morbidities have been identified using the usual Mantel criteria with the addition of eclampsia, uterine rupture and radiologically proven pulmonary embolism. The format of presentation of the data has changed and the number of cases within each category is reported. It is interesting to note, that there was no case of peripartum hysterectomy or eclampsia this year. Two of the women, one with placental abruption and the other with a first trimester pulmonary embolus, delivered in other hospitals. These cases are included in our report but not in calculation of the rate of severe maternal morbidity as they will be reported separately to NPEC. In total, then, 41 women were identified with criteria for severe maternal morbidity out of 8632 women who delivered babies weighing greater than 500 grams at the Coombe Women and Infants University Hospital (CWIUH) in 2014. This yields an incidence of approximately 4.7 per 1000 maternities, a figure very similar to that reported nationally in 2013 (NPEC report).

Table 1: Number of cases of severe maternal morbidity cared for at the CWIUH in 2014

Maternal Morbidity Categories	
Major Obstetric haemorrhage	25
Uterine rupture	2
Peripartum hysterectomy	0
Eclampsia	0
Renal or liver dysfunction	1
Acute respiratory dysfunction	2
Pulmonary embolism	8
Cardiac arrest	0
Coma	0
Cerebrovascular event	0
Septicaemic shock	3
Anaesthetic problem	0
ICU/CCU admission	5
Diabetic ketoacidosis	3
Total	43*

**Five cases are included under two categories*

High Dependency Unit

The refurbished Labour Ward with a two-room fully equipped High Dependency Unit opened in 2014. The facility is immediately adjacent to the Labour Ward Theatre and as such represents a unique facility in delivering additional monitoring and Level 2 care to mothers antepartum, intra and post partum by Obstetricians, Anaesthetists and Midwives. The leading indications for admission are haemorrhage, hypertension and sepsis. The data for the year are shown in Table 2. The abstract from the six-month audit during the year is shown below.

Key Performance Indicators

Five pregnant or recently pregnant women were transferred out for Level 3 care in 2014.

Achievements in 2014

- A multidisciplinary HDU group has been established that meets bi- monthly to discuss issues specific to the HDU.
- An audit has been conducted of HDU activity over a six-month period that provides insight into patient mix and levels of care required. This work has been presented at local and international meetings and has been submitted for publication.

Challenges for 2015

- Training and maintaining skill in central line management and care of the critically ill pregnant or recently pregnant women.
- Since the refurbishment, admissions to HDU have increased by 60% from 2013 to 2014. Midwifery staffing levels on the Labour Ward need to be increased to facilitate care of these sick women.
- Access to imaging and medical and surgical specialists that are off-site remains challenging.

Table 2: HDU Admissions 2014

Indication for admission	N=	%
Haemorrhage	79	28
Hypertension	78	28
Sepsis	46	16
Medical	28	10
MgSO4	29	10
PE	3	1
Other	12	4
Gynaecology post op	6	2
Total	281	

Severe maternal morbidity: What lies beneath?

Eimer G. O' MALLEY[1], BM BS, Petar POPIVANOV[2], MB, BCh, Ann FERGUS[1], RM, Terry TAN[2], MD, Bridgette BYRNE[1], MD

[1]Department of Obstetrics and Gynaecology, and,

[2]the Department of Anaesthesia and Perioperative Medicine, Coombe Women and Infants University Hospital, Dublin, Ireland

Abstract

Background: Maternal mortality (8), severe maternal morbidity (380) and ICU admission (178) rates (per 100,000 maternities) in the Republic of Ireland have been determined by national audit1. The prevalence of women, who are pregnant or recently pregnant, and require a higher level of monitoring or single organ support in our population, however, is unknown. Determining this figure and understanding the pathologies and type of extra monitoring or support required is important for the planning and optimal delivery of 'critical care' in our maternity services.

Objectives: The aim of this study was to prospectively audit admission to our obstetric High Dependency Unit (HDU) from May 5th to November 5th 2014 to determine a) the prevalence of women needing greater monitoring or single organ support in our obstetric population; b) reason for admission; c) the proportion of cases that are antenatal or postnatal and d) mother and baby outcomes.

Study Design: All women admitted to the HDU between May 5th and November 5th 2014 were identified prospectively and the following data were recorded from chart and record review: Maternal demographics, the indication for admission, whether the admission occurred antenatally or postnatally, the level of care required, invasive monitoring, blood transfusion, mean length of stay, the rate of readmission and of transfer to Intensive Care Unit (ICU), the need for specialist input from other hospitals and mother and baby outcomes.

Results: 4502 women were delivered of babies weighing greater than 500g over the six-month study period. 133 (2.9%) were admitted to HDU. 88 (66%) of these required higher levels of monitoring, 45 (34%) required Level 2 care and two of these were transferred for Level 3 care. The leading indications for admission were haemorrhage (36%), hypertension (29.4%) and sepsis (21.3%). 68.2%of cases were antenatal and 31.8% required HDU care immediately following delivery. The mean duration of HDU stay was 27.2 (+/- 19 SD) hours. There were no maternal deaths. 48.5% of the infants delivered to mothers in HDU were admitted to the Special Care Baby Unit (SCBU) or Neonatal Intensive Care Unit (NICU). There were 6 mothers admitted during the management of intrauterine fetal death and there was one neonatal death during the study period.

Conclusions: These results provide a clear picture of 'what lies beneath' maternal mortality and ICU admission figures for pregnant or recently pregnant women. For every 2000 women that deliver, approximately 60 will need a higher level of monitoring and of those 20 will need Level 2 care and one will require Level 3 care. These figures can inform policy decisions in terms of pathways for care of the critically pregnant woman in any developed country.

Division of Gynaecology

General Gynaecology Report

As had been expected within the department, 2014 was again a busy year. There were more patients treated in 2014 than in 2013. 41% of this activity was obstetric related with increased numbers of caesarean sections both elective and emergency continuing to impact upon the elective gynaecological surgical lists. This increase in obstetric workloads occurred as a consequence of the closure of Mount Carmel Hospital early in 2014.

The Emergency Obstetric Theatre in the Delivery Suite is now operational Monday to Friday from 8.00am to 5.00pm. The nursing resource necessary to run this Theatre is provided through the compliment of Theatre personnel. While a necessary development, it continues to challenge the smooth and efficient running and planning of the elective gynaecological lists.

The trend towards complex and minor laparoscopic procedures over an open laparotomy approach continues. This is welcomed and encouraged and is a reflection of the future development of our Gynaecology Service at the Coombe Women and Infants University Hospital. Nevertheless it provides challenges not least by way of Theatre list organisation against an ever increasing surgical obstetric demand. The need to reconfigure our theatres to accommodate this future trend will be a particular challenge over the coming years.

In achieving its aspirations of efficiency and patient-centred care, the Department of Gynaecology continues to be supported by many members of the Gynaecology Division. In particular, I would like to acknowledge the support of Frances Richardson, Assisted Director of Midwifery and Nursing, Alison Rothwell, CNMIII (Theatre), Kathleen Lynch, CMM II (Day Ward), Mary Nolan CMM II (Outpatients), Clare Smart CMM II (Gynaecology Service Coordinator) and Anita Comerford (Accreditation Project and General Services Manager). Our close working relationship with the associated disciplines of Pathology and Perioperative Medicine contribute to the provision of this very efficient service. I would like in particular to acknowledge the continued support, leadership and collegiality of Prof John O'Leary, Director of Pathology and Dr Michael Carey, Director of Perioperative Medicine.

As I continue to state every year, it is my privilege to acknowledge the professionalism of all members of staff who, contribute on a daily basis to the delivery of a high quality service to all our patients. The challenges imposed by patient and corporate expectation along with decreased financial resources continue to impose challenges. I wish to acknowledge the dedication and commitment of all staff within the hospital which as always is much appreciated.

Dr Tom D'Arcy
Director of Gynaecology

Table 1: Inpatient Surgery

	2009	2010	2011	2012	2013	**2014**
Patients	6150	6239	6362	6202	6212	**6374**
Operations	8354	8733	8652	8650	8980	**8891**

Table 2: Operation Categories

	2009	2010	2011	2012	2013	**2014**
Obstetrical	3023	3185	3300	3239	3308	**3630**
Cervical	1261	1062	1190	1034	838	**882**
Uterine	2416	2683	2553	2668	2897	**2696**
Tubal & Ovarian	968	1036	936	1051	1032	**916**
Vulval & Vaginal	398	437	400	367	522	**408**
Urogynaecology	244	261	226	224	336	**328**
Other	54	86	47	60	47	**31**
Total	8364	8733	8652	8650	8980	**8891**

Table 3: Obstetrical Operations

	2009	2010	2011	2012	2013	**2014**
Lower Segment Caesarean Section (including those with Tubal Ligation)	2165	2257	2358	2280	2229	**2476**
Classical Caesarean Section (including those with Tubal Ligation)	6	4	7	2	4	**3**
Hysterectomy in Pregnancy	7	3	6	2	2	**0**
ERPC	533	493	460	433	494	**586**
ERPC Postpartum	26	25	13	11	13	**19**
Laparotomy for Ectopic *	3	5	3	4	0	**1**
Laparoscopy for Ectopic *	51	59	48	75	47	**73**
Cervical Cerclage	23	30	48	59	61	**61**
Perineal Repair Postpartum in theatre	66	104	137	123	194	**196**
Manual Removal of Placenta	79	95	81	79	123	**94**
Operative Vaginal Delivery in theatre	52	83	103	111	88	**89**
Other	12	27	36	60	53	**32**
Total	3023	3185	3300	3239	3308	**3630**

**method of collecting ectopic data changed in 2013*

Table 4: Cervical Operations

	2009	2010	2011	2012	2013	**2014**
LLETZ/NETZ/SWETZ/LEEP (in theatre)	159	179	196	176	127	**99**
LLETZ/NETZ/SWETZ/LEEP (in clinic)*	841	649	777	677	538	**617**
Cone Biopsy	13	10	10	1	4	**7**
Punch & Wedge Biopsy of Cervix	11	11	13	14	16	**17**
Cervical Polypectomy	61	60	47	42	47	**22**
Diathermy to Cervix	6	8	11	3	8	**16**
Other	170	145	136	121	98	**104**
Total	1261	1062	1190	1034	838	**882**

** Previously only recorded in Colposcopy Clinic Statistics*

Table 5: Uterine Operations

	2009	2010	2011	2012	2013	**2014**
Hysteroscopy:						
– Diagnostic	686	764	804	918	955	**867**
– Operative						
– Myomectomy	17	21	11	11	9	**2**
– Resection of uterine septum	2	2	2	12	1	**5**
– Resection of uterine adhesions	0	1	3	2	2	**1**
– Endometrial polyp	24	61	61	73	46	**73**
– Other	0	3	3	2	0	**8**
Laparoscopy:						
– Laparoscopic assisted Vaginal Hysterectomy	21	40	41	39	38	**36**
– TAH	31	22	7	19	35	**88**
– SAH	3	1	0	0	6	**9**
– Radical Hysterectomy	0	0	0	0	0	**0**
– Myomectomy	13	17	18	5	18	**22**
Laparotomy:						
– TAH	97	93	102	82	67	**15**
– SAH	1	5	1	7	4	**1**
– Radical Hysterectomy	3	2	1	0	0	**0**
– Myomectomy	23	24	19	15	16	**20**
Other:						
– Vaginal Hysterectomy	125	121	92	60	79	**68**
– D&C	542	622	606	735	759	**742**
– TCRE	53	68	58	25	23	**23**
– Endometrial Ablation	0	0	0	2	44	**43**
– Mirena Coil insertion	337	361	347	342	374	**341**
– Mirena Coil removal	93	86	133	119	143	**147**
– Examination under Anaesthesia	281	299	208	150	214	**122**
– Omentectomy	16	21	12	15	11	**9**
– Other	48	49	24	32	53	**54**
Total	2416	2683	2553	2668	2897	**2696**

Table 6: Tubal and Ovarian Operations

	2009	2010	2011	2012	2013	**2014**
Laparoscopy:						
– Diagnostic	323	354	281	379	340	**278**
– Sterilisation	67	80	61	68	88	**42**
– Dye Test	90	125	110	131	125	**106**
– Tubal Reconstructive Surgery	4	1	1	1	2	**0**
– Unilateral Salpingectomy	9	15	14	9	10	**16**
– Bilateral Salpingectomy	2	4	6	10	20	**35**
– Unilateral Oopherectomy	2	10	12	4	5	**13**
– Bilateral Oopherectomy	1	2	2	1	5	**1**
– Unilateral Salpingo-oopherectomy	40	21	10	19	14	**19**
– Bilateral Salpingo-oopherectomy	96	97	85	93	95	**72**
– Unilateral Ovarian Cystectomy	71	79	83	69	49	**73**
– Bilateral Ovarian Cystectomy	16	10	16	9	29	**15**
– Aspiration of Ovarian cyst(s)	8	9	10	9	15	**11**
– Adhesiolysis	94	89	81	69	69	**67**
– Ablation/Diathermy	82	85	110	111	105	**131**
– Other	6	8	4	13	11	**13**
Laparotomy:						
– Sterilisation	1	0	0	1	1	**0**
– Tubal Reconstructive Surgery	2	4	2	4	1	**2**
– Unilateral Salpingectomy	5	2	4	4	3	**2**
– Bilateral Salpingectomy	2	4	9	8	11	**1**
– Unilateral Oopherectomy	5	1	6	2	4	**3**
– Bilateral Oopherectomy	0	0	0	1	1	**0**
– Unilateral Salpingo-oopherectomy	22	12	15	16	11	**6**
– Bilateral Salpingo-oopherectomy	0	0	0	0	0	**0**
– Unilateral Overian Cystectomy	11	16	10	13	0	**8**
– Bilateral Ovarian Cystectomy	3	2	2	0	2	**1**
– Adhesiolysis	3	5	0	6	6	**0**
– Ablation/Diathermy	2	1	2	1	1	**1**
– Other	1	0	0	0	2	**0**
Total	968	1036	936	1051	1032	**916**

Table 7: Vulval and Vaginal Operations*

	2009	2010	2011	2012	2013	**2014**
Simple Vulvectomy	1	2	0	3	2	**4**
Vaginal Repair for Dyspareunia/ Vaginoplasty	6	3	8	5	7	**5**
Posterior Repair	110	120	103	81	130	**91**
Anterior Repair	103	130	112	109	150	**105**
Suturing of Vaginal Vault	0	1	0	2	3	**0**
Hymenectomy/Hymenotomy	2	4	0	1	1	**1**
Excision of Vulval/Vaginal Cysts/Biopsy	61	69	77	78	110	**73**
Bartholin's Cyst/Abcess	22	24	25	23	24	**35**
HPV	7	4	4	3	3	**4**
Labial Reduction	4	7	8	8	9	**6**
Fenton's Procedure	20	14	15	5	8	**9**
Other cyst/abscess/lesions	11	14	6	10	8	**5**
Other	51	45	42	56	67	**70**
Total	398	437	400	367	522	**408**

**excludes Urogynaecology operations and operations for vault prolapse*

Table 8: Urogynaecology*

	2009	2010	2011	2012	2013	**2014**
Laparoscopic Burch/paravaginal repair	0	0	0	6	10	**4**
TVT/TOT/TVTO	96	98	79	70	96	**77**
Bulking Injection	1	3	5	21	17	**12**
Botox injection	0	0	0	12	11	**35**
Vault suspension:						
SSLS	0	6	3	11	20	**19**
LSCP	4	0	3	5	10	**14**
Other	43	46	13	13	26	**6**
Cystoscopy	88	98	114	86	131	**135**
Other	2	10	9	6	15	**26**
Total	234	261	226	224	336	**328**

**includes prolapse operations only for vault prolapse*

SSLS = sacrospinous ligament suspension

LSCP = Laparoscopic sacrocolpopexy

Table 9: Other Operations

	2009	2010	2011	2012	2013	**2014**
Abdominal Wound Dehiscence	1	1	1	0	0	**0**
Appendicectomy	21	27	15	15	12	**9**
Laparotomy for other indication	4	5	6	18	8	**1**
Blood Patch	19	13	8	14	12	**10**
Other	9	23	17	13	15	**11**
Total	54	69	47	60	47	**31**

Table 10: Total Gynaecological Outpatient Attendances

	2009	2010	2011	2012	2013	**2014**
Adolescent	262	248	252	256	143	**144**
Colposcopy	4740	5885	6732	6322	6166	**7009**
Endocrine/Infertility	473	511	582	737	627	**464**
General	3917	3761	3903	3392	4328	**4728**
Urogynaecology	919	1006	1323	1283	1249	**1436**
Anaesthetic	194	464	548	725	905	**913**
Oncology*	589	100	20	3	-	**-**
Cervical Screening**	63	-	-	-	-	**-**
Total	11157	1175	13360	12708	13418	14694

** 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.*

Table 11. Gynaecology Complications & Transfer to HDU/ITU

Complication	N
Blood Transfusion > 5 units	0
Bladder Injury	4
Bowel Injury	4
Other Organ Injury	2
Wound Dehiscence	3
Uterine Perforation	8
Transfer to HDU	2
Transfer to ITU	1
Total	24

Coombe Continence Promotion Unit – Medical Report

Head of Department

Dr Chris Fitzpatrick, Director (Author)

Staff Complement

Dr. Mary Anglim, Consultant
Dr. Gunther Von Bunau, Consultant
Dr. Aoife O'Neill, Consultant
Ms. Eva Fitzsimons, Specialist Urodynamic Midwife
Dr. Gillian Ryan, Specialist Registrar
Dr. Aoife Freyne. Specialist Regisrar
Ms. Margaret Mason, Chartered Physiotherapist
Ms. Eibhlin Mulhall, Chartered Physiotherapist
Ms. Anne Graham, Chartered Physiotherapist
Ms. Julia Hayes, Chartered Physiotherapist
Ms. Clare Farrell, Chartered Physiotherapist

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

- 246 first visits and 936 return visits to Urogynaecology Clinic; 254 urodynamic evaluations; 336 operative procedures ; 95 Day Ward hyaluronic acid bladder instillations
- Diagnostic rate of 91% in patients undergoing urodynamic evaluation

Achievements in 2014

- Continuing expansion of treatment options for women with complex pelvic floor dysfunction - with both vaginal and advanced laparascopic interventions
- Significant increase in Botox treatments for refractory DO
- Expansion of OPD intravesical hyaluronic acid bladder instillations
- Same day admission policy for >90% major cases
- Fast-tracking triage of GP referrals directly to Physiotherapy
- Monthly Urogynaecology MDT meetings

Challenges for 2015

- Expansion of urodynamic sessions
- Expansion of the role of the urodynamic specialist midwife and training of second Urodynamic midwife/nurse
- Expansion of Physiotherapy services

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 2014.

Table 1 Urodynamic Diagnosis (N = 254)

Diagnosis	%
USI	33
USI + DO	25
USI + HRVD	1
DO	25
DO + HRVD	3
HRVD	4
No diagnosis	9
Total	100

USI = urodynamic stress incontinence

DO = detrusor overactivity

HRVD = high residual voiding dysfunction

Table 2 Urogynaecology Operations (2009 – 2014)

	2009	2010	2011	2012	2013	2014
Laparoscopic Burch/paravaginal repair	0	0	0	6	10	4
TVT/TOT/TVTO	96	98	79	70	96	77
Bulking Injection	1	3	5	21	17	12
Botox injection	0	0	0	12	11	35
Vault suspension:						
SSLS	0	6	3	11	20	19
LSCP	4	0	3	5	10	14
Other	43	46	13	13	26	6
Cystoscopy	88	98	114	86	131	135
Other	2	10	9	6	15	26
Total	244	261	226	224	336	328

*Includes prolapse operations only for vault prolapse

SSLS = sacrospinous ligament suspension

LSCP = laparoscopic sacrocolpopexy

Coombe Continence Promotion Unit – Midwifery Report

Head of Department

Dr Chris Fitzpatrick

Staff Complement

0.5 WTE Urodynamics Midwife- Ms Eva Fitzsimons

Introduction

The Coombe Women and Infants University Hospital provides an Outpatients Urodynamic service for women with lower urinary tract/pelvic floor dysfunction attending the hospital. This Midwifery/Nurse-led service strives to provide a holistic and patient-centred approach to urodynamic practice, while maintaining high standards of clinical skills and specialist urogynaecology knowledge.

The aim of urodynamic investigations is to investigate bladder function and dysfunction in women with urinary symptoms i.e. frequency, urgency urinary incontinence and emptying difficulties whilst making accurate measurements in order to detect the underlying causes, providing a patho-physiological explanation for the patient's problems and directing treatment.

Attendance to the clinic can provide women with urinary symptoms, an understanding of bladder function and the appropriate interventions that may be necessary during the course of treatment.

The following services are provided to women attending the clinic:

- Continence promotion and education
- Bladder re-training programme
- Frequency/Volume chart advice and review
- Uroflowmetry and Voiding Cystometry
- Intermittent self-catheterization advice and education
- Advice and information prior to urogynaecology surgery
- Follow-up support post-surgery

Key Performance Indicators

- Provision of urodynamic sessions for women who are referred from the Urogynaecology/Gynaecology service within the hospital. Approximately 254 urodynamic evaluations with a diagnostic rate of 91% in patients undergoing this investigation.
- Provision of pre-operative education for women who may require intermittent self-catheterization during treatment for lower urinary tract dysfunction.
- Resource and clinical advice to staff caring for women with urinary problems.

Achievements in 2014

- Regular multidisciplinary team meetings
- Triage of referrals and fast-tracking to Physiotherapy Services

Challenges for 2015

- Provision of more urodynamic sessions for the increasing number of women attending the Urogynaecology service.
- The development of the role of urodynamics midwife to Clinical Midwife Specialist in Urodynamics and Continence Promotion, thus providing a more structured and dynamic approach to a variety of distressing symptoms that can have a devastating impact on the woman, her family and friends.

Colposcopy Service – Medical & Nursing Report

Head of Department

Dr Tom D'Arcy, Divisional Lead for Gynaecology Department

Staff Complement

Consultant Colposcopists

Dr Tom D'Arcy, Director of Colposcopy
Dr Nadine Farah
Dr Cliona Murphy
Dr Mary Anglim

Nurse Colposcopists

Ms Sinead Cleary
Ms Aoife Kelly

Clinical Nurse Manager

Ms Olivia McCarthy

Gynaecology Oncology Liaison Nurse

Ms Aidin Roberts

Registered General Nurse

Rani Hilarose (0.36 WTE)
Feba Paul (0.33 WTE)

Healthcare Assistants

Amanda Kennedy) (1.0) (Maternity Leave, Feb 2014 to date)
Replaced by Tina Eluke (1.0)
Maria White (0.5 WTE)

Failsafe Officer/Office Manager

Bernie Cummins

Office Administrators

Frances Cunningham
Helen Browne
Helen Conlon (0.5 WTE)

Specialist Registrar

As per 6 month rotation

The service is consultant-led and with two Nurse Colposcopists, Sinéad Cleary and Aoife Kelly. All clinicians are BSCCP-accredited Colposcopists.

Clinic Attendances

First visit attendances showed a significant increase in 2014 on the previous year, 2169 first visits compared to 1847 in 2013 demonstrating a 14.8% increase.

There were 4801 return visits in 2014, (an increase of 9.3%) compared to 4355 follow up visits in 2013. This correlates with the increase in referrals to the service in 2014.

The DNA rates for patients attending the clinic for the first time was slightly higher than last year at 9.31% (202 patients) and again this corresponds with the increase in referral numbers.

We continue to offer patients their appointment within the recommended waiting times set out by Cervical Check, however women continue to report that they are finding it difficult to get time off from work and other commitments to attend the clinic. Despite this, we have seen a very slight decrease on the DNA rates for return visit patients from 25.8% in 2013 to 25.3% in 2014. Notably, the overall DNA rate has decreased slightly from 20.7% in 2013 to 20.4% in 2014.

We endeavour to work closely with women to facilitate changing of appointments by offering early or later time slots to fit in with work and other commitments. Ongoing recognition is owed to our office administrators for their consistent work towards maintaining clinic attendance.

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

Table 1 – Colposcopy attendance figures over last decade *(DNA including ALL patients' data & only available from 2006)

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	**2014**
First Visits	895	864	795	935	847	1764	1769	2004	1815	1847	**2169**
Follow-up Visits	1692	1959	2034	2841	2741	2837	3997	4664	4470	4355	**4801**
Total	2587	2823	2829	3776	3588	4601	5766	6668	6285	6202	**6970**
DNA			*853	1056	852	750	873	1203	1172	1286	**1420**
DNA%			*30	27	23	16.3	15.1	18.0	18.6	20.7	**20.3**

Figure 1 – Attendance at the Colposcopy Clinic at the CWIUH over 10 years (Includes DNA figures from 2006 onwards)

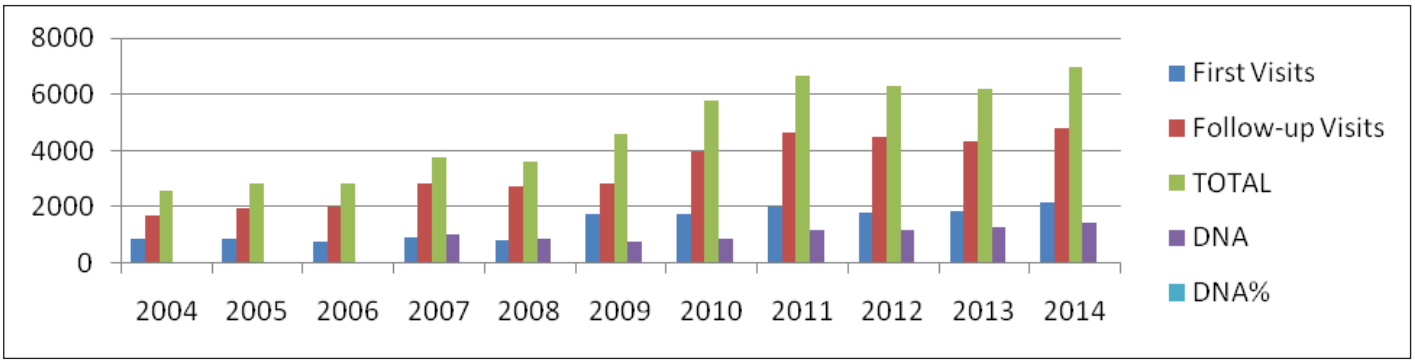


Table 2 – Histological breakdown of the transformation zones which were removed by LLETZ in the clinics during 2014

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	**2014**
No CIN	27	3	4	8	2	9	28	22	15	11	**31**
CIN1	91	89	68	72	95	187	172	201	213	164	**214**
CIN2	177	130	112	99	88	226	175	179	157	104	**129**
CIN3	231	161	202	169	204	406	321	351	271	232	**219**
CGIN	7	8	8	5	11	7	19	10	13	12	**5**
Micro-Invasion	6	1	9	9	7	6	9	4	2	11	**16**
Invasive Neoplasia	1	5	3	2	2	9	7	10	6	4	**3**
Total	539	397	406	357	409	841	731	777	677	538	**617**

Treatment and Histology

The majority of patients with cytological and/or colposcopic evidence of disease are treated within the colposcopy clinic by LLETZ (Large Loop Excision of the Transformation Zone). The indications for treatment in a theatre setting are predominantly based on clinical need, and include extent of disease, glandular abnormality or repeat treatment requiring a NETZ. Very occasionally, patients specifically request that the procedure be carried out in Theatre.

However this year we reduced the number of patients going through theatre from 126 patients in 2013 to 99 patients in 2014.

This included:

- 58 LLETZ
- 41 NETZ, SWETZ

We remain within the Target Clinical Standards set out by BSCCP and Cervical Check for outpatient vs. inpatient treatment setting. See table 3 below.

Table 3

BSCCP CLINICAL STANDARDS	Target	CWIUH
Proportion of LLETZ performed as outpatients	> 80%	90.60%
Proportion of LLETZ as inpatients	< 20%	9.40%
Proportion of women with CIN on histology	> 85%	94.98%

Quality Assurance and MDTs

In 2014 we continued to hold our CPC/MDT meeting fortnightly supported by the Cytopathology and Histopathology departments and our own clinicians. In 2015 we are planning to include Quest Diagnostics via "Go to Meeting" to facilitate live discussion and review of referral cytology processed at their laboratory in New Jersey. We remain grateful to all staff for the significant commitment required to hold these meetings.

Colposcopy service provision is based upon Quality Standards set out by the National Cancer Screening Service (NCSS). These encompass organisational standards such as facilities, system management, and staffing, clinical and administrative management and governance structures. The CWIUH Colposcopy department continually reviews our practice against these standards and we have maintained a high level of compliance within the Quality Standards criteria.

We continue to meet waiting time targets for referrals as suggested by Cervical Check. This is achieved by consistent review of available appointment slots and filling of vacant slots as they arise through patient cancellation or postponement.

In April 2014 a new management pathway was introduced by Cervical Check which changed the follow-up management of women presenting with low grade changes on cytology. We now review patients at Colposcopy and if Colposcopy is normal or low grade, with or without concurrent low grade cytology or histology, patients are now followed up through the smear clinic with cytology and HPV testing 12 months later. This has reduced the need for women to undergo further Colposcopy and has enabled an earlier discharge to primary care when found to be HPV negative. Whilst this has impacted on reducing patients need to return to Colposcopy it has increased the volume of patients coming through the smear clinics.

Future plans

Cervical Check is aiming to introduce HPV triage in the community in the summer of 2015. This will direct only those patients who have low grade cytological changes and are positive for High Risk HPV and those patients with high grade changes into Colposcopy. However we expect to see another increase in referrals owing to these management changes.

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

Olivia McCarthy
CNM 2 Colposcopy

Dr Tom D'Arcy
Director of Colposcopy

Colposcopy Service – Nurse Colposcopists Report

Head of Department

Dr Tom D'Arcy

Staff Complement

1 WTE Nurse Colposcopist S Cleary (Co-author)
1 WTE Nurse Colposcopist A Kelly (Co-author)

Key Performance Indicators

The management of a caseload of patients in the colposcopy outpatient setting, as directed by the Lead Consultant for Colposcopy and where necessary, cover for the doctors if they are away.

Support the Clinical Lead and Nurse Manager in the on-going development of the service.

Provide a positive learning environment for nursing and qualified staff and ensure that their learning needs are met. This includes teaching colposcopy to registrars and cervical screening course students.

Implementation of evidence based policies and protocols, developed in conjunction with the Nurse Manager and the Clinical Lead in line with BSCCP and NCSS guidelines.

Achievements in 2014

Nurse Colposcopists' Activity in 2014

	N=
New Patients	1482
Follow-up Patients	2765
Excisional Treatments (LLETZ)	474
Diagnostic Biopsies	823
Micro-invasive cervical cancer diagnosed	17
Adenocarcinoma in situ diagnosed	12

Other achievements included:

- Facilitating and co-ordinating MDT clinic-pathological conferences (C.P.C.)
- Medication prescribing
- Lecturing for Higher Diploma in Midwifery Students on cervical screening, excisional treatment and cervical cerclage
- Submitted audit on "Compliance with the National Cervical Screening Programme's attendance and waiting times" for the Dr James Clinch Award for Audit
- Attendance at one-day meeting – Nurses in Colposcopy Clinic in Ireland Association (NICCIA) in Letterkenny in November

Challenges for 2015

- To meet the increased referrals anticipated following the implementation of HPV screening in primary care
- To continue to provide the highest standard of Colposcopy Service to an increasingly complex patient caseload
- To perform further audits and presentations

Gynaecology Oncology Liaison Nurse

Head of Department

Dr Tom D'Arcy

Staff Complement

0.5 WTE Gynae Oncology Nurse, Aideen Roberts, (Author)

Key Performance Indicators

	2012	2013	**2014**
Cervix	22	29	**38**
Corpus Uteri	21	27	**32**
Ovary: Invasive Borderline	6 7	9 8	**10** **4**
Vulva	3	2	**4**
Other Cancers: Breast Lymphoma Renal		 1 1	 **3**

Achievements in 2014

- CWIUH has strong linkage to St. James Hospital. This role is an essential one that ensures that a seamless pathway of care is maintained for the patients diagnosed with a gynae malignancy.
- Visible presence in both the inpatient and outpatient environment, working closely with the team in Colposcopy, St Gerard's ward and Gynae Day Ward.
- Present with Dr. D'Arcy when women are informed of their cancer diagnosis and contact numbers are given to the patient.
- Advise women to keep in contact if they have any issues or further concerns.
- Provide telephone advice, consultation and reassurance.
- Attend multi-disciplinary meetings, weekly gynae-oncology multidisciplinary meeting in St. James Hospital and fortnightly CIN/CPC meeting in the CWUIH.
- Attended 19 CINCPC meetings in CWIUH & 41 MDT meetings in SJH.
- Organise the relevant imaging and biopsies that are required for staging purposes in new cases or in cases where there is a suspicion that there is a recurrence of the cancer.
- Responsible for the booking of beds for admission for both diagnostic and therapeutic purposes and the submission of patient's details for SJH MDT meeting.
- Liaison with all divisions of the gynae oncology team, including the co-ordinating of referrals to both radiation and medical oncology, for patients who require adjuvant treatment.
- Meet with both the women and their families pre and post operatively, providing both verbal and written information and support regarding their gynae-oncology surgery and their possible need for further treatment.
- Provision of a seamless pathway of referral to the Gynaecological Oncology Service in SJH. Where a confirmed cancer diagnosis has been made, the referring team contacts me, where a scheduled appointment for the patient, is given, to see the gynae-oncologist within 2 weeks.
- Attended BGCS conference in July 2014

Challenges for 2015

- 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.
- A second Gynae Oncologist will be appointed to support the service in the CWIUH and SJH and will be in post in 2015.
- All invasive carcinomas or suspected malignancies will be phoned directly to the Gynaecology Oncology Liaison Nurse.
- It is envisaged that all FIGO stage 1A1 cervical cancers diagnosed in St. James Hospital will have follow up through the CWIUH service.
- It is further envisaged that additional consultant gynae oncologists will be appointed to support the service in the CWIUH and SJH.

Hysterosalpingocontrastsonography (HyCoSy) Service

Consultant

Dr Nadine Farah

Clinical Research Fellow

Dr Sasikala Selvamani

Clinical Research Fellow

Ms Aideen O'Connor

Key Performance Indicators

- Procedures performed: 181
- Procedures abandoned: 3
- Tubal patency diagnosed in 149 women
- In eight women a diagnosis of an endometrial polyp or a submucosal fibroid was made all of which were confirmed by hysteroscopy

Operating Theatre Department

Heads of Department

Dr Tom D'Arcy,Director of Gynaecology Division

Dr Michael Carey, Director of Perioperative Medicine/ Anaesthesia

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

Ms Alison Rothwell, CNM III, Theatre Manager

Staff Complement

Approved posts - 28 WTE & Total as of 31st December 3014 was 30.06 WTE

CNM 3 x 1 WTE

CMM 2 x 1.5 WTE

CNM 2 (Anaesthetics) x 1 WTE

Staff Midwives x 6.85 WTE

RGN 19.71 WTE

Key Performance Indicators

The number of women delivering by Caesarean Section in the Coombe has increased in 2014, with an additional workload resulting from the closure of Mount Carmel Private Hospital at the beginning of the year. Overall activity through the department increased, with 5757 surgical patients being processed through theatres. Provision of a Midwives Clinic every Monday in the Outpatient Department.

Achievements in 2014

- The Emergency Obstetric Theatre in the DS is operational Mon-Fri, 8-5.
- As for all elective work (obs and gynae), the WHO Checklist is now undertaken for all emergency gynaecology and minor obstetric emergency cases.
- Plans for the launch of a 5-day anaesthetic clinic service are advanced, with a launch scheduled for early 2015. The physical unit is ready. From the launch of the 5-day service, all elective gynaecology women and ultimately all elective obstetric women scheduled for surgery will be reviewed at this clinic, prior to admission.
- 4 theatre staff under took the ACLS training programme.

Challenges for 2015

- To progress the fire evacuation plan for the Department.
- To fully implement the Safe Surgery practice of WHO Checklist, to include all women including emergency caesarean sections, to include antibiotic prophylaxis and VTE prophylaxis as routine verifications within the process, and to improve on the 'sign out' element.
- To review and further develop information sheets for women, with a view to better meeting the information requirements for women consenting to undergo surgical procedures.
- To audit and review the gynaecology chart and packs associated with its use, following its introduction in 2012.
- To be accepted onto the HSE TPOT (productive operating theatre) programme.

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
Admissions to Neonatal Centre	1087*
Infants > 1.5kg	936

** including readmissions*

Table 1.2: Main Indications for Admission to the Neonatal Centre*

Prematurity < 37 weeks	212
Low birth weight < 2.5 Kg	199
Hypoglycaemia	89
Jaundice	97
Suspected sepsis	103
Respiratory symptomatology	180
Neonatal abstinence syndrome	8
Congenital abnormalities	51
Perinatal stress	24
HIE	28
Congenital toxoplasmosis	0
Gastro-Intestinal symptoms	41
Cardiology	26
Social	3
Dehydration	3
Seizures	3

** Some infants are assigned more than one reason for admission*

Section 2: VLBW Infants

Table 2.1: Number of cases reported to the VON 2014

	All Cases	Number of cases excluding congenital anomalies
Infants < 401g but ≥22 wks gestation	0	0
Infants 401-500g	1	1
Infants 501-1500g	114	112
Infants > 1500g but ≤29 wks gestation	2	2
Total	117	115

Table 2.2: Gestational age breakdown and survival to discharge of all infants reported to VON (including those with congenital anomalies) 2014 (n=117)

Gestational Age	Inborn Infant	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	2	0 (0%)	0 (0%)	0	0	0	0
23 wks	2	1 (50.0%)	1 (50.0%)	0	0	0	1 (50.0%)
24 wks	11	9 (81.8%)	7 (63.6%)	1	1 (100%)	1 (100%)	8 (66.7%)
25 wks	3	3 (100%)	3 (100%)	1	1 (100%)	1 (100%)	4 (100%)
26 wks	13	9 (69.2%)	9 (69.2%)	1	1 (100%)	1 (100%)	10 (71.4%)
27 wks	15	15 (100%)	14 (93.3%)	0	0	0	14 (93.3%)
28 wks	14	14 (100%)	14 (100%)	3	3 (100%)	3 (100%)	17 (100%)
29 wks	20	19 (95.0%)	19 (95.0%)	3	3 (100%)	3 (100%)	22 (95.7%)
30 wks	9	9 (100%)	9 (100%)	0	0	0	9 (100%)
31 wks	6	6 (100%)	6 (100%)	1	1 (100%)	1 (100%)	7 (100%)
32 wks	6	6 (100%)	6 (100%)	1	1 (100%)	1 (100%)	7 (100%)
> 32 wks	5	5 (100%)	5 (100%)	0	0	0	5 (100%)
Total	106	96 (90.6%)	93 (87.7%)	11	11 (100%)	11 (100%)	104 (88.9%)

Table 2.3: Birth weight and survival to discharge of all infants reported to VON (including those with congenital anomalies) 2014 (n=117)

Gestational Age	Inborn Infant	Survival to 28 days	Survival to Discharge	Outborn Infants	Survival to 28 days	Survival to Discharge	Total Survival to Discharge
<501g	1	0 (0.0%)	0 (0.0%)	0	0	0	0 (0.0%)
501-600g	9	6 (66.7%)	5 (55.6%)	0	0	0	5 (55.6%)
601-700g	8	7 (87.5%)	6 (75.0%)	0	0	0	6 (75.0%)
701-800g	8	7 (87.5%)	6 (75.0%)	0	0	0	6 (75.0%)
801-900g	10	9 (90%)	9 (90.0%)	2	2 (100%)	2 (100%)	11 (91.7%)
901-1000g	14	12 (85.7%)	12 (85.7%)	2	2 (100%)	2 (100%)	14 (87.5%)
1001-1100g	18	18 (100%)	18 (100%)	0	0	0	18 (100%)
1101-1200g	3	3 (100%)	3 (100%)	4	4 (100%)	4 (100%)	7 (100%)
1201-1300g	9	9 (100%)	9 (100%)	2	2 (100%)	2 (100%)	11 (100%)
1301-1400g	11	11 (100%)	11 (100%)	1	1 (100%)	1 (100%)	12 (100%)
>1400g	15	14 (93.3%)	14 (93.3%)	0	0	0	14 (93.3%)
Total	106	96 (90.6%)	93 (87.7%)	11	11 (100%)	11 (100%)	104 (88.9%)

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=114)

	CWIUH Infants 501-1500g (n=114)	VON Infants 501-1500g (%)	ROI Infants 501-1500g (%)
Inborn	103 (90.4%)	86.8%	90.6%
Male	63 (55.3%)	50.5%	55.9%
Antenatal Steroids (partial or complete)	109 (96.5%) (n=113)	81.6%	88.8%
C/S	80 (70.2%)	72.6%	71.3%
Antenatal Magnesium Sulphate	86 (76.1%) (n=113)	52.4%	52.3%
Multiple Gestation	49 (43.0%)	28.0%	32.8%
Any major birth defect	9 (7.9%)	4.8%	9.2%
Small for gestational age	26 (22.8%)	23.7%	25.1%
Surfactant in DR	47 (41.2%)	26.8%	35.9%
Conventional Ventilation	59 (53.6%) (n=110)	56.6%	52.2%
High Frequency Ventilation	1 (0.9%) (n=110)	20.3%	10.7%
Any Ventilation	59 (53.6%) (n=110)	58.8%	52.6%
High Flow Nasal Cannula	20 (18.2%) (n=110)	53.7%	26.9%
Nasal IMV/SIMV	0 (0.0%) (n=110)	30.7%	20.2%
Nasal CPAP	95 (86.4%) (n=110)	76.1%	80.8%
Nasal CPAP before ETT Ventilation	61 (61.0%) (n=100)	57.1%	59.6%
Ventilation after Early CPAP	18 (29.5%) (n=61)	37.4%	33.8%
Surfactant at any time	73 (64.0%)	58.8%	56.4%
Steroids for CLD	4 (3.6%) (n=110)	9.0%	4.9%
Inhaled Nitric Oxide	8 (7.3%) (n=110)	4.6%	8.6%
RDS	100 (90.9%) (n=110)	72.5%	80.6%
Pneumothorax	4 (3.6%) (n=110)	4.3%	6.2%
Chronic Lung Disease (at 36 wks)	13 (12.7%) (n=102)	24.8%	22.0%
Chronic Lung Disease, Infants <33 wks	13 (13.4%) (n=97)	26.3%	24.2%
Early Bacterial Infection	4 (3.6%) (n=110)	2.3%	1.5%
Late Bacterial Infection	4 (3.7%) (n=108)	8.3%	6.7%
CONS Infection	5 (4.6%) (n=108)	5.3%	9.0%
Nosocomial Bacterial Infection	9 (8.3%) (n=108)	11.8%	13.9%
Fungal Infection	1 (0.9%) (n=108)	0.8%	0.4%
Any Late Infection (Bacterial or Fungal)	9 (8.3%) (n=108)	12.2%	14.0%
NEC Surgery	3 (2.7%) (n=110)	3.3%	1.1%
PDA ligation	0 (0.0%) (n=110)	4.5%	1.7%

(continued on next page)

Table 2.4 (*continued*): 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=114)

	CWIUH Infants 501-1500g (n=114)	VON Infants 501-1500g (%)	ROI Infants 501-1500g (%)
Surgery for ROP	1 (0.9%) (n=128)	2.6%	3.2%
Any Grade of IVH (Grade I-IV)	18 (16.7%) (n=108)	24.2%	22.1%
Severe IVH (Grade III-IV)	5 (4.6%) (n=108)	7.9%	7.0%
Cystic PVL	1 (0.9%) (n=108)	2.8%	0.6%
Retinopathy of Prematurity	17 (19.8%) (n=86)	31.1%	12.9%
Severe ROP (Stage 3 or more)	2 (2.3%) (n=86)	5.9%	3.2%
Anti-VEGF Drug	0 (0.0%) (n=110)	1.1%	0.6%
GI perforation	3 (2.7%) (n=110)	1.8%	0.6%
Indomethacin	0 (0%) (n=110)	14.5%	0%
NEC	6 (5.5%) (n=110)	5.4%	6.3%
PDA	15 (13.6%) (n=110)	28.2%	27.9%
Ibuprofen for PDA	0 (0%) (n=110)	6.8%	8.0%
Probiotics	101 (91.8%) (n=110)	12.0%	45.7%
Mortality	11 (10.0%) (n=110)	11.9%	14.5%
Mortality excluding Early Deaths	6 (5.7%) (n=105)	9.0%	8.6%
Survival	99 (90.0%) (n=110)	88.1%	85.5%
Survival without Specified Morbidities	79 (71.8%) (n=110)	58.3%	55.0%

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

	SMR (95% confidence interval) For Year 2014	SMR (95% confidence interval) For 3 Year 2012-2014
Mortality	1.0 (0.6-1.5)	1.1 (0.8-1.4)
Death or Morbidity	0.8 (0.6-1.0)	0.8 (0.7-0.9)
CLD	0.6 (0.4-0.9)	0.6 (0.5-0.8)
CLD in <33 wks GA	0.6 (0.4-0.9)	0.6 (0.5-0.8)
NEC, any location	1.0 (0.5-1.7)	1.2 (0.8-1.7)
Late Bacterial Infection, any location	0.5 (0.2-1.0)	0.8 (0.5-1.1)
Coagulase Negative Infection, any location	0.8 (0.3-1.6)	0.7 (0.4-1.1)
Nosocomial Infection, any location	0.7 (0.4-1.2)	0.8 (0.6-1.1)
Fungal Infection, any location	1.0 (0.0-3.5)	1.0 (0.2-2.4)
Any Late Infection, any location	0.7 (0.4-1.2)	0.8 (0.6-1.1)
Any IVH, any location	0.8 (0.6-1.1)	1.0 (0.8-1.2)
Severe IVH	0.9 (0.5-1.4)	0.9 (0.6-1.2)
Pneumothorax, any location	0.9 (0.5-1.6)	1.1 (0.7-1.6)
Cystic PVL	0.7 (0.2-1.5)	0.8 (0.4-1.3)
Any ROP	0.7 (0.4-1.0)	0.7 (0.5-0.8)
Severe ROP	0.6 (0.2-1.2)	0.6 (0.3-0.9)

Section 3: Hypoxic Ischaemic Encephalopathy & Mortality Tables

Table 3.1: Hypoxic Ischaemic Encephalopathy

	Inborn	Outborn
Hypoxic Ischaemic Encephalopathy (HIE)	20	8
– Mild HIE (Grade 1)	13	2
– Moderate HIE (Grade 2)	6	4
– Severe HIE (Grade 3)	1	2
Therapeutic Hypothermia	7	5

Table 3.2: Mortality - Inborn infants with congenital anomalies (12)

Birthweight (g)	Gestational Age	Apgar Scores	Age at Death (day of life)	Place of Death	Abnormality (leading to death)
1750	39^{+0}	2, 5	1	CWIUH (DS)	Trisomy 18 AND
*1780	31^{+2}	4, 6	92	OLCHC	Pulmonary hypoplasia, Persistent pulmonary hypertension of the newborn (pPROM from 15/40), Extensive cortical dysplasia, Polymicrogyria, Arthrogryposis AND
*2000	31^{+0}	6, 6	91	CWIUH	Cardio-Facio-Cutaneous syndrome (RASopathy), Pulmonary stenosis, Biventricular hypertrophy, Chylothorax
*2070	34^{+3}	9, 10	68	OLCHC	Dextrocardia, Pulmonary atresia, Complex congenital heart disease AND
*2500	37^{+1}	3, 7	45	OLCHC	Spinal muscular atrophy
2540	36^{+3}	8, 6	3	CWIUH	Posterior urethral valve, Pulmonary hypoplasia AND
*2790	38^{+4}	7, 8	57	OLCHC	Sudden infant death syndrome (Category 2), Duodenal atresia, Trisomy 21 AND
*3020	38^{+1}	9, 9	184	OLCHC	Omphalocoele (Exomphalos major) AND
*3226	37^{+1}	8, 9	70	OLCHC	Complete AVSD, Common AV valve, Common ventricle, Double outlet from single ventricle, Complex congenital heart disease AND
*3230	36^{+0}	9, 10	315	UK	MPS 1 (Hurler syndrome)
3485	40^{+3}	9, 10	10	TSH	Urea cycle defect (OTC)
4360	38^{+6}	1, 3	2	OLCHC	Congenital diaphragmatic hernia (left sided) AND

AND Antenatally diagnosed malformation

** Infant death*

Table 3.4: Mortality - Inborn infants normally formed >1500g (4)

Birthweight (g)	Gestational Age	Apgar Scores	Age at Death (day of life)	Place of Death	Cause of Death
258	19^{+5}	1,1	1	CWIUH (DS)	Extreme prematurity, Not resuscitated
355	21^{+0}	2, 2	1	CWIUH (DS)	Extreme prematurity, Not resuscitated
365	21^{+0}	1, 1	1	CWIUH (DS)	Extreme prematurity, Not resuscitated
385	21^{+3}	1,1	1	CWIUH (DS)	Extreme prematurity, Not resuscitated
460	22^{+3}	1, 0	1	CWIUH (DS)	Extreme prematurity, Not resuscitated
*520	24^{+2}	2, 3	78	CWIUH	Bilateral grade IV intraventricular haemorrhage (IVH) with subsequent Hydrocephalus, Encephalomalacia
530	22^{+5}	8, 6	1	CWIUH (DS)	Extreme prematurity, Not resuscitated
560	24^{+2}	1, 1	1	CWIUH (DS)	Massive pulmonary haemorrhage, Extreme prematurity
562	23^{+1}	1, 0	1	CWIUH (DS)	Extreme prematurity, Not resuscitated
*630	24^{+0}	6, 7	39	OLCHC	Necrotising enterocolitis
700	24^{+0}	1, 6	9	CWIUH	Necrotising enterocolitis, Late onset sepsis (Klebsiella oxytoca), Grade IV IVH rt. side
710	26^{+3}	4, 6	4	CWIUH	Severe respiratory distress syndrome, Persistent pulmonary hypertension of the newborn, Grade IV IVH lt. side
*710	27^{+1}	7,8	71	TSH	Necrotising enterocolitis
850	26^{+4}	2, 4	1	CWIUH (DS)	Early onset sepsis (E.coli)
920	26^{+4}	2, 6	2	CWIUH	Early onset sepsis (E.coli)
950	26^{+0}	1, 2	1	CWIUH	Early onset sepsis (GBS)
1500	29^{+3}	2, 2	1	CWIUH	Neonatal pneumonia, Early onset sepsis (no organism identified)

* *Infant death*

Table 3.5: Mortality - Outborn infants with congenital anomalies (3)

Birthweight (g)	Gestational Age	Apgar Scores	Age at Death (day of life)	Place of Death	Cause of Death
1680	30^{+5}	5, 5	1	CWIUH	Necrotising enterocolitis, Early onset sepsis (no organism identified)
1990	34^{+2}	1, 1	1	CWIUH(DS)	Congenital CMV infection with Massive pulmonary haemorrhage and Disseminated intravascular coagulopathy
*3540	40^{+1}	8, 9	224	OLCHC	Suspected catastrophic arrhythmia (sec. to Endocardial fibroelastosis)
3900	39^{+2}	2, 3	2	CWIUH	HIE Grade 3

** - Infant death*
† - Not included in VON figures, transfer to CWIUH for assessment and comfort/palliative care

Table 3.5: Mortality - Outborn infants with congenital anomalies (3)

Birthweight (g)	Gestational Age	Apgar Scores	Age at Death (day of life)	Place of Death	Cause of Death
1400†	32^{+5}	6, 9	4	CWIUH	Complex congenital heart disease (inoperable), Cleft lip & palate, Abnormal kidneys, Dysmorphic features
*2420	38^{+0}	6, 6	53	OLCHC	Peroxisomal disorder (Zellweger syndrome)
2660	37^{+3}	2, 6	5	CWIUH	Arthrogryposis congenita multiplex

** infant death*

† Not included in VON figures, transfer to CWIUH for assessment and comfort/palliative care

Table 3.6: Mortality - Outborn infants normally formed ≤ 1500g (0)

Table 3.7: Mortality - Outborn infants normally formed >1500g (2)

Birthweight (g)	Gestational Age	Apgar Scores	Age at Death (day of life)	Place of Death	Cause of Death (Referring Hospital)
3330	40^{+1}	4, 4	3	CWIUH	HIE Grade III
4480	39^{+6}	9, 9	7	CWIUH	Sudden unexpected early neonatal collapse, HIE Grade III

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

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

Transient tachypnoea of the newborn	102
Respiratory distress syndrome	19
Air leak	15
Meconium aspiration syndrome	15
Aspiration pneumonia	1
Congenital pneumonia	2
Persistent pulmonary hypertension of the newborn	36
Congenital diaphragmatic hernia	7
Tracheo-Oesophageal fistula	3
Congenital cystic adenomatoid malformation (CCAM)	3
Airway pathology	2
Pulmonary hypoplasia	2
Non-haemolytic	22
Haemolytic	
– ABO	37
– RH	14
– Other	0

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

Table 5.1: Gastrointestinal Tract Anomalies

Cleft lip	3
Cleft palate +/- lip	4
Pierre-Robin sequence	1
Bowel atresia/obstruction	8
Imperforated anus/ anal anomalies	1
Tracheoesophageal fistula/esophageal atresia	3
Pyloric stenosis	1
Omphalocele	6
Gastroschisis	6

Table 5.2: Urinary and Genital System Anomalies

Renal agenesis	3
Multicystic kidneys unilateral/bilateral	4
Hydronephrosis +/- Vesicoureteral reflux	10
Posterior urethral valve	1
Duplex kidney	4
Ectopic kidneys	1
Horseshoe kidney	1
Bladder extrophy	1
Hypospadias	7
Micropenis	2

Table 5.3: Neural System Anomalies

Anencephaly	0
Meningomyelocele +/- ventriculomegaly	4
Ventriculomegaly (isolated)	2
Hydraencephaly	1
Corpus callosum agenesis	1
Dandy-Walker malformation	1
Optic nerve atrophy	1

Table 5.4: Skin Anomalies

Haemangioma (extensive)	1
Albinism	1

Table 5.5: Respiratory System Anomalies

Congenital diaphragmatic hernia	10
Congenital cystic adenomatoid malformation	3
Vocal cord palsy	1
Choanal atresia	1

Table 5.6: Musculoskeletal Anomalies

Congenital deformities of feet	9
Arthrogryposis	3
Digital anomalies	5
Radial deformity	1
Congenital hip dysplasia	135

Table 5.7: Cardiac Anomalies

Isolated ventricular septal defect	15
Transposition of the great arteries	2
Hypoplastic left heart syndrome	4
Aortic stenosis	6
Aortic coarctation, Aortic arch anomalies	3
Pulmonary stenosis/atresia	3
Tricuspid valve anomalies	2
Tetralogy of Fallot	2
Atrioventricular septal defect	2
Patent Ductus Arteriosus (not in preterm)	8
Atrial septal defect	3
Supraventricular tachycardia/cardiac rhythm anomalies	3
Complex cardiac anomalies	9
Cardiomyopathy	1

Table 5.8: Chromosomal Anomalies

Trisomy 21	22
Trisomy 18	1
Trisomy 13	0
Turner syndrome	1
18q deletion	1
Rubinstein Taybi syndrome	1
Beckwith-Wiedemann syndrome	1
Cardio-Facio-Cutaneous syndrome (RASopathy)	1

Table 5.9: Other Disorders Associated with Dysmorphic Features/Anomalies

Peroxisomal disorder	1
Spinal muscular atrophy	1
MPS 1 (Hurler syndrome)	1

Report

The year 2014 was overall very good for the Department of Paediatrics & Newborn Medicine. The number of very low birth weight (VLBW) infants decreased compared to the last year (Figure 1). I would like to thank all the nursing, medical, 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/midwifery 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.

Comparison with Previous Reports

The Paediatric Report 2014 shows excellent outcomes in VLBW infants. The overall survival in this weight category for the year 2014 was 88.5% (Figure 2) and importantly survival of VLBW infants without specified morbidities was 70.8% (Figure 3).

Our VLBW cohort is continuing to show low incidence of severe intraventricular/periventricular (PIVH) haemorrhages (4.6%). There were 2 infants with severe retinopathy of prematurity (ROP) (stage 3 or more). Trends over the last decade for intracranial abnormalities and severe ROP are documented in Figure 4.

There is a very positive continuous trend of using non-invasive forms of ventilation. We believe this is leading to our continuing low incidence of chronic lung disease. This is reflected in Shrunken Standardised Morbidity over the last 3 years (0.6; 95% confidence interval 0.5 – 0.8). Respiratory morbidity over the last decade is shown in Figure 5.

In relation to patent ductus arteriosus (PDA), 13.6% of our VLBW infants had PDA. 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 no case of ligation in 2014 (Figure 7).

I am very happy to report that our initiative to decrease late onset bacterial infection is successful and the rate for any late bacterial infection was 8.3% and that represents the lowest incidence of late onset sepsis in our neonatal unit since 2002 (Figure 6). This decrease is most likely caused by multiple activities in place in our NICU, including care bundles, a decrease in blood sampling and a dedicated "bug buster" team. The trend of late onset infections together with necrotising enterocolitis is documented in Figure 6.

In relation to hypoxic ischaemic encephalopathy (HIE), there were 15 infants who were classified as HIE grade I

(increased compared to 2013), 10 classified as HIE grade II (4 outborn infants) and 3 classified as HIE grade III. The Neonatal Intensive Care Unit is the centre for total body cooling therapy for infants with defined criteria (TOBY trial criteria), where this therapy would be commenced within 6 hours of birth. In keeping with other neonatal units within maternity hospitals in Dublin, we receive infants from other hospitals for assessment with regard to body cooling therapy. 12 infants were treated by Total Body Cooling in the year 2014.

In relation to main indications for admission, prematurity, respiratory disorders, low birth weight and hypoglycaemia continue to be the commonest reason for admission.

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. For the first time we are presenting all babies born with congenital abnormalities in the Coombe Women and Infants University Hospital (as in the previous reports we presented only babies with congenital abnormalities admitted to the neonatal unit).

There were important additions to our team during the year 2014: Dr. John Kelleher was appointed as Consultant Neonatologist (replacement post for Dr. Margaret Sheridan-Pereira), Dr. Jan Franta was appointed as Consultant Neonatologist and Clinical Lead for Neonatal Transport with 1/3 of his commitment being in CWIUH and finally Dr. Eleanor Molloy was appointed as Professor of Paediatrics in Trinity College and this strengthens our academic portfolio as Professor Molloy joined the research team in CWIUH.

In 2014, we continued specialised follow up clinics for very low birth weight infants and infants with moderate to severe HIE. These clinics were led by Dr. Joanne Balfe, Consultant in Developmental Paediatrics and Dr. Suzanne Kelleher, Consultant in Developmental Paediatrics. We are expecting the first long term outcome results in next year's report. I would like to thank Dr. Saulius Satas, Dr. Anne Doolan and Dr. Clodagh Sweeney for their contribution to the Paediatric and Newborn service in the CWIUH in 2014.

With the support of the Master of the hospital we started our Developmental Dysplasia of the Hips screening programme (early ultrasound screening) for high risk infants.

I would like to thank my Paediatric Registrar colleagues, Dr. Nosheen Akhtar and Dr. Jana Semberova, Database Co-Ordinator, Ms Julie Sloan, and Baby Clinic staff, Ms Maureen Higgins and Ms Ciara Carroll, for their invaluable help and assistance in preparing this Annual Report. 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. Finally, I would like to thank all staff members and my colleagues in the Neonatal Centre for their hard work during 2014.

Research in the Department of Paediatrics & Newborn Medicine

CWIUH Neonatology Department participates in and runs many research projects. In January 2014 Research Fellow in Neonatology, Dr. Georsan Caruth, was appointed, Dr. Jana Semberova continued her research fellowship through the year 2014.

HIP trial: Multicentre multinational randomised controlled trial investigates Management of Hypotension in the Preterm Extremely Low Gestational Age Newborns (ELGANs). The aim of the HIP trial is to develop effective diagnostic tools and treatment of hypotension in the ELGANs. HIP trial is the largest multicentre randomised European study in this particular population. Recruitment phase of the trial started.

POPS trial: A randomised trial of stopping parenteral nutrition and removing PICC lines from preterm infants with very low birth weight at 100ml/kg/day or 140 ml/kg/day enteral feeds. The aim is to compare the two groups with respect to the time to regain the birthweight. Trial is currently recruiting.

Maternal lifestyle and behavior change intervention study. Randomized controlled study focused on first time mothers delivering in CWIUH. The study seeks to determine whether an e-health platform compared with written and verbal communication improve maternal and neonatal health outcomes. The study is multidisciplinary with obstetric and dietetic involvement with planned follow-up at 4 and 9 months postpartum. Trial is currently recruiting.

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. Project started autumn 2014.

"What is for dinner?" study: The purpose of this prospective study is to examine the diet of mothers of very low birth weight infants hospitalised in CWIUH NICU using food diaries. Trial is currently recruiting.

SKA trial: Multicentre randomised trial of Chlorhexidine versus Povidone-iodine for SKin Antisepsis prior to central venous catheter insertion in preterm infants. Study investigates whether in infants below 31 weeks of

gestation who have central venous catheter inserted, does skin cleansing with 2% Chlorhexidine in 70% isopropyl alcohol compared to 10% povidone-iodine reduce the rate of catheter-related blood stream infections. Recruitment finished in 2014.

HiFlow trial: The aim of this randomised controlled trial is to determine if HiFlow Nasal Prong Therapy can facilitate earlier establishment of full oral feeds in very low birth weight babies who are CPAP dependent at 32 weeks corrected gestational age. Trial finished recruiting in 2014.

MUSIC trial: The effect of music on cerebral oxygenation in premature infants between 28-32 week of corrected gestation. The aim of this crossover randomised trial is to compare cerebral oxygenation, determined by Near Infrared Spectroscopy, and baby's behavioural response during the periods of Mozart Lullaby and silence. Recruitment finished in 2014.

PPHN study: Prospective analysis of Pulmonary Hypertension and Patent Ductus Arteriosus in extremely low birth weight infants in the first 24 hours of life. The study is focused on echocardiography evaluation of pulmonary pressures and PDA size and flow pattern evaluation at 3, 6 and 12 hours of age in preterm newborns with birth weight less than 1000g. Recruitment finished in 2014.

RSV-PREMI study: Respiratory Syncytial Virus Preterm Risk Estimation Measure in Ireland. The study aims to investigate the risk factors for Respiratory Syncytial Virus hospitalisation in a cohort of infants born in Ireland between 32+0 and 36+6 weeks of gestation. Recruitment finished in 2014.

In addition to the ongoing studies, we are also constantly auditing our current practice and translate the findings into new or amended guidelines. Newly, we run monthly research meetings to discuss the progress.

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Trends in Very Low Birth Weight (VLBW) Infants in the Coombe Women and Infants University Hospital (CWIUH) over the Last 10 Years

Figure 1: Number of VLBW Infants Admitted to NICU in CWIUH

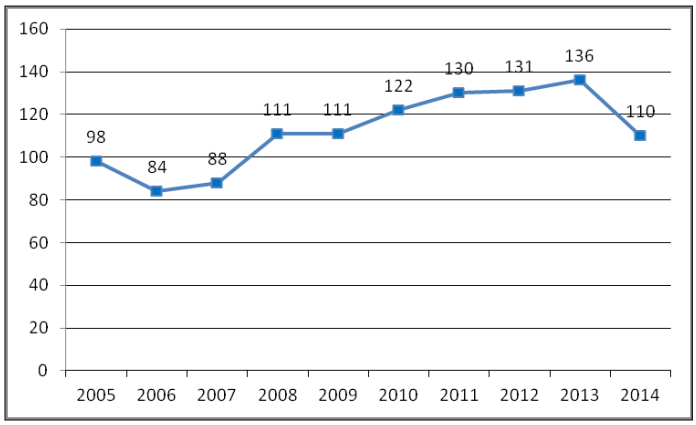


Figure 2: Survival of VLBW Infants in CWIUH (VON data) (including congenital malformations)

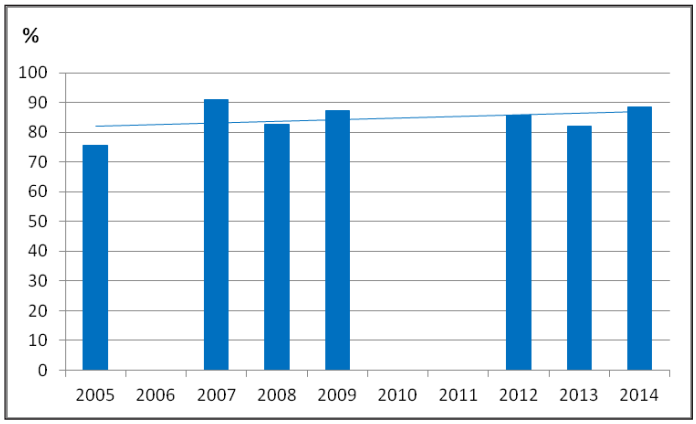


Figure 3: Survival of VLBW Infants in CWIUH without Major Morbidities (severe IVH, CLD, NEC, PNO, any late infection or PVL) (VON data)

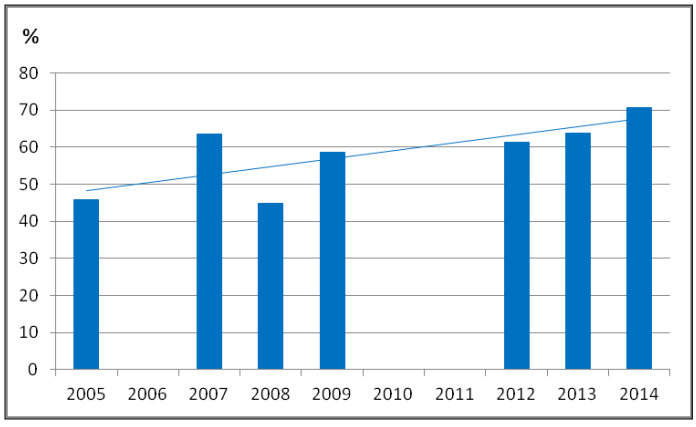


Figure 4: Intracranial Morbidity and ROP in VLBW Infants in CWIUH

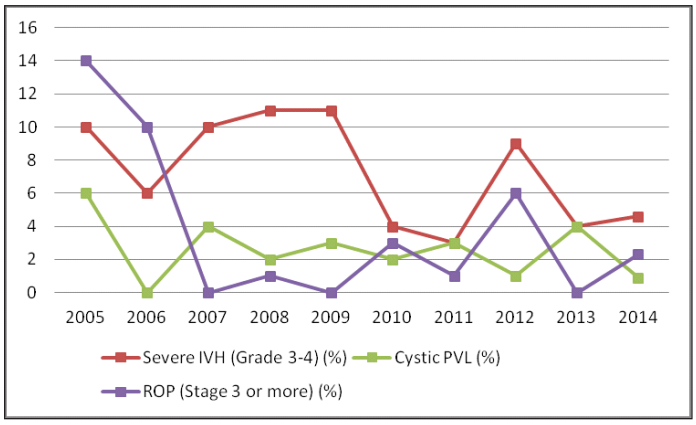


Figure 5: Antenatal Steroids and Respiratory Morbidity in VLBW Infants in CWIUH

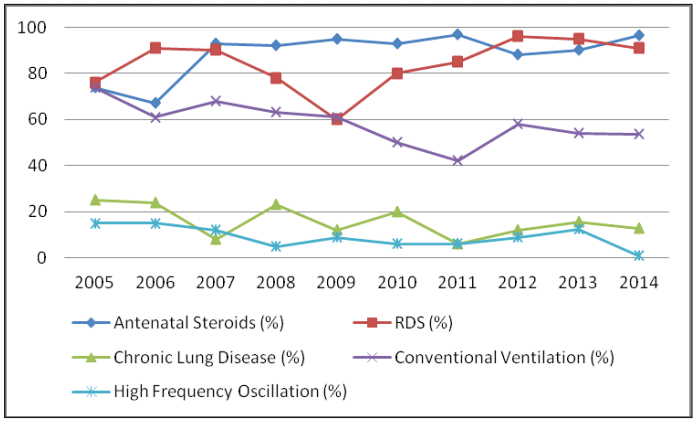


Figure 6: Late Onset Sepsis, CONS Sepsis and NEC in VLBW Infants in CWIUH

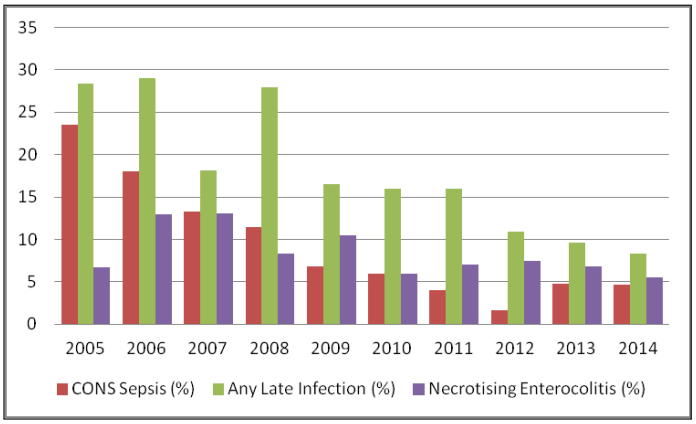
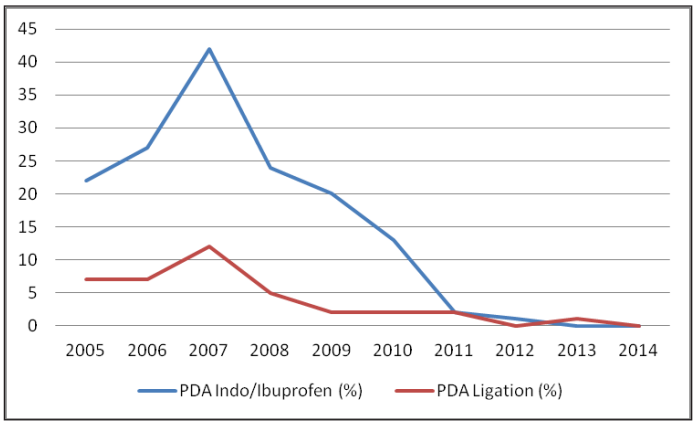


Figure 7: PDA Treatment in VLBW Infants in CWIUH



Dr Jan Miletin MD, FRCPI

Director of Paediatrics & Newborn Medicine

Division of Paediatrics & Newborn Medicine – Midwifery/ Nursing Report – Neonatal Unit

Heads of Department

Dr. J. Miletin, Director of Paediatrics and Newborn Medicine
Bridget Boyd, Assistant Director of Midwifery and Nursing
Ann Mac Intyre, CMM III (Author)

Staff Complement

Complement of 77.8 WTE including:

1 WTE Advanced Nurse Practitioner – Neonatal Nursing
1 WTE CMM3
7 WTE CMM2
7 WTE CMM1
1 WTE CMS Discharge Planning
1.5 WTE Clinical Skills Facilitators
58.3 WTE Midwives / Nurses
Clerical Staff
Support Staff

Key Performance Indicators

- CWIUH Neonatal Team is committed to improving the quality and safety of medical and nursing care for newborn infants and their families.
- Continuously searching and interpreting current evidence-based literature to achieve quality improvement and staff development.
- Improvement in medication management.
- Reduction of Nosocomial infection rates.
- Reduction of the number of ventilation days thus decreasing lung injury and therefore decreasing chronic lung disease.
- Strive to define "family–centred care" as an interdisciplinary, comprehensive, and holistic care of neonates and families while maintaining their respect and dignity, leading to promotion of quality of cares provided for neonates and their families.

Achievements in 2014

- 4.5 WTE staff nurses were recruited and 4 staff resigned with a retention rate of 96%.
- Seven staff midwives/nurses graduated with the Postgraduate Diploma in Neonates, four staff midwives/nurses commenced the programme. Four staff completed the Foundation Course HDU/SCBU and four staff completed the Foundation Course NICU. Three staff completed MSc in Nursing (Neonatal).
- Total of 135 staff (20 Doctors and 115 nursing staff) attended NRP study days organised by Margaret Moynihan CMM II/CNS in Resuscitation. Significant changes were made to the Neonatal Resuscitation form following an audit by neonatal and midwifery staff.
- The NNTP service was extended to 24/7. There were 546 transports in its first year, which represents 87% of the total number of critical care neonatal transports in Ireland. The NTTP team from the CWIUH conducted a total number of 201 (37%) transports, 123 of which were outside the greater Dublin area.
- The first Irish Foundation Toolkit for Family-Centred Developmental Care (FINE level 1) was coordinated and hosted by CWIUH over two days in collaboration with CUMH. Delegates were interdisciplinary and hailed from neonatal and paediatric units across the country.
- The family-centred developmental care committee set out aims and objectives for the unit. Following on from the Foundation Toolkit for Family-Centred Developmental Care, a focus group was formed to improve aspects of developmental care for babies and their families.
- Quarterly developmental care newsletters were published.
- The second Prematurity Awareness Symposium was held as part of World Prematurity celebrations, culminating in the hospital being illuminated in purple.
- Our NIDCAP professional, Mary O'Connor attended the 25th NIDCAP trainers meeting in Segovia, Spain and two Master classes in London. Mary also presented NIDCAP at the AbbVie National Neonatal Study Day in Croke Park. Our second NIDCAP Professional, Joan Furaque, received her certification.
- 98.5% of referrals requested were accepted.
- A second staff member, Nova Quaipos, commenced Advanced Nurse Practitioner Training.

Challenges for 2015

- Planning and managing capacity effectively, the average occupancy was 84% with peak occupancies of over 100% at times.
- Revising existing policies and guidelines and developing new guidelines to reflect best practice.
- To develop an emergency evacuation plan that is unique to the NICU and meets relevant Health and Safety requirements.
- To further reduce infection rates.
- Implementation of the PNW Liaison Nurse on full time basis.
- Commence the application process for Accreditation of the Neonatal Unit, thus ensuring the objective and systemic evaluation of our healthcare provision against a set of pre-defined quality standards.

Advanced Nurse Practitioner

Heads of Department

Dr J Miletin, Director of Paediatrics & Newborn Medicine
Bridget Boyd, Assistant Director of Midwifery and Nursing
Ann Mac Intyre, CMM III

Staff Complement

1 WTE Registered Advanced Nurse Practitioner (Neonatology), accredited in 2006 – A. O'Sullivan (Author)

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 while also managing a caseload.
- To deliver optimal neonatal care, ensuring nursing and medical care is evidenced based. Clinical guidelines are reviewed regularly and staff are updated using formal and informal education and orientation programmes. As a provider of the Neonatal Resuscitation Programme and the Stable Programme the RANP aims to promote consistency and high standards in the management of infants requiring resuscitation and stabilization following delivery and on transport. Outcomes are measured by regular audits.
- To promote family centred care and minimize separation of mothers and babies, we endeavour to reduce the admission rate to the Neonatal Department, staff education required to support this initiative is on-going.
- To further reduce nosocomial infection rates.
- 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 2014

- Participated in a number of research studies.
- Presented papers at the Prematurity Awareness Symposium 2014 and the 15th Health Care Interdisciplinary Research Conference and Student Colloquium 2014 at Trinity College.
- A pilot study undertaken with nursing and midwifery colleagues entitled: " Evaluation of the introduction of a postnatal ward liaison neonatal nurse" was accepted for publication in the Journal of Neonatal Nursing.
- In collaboration with nursing and medical colleagues we presented 5 posters at the AbbVie 8th Annual Neonatal Study day including the winning poster.
- Participated in the Masters of Science in Nursing/Midwifery (Advanced Practice) programme in the RCSI, as a member of curriculum development group and as a lecturer.
- Participated in the Maternal & Newborn Clinical Management System Project as a member of the Neonatal work stream.

Plans for 2015

- To complete research studies and seek publications to disseminate results.
- 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.
- To further promote family-centred care by working closely with the Postnatal Ward Liaison Nurse. The aim of this initiative is to demonstrate a reduction in the admission rate to the Neonatal Unit and to enhance the provision of neonatal care on the post-natal wards and in the delivery suite in conjunction with midwifery staff.
- To plan for the introduction of the electronic health record with multidisciplinary team members.

Neonatal Transition Home Service (NTHS)

Heads of Department

Dr Jan Miletin, Director of Paediatrics & Newborn Medicine
Bridget Boyd, Assistant Director of Nursery and Midwifery
Ann MacIntyre, Clinical Midwife Manager 3
Barbara Whelan, Clinical Midwife Specialist – Neonatal Transition Home Service (Author)

Staff Complement

1 WTE CMS – NTHS, Barbara Whelan

Key Performance Indicators

- Neonatal Parent Support Group monthly meeting remains a very important part of the help we offer to families both pre and post discharge.
- 105 babies were included in the R.S.V. prophylaxis programme.
- In conjunction with lactation support CMS, we continue to provide a bi-weekly class for mothers who are expressing milk for their babies. By offering this help and guidance, mothers have a greater chance of successfully providing milk for their babies. High risk antenatal mothers are encouraged to attend.
- Pre-discharge parent education classes held weekly include resuscitation demonstration.
- Mobile phone support continues to be an invaluable resource for families.
- Presentations and education sessions are provided as requested to midwifery/nursing staff and students of the Neonatal Intensive Care course.

Achievements in 2014

- The continued success of our Parent Support Group which is now in its 8th year, the multidisciplinary team continue to run this group voluntarily once a month.
- Improved documentation pre-discharge is ensuring that follow-up for babies is clearer.
- Increased attendance at pre-discharge class.

Division of Peri-operative Medicine

Department of Peri-operative Medicine

Head of Department

Dr Michael Carey

Staff Complement

Dr Michael Carey	Consultant	23.5 hours
Dr Steven Froese	Consultant	23.5 hours
Dr Niall Hughes	Consultant	10 hours
Dr Nikolay Nikolov	Consultant	10 hours
Dr Terry Tan	Consultant	23.5 hours
Dr Rebecca Fanning	Consultant	23.5 hours
Dr Sabrina Hoesni	Consultant	37 hours

Key Performance Indicators

Theatre

Total Number of Anaesthetics	5702
General	2683 (47.0%)
Elective	4116 (72.2%)
Regional	2928 (51.3%)
Emergency	1586 (27.8%)
Local	100 (1.7%)

Ceasarean Sections

Number of Ceasarean Sections	2479 (28.7% of all mothers delivered)
Emergency	1308 (52.8%)
Elective	1171 (47.2%)

Mode of Anaesthesia for Ceasarean Section

ELECTIVE	ELECTIVE	EMERGENCY
General	19* (1.5%)	51† (4.4%)
Spinal	1289 (98.5%)	602 (51.4%)
Epidural	0	485 (41.4%)
CSE	0	33 (2.8%)
Total	1308	1171

includes 8 converted from regional

Mode of Analgesia

None	690 (8%)
Entonox	5381 (62.3%)
Pethidine	245 (2.8%)
TENS	489 (5.6%)
Low Dose Spinal	160 (1.8%)
Epidural	3530 (40.8%)
Birthing Pool	84 (9.7%)
Remifentanil PCA	5 (0.06%)

Number of epidurals in primiparae – 1967
(58.3% of primiparae; 63.7% of labouring parturients*)

Number of epidurals in parous – 1563
(30% of parous; 37% of laboring parturients*)

** when those electing to have a caesarean section are excluded*

Acute Pain Service

- This continued to grow with essentially all inpatient surgical patients being seen within 24hrs of surgery.

Achievements in 2014

- Sabrina Hoesni was appointed to a permanent consultant position. In this role she will continue to develop the chronic pain service with a particular interest in pelvic girdle pain.
- Refurbishment and equipping the Preoperative Anaesthetic Clinic was completed on the ground floor of the hospital. It is hoped that every patient requiring anaesthesia will be seen in advance of their procedure allowing optimisation of their physical condition. There will be increased efficiency in scheduling and theatre management as a result of this clinic.
- Each delivery room now has an epidural pump allowing all modes of epidural analgesia delivery.

Challenges for 2015

- To increase the frequency of the dedicated preoperative assessment clinics to a daily service.
- To comply with the EWTD with a limited number of NCHDs while at the same time maintaining the already high standard of care.
- Increased research output.

Publications

Carey M. To sedate or not to sedate. Editorial: Irish Dentist October 2014

Ajmal M, Carey M. Intravenous bolus injection of dexamethasone and transient excruciating perineal pain. Eur J Anaesthesiol 2014; 31: 1-1

Mullane D, Tan T. Three cerebral venous sinus thromboses following inadvertent dural puncture: a case series over an eight-year period. Canadian Journal of Anesthesia/ Journal canadien d'anesthésie 2014; 61: (12)1134-1135

Presentations/Abstracts

Haren A, Fiszer B, Tan T. Programmed Intermittent Epidural Bolus versus Continuous Infusion for Labour Analgesia: an audit following the introduction of the CADD-Solis Pumps to the Delivery Suite. ISOA Annual Meeting. December 2014 (1st Prize)

Division of Laboratory Medicine

Appreciation

Dr Joe Stuart

RIP March 28th, 2014

Our dear friend and colleague Joe Stuart died on March 28th 2014 after a long battle with illness. Joe was a highly respected colleague and friend to many of us in the Coombe and the Laboratory. He was always in good humour and had a deep interest in caring for people.

Joe trained as a Pathologist in the UK and UCD and was the responsible pathologist at the Coombe during the very difficult days of the Organ Retention Inquiry.

Despite his deteriorating health, Joe continued to come into the Coombe Hospital.

He was part of us and we, part of him.

The opportunity to come into his second home [The Coombe Hospital], from home was very important to Joe.

Joe made an enormous contribution to our department but also to all of our lives. He taught us humility, acceptance, and engendered in us hope for the future: alas which he himself personally knew was going to be extremely difficult.

Joe's life lesson to us all is simple. Carpe diem: seize the moment. We should live for today; we should do our best; appreciate all the wonderful things that surround us, appreciate each other, appreciate the ability and talents of others, and always do what is right.

Joe's memory lives with us. He was of the Coombe and for the Coombe.

May he Rest in Peace.

Professor John O'Leary

Director of Pathology

Department of Laboratory Medicine – Administration Report

Heads of Department

Director of Pathology: Professor John O'Leary
Martina Ring: Chief Medical Scientist (Laboratory Manager)
Ruth O'Kelly: Principal Biochemist

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 Peter Kelehan - Locum Consultant Pathologist, Pathology/Morbid Anatomy

Dr Kevin Ryan, Locum Consultant Haematologist

Pathology Quality/ IT Manager: Stephen Dempsey

Staff Complement:

Medical Scientist & Lab Aide Staff- 36 WTE

Biochemists- 3 WTE

Phlebotomists - 2 WTE

Administration / Clerical Staff- 5.5 WTE

Laboratory Aide with Portering duties - 1 WTE

Specialist Registrar [SPR] Histopathology- 1 WTE

Consultant Staff - 3 WTE

Haemovigilance Officer - 1 WTE

Secretaries:

Ursula Mangan
1 WTE (Histopathology and general administration)

Maud Flattery
1 WTE (Histopathology and general administration)

Avril Phillips
0.5 WTE (Job Sharing) (Cytopathology)

Elizabeth Lynch
0.5 WTE (Histopathology and general administration)

Mary Nugent
0.5 WTE (Job Sharing) (Cytopathology)

Ann O'Reilly
0.5 WTE (Job Sharing) (Cytopathology)

Tara McMahon
0.5 WTE (Job Sharing) (Cytopathology)

Maureen Hand
1 WTE (Microbiology and Haematology & Transfusion Medicine)

Helena Lyons, Private Secretary

Retirement

2014 brought the retirement of Paul Moorehead, Histology department after 33 years service to the hospital and its patients. An active member of the Laboratory and hospital sporting and social scenes, an All-Ireland champion Lawn Bowler, member of the hospital 10-pin bowling leagues and soccer leagues, to mention but a few of his many achievements. We thank Paul for his enormous contribution to the hospital and wish him many years of health and happiness in his retirement.

Key Performance Indicators

Area	2009	2010	2011	2012	2013	**2014**
Microbiology	46,897	44,185	44535	44672	44672	**44514**
Biochemistry	113709	108102	203818*	172734*	162045*	**205475***
Haematology	47523	45173	45546	45718	46877	**50717**
Transfusion	24544	24406	22010	22076	22866	**25273**
Cytopathology	14934	13604	12409	10428	16774	**27355**
Histopathology	5601	5843	5036	5606	5696	**5877**
Post mortems	50	45	34	40	41	**50**
Phlebotomy	15662	17466	18732	19394	19931	**21084**

**including POCT tests*

Achievements in 2014

- Absorbing the sudden workload increase associated with the transfer of Mount Carmel patients to our hospital.
- Maintenance of full compliance with the new ISO 15189-2012 standards in all pathology departments.
- The Pathology Dept. continues to provide in service training to Cytopathology third year DIT Medical Laboratory Science students.
- Kelly Anne Herr, Linda Donegan and Declan Lyons completed a Postgraduate Diploma in Healthcare Management.

Challenges for 2015

- Continued Implementation of the new ISO 15189 2012 standards, extension to scope to include Point of Care Testing- Blood Gas analysis on the hospital wards.
- Continued cost saving and income generation initiatives within the department.

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 (0.9 WTE)
Mary Stapleton, Senior Clinical Biochemist (1.0 WTE)
Sanders Sebastian, Senior Clinical Biochemist (1.0 WTE)
Barry Crean, Staff Grade Medical Scientist (1.0 WTE)
Grace Creighton, Staff Grade Medical Scientist (1.0 WTE)

Key Performance Indicators

Test numbers:

Year	Biochemistry tests
2014	205,475 (7% increase)
2013	191,797

- Increased testing seen in the diagnosis and monitoring of Diabetes, maternal sepsis, pregnancy complications and ectopic pregnancy.
- Oestradiol was added to the scope of in-house tests.
- The Biochemistry Department is accredited by the Irish National Accreditation Board to ISO 15189 2012 new standards.
- 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 2014

- Maintenance of ISO 15189 accreditation status to the new 2012 standards.
- Continued training and re-certification of ward staff in Point of Care testing.
- Senior staff regularly attend multi-disciplinary meetings including the Diabetes team meetings, Point of Care committee meetings and weekly Perinatal review.
- Education and Teaching: Ruth O'Kelly lectures on the Masters in Clinical Biochemistry course of Trinity College. Ann Pentony has been involved in the education of midwifery/medical/paediatric staff. Barry Crean is currently studying for a degree in Engineering and Systems Maintenance. Mary Stapleton continues to progress towards fellowship of the Royal College of Pathologists. Sanders Sebastian and Grace Creighton both regularly present at the Departmental Journal Club.
- Professional Associations:
  - Ruth O'Kelly is Vice-President of the Association of Clinical Biochemists in Ireland, a Specialist advisor on Point of care testing to the Irish External Quality Assessment Scheme, a member of the National Point of Care Consultative Group and is a Fellow of the Royal College of Pathologists.
  - Ann Pentony is a member of Council of the Academy of Medical Laboratory Science, responsible for membership.
  - Mary Stapleton is secretary of the Irish Region of the Association of Clinical Biochemistry and Laboratory Medicine.
- Collaboration with research projects within the hospital including a major international project on neonatal sepsis markers in a novel point of care testing device and in two major projects on the prevention of Gestational Diabetes.
- Publication: "Serial N-terminal pro-brain natriuretic peptide measurement as a predictor of significant patent ductus arteriosus in preterm infants beyond the first week of life" Letshwiti JB, Sirc J, O'Kelly R, Miletin J. Eur J Paediatr (2014).

Challenges for 2015

- 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.
- Improved access to referral laboratory results on laboratory information system.
- 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.
- Preparation for accreditation of POCT is in progress.

Cytopathology

Heads of Department

Prof John O'Leary, Consultant Histopathologist
Noel Bolger, Chief Medical Scientist

Staff Complement

Dr Colette Adida, Consultant Histopathologist
Dr Peter Kelehan, Locum-Pathologist – Pathology/Morbid Anatomy
Mary Sweeney, Senior Medical Scientist (0.8WTE)
Nadine Oldfield, Senior Medical Scientist
Padma Naik, Senior Medical Scientist
Niamh Cullen, Medical Scientist
Roisin O'Brien, Medical Scientist
Mary McKeown, Medical Scientist (0.5WTE)
Rebecca Olohan, Medical Scientist
Graham O'Lone, Lab Aide (0.5WTE)
Cathy Hannigan, Lab Aide

Key Performance Indicators

2014 was the first full year in which smears were received from the screening programme. Programme commenced in April 2013.

Specimen Throughput	2013	**2014**
Total number of smears	16774	**27355**
Programme Smears	14170 (85%)	**25822 (95%)**
Turnaround Time (TAT(0-2 weeks))	97.5%	**98%**
Unsatisfactory	2.7%	**1.7%**
Negative	90%	**89.3%**
Low-Grade	5.7%	**7.5%**
High Grade	1.6%	**1.5%**

Achievements in 2014

- Maintaining ISO 15189 accreditation to the new 2012 standards.
- Meeting NCSS reporting targets (95% in 0-2 weeks).
- Participation in the South and west EQA scheme, Bristol, U.K. (2 rounds).
- Participation in the Hologic TEQA scheme (4 rounds).
- Participation in Coombe and Tallaght Colposcopy MDT meetings.

Challenges for 2015

- Maintaining our Turnaround Time as the volume of work increases.
- Introduction of HPV Triage for all Low Grade (ASCUS/LSIL) cases.
- Introduction of electronic reporting for GP practices.

Haematology/Transfusion Medicine/Haemovigilance Department

Head of Department

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

Staff Complement

1 WTE Chief Medical Scientist: Fergus Guilfoyle
3 WTE Senior Medical Scientists:
Derek Merrin
Gabriel Hyland
Karen Foley (0.5 WTE), Isabel Fagan (0.5 WTE)
4 WTE Staff Grade Medical Scientists:
Declan Lyons
Lillian Broderick
Therese Cohalan
Orla Cormack
0.8 WTE Haemovigilance Officer: Sonia Varadkar
0.5 WTE Clerical Officer: Maureen Hand

Key Performance Indicators

Specimen Throughput

- Haematology tests: 50,717 (46,877 in 2013)
  Increase of 8%
- Transfusion Medicine tests: 25,273 (22,866 in 2013)
  Increase of 11%

Transfusion Statistics

- Number of Women transfused 186
- Number of women who received 5 or more RCC 4
- Number of babies who received paedipacks 57
- Neonatal exchange transfusions 1 neonate
- Reports to National Haemovigilance Office 3
- Umbilical Cord Blood Collection under direction to the IBTS 1

Turn Around Time (TAT) Figures for Haematology

Test	Full Blood Count		Coagulation Screen		Crossmatch		Inpatient Group & Screen	
Year	**2014**	2013	**2014**	2013	**2014**	2013	**2014**	2013
Target Max TAT	**90 mins**	120 mins	**120 mins**	240 mins	**240 mins**	240 mins	**240 mins**	240 mins
Average TAT achieved	**23 mins**	30 mins	**33 mins**	35 mins	**64 mins**	66 mins	**84 mins**	99 mins
% within target TAT	**99.7 %**	97.5 %	**98.1 %**	100 %	**100 %**	100 %	**99.6%**	98 %

Achievements in 2014

- Maintained INAB ISO 15189 accreditation for Haematology, Transfusion Medicine and Haemovigilance.
- Introduced Phase 2 of the Blood Track system.
- Validated & introduced IH-1000 Blood Grouping analyser into routine use.
- Updated procedures for performing and reporting Lupus Anticoagulant and Kleihauer tests to conform to latest international guidelines.
- One staff member completed Specialist Certificate in Transfusion Science Practice and another completed a Postgraduate Diploma in Healthcare Management, both achieving 1st Class Honours.

Challenges for 2015

- Continued preparation for roll-out of Phase 3 of Blood Track system.
- Roll-out of Routine Ante-natal Anti-D Prophylaxis programme.
- Procurement and validation of two FBC analysers.
- Set-up of re-routing system for red cell units within hospital network.
- Tri-hospital (Dublin maternity hospitals) audit on neonatal blood transfusions.
- Development of in-house guidelines for anaemia & haemoglobinopathy screening.
- Resources for continuing post-graduate education and training for laboratory scientists and haemovigilance officers.

Histopathology and Morbid Anatomy

Head of Department

Professor John O'Leary, Clinical Head of Department

Jacqui Barry O' Crowley, Scientific Head of Department

Staff Complement

Dr Colette Adida, Consultant Histopathologist

Dr Peter Kelehan, Locum-Pathologist – Pathology/Morbid Anatomy

Non Consultant Hospital Doctors

Dr Kevin O'Hare

Dr Ciara Ryan

Scientific and Clerical Staff

Jacqui Barry O' Crowley MBA FIBMS FAMLS, Chief Medical Scientist

Linda Donegan MSc FAMLS, Senior Medical Scientist

Ciara Murphy BSc, Medical Scientist

Mairéad O'Byrne BSc, Medical Scientist

Trinh Pham BSc, Medical Scientist

James O'Keeffe BSc, Medical Scientist

Johnny Savage, Laboratory Assistant

Graham O'Lone, Mortuary Technician

Key Performance Indicators

The volume and type of work processed in the histopathology lab continues increase and change. There is a 3% increase in overall specimen numbers on 2013, however there is a 39% increase in the Immunohistochemistry and In-Situ Hybridisation test requests indicating an increasing complexity of specimens being examined where additional diagnostic testing is required to confirm visual interpretation and diagnosis.

Specimens	5877
Blocks	19,461
Special stains	128
Immunohistochemistry/HPV In-Situ Hybridisation / C17 Probe Silver in-Situ Hybridisation	6,630
Fresh Tissue /Frozen Sections	20
Post Mortem Cases	50

Specimen Type	Avg. Case Numbers	Avg. Blocks Numbers	H&E Numbers
LLETZ*	739	4,033	8,066
CXBX**	1,107	1,247	3,321

* (Each block has x 2 level on each block.)

** (Each block has x 3 level on each block.)

30 % of LLETZ / Cervical Biopsy (CxBx) cases have extra levels taken.

Achievements in 2014

- Maintained Accreditation to ISO15189 to the new 2012 Standards.
- The histopathology workload continued to increase in 2014, carrying out work generated under the CWIUH/ NCSS Colposcopy SLA.
- Increase in the number of immunohistochemistry panel of antibodies with an addition of molecular SISH / ISH probes offered which were subsequently accredited to ISO 15189
  - Silver In-Situ Hybridisation (SISH) C17 Probe which is used routinely in molar pregnancy diagnostics.
  - HPV ISH probe was also added to the INAB scope of accreditation.
- Continue to be involved in the following External Quality Assurance Schemes:
  - UKNEQAS: H/E, Special Stains and Immunochemistry Quality Assurance Schemes.
  - NordiQC: Immunohistochemistry Quality Assurance Scheme. The Histopathology Department's QA results continue to above the national average score.
  - Inter Laboratory IHC EQA Scheme which is organised through the CWIUH with other INAB accredited Histopathology Departments nationally.
- Continue to administer the Inter Laboratory EQA Scheme (which is organised through the CWIUH with other Irish ISO 15189 accredited histopathology departments throughout the country).
- Facilitating Continuous Professional Development of the department staff.
- Two staff members attended the Roche CINTec Training Programme.
  - New staff member Claire Maguire is undertaking her project for an MSc in Molecular Pathology within the department.

- The Histopathology Department makes a substantial contribution to the research that is being carried out with the Research Department particularly in the area of cancer research, cervical cancer/pre-cancer and cancer of the ovary. The medical scientists in the histopathology department
- Linda Donegan is a member of the AMLS Histopathology Advisory Committee.

Challenges for 2015

The Histopathology Department will offer a new panel of ISO 15189 accredited Immunohistochemistry antibodies and molecular probes on Gynaecological (Cervical) Liquid Based Cytology samples and Cervical Histopathology samples in the triage of patients referred with abnormal screening results.

- Molecular Techniques:
  - Chromogenic In-situ Hybridisation: Human Papiloma Virus (HPV) In-Situ Hybridisation on Cytology (Cervical) LBC Smears, LBC Cell Blocks samples.
- Immunohistochemistry Techniques:
  - Immunohistochemical Investigation on LBC smears / Cell Blocks:
  - Cytology LBC Smears: CINTec Plus Ki67/p16 (using the BennchMark Ultra).
  - Cytology LBC Cell Blocks: Ki67/P16 dual staining.
  - Histopathology cervical samples: Ki67/P16 dual staining.
- Maintain ISO 15189 Accreditation Certification for histopathology.
- Proceed with Internal Audits for Histopathology.
- Continue the management of the Inter Laboratory IHC Assessment Scheme.
- Continue to facilitate histopathology staff to partake in Continuous Professional Development & facilitate staff to undertake their MSc in Molecular Pathology.

Microbiology and Infection Prevention and Control

Head of Department

Dr. Niamh O'Sullivan, Consultant Microbiologist
Dr. Catherine Byrne, Chief Medical Scientist
Rosena Hanniffy, Assistant Director of Midwifery/Nursing Infection Prevention and Control

Staff Complement

Dr. Catherine Byrne, Chief Medical Scientist
Anne Marie Meenan, Surveillance Scientist
KellyAnne Herr, Senior Medical Scientist
Sheila Collins, Senior Medical Scientist (Maternity Leave)
Sabrina McCaffrey, Senior Medical Scientist
Ciaran Byrne, Staff Grade Medical Scientist
Sarah Deasy, Staff Grade Medical Scientist
Grace Nugent, Staff Grade Medical Scientist (Locum)
Teresa Hannigan, Laboratory Aide
Maureen Hand, Clerical Officer (0.5 WTE)

Key Performance Indicators

- Numbers of clinical staff compliant with hand hygiene training on the past two years
- Alcohol gel consumption
- HCAI Staph aureus and C. difficile disease rate per 10,000 BDU reported to HSE
- Trending of alert organisms reported on dashboard rate /per 1,000 patient days
- NICU Bloodstream Infection (BSI) rate / 1,000 patient days
- Adult BSI rates / 1,000 patient days
- Caesarean Section Surgical Site Infection rate per 1,000 sections performed
- Report to EARS-Net (European Antimicrobial Resistance Surveillance Network)
- External/Internal Quality Control Performance
- Turnaround Times
- Adult BC contamination rates
- Microbiology specimen throughput:
  - Internal: 28,475
  - External: 14,039
  - Total: 44,514

Achievements in 2014

- Maintained ISO 15189 accreditation to the new 2012 standards.
- Ongoing Infection Prevention and Control Quarterly Committee meetings chaired by Dr. Niamh O' Sullivan.
- Ongoing committee meetings: IPC, D&T, POCT, procurement, risk.
- Bi-annual hand hygiene audit 2014 – Scored 90% & 91%.
- IPC alerts were added to the iPiMS for MDROs.
- Rapid response to Ebola outbreak in West Africa.
- Preparation to deal with suspect patients within limited resources. This included delivery of many education and training sessions to over 700 Coombe staff to manage the potential risk.
- Absorbed the workload associated with the transfer of Mount Carmel patients to our service.
- Validation and batch acceptance for accreditation.
- Increased screening for alert organisms absorbed within resources.
- Introduction of Blood culture packs which lead to reduced blood culture contamination rates.
- Generated antibiogram data to inform antimicrobial guidelines.
- Infection Prevention and Control Dashboard enhanced and maintained.
- Ongoing data presentations and feedback to multidisciplinary obstetric and paediatric meetings.
- Postgraduate Diploma in Health Service Management awarded to KellyAnne Herr.

Challenges for 2015

- Microbiology and the Infection Prevention and Control Team must continue to respond to changes in patient case load and acuity.
- To increase clinical input into Caesarean SSI surveillance.
- To commence Gynaecology wound infection surveillance.
- Optimise screening of patients from other healthcare facilities for Multi Drug Resistant Organisms.
- Integrate antimicrobial pharmacist as part of the IPC team.

- Antibiotic stewardship by regular feedback of antimicrobial susceptibility patterns and reiterations of guideline recommendations.
- Development of policies for IPC.
- HIQA audits.
- Chloroprep audit.
- Feedback of data to clinical teams to support the reduction in HCAI.
- Input into product procurement and Point Of Care Tests.
- Manage increased requirements to comply with ISO 15189 2012 to maintain INAB accreditation.
- To introduce enhanced surveillance for catheter associated UTI.
- To reduce the number of urines sent for culture.
- To reduce the number of GBS PCR samples.
- Cost containment.

Pathology/Molecular Pathology

Head of Department

Professor John O'Leary

Staff Complement

Academics: Dr Cara Martin Assistant Professor (TCD)
Molecular Pathology Manager: Dr Cara Martin (TCD/CWH)
Research Scientists:
Dr Michael Gallagher
Ms Loretto Pilkington
Dr Helen Keegan
Dr Cathy Spillane
Dr Victoria McEneaney
Dr Katharine McAllister
Dr Sharon O'Toole (shared with Obs & Gynae, TCD)
Dr Prerna Tewari
Dr Christine White
Dr James O'Mahony
Dr Lynne Kelly
Dr Brendan Ffrench

Research Students:
PhD/MD: Itunu Soyingbe, Brendan French, Padraig Kearney, Louise Flynn, Stephen Buschotts, Claudia Gasch, Mark Bates, Gomaa Sulaiman, Dr Jeyanthi Kulasegarah, Dr Robbie Woods, Dave Nutall, Sarah O'Kane.

Research Associates: Dr Tom D'arcy, Dr Gunther von Bunau, Dr Mary Anglim, Dr Cliona Murphy, Dr Nadine Farah, Dr Margaret Sheridan, Dr Bridgette Byrne, Prof Sean Daly, Prof Michael Turner, Prof Walter Prendiville, Prof Eoin Gaffney (SJH), Dr Eamonn McGuinness, Dr Sharon O'Toole, Dr Niamh O'Sullivan, Dr Grainne Flannelly (NMH), Prof Colm Bergin (SJH/TCD), Dr Corina Sadlier (SJH), Dr Susan Clarke (SJH), Dr Fiona Mulcahy (SJH), Dr Edgar Mocanu (Rotunda), Professor Dolores Cahill (UCD), Professor Steve Pennington (UCD), Dr Fiona Lyng (DIT), Dr Linda Sharp (NCRI), Prof Charles Normand (TCD), Dr Bryan Hennessy (RCSI), Prof Con Timon (TCD/SJH), Dr Mary Toner (SJH/TCD), Dr Esther O'Regan (SJH/TCD).

Key Performance Indicators

1. Grants held 2014

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 (2012-2017).
Total Value: €1,250,000

Title: Systems biology approaches to cervical pre-cancer and cancer SYSTEMCERV
Awarding Body: European Union 7th Framework Programme. (FP7-Health HEALTH-2012.2.1.2-1 [Systems Medicine: SME driven research applying systems biology approaches to address medical and clinical needs] – (2012-2014)
Total Value: €3,140,000, Value to college €554,000

Title: What is the circulating tumour cell and the role of the immune system in the metastatic cascade? John O'Leary CSA.
Awarding Body: Health Research Board. Clinician Scientist Award (CSA) Awards (2012-2014)
Total Value: €500,000

Title: CERVIVA 2: building capacity and advancing research and patient care in cervical screening in Ireland.
Awarding Body: Health Research Board. Interdisciplinary Capacity Enhancement (ICE) Awards (2011-2014)
Total Value: €620,000.

Title: Non-coding miRNAs as regulators of chemoresistance in ovarian cancer.
Awarding Body: Royal City of Dublin Hospital Trust Fund, Duration: 2011-2014.
Total value: €66,545.

Title: A 'Molecular Pap test' for cervical cancer screening – detecting HPV infection and cellular abnormalities in exfoliated cervical cells (2011-2014).
Awarding Body: Enterprise Ireland, Commercialisation fund www.enterprise-ireland.com
Total value: €344,625

Title: Biomedical Diagnostics Institute 2 [BDI2] SFI CSET ONC1 Programme (2010-2015).
Awarding Body: Science Foundation Ireland
Total value: €19.2 million.

Title: Fast Automated Multiplex Analysis of Neonatal Sepsis Markers on a Centrifugal Microfluidic Platform (2010-2014).
Awarding Body: European Union 7th Framework Programme. (FP7-Strep-2010)
Total Value: €3,000,000, Value to college €515,000

Title: Mazzone Special Challenge Award 2012-2105
Awarding body: Prostate Cancer Research Foundation [PCF]:
Total value: USD1,000,000.00

Title: Pharmaco-epidemiology of ovarian cancer
Awarding body: Health Research Board (co-investigator) [2012-2015]
Total value: €350,000.00

Title: Global CTC project [JoL (Co-PI; PI: Colleen Nelson, Brisbane)
Awarding body: Movember
Total value: AusD1,567,500.00

Title: A risk model for prediction of venous thromboembolism in gynaecological cancer patients post surgery 2013-2016. [Investigators: Norris, O'Toole, Gleeson, O'Leary]
Awarding body: Health Research Board
Total value: €299,000.00

Title: Movember Revolutionary Team Award – Australia [PI: Colleen Nelson, QUT], 2014 – 2017 (JOL co-PI)
Awarding body: Movember
Total value: AUD4,250,000.00

Title: Characterising insulin signalling in androgen-deprived prostate cancer cells; [PI: Colleen Nelson, QUT], 2014 – 2015
Awarding body: Cancer Council Queensland:
Total value: AUD200,000.00

Title: Evasion of immune editing by circulating tumour cells is an exercise-modifiable mechanism underlying aggressive behaviour in obese men with prostate cancer [PI: Stephen Finn; JOL co-PI], 2014 – 2018
Awarding body: World Cancer Research Fund
Total value: £249,994.00

2. Publications

In 2014, the Molecular Pathology Group at the CWIUH and St James's Hospital published 19 peer reviewed journal articles and 32 published abstracts [see below].

3. Post graduate degrees

Post graduate degrees: In 2014, the department had 13 post graduate students pursuing PhD and MD degrees, with 4 MSc students.

4. Diagnostic Services

Diagnostic Services: The Molecular Pathology Group campus company Gynaescreen, provides HPV testing services to the hospital and outside parties. In 2014 we conducted 4,424 HPV diagnostic tests.

Achievements in 2014

Peer Reviewed Publications

- O'Toole, SA, Ancuta, E, Langhe, R, Cahill, DJ, Murphy, M, Martin, C, McEvoy, L, Spillane, C, Sheils, O, Petricoin, E, Liotta, L, O'Leary JJ. Non-invasive Biomarkers in Ovarian Cancer. In Cancer Biomarkers: Minimal and Non-invasive Early Diagnosis and Prognosis January 30, 2014 by CRC Press Editor(s): Debmalya Barh, Angelo Carpi, Mukesh Verma, Mehmet Gunduz
- Busschots S, O'Toole S, O'Leary JJ, Stordal B. Non-invasive and non-destructive measurements of confluence in cultured adherent cell lines. Methods. 2014 Nov 25;2:8-13. doi: 10.1016/j.mex.2014.11.002. eCollection 2015. PubMed PMID: 26150966; PubMed Central PMCID: PMC4487325.
- Ffrench B, Gasch C, O'Leary JJ, Gallagher MF. Developing ovarian cancer stem cell models: laying the pipeline from discovery to clinical intervention. Mol Cancer. 2014 Dec 11;13:262. doi: 10.1186/1476-4598-13-262. Review. PubMed PMID: 25495823; PubMed Central PMCID: PMC4295405.
- Rashid N, Nawaz H, Poon KW, Bonnier F, Bakhiet S, Martin C, O'Leary JJ, Byrne HJ, Lyng FM. Raman microspectroscopy for the early detection of pre-malignant changes in cervical tissue. Exp Mol Pathol. 2014 Nov 3;97(3):554-564. doi: 10.1016/j.yexmp.2014.10.013. [Epub ahead of print] PubMed PMID: 25445502.
- O'Connor M, Costello L, Murphy J, Prendiville W, Martin C, O'Leary J, Sharp L; Irish Screening Research Consortium (CERVIVA). 'I don't care whether it's HPV or ABC, I just want to know if I have cancer.' Factors influencing women's emotional responses to undergoing human papillomavirus testing in routine management in cervical screening: a qualitative study. BJOG. 2014 Oct;121(11):1421-30. doi: 10.1111/1471-0528.12741. Epub 2014 Apr 1. PubMed PMID: 24690225.
- Loy A, McInerney J, Pilkington L, Keegan H, Delamere S, Martin CM, Sheils O, O'Leary JJ, Mulcahy F. Human papillomavirus DNA and mRNA prevalence and association with cervical cytological abnormalities in the Irish HIV population. Int J STD AIDS. 2014 Sep 25. pii: 0956462414553454. [Epub ahead of print] PubMed PMID: 25258395.
- Sadlier C, Rowley D, Morley D, Surah S, O'Dea S, Delamere S, O'Leary J, Smyth P, Clarke S, Sheils O, Bergin C. Prevalence of human papillomavirus in men who have sex with men in the era of an effective vaccine; a call to act. HIV Med. 2014 Sep;15(8):499-504. doi: 10.1111/hiv.12150. Epub 2014 Mar 24. PubMed PMID: 24655896.
- Bonnier,F, Traynor, D, Kearney, P, Clarke,C, Peter Knief, P Martin, C, O'Leary,J, Byrne HJ and Lyng, F. Processing ThinPrep Cervical Cytological Samples for Raman Spectroscopic Analysis. Anal. Methods, 2014, 6 (19), 7831 – 7841
- O'Connor M, Costello L, Murphy J, Prendiville W, Martin CM, O'Leary JJ, Sharp L; on behalf of the Irish Screening Research Consortium (CERVIVA). Influences on human papillomavirus (HPV)-related information needs among women having HPV tests for follow-up of abnormal cervical cytology. J Fam Plann Reprod Health Care. 2014 Sep 23. pii: jfprhc-2013-100750. doi: 10.1136/jfprhc-2013-100750. [Epub ahead of print] PubMed PMID: 25248873.
- O'Connor M, Murphy J, Martin C, O'Leary J, Sharp L; Irish Cervical Screening Consortium (CERVIVA). Motivators

for women to attend cervical screening: the influential role of GPs. Fam Pract. 2014 Aug;31(4):475-82. doi: 10.1093/fampra/cmu029. Epub 2014 Jun 12. PubMed PMID: 24927724.

- Vencken SF, Sethupathy P, Blackshields G, Spillane C, Elbaruni S, Sheils O, Gallagher MF, O'Leary JJ. An integrated analysis of the SOX2 microRNA response program in human pluripotent and nullipotent stem cell lines. BMC Genomics. 2014 Aug 25;15:711. doi: 10.1186/1471-2164-15-711. PubMed PMID: 25156079; PubMed Central PMCID: PMC4162954.
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Challenges for 2015

Establishment of Non Invasive Prenatal Testing service using next generation sequencing technology.

Phlebotomy in OPD

Head of Department

Martina Ring, Chief Medical Scientist (Laboratory Manager)

Staff Complement

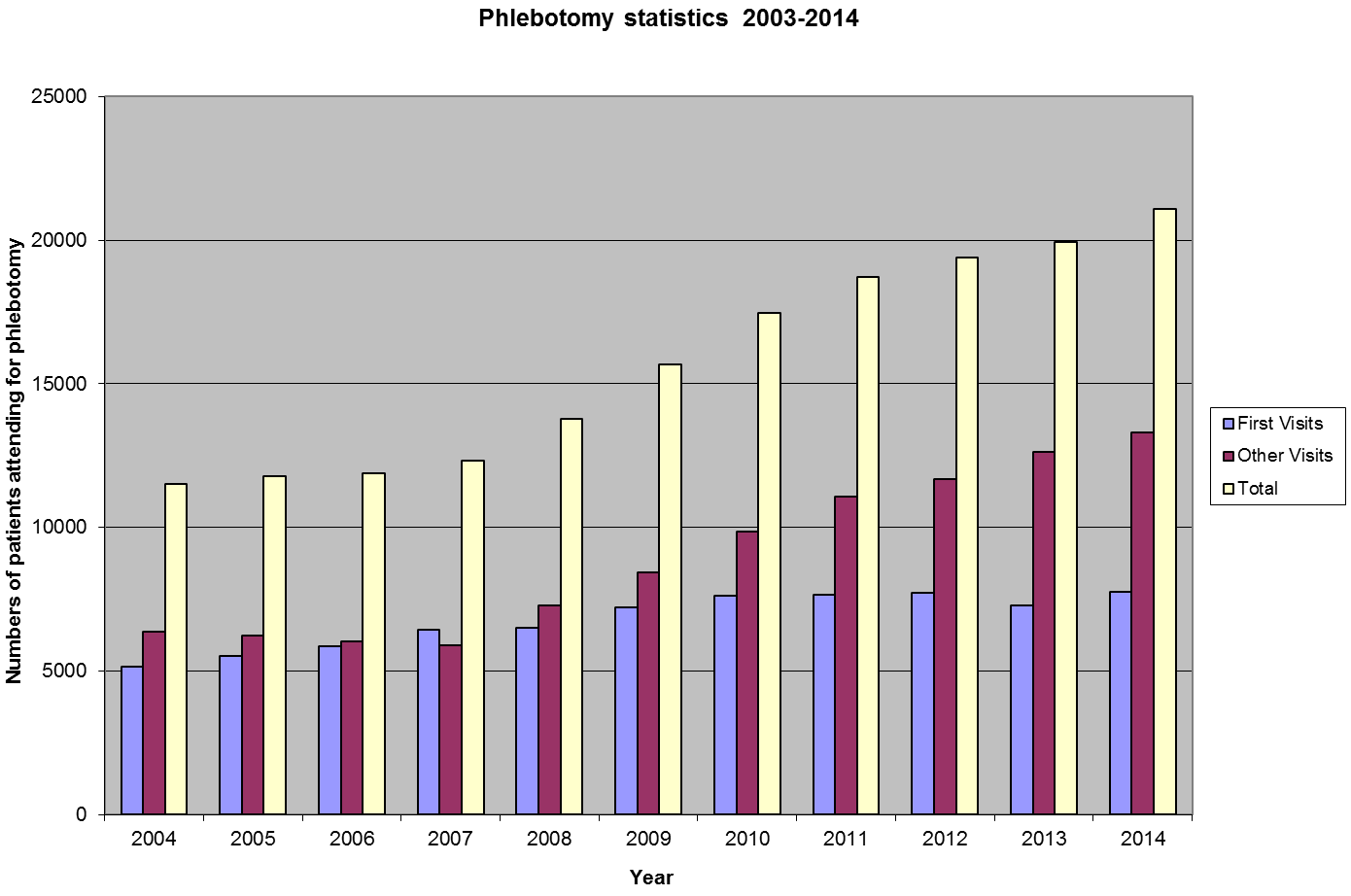
1 WTE - Artemio Arganio

1 WTE – Vladimir Getoyev

Key Performance Indicators

Continued increase in throughput of patients in the OPD, even accounting for the Mount Carmel patients in the early part of the year. Figures presented below are patient episodes and do not reflect actual numbers of samples from each patient.

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
First Visits	5147	5522	5860	6435	6509	7212	7610	7672	7714	7298	7773
Other Visits	6382	6250	6036	5886	7269	8450	9856	11060	11680	12633	13311
Total	11529	11772	11896	12321	13778	15662	17466	18732	19394	19931	21084



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 OPD Radiographs	73
Adult OPD Ultrasounds	1835
Adult Inpatient Radiographs	121
Adult Inpatient Ultrasounds	455
Total Adult Examinations	2484

**Activity Statistics are now calculated as per NIMIS and are not comparable (will appear reduced) with previous years activity levels. Numbers displayed are per patient encounter and not per examination (a higher number).*

Achievements in 2014

- We were pleased to welcome two new staff members to the department. Mr Johannes Tsagae commenced as Clinical Specialist Radiographer with overall responsibility for the radiology department and PACS management.
- Ms Edwina Quinlan commenced as Clinical Specialist in Ultrasound. Edwina manages the gynaecology and adult ultrasound service.
- We are now rendering walk-in services for patients who need pre-op anaesthetic work-up from anaesthetic clinic.
- There is no x-ray backlog for adult patients.
- No radiation incidents occurred during 2014.
- The paediatrics hip x-rays backlog is markedly reduced.
- The Radiology Department joined the NIMIS (National Integrated Imaging System) in November 2014. This has improved tracking of ordered studies and scheduling of patients.

Challenges for 2015

Maintaining low wait times for radiology examinations.

Paediatric Radiology

Head of Department

Dr David Rea

Staff Complement

2 full-time Radiographers shared between Adult and Paediatric services

1 Clinical Specialist Radiographer and 1 senior post.

Key Performance Indicators

	n=
Outpatient Radiographs	1,372
Inpatient Radiographs	1,785
Inpatient Ultrasounds	1,062
Total Paediatric Examinations	**4,219**

- Hospital wide introduction of the National Integrated Medical Information System (NIMIS) to view Radiology images and reports.
- Appointment of Mr Johannes Tsagae as Clinical Specialist radiographer.
- Teaching registrars on the RCSI Radiology Training Scheme about neonatal imaging particularly emergency US.

Challenges for 2015

- A significant increase in Consultant Paediatric Radiology support (beyond the current 13 hours per week) is required for the required clinical service and undergraduate/postgraduate education.
- Over the last 5 years there has been a doubling in the numbers of NICU ultrasounds performed with no increase in resources. The CWIUH NICU has the highest number of infants <1,500g in the state.
- Due to the deficit in publicly funded Radiology service provision, it has become necessary to outsource hip ultrasound imaging for Developmental Dysplasia of the hip to a private imaging group.

Allied Services

Bereavement

Head of Department

Ms Brid Shine Clinical Midwife Specialist Bereavement (Author)

Staff Complement

0.5 WTE Clinical Midwife Specialist Bereavement & Mental Health

Key Performance Indicators

- Provision of anticipatory bereavement counselling support to parents whose baby is diagnosed with a life-limiting condition.
- Provision of bereavement counselling support for parents who experience a 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.
- Co-ordinating the formal structured follow-up care of bereaved parents who experience stillbirth.
- 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.

Achievements in 2014

- Bereavement training & Education, inputting on Midwifery Programmes in the CME, on the Undergraduate Programmes in TCD, as well as informal education in the clinical setting.
- Involved in the ongoing work of the End of Life Care Committee, co-facilitating Hospice Friendly Hospital staff training programmes.
- Presented at the National Perinatal Epidemiology Centre conference, paper entitled "Endeavouring to meet the needs of Bereaved Families".
- Presented at the Annual Midwifery Conference on "Mindfulness".
- Attendance at the National Maternity & Neonatal Bereavement Network Meeting.
- Active member on the HSE National Working Group in developing draft standards for Bereavement care in Irish Maternity services.
- Certified in Mindfulness Teacher Training in May 2014, and attended a 7-day Mindfulness in Medicine conference in Denmark facilitated by Dr Jon Kabat Zinn, founding director of MBSR.
- Facilitated Staff training in Mindfulness as part of bereavement education, one 8 week programme and three one day programmes.

Challenges for 2015

- The CMS role continues in a part time (0.5 WTE) capacity thus service expansion and development has remained limited.
- The lack of a nominated Clinical lead in the area of Perinatal death continues to hinder service development, research & audit
- Promotion of a person-centred, humanistic approach in the care of bereaved parents and their families remains the primary focus of the CMS in Bereavement. This work could not be achieved without the involvement of the entire multidisciplinary team within the hospital. The author would like to acknowledge the voluntary support organisations who continue to support service development. And particular gratitude is expressed to the many bereaved parents/families that fundraised specifically for bereavement service development.

"The most that we can give is genuine, empathic, individualised care informed by guidelines designed to give and facilitate parental choices. There is unquestionable darkness for parents. However by learning all that we can about what helps, we may lighten the way a little for those stumbling through that darkness" (Davis 2009)

Clinical Nutrition and Dietetics

Head of Department

Fiona Dunlevy & Sandra Brady, St. James's Hospital

Staff Complement

1 WTE Senior Dietitian (Michelle Walsh 0.75 & Fiona Dunlevy 0.25)

Key Performance Indicators

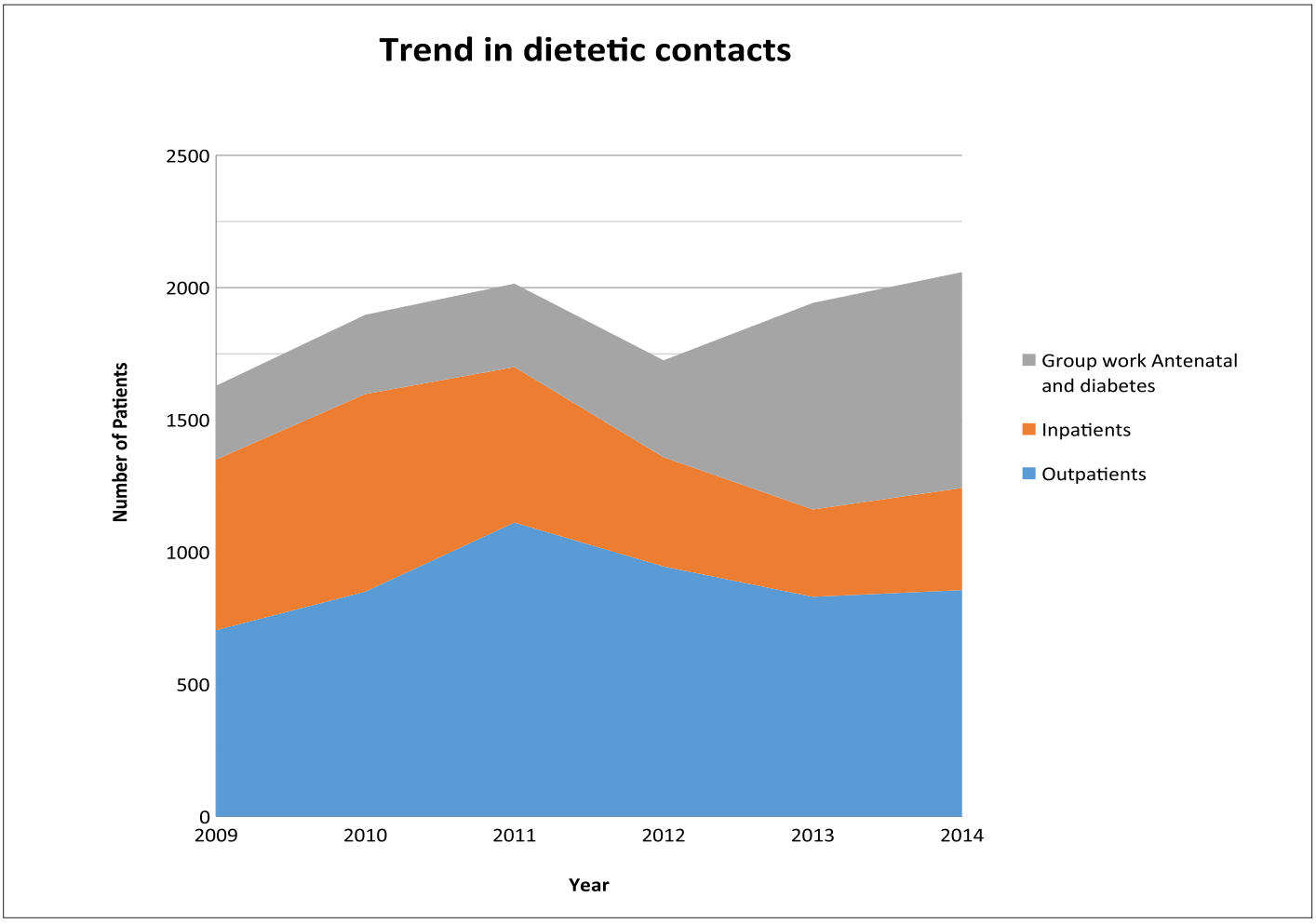
The 5 year trend in clinical activity shows an increase in outpatient and group work with a decrease in inpatient clinical time, which can be attributed to the dramatic increase in women diagnosed with Gestational Diabetes Mellitus (GDM).

Achievements in 2014

- Audit and implementation of inpatient catering service including menu analysis, patient satisfaction survey, patient and staff education.
- Audit on the outcomes of the efficiency saving of MDT group education for women with GDM. Presented at the international diabetes in pregnancy conference.
- Development and improvement of patient resources and education.
- Continued participation at national level in clinical care programmes.

Challenges for 2015

Meeting the increasing demands in the area of Diabetes continues to pose a considerable challenge. Increasing demands in Diabetes continue to impact on the dietetic service available for antenatal, gynaecology and obesity. Lack of dietetic input in neonatal care needs to be addressed. Options to secure additional staffing resources to meet service needs are being explored.



Clinical Risk Management Department

Head of Department

Susan Kelly

Staff Complement

Ann Byrne, Assistant Clinical Risk Manager - WTE

Key Performance Indicators

To capture and report all incidents and untoward clinical events which threaten patient safety.

To investigate reported incidents in order to identify possible system vulnerabilities, extract the learning, implement change where indicated and communicate this to the multidisciplinary team. We cannot change the human condition but we can change the conditions under which humans operate.

Achievements in 2014

This year saw an increase in the number of claims settled by Mediation in preference to the Court route for resolution. This appears to be a more satisfactory experience for both clinicians and our disappointed patients.

The Quality Safety & Risk Sub Committee of the Hospital Board met on four occasions during the year. The terms of reference for this committee were revised. The clinical risk manager (CRM) is in attendance at these meetings.

The risk managers from the three Dublin maternity hospitals facilitated another two successful study days on the Legal Aspects of Midwifery & Nursing Care in the Centre for Midwifery Education. This includes a presentation on the Coroner's Court as clinical staff; midwifery & medical are increasingly requested to attend at Inquests. The participants included midwifery colleagues from the three Dublin hospitals and some of our network hospitals.

The CRM continues to facilitate on the CTG Interpretation workshops held regularly in the Centre for Midwifery Education for midwifery staff within Dublin and our network hospitals.

The CRM presented on "Developing Safety & Quality in Maternal & Neonatal Care" at the joint CWIUH & NMBI conference held in May.

The CRM invited external experts to speak to a multidisciplinary group on Refusal of Consent & Open Disclosure. The Master & CRM organised a "Moot" Court for the MDT group. All these sessions were very well attended by the MDT group.

Challenges for 2015

- The foundation of patient safety continues to be reliable design, teamwork and communication. We must continue to promote a positive safety culture by encouraging shared perceptions of the importance of safety.
- To continue the introduction of Open Disclosure and the National Consent Policy as mandated by the HSE.

In 2014 the Master revised the membership of the CRM committee. The membership includes all divisional leads in the expectation that information will cascade down through the divisional structure. I welcome this opportunity to thank the present committee for their commitment and support. I would also like to thank past committee members for their enthusiastic participation. There were nine meetings held during the year and all were well attended. I would particularly like to thank the Master, Dr Sharon Sheehan for her drive, enthusiasm, support and guidance in all aspects of risk management and patient safety.

The work in the department in the area of risk and claims management has risen expeditiously over the past few years and I sincerely thank Ann Byrne for her continued support and assistance. The administrative support of Mary Jackman is also appreciated.

Chaplaincy/Pastoral Care Department

Heads of Department

Ms Renee Dilworth, Chaplain

Ms Phil Power, Chaplain

Achievements in 2014

The Pastoral Care department is staffed by two chaplains Phil Power and 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 provides additional support if required. The chaplains understand 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 for use by patients, staff and families. The Book of Remembrance continues to be displayed in the Oratory and is regularly updated.

With funding from Friends of the Coombe we were able to buy a new burial plot for the hospital and a headstone was erected to mark the grave in Holy Angels, Glasnevin

Key Performance Indicators

Bereavement Support	232
Funeral Services	180
Baptisms	28
Naming/Blessing Services	55
Appointments for past patients	20
Prayer Services for past miscarriage and loss	9
Referral for support for foetal anomalies	10
Requests for copy of Baptismal Certificates	16
Organise Mass and Services for staff as required	11
Staff Appointments	23
Non-Sacramental Blessings	60

In 2014 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 the Coombe Workplace Choir provided the music. The Department continues to respond to the growing cultural diversity of families attending our hospital. We are committed to ongoing development personally, pastorally and professionally. The chaplains input into study days for staff and students. It was decided by the Bereavement Committee 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 chaplains.

Medical Social Work Department

Head of Department

Rosemary Grant (Author)

Staff Complement

In 2014 the permanent staff complement in the Medical Social Work Department remained unchanged at five and a half WTE posts.

Ms Rosemary Grant, B.S.S., C.Q.S.W. - Principal 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. Tanya Franciosa, B.S.S., N.Q.S.W.

Ms Sarah Lopez, B.A., H Dip.Soc.Pol., MA Social Work, N.Q.S.W. Post Graduate Diploma in Play Therapy and Psychotherapy(Part Time/Job Share post)

Ms Sorcha O'Reilly, B.S.S., N.Q.S.W. (from August 2014)

Ms Mary Treacy, B.Soc. Sc., H. Dip. In Ed., Dip. In Applied Social Studies, C.Q.S.W., MA Social Work (Part time post)

Ms. Berit Andersen, (Locum, Part Time/ Job Share) until August 2014

Ms. Gretchen McGuirk, Student Social Worker (September – December 2014)

Ms Elaine Forsythe (Job Share), Receptionist/Secretarial Support

Ms June Keegan (Job Share), Receptionist/Secretarial Support

Report

During 2014 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. The provision of a dedicated service to the Neonatal Units, to those with addiction problems, to those attending the Naas Clinic and patients with out of Dublin addresses continued. It was 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 B. The Medical Social Work service provided to patients attending these teams continued to be on a rota basis. The lack of a dedicated Medical Social Worker for these patients is a challenge 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.

In February 2014, many patients of Mount Carmel Hospital transferred their care to the Coombe Women and Infants University Hospital following the sudden closure of the hospital. They were accompanied for a number of months by two Consultant Obstetricians who became part of the team structure in both the hospital and the Medical Social Work Department.

In 2014 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 concerns are raised. Referrals are prioritised and Child Protection concerns continue to receive the highest priority.

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
- siblings of patients attending the hospital
- children who are visiting the hospital
- unknown children

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 after birth remain an important and time consuming part of the workload of the Medical Social Workers.

Appropriate referrals 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. The importance of the Children First Guidelines for all hospital staff cannot be over emphasized.

During 2014 homelessness became a very 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 implications and costs of homelessness are immense for all but particularly at the time of a pregnancy and the birth of a baby.

Ms Tanya Franciosa in conjuction with the Drug Liasion Midwife presented to students attending the Post Graduate Diploma in Child Protection course in Trinity College Dublin. The title of, the their presentation was "Delivering Ante Natal Care to Opiate Dependant Women". Ms Franciosa also presented to nursing and midwifery staff on child protection issues in the Neonatal Units. With one of the Paediatric Registrars she presented to Paediatric Non Consultant Hospital Doctors and medical students on "The Social Management of Babies in the Neonatal Units who experience Neonatal Abstinence Syndrome".

Ms Franciosa attended the Trinity College Dublin/University College Dublin Practice Teachers Training Course and supervised a final year student on Placement in the Medical Social Work Department, Ms Gretchen McGuirk.

Ms Rosemary Grant was involved with the School of Midwifery in Trinity College Dublin in the provision of educational sessions about Medical Social Work in the Maternity Setting to midwifery students.

Within the Hospital the department continued to be represented on the End of Life Care Committee and the Bereavement Committee. Ms Denise Shelly continued with her involvement with the Neonatal Support Group.

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 occurred during 2014 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. Ms Tanya Franciosa met during 2014 with Community based professionals in one catchment area to explore ways of improving professional liaison with a view to enhancing support for patients with addiction in the area.

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 2014 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 have found themselves in such a position.

During 2014, as in other years I have appreciated the support of the Head 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 those with addiction problems in each of the three maternity hospitals in Dublin continued to meet on a number of occasions in 2014. There were benefits to all in sharing knowledge and experiences of these particular areas of Social Work in the maternity setting.

In 2014 all Social Workers in the Department continued to be registered with the Social Workers Registration Board, CORU. This is now a statutory requirement. With registration, Social Workers are required to provide evidence of their Continuous Professional Development (CPD) as outlined by CORU over a two year period in order to be allowed to register the following year. The issues of Supervision and Continuous Professional Development are extremely important and are a challenge at a time when there is no possibility of staffing levels increasing or of staff receiving any financial contribution towards training. We exist, as do our patients, in a time of major financial challenge and have to be innovative in both the organisation of the Medical Social Work Service and in the provision of this service to patients and their families.

In conclusion I would like to express my sincere appreciation 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.

In 2014 I particularly appreciated the support of the Medical Social Work Department team as due to a family situation I was unexpectedly absent from the Department for a number of weeks and on my return needed to reorganise my working day for a period of time. The team and the wider community within the hospital were of great support.

Liaison Perinatal Mental Health

Head of Department

Dr Joanne Fenton – Consultant Psychiatrist / Director Perinatal Mental Health

Staff Complement

Consultant Psychiatrist 0.5 WTE – Dr Joanne Fenton & Dr Ann O Grady Walsh
Liaison Midwife 1 WTE - Brid Shine, Orla O'Reilly
Psychiatry Registrar 1 WTE - Dr Samuel Ponnuthurai (July 2014 – December 2014)
Research Registrar 0.1 WTE - Dr Chaitra Jairaj

Key Performance Indicators

Patients referred to Perinatal Clinic	1452
Patients seen for inpatient consultation	183
Diagnosed with antenatal depression	25%
Diagnosed with postpartum depression	42%
Diagnosed with anxiety disorder	22%
Severe & enduring mental illness	11%
Admitted with puerperal psychosis	1

Achievements in 2014

- Educational programmes provided to Medical Students & Midwives on Perinatal Mental Health.
- The Liaison Midwife Certified in Mindfulness Teacher Training in May 2014. Low risk women with perinatal mental health concerns were supported utilising the mindfulness based stress reduction (MBSR) approach.
- Staff training in MBSR was facilitated by Team including 3 One-Day Programmes; "Introduction to Mindfulness for healthcare staff", as well as one eight week MBSR for HCP's programme January - March 2014.
- Investment in research in collaboration with Trinity Health Services.

Challenges for 2015

- Recruitment of CNS in Perinatal Mental Health.
- Provide comprehensive care to patients which will include psychiatric and psychological support.
- Reduce waiting time for patients while ensuring high quality care.
- Advance research in Perinatal Mental Health.

Pharmacy Department

Head of Department

Mairéad McGuire (seconded to HSE June 2014)

Peter Duddy (June 2014-present)

Staff Complement

1 WTE Chief Pharmacist – Peter Duddy

1 WTE Senior grade Pharmacist – Peter Duddy (until June 2014); Úna Rice (June 2014-Nov 2014); Anna Colthorpe (Dec 2014-present)

1 WTE Senior grade Antimicrobial Pharmacist – Úna Rice (Dec 2014-present)

1 WTE Basic grade Pharmacist – Úna Rice (until June 2014); Orla Fahy (June 2014-present)

1 WTE Pharmacy Technician – Gayane Adibekova

Key Performance Indicators

- Clinical service provision:
  - Daily review of patient drug charts on adult and neonatal wards
  - High Risk Pregnancy Medical clinic
  - Acute pain round/team
  - Twice monthly Antenatal GUIDE Clinic
  - Daily Antimicrobial Stewardship rounds from Nov 2014
- The department dispensed 32630 items to wards, outpatients, babies discharged from SCBU and staff.
- Electronic recording of complex medicines information queries using MIDatabank software. 27 queries were recorded for 2014 and previously recorded queries were updated.
- An audit in Autumn 2014 showed that the department also answers between 30 and 50 routine queries per month from internal and external sources. A log of these queries is now maintained (since June 2014) in the pharmacy department.
- Continued monitoring of compliance with the hospital Prescribing and Microbiology Guidelines for Obstetrics & Gynaecology, enhanced by the new post of antimicrobial pharmacist which has allowed for closer monitoring and documentation of pharmacist intervention in relation to antimicrobial prescribing practice.
- Ongoing research & teaching collaborations with the School of Pharmacy in University College Cork & continued provision of educational sessions to NCHDs and Nurses/Midwives.
- Ongoing involvement with developments in MN-CMS project, national TPN policies & Clinical programmes.
- 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 2014

- Funding was gained for the recruitment of an Antimicrobial Pharmacist at the senior pharmacist grade. This was part of a business case developed by Mairead McGuire, in collaboration with colleagues in other hospitals to fund 6 Antimicrobial Pharmacist posts, one for each of the 6 largest maternity units in the country.
- Daily antimicrobial stewardship rounds were initiated in late November 2014, and carried out by the antimicrobial pharmacist. Weekly rounds with the Consultant Microbiologist are also undertaken.
- Continued participation in Clinical Trials.
- Six monthly review of electronic version of Prescribing and Microbiology Guidelines which could be accessed from the user's Smartphone.
- Peter Duddy became Chairman of the Irish Neonatal and Paediatric Pharmacist Group (NPPG). NPPG is a forum for pharmacists with an interest in paediatrics and neonatology to work together and share ideas and knowledge to improve pharmacy services.
- Continued development of the role of the Pharmacist in the Medical Clinic Team.
- Renewed role on anaesthetic pain rounds.
- Continued development, revision and monitoring of comprehensive NICU medication prescribing and administration guidelines.
- Two new editions of CWIUH Neonatal Prescribing handbook issued following review every 6 months.
- Medication Management Refresher Courses to keep NICU staff up-to-date with medication issues.
- Medication error education sessions held on postnatal wards in November 2014, providing the pharmacy staff with an opportunity to discuss directly recent errors relating to obstetric practice in a generalised, blame-free forum with all grades midwives on the wards.
- Continued strong post- graduate education ethos:
  - Una Rice successfully completed 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 co-working with the other maternity hospitals in Dublin, as well as those outside of Dublin.
- Facilitated and aided nursing and midwifery colleagues in the development of the role of the Registered Nurse Prescriber within a maternity hospital setting.
- Orla Fahy and Peter Duddy undertook and completed review and update of all Standard Operating Procedures relating to pharmacy practice as required for registration with the Pharmaceutical Society of Ireland.
- Facilitation of second and third level students work placements.
- Continued involvement in Risk management and auditing of practices within the hospital to improve patient safety.
- Expanded in-house training for NCHDs, midwives and nurses.
- Provision of lectures for National Midwifery Education courses.
- Expanded and improved pharmacy layout from ergonomic point of view in order to meet increased demands for larger stockholding of medications.
- Continued monitoring of all Pharmaceutical grade fridges in the hospital using web-based Temperature monitoring system.

Challenges for 2015

- To maintain current service levels within the existing staff complement.
- To maintain current service levels in the face of increased demands related to increasing complexity of the patient population.
- To maintain current service levels in the face of increasing demands from a national level.
- To effect cost savings without compromise to the standard of service provision.
- 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.
- 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
- To develop a Smart-phone App for the dissemination of the Hospital's Prescribing and Microbiology Guidelines for Obstetrics & Gynaecology.
- To develop and maintain links with colleagues in the Midlands Regional Hospital Portlaoise without compromising service provision in either institution.

Physiotherapy Department

Head of Department

Margaret Mason BA MA MCSP MISCP GradDipPhys

Staff Complement

Eibhlin Mulhall BSc MISCP, Senior Grade 1WTE

Anne McCloskey BSc MISCP, Senior Grade 1WTE

Clare Farrell BSc MISCP, Senior Grade 1WTE

Julia Hayes BSc MISCP, Senior Grade 0.6 WTE

Achievements in 2014

- As in previous years we continued to provide a wide range of services to women and infants attending this hospital on an inpatient and outpatient basis.
- Continued provision of a high quality service to women and infants, within the limited resources available to our department.
- The development of a urogynaecology triage system for women referred to the hospital with incontinence.
- Maintaining a service to the neonatal orthopaedic service following a huge increase in diagnosis of DDH due to implementation of ultrasound scanning for hip screening.

Antenatal Education

- Antenatal education continues to be a priority for the physiotherapy department. Our classes are well-attended although we are limited by space and staffing issues. We continue to receive excellent feedback from the women who attend the classes who find them both enjoyable and informative.
- Antenatal classes provide an ideal opportunity for physiotherapists to discuss and encourage health benefits of general and specific exercise, and improve health behaviours.
- One of the main topics discussed in these classes is the importance of pelvic floor muscles, their role in pregnancy and during labour, and their role in good bladder function. Appropriate pelvic floor muscle exercises are taught and encouraged in these classes.
- As part of continence promotion good bladder habits are also discussed and women are encouraged to continue these and pelvic floor muscle exercises throughout their lives. In fact many women develop bad bladder habits even before pregnancy and find it very useful to be informed about normal micturition and the consequences of bad habits.
- The importance of exercise is stressed both generally and during pregnancy and women are encouraged to take part in appropriate exercise regimes. Most women are aware of the benefits of regular exercise but are unsure about what kind of exercise and how much exercise they could and should do during pregnancy. Physiotherapists with their knowledge of exercise are the appropriate health professionals to discuss exercise with women and it is also part of our health promotion role.
- Women are taught strategies for managing pain during labour using non-pharmacological methods and encouraged to have confidence in their abilities to give birth. The effects of oxytocin, endorphins and stress hormones in labour are discussed and women are taught how to use deep relaxation and breathing techniques to avoid building up tension so that their experience may be more positive.
- Women are also encouraged to make informed decisions regarding their care throughout pregnancy, labour and the puerperium.

Pelvic Girdle Pain

- The number of referrals for pregnancy-related pelvic girdle pain and low back pain continued to rise. Referrals to the department for this condition ranged from 150- 200 per month during this year. We continued to provide classes for these conditions, which we instigated 4 years ago, as it would be impossible to provide individual appointments for these women without developing long waiting lists. When a woman is referred with LBP/PGP she is given an information leaflet about the condition and an appointment for a class. Our aim is to give a class appointment within two weeks of referral. In this class women are given advice, but also practice exercises and techniques that they can use themselves to relieve pain. If a woman requires further treatment on an individual basis following the session this can be arranged. There has been very positive verbal feedback from women attending the classes.

Postnatal Care

- Postnatal women are encouraged to attend the physiotherapy postnatal classes no matter what kind of delivery they have experienced, where they will receive advice on pelvic floor muscle exercises, abdominal exercises, back care, techniques for bending, carrying and lifting and good feeding positions. Women will also be advised on continuing regular exercise as part of our health promotion practice.

OASIS

- Women who sustain a third/fourth degree perineal tear are followed up individually by a physiotherapist. These women will be seen on the ward prior to discharge, two-three weeks later and six-eight weeks following delivery

when they are attending for medical review. If symptomatic they will continue to attend physiotherapy for as long as is necessary. If onward referral is deemed appropriate this is organised with the medical team/consultant. These women may be referred to physiotherapy on subsequent pregnancies for advice on maintaining good pelvic floor health throughout the pregnancy and afterwards.

Continence Promotion

- Our Continence Information and Education sessions for women continued. Most newly referred women attend one of these sessions, usually within one month of referral. Referrals of women with incontinence continued to rise also. In this session women are informed about normal micturition, why continence problems occur, the different types of incontinence, and are advised on techniques such as urge suppression, pelvic floor muscle exercises and good bladder habits. Frequency/volume charts are explained and distributed and women are advised to complete these prior to their next physiotherapy visit. All women will then be given an individual follow-up appointment for six-eight weeks later.
- In order to help integrate care of women with incontinence a physiotherapist continues to regularly attend the urogynaecology clinics. The pilot triage system whereby one of the urogynaeclogy consultants on the MDT triaged the referrals and then sent some patients directly to physiotherapy has been successful and therefore continued this year. It is hoped to roll this system out further for all urogynaecology referrals in 2015. These women were seen by the physiotherapy members of the MDT while they continued on the consultant clinic waiting list. Many of these women responded well to physiotherapy and may not even need to see the consultant which will free up clinics for those who do need consultant review. The urogynaecology team consists of consultants with an interest in continence, members of the physiotherapy team and the urodynamics nurse.

Paediatric Services

- We continued to provide services to the NICU/SCBU, the baby clinics, and to the specialist consultant, neurodevelopmental and orthopaedic clinics.
- The lack of therapy resources in the community has led to many infants with special needs continuing to be monitored by physiotherapy in CWIUH for up to two years of age due to long waiting lists for assessment and treatment by Early Intervention Services in the community. This has put huge strain on our services as we are not resourced for this kind of work and can only see these infants infrequently. However it is extremely difficult to discharge them and leave these families with no input for their child with special needs, sometimes for periods of up to six months while they wait for the community services to give them an appointment. At present we have one WTE working in the neonatal service which clearly is not sufficient for the volume of work demanded. This work includes seeing babies on the postnatal wards with talipes, DDH, brachial plexus lesions, and providing follow-up for them as outpatients, and developmental follow-up in SCBU and in the baby clinic for those infants considered to be 'at-risk' of developmental delay.
- The introduction of hip screening by ultrasound scanning which commenced in January led to a more than 2-fold increase in babies referred for treatment for DDH. Although this was anticipated by the screening service there were no resources allocated for the treatment of these babies once diagnosis was made. The resulting extra volume of work was absorbed by the sole physiotherapist but unfortunately this led to delays in other babies being seen and in a reduction in work in SCBU. It is hoped that this situation will be resolved in 2015.
- One member of staff continues to be involved in the multidisciplinary Neonatal Post-Discharge Support Group. This group was set up to provide support to families of babies who have spent time in the NICU and SCBU. It runs once a month on a Saturday morning and is facilitated by a Clinical Midwife Specialist and Clinical Nurse Manager from the neonatal centre, a physiotherapist and a medical social worker (who are not paid for providing this service). Attendance at this group has continued to grow in the six years that it has been running and it has proven to be very successful with families

Challenges for 2015

- To continue to provide high quality care within our very limited resources. Of note in 2014 60% of the permanent physiotherapy staff were on maternity leave for the second half of the year and this will continue for the first half of 2015. We were able to obtain some, but not total, cover for this and we are very appreciative of the support of the hospital management during this extremely challenging time.
- To develop the physiotherapy service to women and infants within the resource constraints.
- To strengthen our links with colleagues in the community by providing joint education sessions.
- To develop an improved integrated multidisciplinary service with clear pathways for women referred to the hospital with continence issues.
- To develop an improved integrated multidisciplinary service with clear pathways for babies who are at-risk of DDH and those subsequently diagnosed.

Psychosexual Therapy

Head of Department

Donal Gaynor

Staff Complement

One Counsellor (part-time)

Key Performance Indicators

	Private	Public	Total
No. of Consultations	19	253	272
No. of New Visits	5	17	22
No. of Return Visits	14	236	250

Dysfunctions treated

- Vaginismus (35%)
- Dyspareunia (20%)
- Female Inhibited Sexual Desire (19%)
- Erectile Dysfunction (10%)
- Anorgasmia (8%)
- Male Anorgasmia (7%)
- Sexual Addiction was evidenced in 1% of presentations.

Achievements in 2014

- Successful treatment of Female Anorgasmia in patient with MS
- Successful treatment of Erectile Dysfunction with couple attempting to conceive
- Treatment of Vaginismus in patient with undiagnosed stromal sarcoma

Challenges for 2015

- Continued treatment of patient with stromal sarcoma
- Treatment of patient with deep-seated Inhibited Sexual Desire
- Managing treatment of patients who find it increasingly more difficult to get time off work to attend.

Academic Departments

Academic Midwifery Report

Head of Department

Ms Patricia Hughes, Director of Midwifery & Nursing

Report

Midwifery Education between Coombe Women & Infants University Hospital and Trinity College Dublin continued for both the BScM 4 year Midwifery programme (pre-registration) and the 18-month Higher Diploma Midwifery Programme (post-registration). By December 2014 we had a total of 82 midwifery students undertaking one of the two programmes. Our thanks to Ms. Kathryn Muldoon, Director of Midwifery Programmes and to all of the staff at the Department of Nursing & Midwifery in Trinity College Dublin, without whose direction and assistance, the programmes would not be possible.

The Postgraduate Diploma in Neonatal Intensive Care Nursing continued as a joint venture between the three Dublin Maternity Hospitals and the Royal College of Surgeons in Ireland and we are indebted to both Professor Zena Moore and the coordinator of the programme, Patricia O'Hara for the continued success of this programme which prepares and enables nurses and midwives to provide the highest quality of neonatal nursing care as is required in all three tertiary neonatal units. 7 neonatal nurses undertook and successfully completed the PG Dip (NNC) in 2014. 4 more commenced the course.

The Centre of Midwifery Education was well established and now in its 7th year of running (see Report of Ms Triona Cowman, Director of the Centre for Midwifery Education). Due to the excellent collaboration with a co-coordinating group (COG) of senior staff drawn from all three Dublin Maternity Hospitals, another comprehensive programme of in-service training was provided for all midwives working in the Greater Dublin Area and Nurses from all three hospitals. Thanks are due to Ms. Susanna Byrne, Director of the NMPDU in the Dublin Mid Leinster Area and Chair of the Board of the Board of Management for the Centre for Midwifery Education from whom much support is gleaned in respect of practice development and continuing education.

The Coombe Women & Infants University Hospital 7th Annual Essence of Midwifery Care Conference took place on Thursday 1st May 2014 in Chartered Accountants House, Pearse St. Dublin 2. The theme of the Conference was Collaboration in Maternal and Neonatal Care. Minister Alex White opened the conference which was attended by the President of the Nursing & Midwifery Board of Ireland, Paul Gallagher who also presented and the President of the Irish Association of Directors of Nursing & Midwifery, Mary Brosnan. Dr. Sheehan, Master/ CEO presented at the conference as did a number of staff from the hospital. Ann Louise Mulhall presented the 11th Maureen McCabe lecture. The conference was attended by over 100 attendees and was very positively evaluated. Attendees particularly highlighted their appreciation of the multidisciplinary input to the Conference.

Publications

- Panda, S. and Begley, C. (2014) 'Not in established labour': Outcomes of women cared for in an Irish antenatal ward. British Journal of Midwifery. 22(4): 264-268
- Barry, P. (2014), "Powerful Element", World of Irish Nursing, Vol 22 (9) pp 45-46

Awards to Midwives & Nurses in 2014

Mary Drumm Scholarship 2014
Anne O' Sullivan

Ann Louise Mulhall Scholarship 2014
Ruth Banks, CSF

Best Clinical Teacher Award
Raji Dominic, A/ CMM2

Awards to Midwifery Students

Gold Medal BSc Midwifery
Sophie Clare

Silver Medal BSc Midwifery
Megan Sheppard

Gold Medal Higher Diploma in Midwifery
Laura Andrews

Silver Medal Higher Diploma in Midwifery
Ana Alonso

Dr. T. Healy Award – Best Overall Clinical Student Midwife
Anne Jane McBrien

7th Annual Essence of Midwifery Care Conference

This year's theme is "Collaboration in Maternal and Neonatal Care"

Chartered Accts House, Pearse St. Dublin 2. Thursday 1st May 2014

Time	Event	Speaker	Total
08.30-08.50	Registration, Coffee, Trade Exhibition, Poster Presentation	–	–
08.50-09.00	Opening Address	Patricia Hughes	Director of Midwifery & Nursing, CWIUH
09.00-09.30	The Essence of Collaboration in Maternal and Neonatal Care	Dr. Sharon Sheehan	Master & CEO, CWIUH
09.30-10.15	Resilience	Michael Comyn	The Fearless Organisation MD, Coach, Trainer
10.15-10.40	Coffee & Trade Exhibition	*(Poster Presentation)*	
10.40-11.20	National Maternity Services Strategy	Siobhán O' Halloran	Chief Nurse, Dept of Health
11.20-11.50	Utilisation of the Role of the Midwife in Routine Neonatal Care	Dr. D. Corcoran Cons Neo Rotunda	Consultant Neonatologist
11.50-12.20	Working Together to Provide Safe Choices for Women & Their Families	Aisling Dixon	Self Employed Midwife
12.20-13.00	Collaboration in Research - Overview of Optibirth with Emphasis on Mammi Study	Professor Cecily Begley	Professor of Nursing & Midwifery, Trinity College Dublin
13.00-14.00	Lunch & Trade Exhibition	*(Poster Presentation)*	Chairperson – Triona Cowman, Dir. of the Centre for Midwifery Education, Greater Dublin Area
14.00- 14.45	The Maureen McCabe Lecture "The Role of the Midwife – A historical perspective"	Ann Louise Mulhall	Retired Director of CME, Midwife, Artist, Historian
14.45-15.15	How the Nurses & Midwives Act 2011 Can Enable Midwives to Practise in the Interests of Patient Safety	Paul Gallagher	President of Nurses & Midwives Board of Ireland and Director of Nursing in St James' Hospital
15.15-15.45	Developing Safety & Quality in Maternal and Neonatal Care	Susan Kelly	Clinical Risk Manager, CWIUH
15.45-16.15	Mindfulness and Compassion	Brid Shine	Clinical Midwife Specialist, Bereavement & Support Midwife in Perinatal Mental Health
16.00-16.15	Closing Remarks & Results of Poster Competition	Patricia Hughes	Director of Midwifery & Nursing, CWIUH

Biological Resource Bank (BRB)

Head of Department

Dr Sharon Sheehan, Master/CEO
Professor Michael Turner

Staff Complement

Ruth Harley, Research Midwife

Muireann Ni Mhurchu, Research Midwife

Key Performance Indicators

Total Cord Bloods	1,114
Total BRB Bloods	11,749

Achievements in 2014

- Utilisation of bloods for three research studies, awaiting Publications of same.
- Achieved full storage capacity for blood samples in -80 degree freezers.
- Working in collaboration with UCD Centre for Human Reproduction

Challenges for 2015

- Promote and increase the usage of maternal and fetal cord bloods for further research studies.
- Ensure that the -80 degree freezers run efficiently and maintain optimum temperature.

Centre for Midwifery Education (CME)

Head of Department

Triona Cowman

Staff Complement

Triona Cowman, Director (WTE)

Patricia O'Hara: Nurse Tutor (WTE)

Patricia Griffiths: Secretary (17.5hrs)

Key Performance Indicators

- Develop and deliver high quality, evidence based education and training programmes that respond to service needs.
- Appropriate accreditation/approval for all education and training programmes.
- Close working relationships with all stakeholders.
- Cost effective functioning of the CME.

Achievements in 2014

- In 2014 the CME delivered 116 programmes to 1,331 attendees. This includes CWIUH in-service training in CPR, Heartsaver-CPR & AED and NRP of which there were 42 programmes and 281 attendees. Overall activity in the CME was consistent with that of 2013 and again 9% of attendees were from outside the three Dublin Maternity hospitals.
- The first Neonatal Foundation Programme, focusing on the Principles of Neonatal Intensive care, took place in February 2014 with fourteen particpants.
- Following successful applications to the NMPDU for support for service innovation and research, funding was approved and 19 midwives completed a 4-day programme in Hypnobirthing Practitioner Training.
- A business case seeking the appointment of additional staff to support the function of the CME was submitted to the HSE.

Challenges for 2015

With our existing staff complement; sustaining current activity in the CME and responding to increasing service needs arising from national reports, hospital groupings and impending conpetency schemes for midwives and nurses will be a challenge.

Midwifery & Nursing: Practice Development

Head of Department

Ms Paula Barry, Assistant Director of Midwifery & Nursing / Practice Development Coordinator (Author)

Staff Complement

1 WTE Practice Development Co-ordinator

3 WTE Clinical Placement Co-ordinators

3.5 WTE Clinical Skills Facilitators (1.5 WTE: Neonatal Unit, 1 WTE: DS & 1 WTE: Ward Areas)

1 WTE Post-registration Programme Co-ordinator

0.5 WTE Allocations Liaison Officer

Key Performance Indicators

- The development and maintenance of the clinical learning environment for Bachelor of Science (BScM) and Higher Diploma (HDip) in Midwifery Students and Bachelor of Science (BScN) in Nursing Students undertaking clinical placements at the CWIUH.
- Quality assurance in midwifery and nursing practice, including facilitating and performing regular clinical audit, promoting and supporting research and evidence-based practice.
- 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 2014

- Continued facilitation of the 4 year BSc in Midwifery as well as the 18-month Higher Diploma in Midwifery Programmes in conjunction with Trinity College, Dublin (TCD).
- Continued facilitation and support of BSc Nursing Students on maternity placement from St. James's and Tallaght (AMNCH) Hospitals.
- Continued to support and guide clinical staff in order to provide an optimal learning environment for midwifery and nursing students.
- Continued to encourage staff embrace evidence-based care by facilitation of a monthly Journal Club, conducting clinical audits, developing evidence based PPGs, and supporting the ethos of research throughout the hospital.
- Members of the Practice Development Team participated on a number of Committees within the hospital and TCD.
- Facilitation of a Midwives Clinic by the Practice Development Team (768 consultations in 2014, increased from 697 consultations in 2013). 73.5% of these clinics were facilitated by the same midwife, enhancing continuity of care.
- All staff in our department were involved in the organisation of the annual Essence of Midwifery Care Conference to celebrate International Day of the Midwife in May.
- Ann Bowers (CPC) and Ruth Banks (CSF: DS) both commenced year 1 of their MSc in Midwifery Led Care in UCD.
- Further funding secured to enhance and promote a culture of Midwifery Research within the CWIUH.

Challenges for 2015

- Continue to meet the clinical learning needs of midwifery and nursing students while on placement in the CWIUH.
- Continue to support and assist midwifery and nursing staff involved in clinical teaching and preceptorship of midwifery and nursing students.
- Continue to promote the midwifery philosophy that pregnancy and childbirth is a normal, healthy life event for many women.
- Continue to develop and ensure ratification of guidelines, particularly guidelines promoting normality, in an attempt to reduce intervention and improve normal birth rates.
- Continue to facilitate midwifery and nursing educational programmes and up-dates in collaboration with the CME.
- Strengthen the Midwifery Research agenda within the CWIUH.
- 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.

Postgraduate Medical Training – Anaesthesia

Head of Department

Dr Michael Carey

Report

The department continues to place a strong emphasis on education and training. Ten members of the National Training Scheme in Anaesthesia (including a trainee from Pakistan as part of a HSE/College of Anaesthetists initiative), rotated through the department fulfilling their obstetric anaesthesia training requirement.

The formal educational component consists of:

- An eight-week introduction to obstetric anaesthesia course delivered by consultant staff
- College of Anaesthetists exam preparation
- Departmental CEPD schedule, which includes obstetric and non-obstetric related topics
- Six weekly morbidity conference

All anaesthesia trainees are invited to participate in the formal education sessions irrespective of their training status. Combinations of teaching strategies are employed including problem based learning, small group discussion, debating and practical skills training. Trainees are encouraged to evaluate sessions and feedback is used to modify the programme accordingly.

A work placed based assessment tool as a means to providing constructive feedback to trainees on non – technical skills was used successfully this year.

The Department continued to provide lectures on obstetric anaesthesia to undergraduates from Trinity College Dublin.

Postgraduate Medical Training – Obstetrics & Gynaecology

Head of Department

Dr Michael O'Connell

Key Performance Indicators

- All Doctors in training are assigned to a team and a Trainer
- All Doctors in training (BST level) are prospectively allocated to a two-year BST rotation
- All BST rotations include one year in CWIUH
- Preparatory course are provided for MRCPI (O&G) and DOWH examinations
- Special Skills module in Gynaecological surgery 6 months St James's /6 months CWIUH in place
- Dedicated Delivery suite sessions for all Doctors in training

Achievements in 2014

- Successful implementation of year three BST with RCPI.
- All year three trainees had dedicated 12-hour sessions on D.S.

Challenges for 2015

- Maximisation of training opportunities in the context of EWTD.
- Recruit international fellow in maternal medicine.

Postgraduate Medical Training – Paediatric Medicine

Head of Department

Dr Jan Miletin

Medical Training in Paediatric Medicine in 2014

Eight Specialist Registrars in Paediatrics rotated through the Department of Paediatrics & Newborn Medicine in 2014. Each Specialist Registrar was completing 6 months of a 12-month rotation, posts are July to June. 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.

The Neonatal Resuscitation Programme is led by Professor Martin White and Ms Margaret Moynihan, with large numbers of candidates completing the NRP programme. The Hospital was also closely involved in the STABLE Neonatal Transport training programme.

Postgraduate Medical Training – Pathology

Head of Department

Professor John O'Leary

Report

Medical training in Laboratory Medicine in 2014 was provided in Histopathology, Cytopathology, Morbid Anatomy and Molecular Pathology. The Specialist Registrar is attached to the Department for a 6 month period.

The Specialist Registrar is encouraged to undertake a dedicated piece of research during his/her rotation in CWIUH. The Department of Cytopathology is the only one in the Republic of Ireland that offers training in Gynaecological Cytopathology. The CWIUH houses the National Cervical Cytology Training Centre, in association with the HSE, the NCSS [CervicalCheck] and the Faculty of Pathology.

Trinity College Dublin, Academic Department of Obstetrics & Gynaecology

Head of Department

Prof Deirdre J Murphy

Support Staff

Cristina Boccardo, Executive Officer

Academic Staff

Deirdre J Murphy, Professor, Head of Department, Consultant in Obstetrics

Sean Daly, Clinical Professor, Consultant Obstetrics & Gynaecology

Nita Adnan, Clinical Lecturer, Obstetrics & Gynaecology

Katie Field, Clinical Lecturer, Obstetrics & Gynaecology

Clare Dunney, Research Midwife / TCD Tutor

James Clinch, Hon Emeritus Senior Lecturer

Mona Joyce, Special Lecturer, Consultant Gynaecology

Noreen Gleeson, Honorary Senior Lecturer, Consultant Gynaecology

Gunther von Bunau, Hon Lecturer, Consultant Obstetrics & Gynaecology

Mary Anglim, Hon Lecturer, Consultant Obstetrics & Gynaecology

Cliona Murphy, Hon lecturer, Consultant Obstetrics & Gynaecology

Grant income to 2014

- HRB IDUS Clinical Trial €288,000, Principal Investigator D Murphy
- HSE Alcohol in Pregnancy Project €325,000, Principal Investigator D Murphy
- HRB Primary Care Centre (RCSI/TCD) €4 Million, Co-investigator D Murphy
- HRB PhD programme (RCSI/TCD/UCC) €5 million, Collaborator D Murphy
- HRB 2011-2015 €400,000 Perinatal Ireland, ESPRIT Study, Co-PI S Daly

Achievements in 2014

- Peer-review publications in high impact journals.
- Invited plenary addresses at National and International meetings

Higher Degrees awarded

- Dr Richard Deane, MD (D Murphy supervisor)
- Ms Clare Dunney, MSc (D Murphy co-supervisor)

Challenges / Opportunities

- Prof Patricia Crowley retired at the end of 2013 and has been greatly missed – we look forward to appointing a successor.
- Appointment of new Professor of Gynaecology (Consultant Obstetrics & Gynaecology) – joint appointment Trinity College Dublin, St James's Hospital & Coombe Women and Infants University Hospital

Publications, Presentations & Grants in 2014

TCD Academic staff

Original Publications in Peer-Review Journals / Textbooks

1. Ramphul M, Kennelly M, Burke G, Murphy D. Risk factors and morbidity associated with suboptimal instrument placement at instrumental delivery: observational study nested within the Instrumental Delivery & Ultrasound randomised controlled trial ISRCTN 72230496. BJOG. 2014 Nov 21. doi: 10.1111/1471-0528.13186. [Epub ahead of print] PubMed PMID: 25414081.
2. Ooi PV, Ramphul M, Said S, Burke G, Kennelly MM, Murphy DJ. Ultrasound assessment of fetal head circumference at the onset of labor as a predictor of operative delivery. J Matern Fetal Neonatal Med. 2014 Nov 14:1-5. [Epub ahead of print] PubMed PMID: 25363014.
3. Butler K, Ramphul M, Dunney C, Farren M, McSweeney A, McNamara K, Murphy DJ. A prospective cohort study of the morbidity associated with operative vaginal deliveries performed by day and at night. BMJ Open. 2014 Oct 29;4(10):e006291.doi: 10.1136/bmjopen-2014-006291.
4. Crosby DA, Ramphul M, Murphy DJ. Antenatal discussion of the risks and benefits of VBAC and ERCS: Letter in response to BJOG themed issue 'Management of pregnancy after caesarean section'. BJOG. 2014 Oct;121(11):1440-1. doi:10.1111/1471-0528.12881. PubMed PMID: 25250925.
5. Ramphul M, Murphy DJ. Authors' reply: Does ultrasound determination of fetal occiput position improve labour outcome? BJOG. 2014 Sep;121(10):1312-3. doi:10.1111/1471-0528.12957. PubMed PMID: 25155322.

6. Ramphul M, Ooi PV, Burke G, Kennelly MM, Said SA, Montgomery AA, Murphy DJ. Instrumental delivery and ultrasound: a multicentre randomised controlled trial of ultrasound assessment of the fetal head position versus standard care as an approach to prevent morbidity at instrumental delivery. BJOG. 2014 Jul;121(8):1029-38. doi: 10.1111/1471-0528.12810. Epub 2014 Apr 11. PubMed PMID: 24720273.
7. Murphy DJ, Dunney C, Mullally A, Adnan N, Fahey T, Barry J. A prospective cohort study of alcohol exposure in early and late pregnancy within an urban population in Ireland. Int J Environ Res Public Health. 2014 Feb;11:2049-63.
8. Murphy DJ. Operative Delivery. Clinical Obstetrics & Gynaecology. Third Edition. Eds Magowan B, Owen P, Thomson A. Saunders Elsevier 2014, Edinburgh.
9. Murphy DJ, Ramphul M. Indications and assessment for operative vaginal birth. In ROBuST Course Manual. Eds Attilakos G, Draycott T, Gale A, Siassakos D, Winter C. Cambridge University Press, 2014, Cambridge.
10. Deane R, Murphy DJ. Prevalence and predictors of periconceptional folic acid use. In Handbook of diet and nutrition in the menstrual cycle, periconception and fertility. Eds Hollins-Martin CJ, van der Akker OBA, Martin CR, Preedy VR. Wageningen Academic Publishers, 2014, The Netherlands.
11. Neff, KJ; Forde, R; Gavin, C; Byrne, MM; Firth, RG; Daly, S; McAuliffe, FM; Foley, M; Coffey, M; Coulter-Smith, S; Kinsley, BT. Pre-pregnancy care and pregnancy outcomes in type 1 diabetes mellitus: a comparison of continuous subcutaneous insulin infusion and multiple daily injection therapy. Ir J Med Sci, 2014 vol. 183(3) pp. 397-403
12. Ryan, HM; Morrison, JJ; Breathnach, FM; McAuliffe, FM; Geary, MP; Daly, S; Higgins, JR; Hunter, A; Burke, G; Higgins, S; Mahony, R; Dicker, P; Manning, F; Tully, E; Malone, FD. The influence of maternal body mass index on fetal weight estimation in twin pregnancy. Am. J. Obstet. Gynecol., 2014 vol. 210(4) pp. 350.e1-6
13. Unterscheider, J; Daly, S; Geary, MP; Kennelly, MM; McAuliffe, FM; O'Donoghue, K; Hunter, A; Morrison, JJ; Burke, G; Dicker, P; Tully, EC; Malone, FD. Definition and management of fetal growth restriction: a survey of contemporary attitudes. Eur. J. Obstet. Gynecol. Reprod. Biol., 2014 vol. 174 pp. 41-5.
14. Unterscheider, J; Daly, S; O'Donoghue, K; Malone, FD. Critical umbilical artery Doppler abnormalities in early fetal growth restriction and the timing of delivery: an overestimated clinical challenge in daily obstetric practice? Ultrasound ObstetGynecol, 2014 vol. 43(2) pp. 236-7
15. Flood, K; Unterscheider, J; Daly, S; Geary, MP; Kennelly, MM; McAuliffe, FM; O'Donoghue, K; Hunter, A; Morrison, JJ; Burke, G; Dicker, P; Tully, EC; Malone, FD. The role of brain sparing in the prediction of adverse outcomes in intrauterine growth restriction: results of the multicenter PORTO Study. Am. J. Obstet. Gynecol., 2014 vol. 211(3) pp. 288.e1-5.
16. O'Dwyer, V; Burke, G; Unterscheider, J; Daly, S; Geary, MP; Kennelly, MM; McAuliffe, FM; O'Donoghue, K; Hunter, A; Morrison, JJ; Dicker, P; Tully, EC; Malone, FD. Defining the residual risk of adverse perinatal outcome in growth-restricted fetuses with normal umbilical artery blood flow. Am. J. Obstet. Gynecol., 2014 vol. 211(4) pp. 420.e1-5.

Grants Received

- HRB 2009-2014 Primary Care Centre RCSI/TCD/QUB €4.2 Million; Prescribing in vulnerable groups (drug users, pregnancy, breast feeding); Fahey T (PI), O'Dowd T, Hughes C. Murphy DJ (Co-applicant)
- HRB 2010-2013 €287,800 (completed 2014); Ultrasound assessment of the fetal head position to prevent morbidity at instrumental delivery (IDUS) - randomised controlled trial.; Murphy DJ (PI), Montgomery A, Burke G.
- Health Service Executive 2007-2014 €325,000; Alcohol exposure in pregnancy and perinatal outcomes; Murphy DJ (PI), A Mullally
- HRB 2007-2011 €4,100,000 (400,000 supplemental funding to 2015); Perinatal Ireland, ESPRIT Study; Malone F (PI) Geary M., Mc Auliffe F., Morrison J.,Higgins J., Burke G.,Dornan J., Higgins S., Daly S (Joint Co PI)

UCD Centre for Human Reproduction

Head of Department

Professor Michael Turner

The UCD Centre for Human Reproduction was established in 2007 to conduct clinical research in obstetrics and gynaecology at the Coombe Women and Infants University Hospital. Our present focus is on modifiable feto-maternal risk factors and health services implementation science.

Staff Complement

Professor Michael Turner – Professor of Obstetrics and Gynaecology

Ms Laura Bowes – Administrator

Dr Mairead Kennelly - Senior Lecturer and Consultant in Obstetrics and Gynaecology

Dr Jan Miletin - Senior Lecturer and Consultant Neonatologist

Dr Amy O'Higgins - Clinical Lecturer (Until July 2014)

Dr Niamh Daly - Clinical Lecturer (From July 2014)

Dr Chris Fitzpatrick – Honorary Lecturer

Dr Aisling Martin - Honorary Lecturer

Dr Nadine Farah - Honorary Lecturer

Dr Michael Carey - Honorary Lecturer

Dr Tom D'Arcy - Honorary Lecturer

Dr Mary Anglim - Honorary Lecturer

Research Fellows

Dr Georsan Caruth (MD)

Ms Shona Cawley (MSc)

Dr David Crosby (MSc)

Dr Niamh Daly (PhD)

Dr Maria Farren (MD)

Ms Rachel Kennedy (PhD)

Dr Patrick Maguire (MD)

Dr Aoife McKeating (PhD)

Ms Laura Mullaney (PhD)

1. Maternal obesity

- Due to concerns about rising levels of maternal obesity, new revised American recommendations on gestational weight gain (GWG) were published in 2009 for obese women. There are, however, considerable research gaps on the subject. Dr Amy O'Higgins completed an observational longitudinal study on GWG in more than 1,000 women attending for antenatal care. Her MD will be submitted in 2015.
- Dr Niamh Daly is conducting a randomised controlled trial to evaluate an intensive supervised exercise intervention to improve maternal glycaemic control in obese subjects. Her research will be submitted for a PhD in 2017.
- Dr Maria Farren is conducting a randomised control trial to evaluate the use of nutritional supplements in the prevention of gestational diabetes mellitus which has increased dramatically in pregnant women due, in part, to the rising levels of maternal obesity. Her research will be submitted for an MD in 2016.

2. Maternal nutrition

- A national audit has been completed in association with Dr Bob McDonnell and his colleagues in the HSE (EUROCAT). This comprehensive 3 year national audit of Neural Tube Defects was published in the Journal of Public Health and was extensively covered in the media.
- Dr Aoife McKeating is conducting a study on unplanned pregnancy in women with maternal obesity. This is funded by the HSE Crisis Pregnancy Programme. Dr McKeating will submit her PhD in 2016.
- Ms Laura Mullaney is undertaking her PhD in association with Dr Dan McCartney, DIT Lecturer, on maternal weight trajectories and their relationship to neonatal adiposity.
- Ms Shona Cawley is undertaking her PhD in association with Dr Dan McCartney, DIT Lecturer, on periconceptual folic acid supplementation for the prevention of NTDs.
- Ms Rachel Kennedy is undertaking her PhD in association with Dr Dan McCartney, DIT Lecturer, and is conducting a randomised controlled trial on the use of a smart app in the prevention of gestational diabetes mellitus.
- Dr Georsan Caruth is undertaking her MD in association with Dr Jan Miletin to investigate a Smart App in the management of maternal weight post-pregnancy.

3. Intrauterine fetal growth

- Dr Clare O'Connor was awarded her MD for a longitudinal observation study under the supervision of Dr Kennelly which examined the role of fetal pulsewave Doppler and ultrasound measurement of soft tissue markers in evaluating aberrant fetal growth.
- Ms Emma Doolin enrolled women for the Perinatal Ireland Genesis collaborative study on the predictive role of fetal ultrasound measurements on the mode of delivery in nulliparous women.

4. Caesarean section

In association with Professor Richard Layte from the ESRI, Professor Turner is conducting a 20 year review of the factors that are causing caesarean section rates in Ireland and other developed countries to escalate. The study will combine obstetric outcomes from the national databases Hospital Inpatient Enquiry (HIPE) and the National Perinatal Reporting Systems (NPRS).

5. Irish Maternity Early Warning System (IMEWS) and maternal infection

Dr Patrick Maguire is undertaking his MD for the evaluation of the Irish Maternity Early Warning System (IMEWS). Dr Maguire has been collaborating with others in the revision of the IMEWS chart and the development nationally of a customised Sepsis 6 Box for pregnancy. He has also been working for Dr Karen Power, HSE Project Manager in the evaluation of biomarkers in the critically-ill obstetric patient.

Prizes and Awards

1. Ms Shona Cawley – Folic acid and maternal obesity (Gold Medal Awarded). Association of the Study on Obesity on the Island of Ireland Conference, May 2014, Belfast
2. Dr Amy O'Higgins – Gestational weight gain and neonatal body composition - Master's Research Medal
3. Dr Patrick Maguire – Is the IMEWS an Effective Early Warning System? - 2nd Prize, Master's Research Medal
4. Dr Niamh Daly – The Importance of Preanalytic Glucose Sample Handling when Screening Obese Women for Gestational Diabetes Mellitus – Registrars Medal, RAMI

List of Grants received in 2014:

- **Title:** Maternal obesity and unplanned pregnancy
  Start/End Dates: July 2013 – June 2015
  Funder: HSE Crisis Pregnancy Programme
  Amount: €58,710.00 annually
- **Title:** Nutritional supplements and Gestational Diabetes Mellitus (RCT)
  Start/End Dates: July 2013 – June 2015
  Funder: Bernard Stuart Fellowship
  Amount: €75,000.00
- **Title:** Folklore Project (Dr Chris Fitzpatrick)
  Start/End Dates: May 2014
  Funder: St Teresa's Gardens Folklore Archive
  Amount: €5,00.00
- **Title:** HRB Summer Student Scholarship (Ian Coleman)
  Start/End Dates: July/August 2014
  Funder: HRB
  Amount: €2,000.00
- **Title:** HRB Summer Student Scholarship (Tom McCartney)
  Start/End Dates: July/August 2014
  Funder: HRB
  Amount: €2,000.00
- **Title:** Smart App for maternal weight management postpartum
  Start/End Dates: January 2014
  Funder: National Children's Research Centre
  Amount: €75,000.00
- **Title:** Exercise RCT for obese women in pregnancy
  Start/End Dates: July 2014
  Funder: Friends of the Coombe
  Amount: €75,000.00

Academic Publications 2014

- Daly N, Bonham S, O'Dwyer V, O'Connor C, Kent E, Turner MJ. National variations in operative vaginal deliveries in Ireland. Int J Gynaecol Obstet. 2014;125:210-3.
- Dempsey EM, Barrington KJ, Marlow N, O'Donnell CP, Miletin J, Naulaers G, Cheung PY, Corcoran D, Pons G, Stranak Z, Van Laere D; HIP Consortium. Management of hypotension in preterm infants (The HIP Trial): a randomised controlled trial of hypotension management in extremely low gestational age HYPERLINK "http://www.ncbi.nlm.nih.gov/pubmed/24576799"newbornsHYPERLINK "http://www.ncbi.nlm.nih.gov/pubmed/24576799" Neonatology 2014;105:275-81.
- Farren M, Turner MJ. Can fetal macrosomia be predicted and prevented? Textbook of diabetes and pregnancy, Third Edition.
- Flood K, Unterscheider J, Daly S, Geary MP, Kennelly MM, McAuliffe FM, O'Donoghue K, Hunter A, Morrison JJ, Burke G. Dicker P, Tully EC, Malone FD. The role of brain sparing in the prediction of adverse outcomes in intrauterine growth restriction: resulta of the multicentre PORTO study. Am J Obstet Gynecol 2014;211:288
- Keegan H, Pilkington L, McInerney J, Jeney C, Benczik M, Cleary S, von Bunau G, Turner M, D'Arcy T, O'Toole S, Pal-Szenthe B, Kaltenecker B, Mózes J, Kovács A, Solt A, Bolger N, O'Leary J, Martin C. Human papillomavirus detection and genotyping, by HC2, full-spectrum HPV and molecular beacon real-time HPV assay in an Irish colposcopy clinic, J Virol Methods 2014;201:93-100.
- Letshwiti JB, Sirc J, O'Kelly R, Miletin J. Serial N-terminal pro-brain natriuretic peptide measurement as a predictor of significant patent ductus arteriosus in preterm infants beyond the first week of life. Eur J Pediatr. 2014;173:1491-6.
- Maguire PJ, O'Higgins A, Power K, Turner MJ (Editorial). The Irish Maternity Early Warning System (IMEWS). Ir Med J 2014;107:309.

- Mestak O, Spurkova Z, Benkova K, Vesely P, Hromadkova V, Miletin J, Juzek R, Mestak J, Molitor M, Sukop A. Comparison of Cross-linked and Non-Cross-linked HYPERLINK "http://www.ncbi.nlm.nih.gov/pubmed/24966996"AcellularHYPERLINK "http://www.ncbi.nlm.nih.gov/pubmed/24966996" Porcine Dermal Scaffolds for Long-term Full-Thickness Hernia Repair in a Small Animal Model. Eplasty 2014;14:e22. eCollection 2014.
- Mullaney L, O'Higgins A, Cawley S, Doolan A, McCartney D, Turner MJ. An estimation of periconceptual under-reporting of dietary energy intake. Journal of Public Health 2014. Published online October 2014.
- O'Connor C, O'Higgins A, Doolan A, Segurado R, Stuart B, Turner MJ, Kennelly MM.Birth Weight and Neonatal Adiposity Prediction Using Fractional Limb Volume Obtained with 3D Ultrasound. Fetal Diagn Ther 2014;36:44-8.
- O'Connor C, Doolan A, O'Higgins A, Segurado R, Fitzpatrick C, Turner MJ, Stuart B, Kennelly MM. Fetal subcutaneous tissue measurements in pregnancy as a predictor of neonatal body composition. Prenat Diagn 2014;34:952-5.
- O'Connor C, O'Higgins A, Segurado R, Fitzpatrick C, Turner MJ, Stuart B, Kennelly MM. Maternal body composition and birthweight. Prenat Diagn 2014;34:605-7.
- O'Dwyer V, Burke G, Unterscheider J , Daly S, Geary MP, Kennelly MM, McAuliffe FM, O'Donoghue K, Hunter A, Morrison JJ, Dicker P, Tully EC, Malone FD. Defining the residual risk of adverse perinatal outcome in growth-restricted fetuses with normal umbilical artery blood flow. Am J Obstet Gynecol 2014;211:420.e1-5.
- O'Higgins AC, Turner MJ. The obese woman in late pregnancy and labour. Recent Advances in Obstetrics and Gynaecology Volume 26. JP Medical Publishers (in press). Editors: W. Ledger, J. Clarke.
- O'Higgins A, Murphy OC, Egan A, Mullaney L, Sheehan S, Turner MJ. The Use of Digital Media by Women Using the Maternity Services in a Developed Country. Ir Med J 2014;107:313-315.
- O'Higgins A, Dunne F, Lee B, Smith D, Turner MJ. A national survey of implementation of guidelines for gestational diabetes mellitus. Ir Med J 2014;107:231-3.
- O'Higgins AC, Egan AF, Murphy OC, Fitzpatrick C, Sheehan SR, Turner MJ. A clinical review of maternal HYPERLINK "http://www.ncbi.nlm.nih.gov/pubmed/24438699"bacteremiaHYPERLINK "http://www.ncbi.nlm.nih.gov/pubmed/24438699". Int J Gynaecol Obstet. 2014;124:226-9.
- O'Higgins AC, Doolan A, Mullaney L, Daly N, McCartney D, Turner MJ. The relationship between gestational weight gain and HYPERLINK "http://www.ncbi.nlm.nih.gov/pubmed/24259236"fetalHYPERLINK "http://www.ncbi.nlm.nih.gov/pubmed/24259236" growth: time to take stock? J Perinat Med. 2014;42:409-15.
- Ooi PV, Ramphul M, said S, Burke G, Kennelly MM, Murphy DJ. Ultrasound assessment of fetal head circumference at the onset of labor as a predictor of operative delivery. J Matern Fetal Neonatal Med 2014 Nov 14:1-5 [e-pub ahead of print].
- Ramphul M, Ooi PV, Burke G, Kennelly MM, Said SA, Montgomery AA, Murphy DJ. Instrumental delivery and ultrasound : a multicentre randomised controlled trial of ultrasound assessment of the fetal head position versus standard care as an approach to prevent morbidity at instrumental delivery. BJOG 2014;121:1029-38.
- Ramphul M, Kennelly MM, Burke G, Murphy DJ. Risk factors and morbidity associated with suboptimal instrument placement at instrumental delivery: observational study nested within the Instrumental Delivery HYPERLINK "http://www.ncbi.nlm.nih.gov/pubmed/25414081"&HYPERLINK "http://www.ncbi.nlm.nih.gov/pubmed/25414081" Ultrasound randomised controlled trial ISRCTN 72230496. BJOG 2015;122:558-63.
- Sirc J, Dempsey EM, Miletin J. Diastolic ventricular function improves during the first 48-hours-of-life in infants weighting HYPERLINK "http://www.ncbi.nlm.nih.gov/pubmed/25163391"<HYPERLINK "http://www.ncbi.nlm.nih.gov/pubmed/25163391"1250 g. Acta Paediatr 2015;104:e1-6.
- Unterscheider J, O'Donoghue K, Daly S, Geary MP, Kennelly MM, McAuliffe FM, Hunter A, Morrison JJ, Burke G, Dicker P, Tully EC, Malone FD. Fetal growth restriction and the risk of perinatal mortality-case studies from the multicentre PORTO study. BMC Pregnancy Childbirth 2014 ;4:63.

Abstracts 2014

- McKeating A, Crosby DA, Daly NM, Farren M, O'Higgins AC, Turner MJ. Pregnancy intention and increasing maternal Body Mass Index (BMI): an observational study. Irish Professional Development Conference, Belfast, February 2014.
- McKeating A, Crosby DA, Daly NM, Farren M, O'Higgins AC, Turner MJ. An analysis of unplanned pregnancy among multiparous women. Irish Professional Development Conference, Belfast, February 2014.
- Farren M, Mullally A, Daly N, McKeating A, Turner MJ, Farah N. VBAC trends in an Irish cohort in a tertiary referral centre. Irish Professional Development Conference, Belfast, February 2014.
- Farren M, Mullaney L, Mc Keating A, Daly N, O' Higgins AC, McCartney D, Turner MJ. Food Supplementation recording in the first trimester. Irish Professional Development Conference, Belfast, February 2014.
- McKeating A, O'Higgins AC, Turner C, McMahon L, Sheehan SR, Turner MJ. Maternal obesity and un-

planned pregnancy in women attending a large university maternity hospital. RAMI Obstetrics and Gynaecology section of Registrars' Prize Meeting, Dublin, March 2014.

- Mullaney L, O' Higgins A, Doolan A, McCartney D, Sheridan-Pereira M, Turner MJ (2014) Influence of Early Pregnancy Diet on Neonatal Body Composition. The Power of Programming Conference (March 2014), Munich, Germany.
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- Cawley S, Mullaney L, O'Higgins AC, McKeating A, McCartney D, Turner MJ. Folic acid and obesity (Gold Medal Awarded). Association of the Study on Obesity on the Island of Ireland Conference, May 2014, Belfast.
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Support Services

Hygiene Services

Head of Department

Vivienne Gillen, Hygiene Services Manager

Key Performance Indicators

- Hygiene Audits carried out by Ward Managers, Household Supervisors and Hospital Management
- Waste Segregation and Recycling
- Compliments and Complaints

Achievements in 2014

- Catering plan completed in February 2014, with ward catering service placed under the management of the Catering Department.
- Increased multi-disciplinary hygiene and environmental audit scores at all levels.
- Ongoing replacement of sinks to compliant hand hygiene sinks.
- Upgrading of floors including stairwell lobby floors.
- Upgrading of Semi-private unit on 1st floor.
- Upgrading of St. Gerard's Ward and Gynae Day Ward.
- Ongoing upgrading of showers throughout hospital.
- Deep cleaning of all refurbished areas prior to environmental testing and handover.
- Completion of roll-out of disposable curtains throughout hospital.
- Complete refurbishment of all household equipment.
- Maintenance of sick leave levels of 5% with target remaining at 3.5%.
- Achieved and surpassed recycling goal of 64% for 2014.

Waste Management

- Total waste generation in 2014 of 463 tonnes, a decrease of 30 tonnes on 2013.
- Introduction of reusable 'Biosystems' sharps container with resultant cost savings and increase on recycling targets.
- Recycling rate increased to 71% in 2014 from a rate of 39% in 2013.
- New lobby bin store with double fire doors on first floor.

Challenges for 2015

- Amalgamation of Hygiene Service Operatives with cleaning roles within Household Department.
- Business case for refurbishment of St Patricks Ward and Operating Theatre have been submitted to the HSE.
- Plan to maximise the Hospital's recycling ability with introduction of paper recycling at ward levels.
- Continuous emphasis on the delivery of optimum hygiene services within the entire campus.

Information Technology Department

Head of Department

Tadhg O'Sullivan, IT Manager

Staff Complement

Ms. Emma McNamee, Systems Administrator
Mr. Eamonn Sheridan, Technical Support Officer
Ms. Carol Cloonan, Technical Support Officer
Ms. Anne Clarke, IT Midwife (0.5 WTE job-sharing)

Key Performance Indicators

- Providing a high level of service to internal and external users of IT services
- Providing high availability of equipment and services
- Ongoing integration of systems and services
- Ongoing provision of an effective statistical information service

Achievements in 2014

- Ongoing maintenance of core operational and technical environment
- Implementation of local and national ICT projects, in particular ongoing rollout of iPM (Hospital Information System), "Claimsure" (billing system) and NIMIS (national imaging system)

Challenges for 2015

- Increase in level and complexity and demand for IT services, both internally and externally, with a reduction in resources
- Implementation of national & local ICT clinical and infrastructure projects

Friends of the Coombe

Friends of the Coombe

Head of Department

Ms Ailbhe Gilvarry, Chair

Staff Complement

Emer McKittrick, Development Officer

Achievements in 2014

- Donation of new Paediatric Radiology Machine
- Donation of new Transport Incubator
- Research Funding for Sunita Panda; "The MAMMI (Maternal health And Maternal Morbidity in Ireland) project."
- Neonatal Unit Assistance: Diaphanoscopy for transillumination, Breastpumps, ongoing accommodation support for parents, staff attendance at key teaching & training conferences
- Financial support for voluntary Neonatal Support Group
- Renewed research support for Dr Cara Martin, Molecular Pathology
- Financial facilitation of annual Bereavement Service

Challenges for 2015

- Continue to raise awareness
- Build & protect reputation
- Demonstrate need and highlight impact
- Launch new website

FRIENDS of the COOMBE

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

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
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 - 1880
George Hugh Kidd	1887 - 1893
Samuel Robert Mason	1894 - 1900
Thomas George Stevens	1901 - 1907
Michael Joseph Gibson	1908 - 1914
Robert Ambrose MacLaverty	1915 - 1921
Louis Laurence Cassidy	1922 - 1928
Timothy Maurice Healy	1929 - 1935
Robert Mulhall Corbet	1936 - 1942
Edward Aloysius Keelan	1943 - 1949
John Kevin Feeney	1950 - 1956
James Joseph Stuart	1957 - 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 Sheehan	2013 - present

Appendix Three

MATRONS & DIRECTORS OF MIDWIFERY & NURSING AT COOMBE WOMEN & INFANTS UNIVERSITY HOSPITAL

Over a period of 145 years since the granting of the Royal Charter of Incorporation to the Coombe Lying In Hospital in 1867, there have been 15 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-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 and 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

Appendix Five

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:

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
DoHC	Department of Health and Children
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
OGTT	oral glucose tolerance test
OFC	occipitio-frontal circumference
OLHC	Our Lady'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
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

Appendix Six

Dr James Clinch Prize for Audit 2014

Audit Title: Haemoglobinopathy Screening; are current procedures in place in the CWIUH adequate to identify mothers and babies with sickle cell disorders.

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Date of report: 19/09/2014

Haemoglobinopathy Screening; are current procedures in place in the CWIUH adequate to identify mothers and babies with sickle cell disorders.

Purpose

The purpose of this Audit was to determine if adequate procedures are in place in the CWIUH to identify mothers and babies with sickle cell disorders in the antenatal and neonatal period respectively, to facilitate optimal management of mother and baby.

Ireland is an area of low prevalence for sickle cell disorders however with growing inward migration of people from areas of high prevalence, screening procedures are required 7. The British Committee for Standards in Haematology (BCSH) has included in its recent guideline a list of countries of origin considered areas of high risk 1 (See Table 1).

Table 1. BCSH Guideline: Countries considered high risk for haemoglobinopathies.

Ethnic groups with a clinically significant prevalence of haemoglobin S and α and β thalassaemia.	
Haemoglobin S	Chinese, Taiwanese, South-East Asian (Thai, Laotian, Cambodian, Vietnamese, Burmese, Malaysian, Singaporean, Indonesian, Philippino), Cypriot, Greek, Turkish and SardinianAfrican including North Africans, African-Caribbeans, African-Americans, Black British and any other African ethnicity (e.g. Central and South Americans of partly African ethnicity), Greeks, Southern Italians including Sicilians, Turks, Arabs, Indians
Thalassaemia	Chinese, Taiwanese, South-East Asian (Thai, Laotian, Cambodian, Vietnamese, Burmese, Malaysian, Singaporean, Indonesian, Philippino), Cypriot, Greek, Turkish and Sardinian

This table was used to determine if mothers and babies were screened appropriately.

Introduction

A number of women, homozygous for Sickle cell disease (HbSS), have delivered in the CWIUH in the past 12 months; these cases have highlighted key elements in management of sickle cell disease during pregnancy. In addition, an audit in 2014 conducted by a paediatric trainee identified a baby with homozygous sickle cell disease first screened at the 6 week check, representing a delay in access to appropriate treatment for this baby. These cases raised an awareness of specific clinical issues for an expectant mother with homozygous sickle cell disease and the lack of any protocol for screening neonates in the CWIUH.

The normal haemoglobins beyond the neonatal period are haemoglobin A (HbA) and two minor haemoglobins, haemoglobin A_2 (HbA_2) and haemoglobin F (HbF). In Adults 96-98% of haemoglobin is HbA which has two α and two β globin chains, HbA_2 (2-3.5%) which has two α and two δ globin chains and a very minor HbF (0-2%), which has two α

and two γ chains. HbF represents 53-95% of all haemoglobin at birth and this level remains static for the first two weeks of life 2. HbA becomes the predominant haemoglobin by three months of age, although this switch may be delayed in sick preterm infants. (See figure 1.)

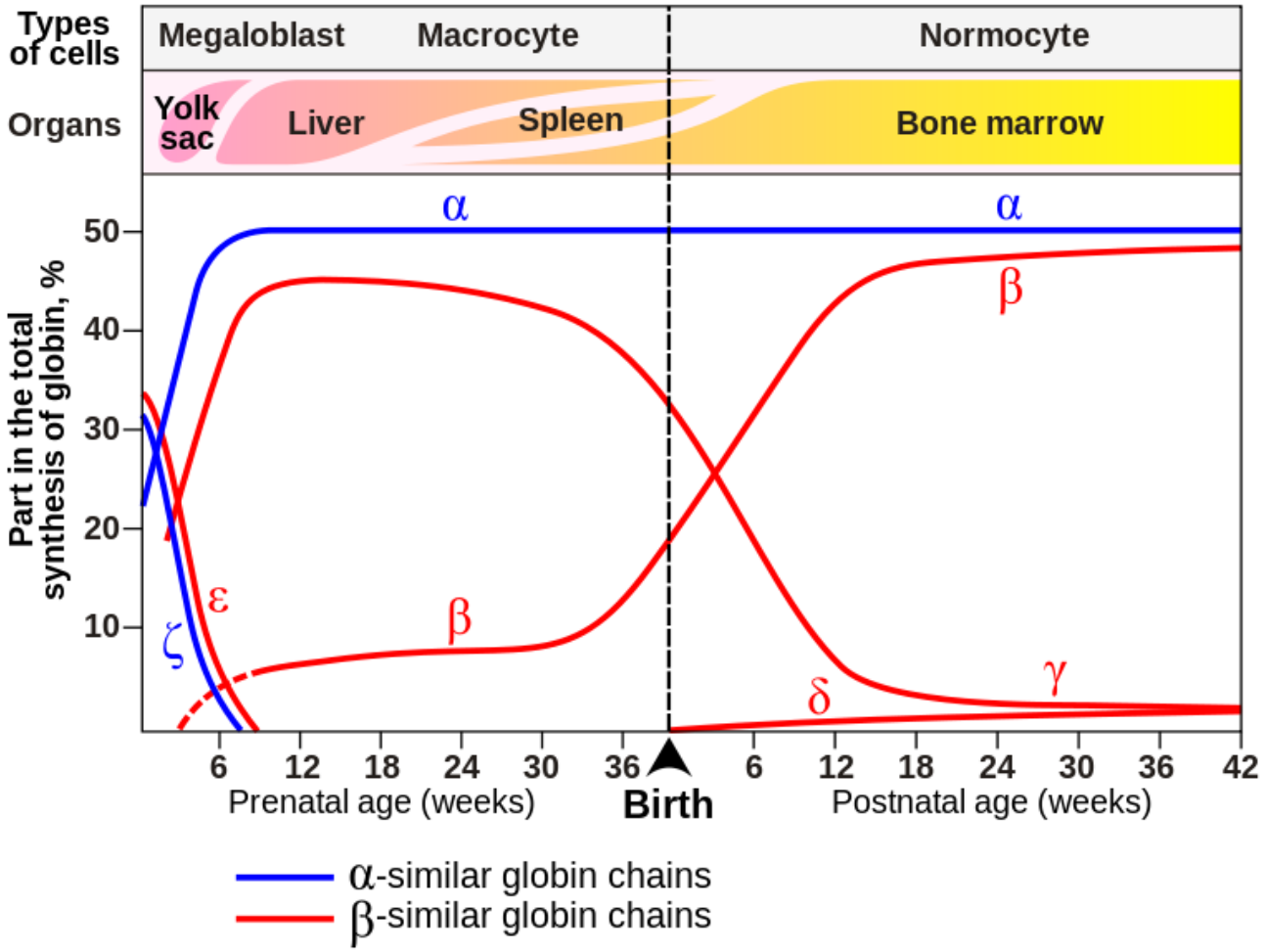

Figure 1.: Synthesis of Globin chain variants during prenatal and postnatal life 3

Haemoglobinopathies are inherited disorders of globin and are the most common genetic defect worldwide with an estimated 269 million carriers 4. Haemoglobinopathies may be classified as haemoglobin variants or thalassaemias. Haemoglobin variants occur due to mutations in either the α or β globin chain genes which give rise to variant forms of HbA, A_2 or F. This results in an altered haemoglobin structure and therefore altered characteristics. Thalassaemias arise due to genetic mutations which lead to a decrease in the rate of synthesis of either the α globin (α thal) or the β globin (β thal) chains 2. Over 1000 mutations of the globin genes have been recognised but the most significant for consideration in a clinical setting during pregnancy and the neonatal period are the Sickle cell disorders such as HbSS, HbS and other haemoglobin variants such as HbSC & HbSG 1.

Sickle cell disease (SCD) is predominantly found in people of African, Afro-Caribbean, Middle Eastern, Indian and Mediterranean descent. It is caused by a single-base mutation of adenine for thiamine resulting in a substitution of valine for glutamine at the 6th codon of the beta globin chain 7. (See Figure 2.)

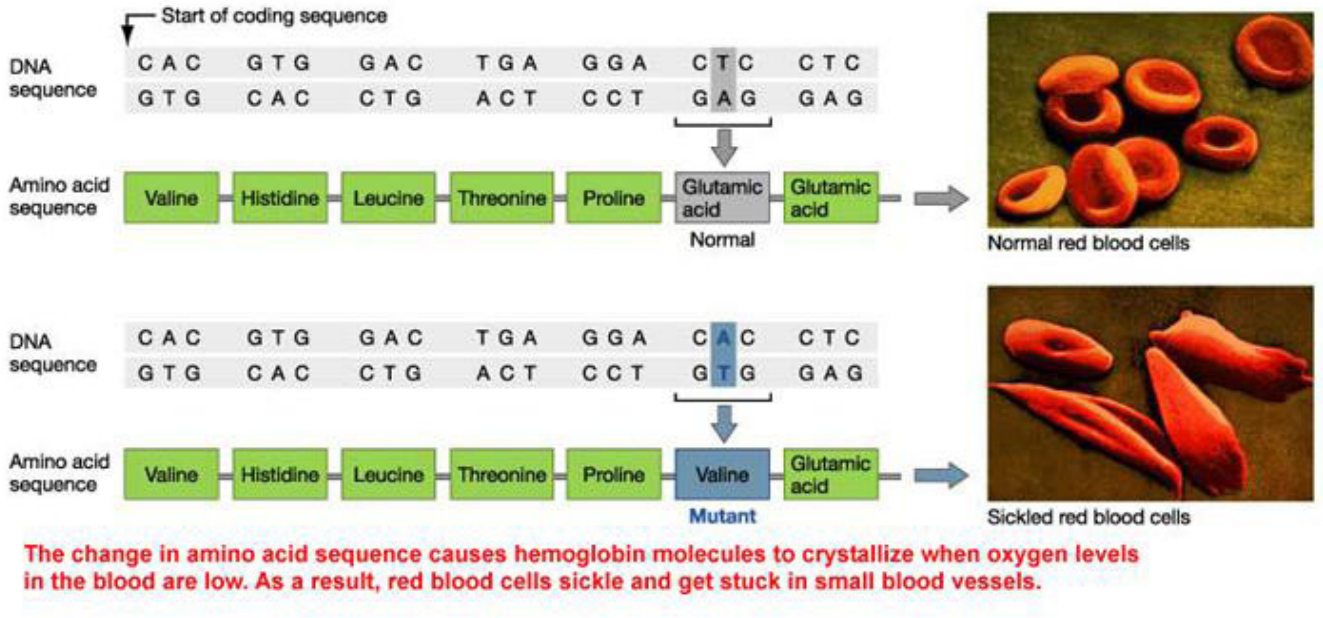

Figure 2. Normal haemoglobin DNA sequence compared with the valine/glutamine substitution which causes sickle cell anemia.

SCD has recently been recognised as a global health problem by the United Nations and the World Health Organisation. Most children born with the disease die in their first years of life 10. SCD is associated with both maternal and fetal complications and is associated with an increased incidence of perinatal mortality, premature labour, fetal growth restriction and acute painful crises during pregnancy 5. Some studies also describe an increase in spontaneous miscarriage, antenatal hospitalisation, maternal mortality, delivery by caesarean section, infection, thromboembolic events and antepartum haemorrhage. (4) An increased risk of pre-eclampsia and pregnancy-induced hypertension has also been described. In HbSC there are fewer reported adverse outcomes, but there is evidence of an increased incidence of painful crises during pregnancy, fetal growth restriction, antepartum hospital admission and postpartum infection. 6, 7.

Identification of affected neonates before the onset of clinical symptoms would allow implementation of preventive measures which may decrease mortality during early childhood. These would include timely administration of prophylactic penicillin by 2 months of age, as well as vaccination against streptococcus pneumoniae and Haemophilus influenzae. A recent study that included children with haemoglobin S homozygote (HbSS) diagnosed only by neonatal screening (1983-2007) showed that, based on this approach, the estimated survival at 18 years of age increased up to 94%. 10

At present there are no guidelines for adult or neonatal haemoglobinopathy screening in the CWIUH. There is however, reference to the requirement for antenatal screening in the Midwife & Nursing Guidelines, Routine Antenatal Screening. Section 5.1.9 to Section 5.1.11 of this guideline outlines the significance of screening for SCD and Thalassemia 11 (See Figure 3).

1.1.1 Haemoglobinopathies

1.1.1.1 A diagnosis of a haemoglobinopathy is made using Haemoglobin Electroporesis

1.1.2 Sickle Cell Disease

1.1.2.1 This is checked for in the appropriate ethnic group, namely people of African and West Indian origin. If a woman has or is a carrier of sickle cell, the partner should also be checked. Findings of screening for Sickle Cell have consequence for Antenatal Care.

1.1.3 Thalassaemia

1.1.3.1 This is checked for in the appropriate ethnic group, namely people of Mediterranean, African, Middle and Far Eastern origin. If a woman has or is a carrier of the Thalassaemia trait, the partner should also be checked as the severity of the condition will depend on whether the abnormal genes are inherited from one or from both parents.

Figure 3. MIDWIFERY AND NURSING GUIDELINES, Routine Antenatal Screening

In addition, the CWIUH Antenatal Booking History Questionnaire Section 1.1 elicits the prompt 'consider electrophoresis' on the K2 system, if the patient's ethnicity is one listed as high risk. The ethnicities listed as indicators for Haemoglobinopathy Screen on the Antenatal Questionnaire are outlined in figure 4.

[1.1] What is the mothers race or country of origin?

Field Name : Ethnic Origin of Patient (290)	Table Name : Pregnancy
[ ] Caucasian	[ ] Bangladeshi
[ ] Black Carribean	[ ] Chinese
[ ] Black African	[ ] West Indian
[ ] Black other specifity _____	[ ] Other Asian
[ ] Indian	[ ] Any other ethnic group
[ ] Pakistani	[ ] Patient does not wish to answer
[ ] Jewish	[ ] Unknown
[ ] Romanian	[ ] Middle Eastern

Figure 4. Section 1.1, extracted from the CWIUH Antenatal booking history Questionnaire, Ethnic Origin of Patient.

Method

Booking data of the CWIUH from January 1, 2013 to June 30th 2013 was retrospectively analysed on both the iPiMS and K2 systems to determine the ethnic origin and nationality for each patient registered during that time. This time period was chosen in order to ensure that each patient had delivered and adequate time was allowed for return of any neonatal screening results, which may have been required. The existing system for antenatal patient booking and subsequent haemoglobinopathy screen is outlined in Figure 5.

The CWIUH antenatal process

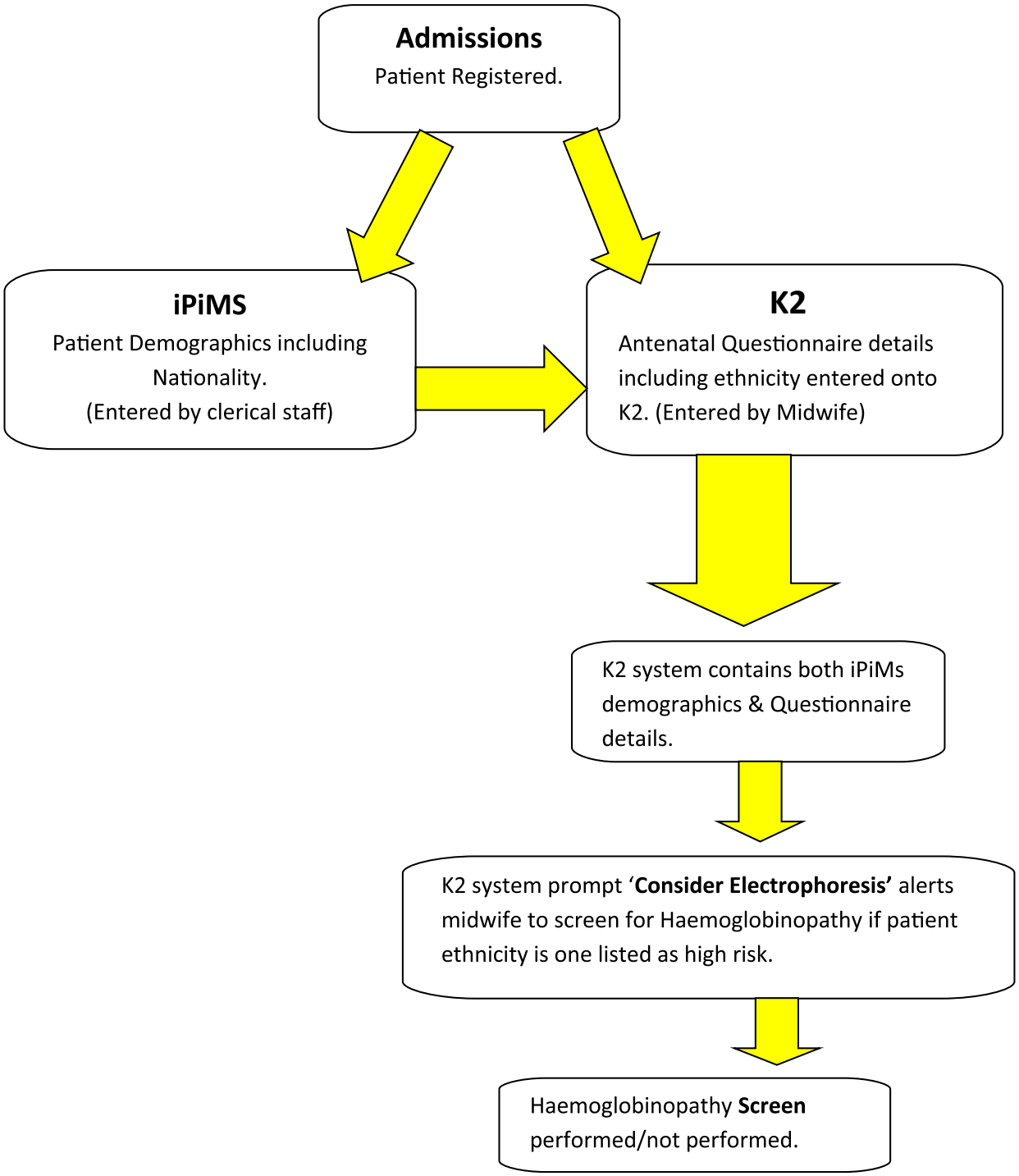

Figure 5. Steps in the antenatal process for registration of patient's ethnicity/nationality & prompt for haemoglobinopathy screening.

A list of the women identified as being from an 'at risk' area using countries outlined in the BCSH guideline (Table 1.) was isolated from the data. This incorporated an examination of both the iPiMS nationality data and the K2 ethnicity information as a number of mothers registered with Irish nationality had ethnic origins in areas of high prevelance for SCD.

Each of the patient's individual records was examined on the Laboratory Information System (LIS) for evidence of Haemoglobinopathy Screening. The test results for each mother screened were then examined and a summary of the abnormal screens was compiled from the reports.

The LIS records for all babies born to mothers with abnormal screen results were then reviewed for evidence of neonatal screening.

Results

A total of 4413 women booked in with the CWIUH in the 6 month period from January to June 2013. With reference to the BCSH guidelines, 521 of the 4413 women (12%) were identified as requiring a Haemoglobinopathy Screen (Figure 6). Table 2 summarises the nationality/ethnicity data from iPiMS and K2 for those mothers identified for screen.

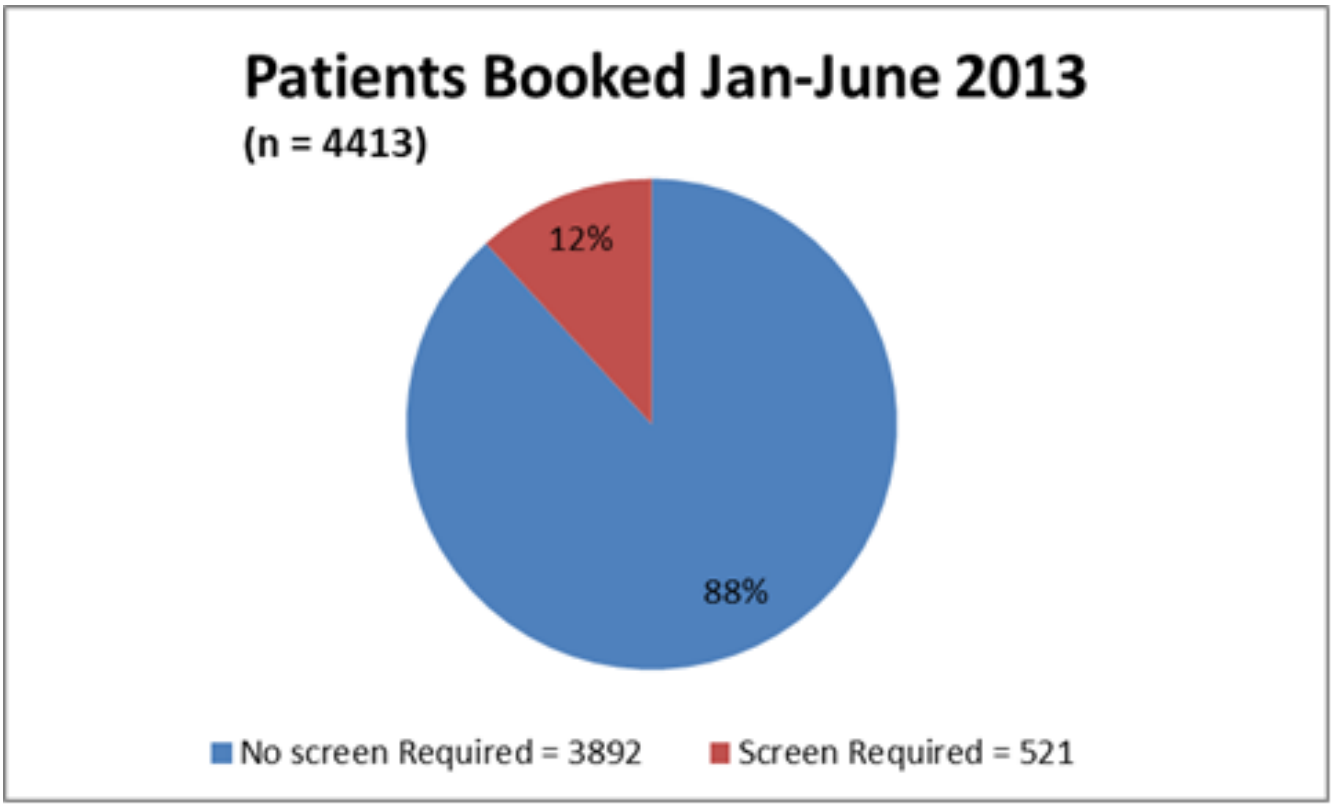

Figure 6. 521 (12%) of 4413 mothers required haemoglobinopathy screen.

Table 2. Haemoglobinopathy Screen required; Ethnicity of Patients, data collected from both iPiMS and K2.

Ethnicity/Nationality	Selected Mothers	Totals
Nigeria	80	Total Black African 198
Somalia	19	
Congo	15	
South African	13	
Algerian	10	
Libya	8	
Other Black African	53	
India	123	Total Middle East/South Asia 213
Pakistan	62	
Iraq	6	
Afghanistan	5	
Kazakhstan	3	
Other Middle east/South Asia	14	
China	30	Total Southeast Asia 96
Philippines	31	
Mauritius	7	
Vietnam	9	
Thialand	6	
Other Southeast Asian	13	
Italy	12	Total Other Ethnicity 14
Black Caribbean	2	

Haemoglobinopathy Screens performed

Of the 521 mothers identified for screening, 471 were screened either at booking in 2013 or during a previous pregnancy in the CWIUH. 50 (10%) mothers who required a screen were not tested (Figure 7.)

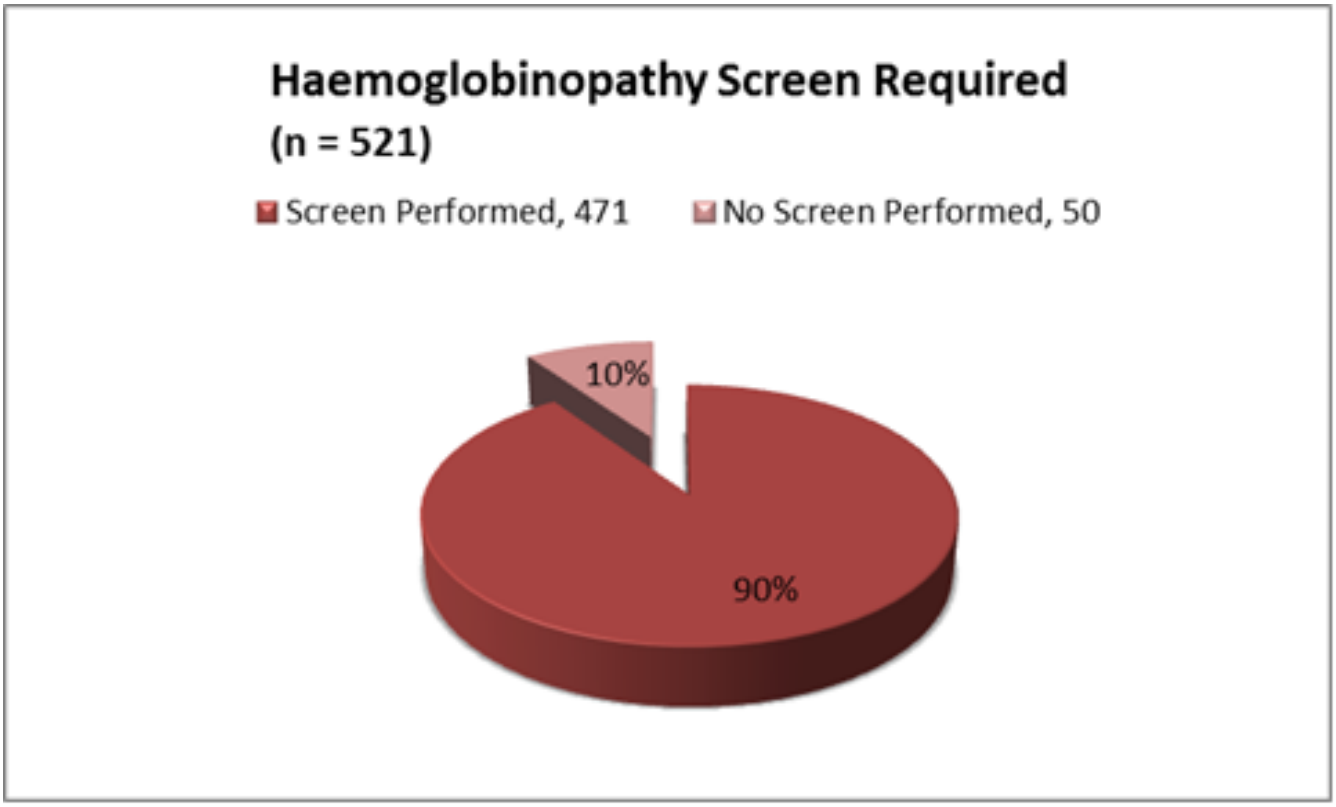

Figure 7. 90% of mothers were screened appropriately, 10% of those requiring a screen were missed.

Table 3 outlines the ethnicity/nationality of the 50 mothers who were not screened. The 13 patients highlighted in the table indicate 13 mothers of Nigerian/black African descent, an area of particularly high prevalence for SCD. All information was extracted directly from iPiMS and K2.

Table 3. Patients not screened for Haemoglobinopathy (both iPiMS &K2 data)

Patient	Booking Date	iPiMS Nationality	K2 Ethnic Origin Of Patient
1	27/03/2013	NIGERIA	Black African
2	05/04/2013	ANGOLA	Black African (ANGOLA)
3	30/04/2013	LIBYA	Any other ethnic group LIBYA
4	15/01/2013	ZIMBABWE	Any other ethnic group ZIMBABWEAN
5	24/04/2013	NIGERIA	Black African
6	11/04/2013	NIGERIA	Black African
7	22/02/2013	NIGERIA	Black African
8	10/04/2013	IRELAND	Any other ethnic group AFRICIAN IRISH
9	21/06/2013	SUDAN	Any other ethnic group NORTH AFRICA /SUDAN
10	10/01/2013	NIGERIA	Any other ethnic group NIGERIA
11	11/03/2013	SOMALIA	Black African
12	14/01/2013	BOTSWANA	Black African
13	25/04/2013	NIGERIA	Black African
14	26/06/2013	PHILIPPINES	Any other ethnic group PHILIPPINES
15	17/04/2013	ITALY	Caucasian
16	07/05/2013	TURKEY	Caucasian
17	24/05/2013	UNITED KINGDOM	Indian
18	16/05/2013	IRELAND	Chinese
19	02/01/2013	CHINA	Chinese
20	16/04/2013	BANGLADESH	Bangladeshi
21	20/05/2013	UNITED KINGDOM	Pakistani
22	22/01/2013	INDIA	Indian
23	11/03/2013	IRELAND	Any other ethnic group IRISH /INDIAN
24	26/02/2013	ITALY	Caucasian
25	15/04/2013	NOT KNOWN	Any other ethnic group PHILIPPINES
26	20/02/2013	ITALY	Caucasian (ITALIAN)
27	16/05/2013	TURKEY	Caucasian
28	02/01/2013	ITALY	Caucasian
29	26/06/2013	GEORGIA	Caucasian (GEORGIA)
30	10/04/2013	JORDAN	Middle Eastern
31	09/01/2013	LEBANON	Any other ethnic group LEBONESE
32	07/01/2013	ITALY	Caucasian (ITALY)
33	14/01/2013	SOUTH AFRICA	Black African SOUTH AFRICA
34	18/01/2013	ITALY	Caucasian (ITALY)

(continued on next page)

Table 3. Patients not screened for Haemoglobinopathy (both iPiMS &K2 data) (continued)

Patient	Booking Date	iPiMS Nationality	K2 Ethnic Origin Of Patient
35	07/03/2013	JAPAN	Other Asian
36	22/02/2013	ITALY	Any other ethnic group ITALIAN
37	24/01/2013	FRANCE	Pakistani
38	06/03/2013	INDIA	Indian
39	29/01/2013	JAPAN	Other Asian
40	07/03/2013	LATVIA	Pakistani
41	26/03/2013	THAILAND	Other Asian (THAILAND)
42	08/03/2013	INDIA	Indian
43	02/05/2013	IRELAND	Chinese
44	07/05/2013	MAURITIUS	Any other ethnic group MAURITIAN
45	26/04/2013	CHINA	Chinese
46	20/05/2013	IRELAND	Any other ethnic group (MAURITIUS)
47	09/05/2013	JAPAN	Other Asian (JAPANESE)
48	07/05/2013	INDIA	Indian
49	20/06/2013	KAZAKHSTAN	Any other ethnic group KAZAKHSTAN
50	29/05/2013	JAPAN	Any other ethnic group IRISH /ASIAN

Screens performed

Of the 471 mothers who were screened, 429 had normal screen results and 42 were found to have abnormal haemoglobinopathy screen reports. (Figure 8 & Figure 9)

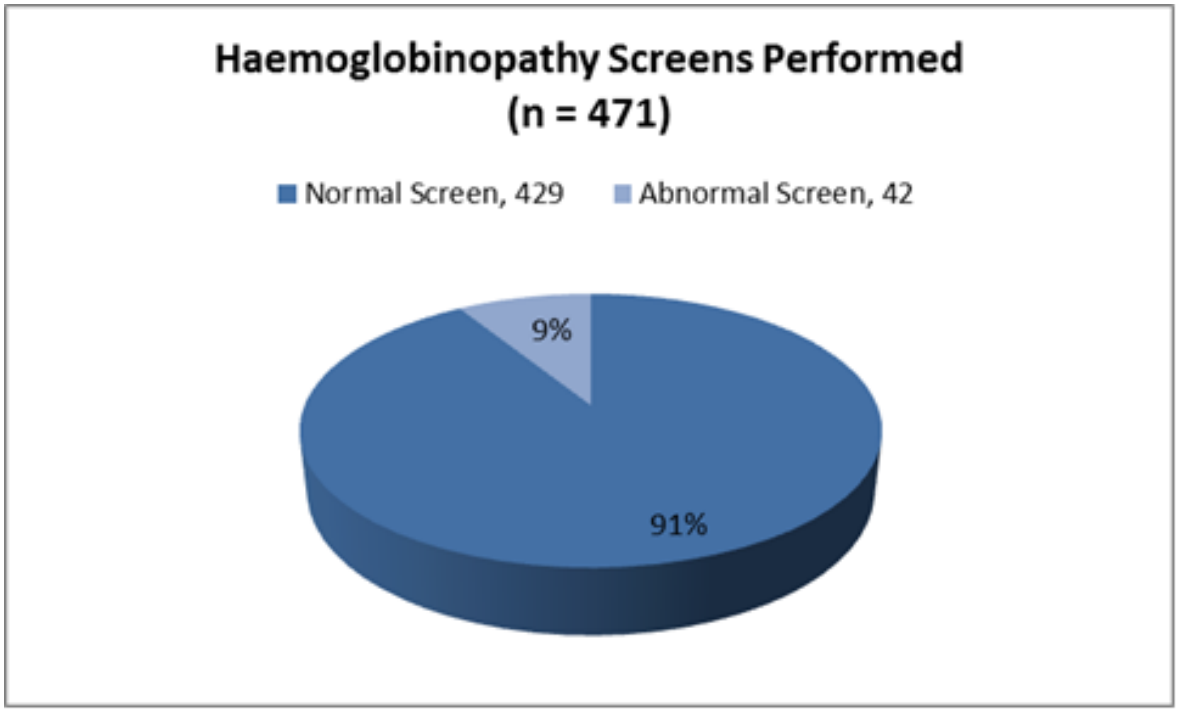

Figure 8. Screens Performed. Of the screens performed 9% were found to be abnormal.

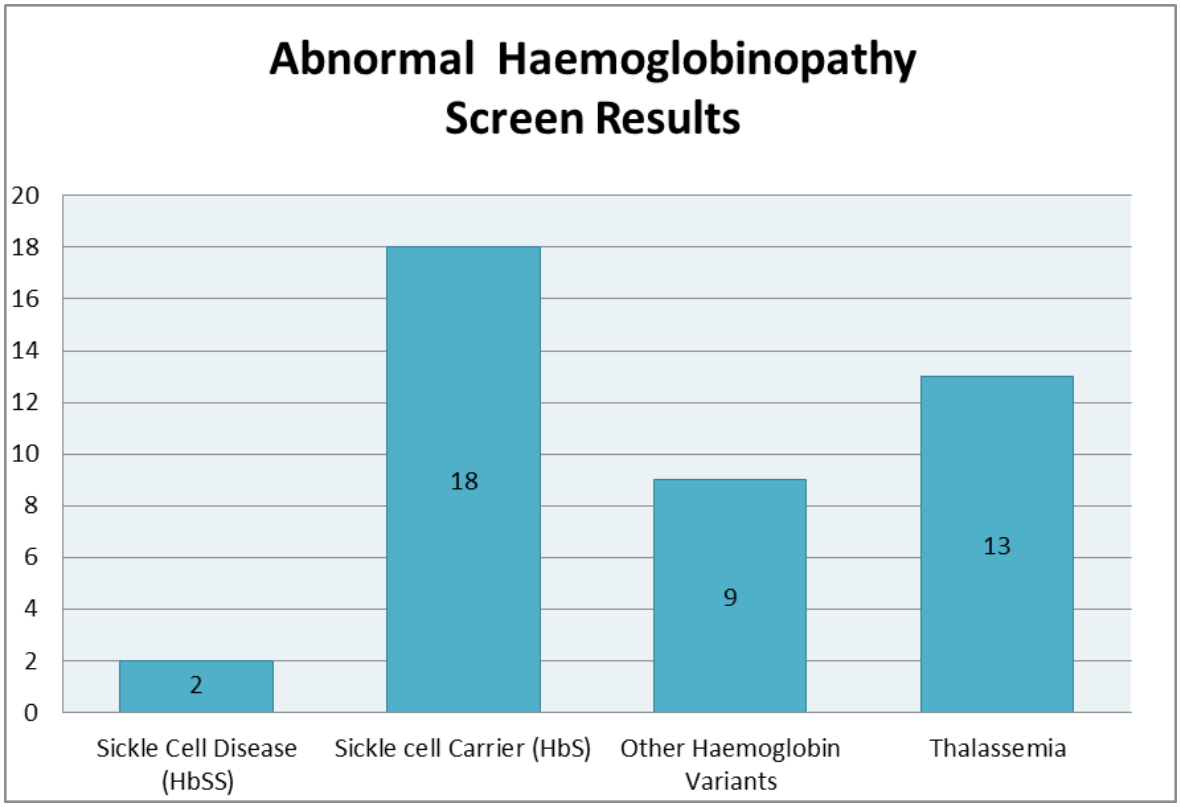

Figure 9. Mothers abnormal haemoglobinopathy screen results; a breakdown of the disorders reported.

For the purpose of this audit, 21 of the abnormal screen reports were considered clinically significant for both mother and baby, these include the 2 Sickle Cell disease, 18 Sickle cell carriers and 1 HbSG haemoglobin variant. These cases were further investigated for evidence of neonatal screening. See table 4. for summary of Neonatal Screens performed.

Table 4. Neonatal Screening

No. of Mothers	Sickle cell disorder	Neonatal Screen performed
2	Sickle Cell Disease (HbSS)	2 Screened.
18	Sickle Cell Carrier (HbS)	9 Screened, 5 not screened,4 Miscarriages.
1	Haemoglobin Variant (HbSG)	1 Screened.

Discussion

This audit was designed to determine whether the screening procedures in the CWIUH are adequate to detect clinically significant sickle cell disorders, in mothers and their neonates. The results show that although the current system has allowed for screening of a large number of at risk mothers, there were a notable number of cases overlooked. 10% of mothers, who should have been screened in accordance with the BCSH guidelines, were not screened. Significantly, 13 of these cases were women of Nigerian/black African descent, an area of particularly high prevalence for SCD. As a consequence, if any of these patients had SCD, their pregnancies may not have been managed in the most appropriate way. In addition, the recommended neonatal screening may not have occurred at birth.

On examination of the data for the 471 mothers who were screened, it is clear that the clinical judgement of midwives in the CWIUH has contributed to better screening. Based solely on the current computer generated prompt 'consider electrophoresis' some at risk mothers may have been missed. Although a number of the relevant areas identified as high risk for haemoglobinopathies are listed in the antenatal booking questionnaire which are subsequently entered onto K2, an amendment to this section to include all areas suggested in the BCSH guidelines may be appropriate.

21 mothers who were screened were found to have sickle cell disorders. The 2 patients homozygous for sickle cell disease (HbSS) were well managed. Both neonates were screened at birth and found to have abnormal screen results. 18 mothers were diagnosed sickle cell carriers, 4 of whom miscarried. Of the 14 sickle cell carriers who delivered, only 9 of their babies were screened and 5 of these neonates had abnormal screen results. 5 babies had no neonatal screen performed. The absence of guidelines for neonatal screening in the CWIUH is notable. Currently screening of neonates is ad hoc and inadequate.

The ethnic origin of patients born in the CWIUH has changed in recent years. A review of nationalities conducted in 2010 found that 21% of mothers delivered in 2005 were non-Irish nationals compared to 28% in 2009. For the 6 months reviewed for this audit, 30% of mothers booked in were not of Irish descent. In light of this growing inward migration, it is important to design a screening programme to optimise the outcome for all neonates with sickle cell disorders. It is also appropriate to design a programme which links into the national paediatric haemoglobinopathy service in OLCH. The identification of affected children, before the onset of clinical symptoms, would allow the implementation of measures that may decrease mortality during early childhood. At present the NHS and National Screening Committee policy in the UK recommends all newborn babies be screened for SCD. A pilot study carried out in Italy between 2011 and 2013, used cord blood samples for neonatal screening 10. This method is a possible consideration for the CWIUH. In 2013, cord blood samples were taken for 50% of neonates, in order to determine rhesus status or for blood gas analysis. A screening programme using cord blood samples may be appropriate, with subsequent confirmatory testing scheduled in the case of positive results.

Formal guidelines for screening of both adults and neonates are required in the CWIUH. When considering screening procedures, it is also worth noting that of the 4413 booked in between January and June 2013, 111 (2.5%) of those who did not require a haemoglobinopathy screen, had partners from areas of high risk (e.g. Irish mother, black African partner). Although this is not a consideration for maternal care, it may be a significant consideration when designing neonatal guidelines. In addition, one patient booked in during the 6 month audit period was a donor egg/donor sperm pregnancy. There are currently no guidelines for any type of antenatal screening in such cases, this is another unique consideration.

Conclusion

The findings of this audit indicate that current practice in the CWIUH identifies most women in the antenatal period with sickle cell disease and haemoglobin variants. This is assisted by prompt identification of at risk women by the midwifery staff at booking and at other times later in the pregnancy. 10% of at risk women are being missed for screening. The K2 system could be updated to improve capture of this data at booking as some of the current ethnicities listed on the antenatal booking questionnaire are inappropriate and archaic.

Neonatal screening is ad hoc and there are no procedures in place for routine checking of at risk neonates, it is at the discretion of the clinical team. Over 50% of mothers have a cord blood checked at delivery and this may be an appropriate time to screen the babies.

Formal guidelines for both adult and neonatal haemoglobinopathy screening in the CWIUH should be implemented.

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