Health Information and Quality Authority

An tÚdarás Um Fhaisnéis agus Cáilíocht Sláinte

Report of the unannounced inspection of maternity services at the Rotunda Hospital, Dublin.

Monitoring programme against the *National Standards for Safer Better Maternity Services* with a focus on obstetric emergencies

Dates of inspection: 9 January and 10 January 2019

Safer Better Care

About the Health Information and Quality Authority (HIQA)

The Health Information and Quality Authority (HIQA) is an independent statutory authority established to promote safety and quality in the provision of health and social care services for the benefit of the health and welfare of the public.

HIQA's mandate to date extends across a wide range of public, private and voluntary sector services. Reporting to the Minister for Health and engaging with the Minister for Children and Youth Affairs, HIQA has responsibility for the following:

- **Setting standards for health and social care services** — Developing person-centred standards and guidance, based on evidence and international best practice, for health and social care services in Ireland.

- **Regulating social care services** — The Chief Inspector within HIQA is responsible for registering and inspecting residential services for older people and people with a disability, and children's special care units.

- **Regulating health services —** Regulating medical exposure to ionising radiation.

- **Monitoring services** — Monitoring the safety and quality of health services and children's social services, and investigating as necessary serious concerns about the health and welfare of people who use these services.

- **Health technology assessment** — Evaluating the clinical and cost-effectiveness of health programmes, policies, medicines, medical equipment, diagnostic and surgical techniques, health promotion and protection activities, and providing advice to enable the best use of resources and the best outcomes for people who use our health service.

- **Health information** — Advising on the efficient and secure collection and sharing of health information, setting standards, evaluating information resources and publishing information on the delivery and performance of Ireland's health and social care services.

- **National Care Experience Programme** — Carrying out national service-user experience surveys across a range of health services, in conjunction with the Department of Health and the HSE.

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1.0 Information about this monitoring programme

The *National Standards for Safer Better Maternity Services* [1] were published by HIQA in 2016. Under the Health Act 2007,[2] HIQA's role includes setting such standards in relation to the quality and safety of healthcare and monitoring compliance with these standards.

HIQA commenced a programme of monitoring against the *National Standards for Safer Better Maternity Services*, with a focus on obstetric emergencies, in maternity hospitals and in maternity units in acute hospitals in May 2018. The *National Standards for Safer Better Maternity Services* will be referred to as the National Standards in this report.

For the purposes of this monitoring programme, obstetric emergencies are defined as pregnancy-related conditions that can present an immediate threat to the well-being of the mother and baby in pregnancy or around birth. HIQA's focus on such emergencies, as we monitor against the National Standards, intends to highlight the arrangements all maternity units have in place to manage the highest risks to pregnant and postnatal women and newborns when receiving care.

Pregnancy, labour and birth are natural physiological states, and the majority of healthy women have a low risk of developing complications. For a minority of women, even those considered to be at low-risk of developing complications, circumstances can change dramatically prior to and during labour and delivery, and this can place both the woman's and the baby's lives at risk. Women may also unexpectedly develop complications following delivery, for example, haemorrhage. Clinical staff caring for women using maternity services needs to be able to quickly identify potential problems and respond effectively to evolving clinical situations.

The monitoring programme assessed if specified[3] National Standards in relation to leadership, governance and management had been implemented. In addition, maternity hospitals and maternity units were assessed to determine if they were resourced to detect and respond to obstetric emergencies which occurred, and explore if clinical staff were supported with specialised regular training to care for women and their newborn babies.

This monitoring programme examined if specified[3] National Standards in relation to effective care and support and safe care and support had implemented. The programme assessed whether or not maternity hospitals and maternity units could effectively identify women at higher risk of complications in the first instance. It also examined how each maternity hospital or maternity unit provided or arranged for the care of women and newborns in the most appropriate clinical setting. The programme looked at how risks in relation to maternity services were managed and how the service was monitored and evaluated.

In monitoring against the *National Standards for Safer Better Maternity Services,* with a focus on obstetric emergencies, HIQA has identified three specific lines of enquiry (LOE).

These lines of enquiry represent what is expected of a service providing a consistently safe, high-quality maternity service, particularly in its response to obstetric emergencies. These lines of enquiry have been used by HIQA to identify key relevant National Standards for assessment during this monitoring programme.

All three lines of enquiry reflect a number of themes of the National Standards. For the purpose of writing this report, compliance with the National Standards is reported in line with the themes of the National Standards. The lines of enquiry for this monitoring programme are listed in Figure 1.

Figure 1 – Monitoring programme lines of enquiry

LOE 1:

The maternity unit or maternity hospital has formalised leadership, governance and management arrangements for the delivery of safe and effective maternity care within a maternity network*.

LOE 2:

The maternity service has arrangements in place to identify women at higher risk of complications and to ensure that their care is provided in the most appropriate setting.

The maternity service has arrangements in place to detect and respond to obstetric emergencies and to provide or facilitate ongoing care to ill women and or their newborn babies in the most appropriate setting.

LOE 3:

The maternity service at the hospital is sufficiently resourced with a multidisciplinary workforce that is trained and available to detect and respond to obstetric emergencies at all times.

A further aspect of HIQA's monitoring programme is to examine progress made across the maternity services to develop maternity networks. The National Standards support the development of maternity networks in Ireland.

Further information can be found in the *Guide to HIQA's monitoring programme against the National Standards for Safer Better Maternity Services, with a focus on obstetric emergencies* [3] which is available on HIQA's website: www.hiqa.ie

* Maternity Networks are the systems whereby maternity units and maternity hospital are interconnected within hospital groups to enable sharing of expertise and services under a single governance framework.

1.1 Information about this inspection

The Rotunda Hospital is a stand-alone specialist maternity hospital and is a tertiary referral centre for maternity services including maternal fetal medicine, gynaecology and neonatal services. The hospital is a 198-bed teaching hospital and had a birth rate of 8,513 in 2018.

The hospital is a voluntary hospital governed by a Board of Governors who appoints a Master[†] as Chief Executive Officer for a fixed period of seven years. The hospital has a service level agreement with the Health Service Executive (HSE) to allow for state funding, under Section 38 of the Health Act 2004. The hospital is part of the Royal College of Surgeons Ireland (RCSI) Hospitals group[‡]

To prepare for this inspection, inspectors reviewed a completed self-assessment tool[§] and preliminary documentation submitted by Rotunda Hospital to HIQA in June 2018. Inspectors also reviewed information about this hospital including previous HIQA inspection findings; information received by HIQA and published national reports. Information about the unannounced inspection at Rotunda Hospital is included in Table 1.

Table 1: Inspection details

Dates	Times of inspection	Inspectors
9 January 2018	12:00hrs to 18:30hrs	Dolores Dempsey Ryan Siobhan Bourke Emma Cooke Denise Lawler
10 January 2018	08:30hrs to 17:30hrs	

During this inspection, the inspection team spoke with the following staff at the hospital:

- representatives of the hospital's Executive Management Team
- lead consultants or a delegated deputy in each of the clinical specialties of obstetrics, anaesthesiology and neonatology.

In addition, the inspection team visited a number of clinical areas, which included:

- The Emergency and Assessment Unit where pregnant and postnatal women who present to the hospital with pregnancy-related concerns were reviewed.

† The Mastership system is unique to the three Dublin Maternity Hospitals where the Master is both Chief Executive Officer and Lead Consultant Obstetrician and Gynaecologist.

‡ RCSI Hospitals group was established in 2015. The hospital group comprises the following hospitals: Beaumont Hospital, Connolly Hospital, Cavan & Monaghan Hospital, Our Lady of Lourdes Hospital, Louth County Hospital and the Rotunda Hospital.

§All maternity hospitals and maternity units were asked to complete a self-assessment tool designed by HIQA for this monitoring programme

- The Delivery Suite where women were cared for during labour and childbirth, which included an emergency obstetric operating theatre.
- The High Dependency Unit comprising two single rooms to care for pregnant and postnatal women who required close monitoring and observation.
- Operating Theatres for women undergoing surgery, for example in the case of caesarean section.
- The Neonatal Intensive Care Unit where babies requiring additional monitoring and support were cared for.
- A postnatal ward where women were cared for after childbirth.

Information was gathered through speaking with midwifery and nursing managers, staff midwives in these clinical areas and doctors assigned to the maternity service. In addition, inspectors looked at the clinical working environment and reviewed hospital documentation and data pertaining to the maternity service during the inspection.

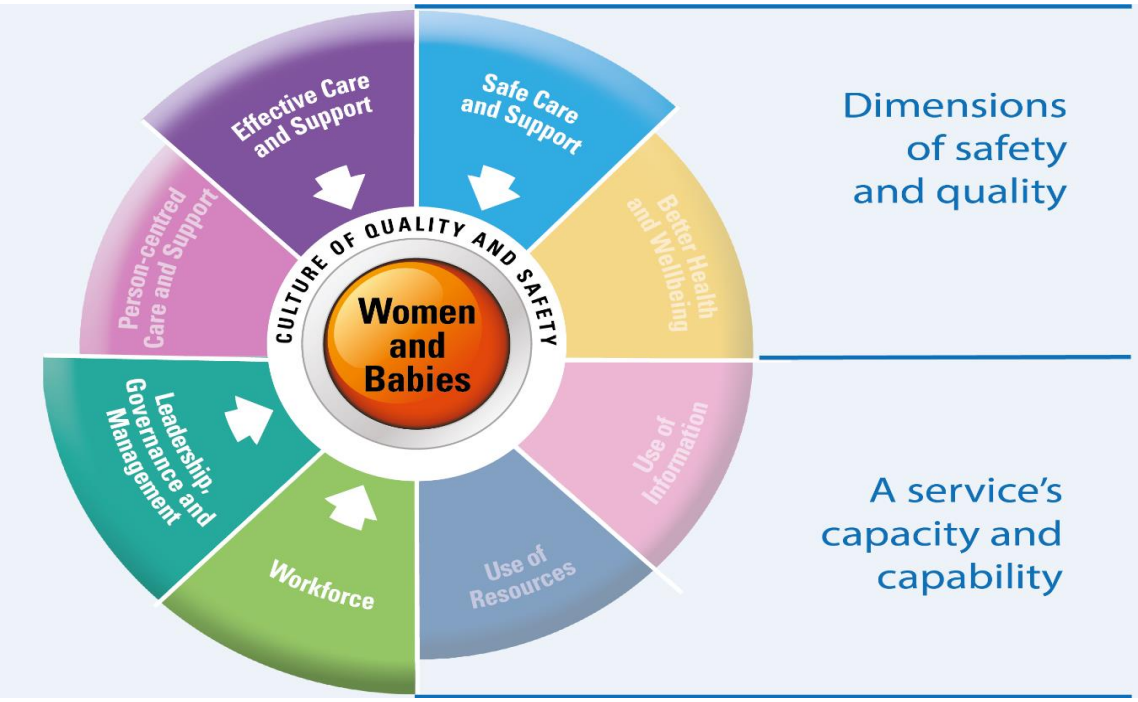
HIQA would like to acknowledge the cooperation of the Hospital Management Team and all staff who facilitated and contributed to this unannounced inspection.

1.2 How inspection findings are presented

This inspection was focused specifically on maternity services and the systems in place to detect and respond to obstetric emergencies, as outlined in the published Guide[3] to this monitoring programme. Therefore, as part of this inspection programme, HIQA monitored compliance with some, but not all of the National Standards. Report findings are based on information provided to inspectors during an inspection at a particular point in time.

The National Standards themes which were focused on in this monitoring programme are highlighted in Figure 2. Inspection findings are grouped under the National Standards dimensions of and Capacity and Capability and Safety and Quality.

Figure 2: The four National Standard themes which were focused on in this monitoring programme



Based on inspection findings, HIQA used four categories to describe the maternity service's level of compliance with the National Standards monitored.

These categories included the following:

- **Compliant:** A judgment of compliant means that on the basis of this inspection, the maternity service is in compliance with the relevant National Standard.
- **Substantially compliant:** A judgment of substantially compliant means that the maternity service met most of the requirements of the relevant National Standard, but some action is required to be fully compliant.
- **Partially compliant:** A judgment of partially compliant means that the maternity service met some of the requirements of the relevant National Standard while other requirements were not met. These deficiencies, while not currently presenting significant risks, may present moderate risks which could lead to significant risks for patients over time if not addressed.
- **Non-compliant:** A judgment of non-compliant means that this inspection of the maternity service has identified one or more findings which indicate that the relevant National Standard has not been met, and that this deficiency is such that it represents a significant risk to patients.

Inspection findings will be presented in this report in sections 2 and 3. Section 2 outlines the inspection findings in relation to capacity and capability and Section 3 outlines the inspection findings in relation to the dimensions of safety and quality. Table 2 shows the main report sections and corresponding National Standards, themes and monitoring programme lines of enquiry.

Table 2: Report sections and corresponding National Standard themes and inspection lines of enquiry

Report section	Themes	Standards	Line of enquiry
Section 2: Capacity and Capability:	Leadership, Governance and Management	5.1, 5.2, 5.3, 5.4, 5.5, 5.8 and 5.11	LOE 1
	Workforce	6.1, 6.3, 6.4	LOE 3
Section 3: Dimensions of Safety and Quality:	Effective Care and Support	2.1, 2.2, 2.3, 2.4, 2.5, 2.7, 2.8.	LOE 2
	Safe Care and Support	3.2, 3.3, 3.4, 3.5	

2.0 Capacity and Capability

Inspection findings in relation to capacity and capability will be presented under the themes of the National Standards for Safer Better Maternity Services of Leadership, Governance and Management and Workforce.

This section describes arrangements for the leadership, governance and management of the maternity service at this hospital, and HIQA's evaluation of how effective these were in ensuring that a high quality safe service was being provided. It will also describe progress made in the establishment of a maternity network from the perspective of this hospital. This section also describes the way the hospital was resourced with a multidisciplinary workforce that was trained and available to deal with obstetric emergencies 24 hours a day.

During this inspection, inspectors looked at 10 National Standards in relation to leadership, governance and management and workforce. Of these, the Rotunda Hospital was compliant with nine National Standards and substantially compliant with one National Standard.

Inspection findings leading to these judgments and key findings in relation to the hospital's level of compliance with the National Standards monitored during this inspection are included in Table 3 and Table 4 within this section.

2.1 Leadership, Governance and Management

Leadership, governance and management refers to the arrangements put in place by a service for clear accountability, decision-making and risk management as well as meeting its strategic and statutory obligations.

A well-governed maternity service is clear about what it does, how it does it, and is accountable to the women who use the services and the people who fund and support it. Good governance arrangements acknowledge the interdependencies between organizational arrangements and clinical practice and integrate these to deliver safe, high-quality care.

Inspection findings in relation to leadership governance and management are described next.

Inspection findings

2.1.1 Maternity service leadership, governance and management

Maternity network

HIQA found that Rotunda Hospital was not part of a formalised maternity network under a single governance structure. The Royal College of Surgeons (RCSI) Hospitals group[**] had however, established structures and arrangements that facilitated effective collaborative working between maternity units within this hospital group. The Master of the Rotunda Hospital was the Clinical Director of the Women and Children's Directorate of the RCSI Hospitals group.

Senior managers at the Rotunda Hospital informed inspectors that they believed that full integration of maternity services across the RCSI Hospitals group was hindered by the current constitution and governance arrangements of these hospitals. The Rotunda Hospital is a voluntary hospital under the governance of a Board of Governors as guardians of the hospital while Our Lady of Lourdes Hospital and Cavan and Monaghan Hospital are statutory hospitals governed and managed by the HSE.

The RCSI Hospitals group had implemented a number of elements of a maternity network that included the formation of a Senior Incident Management Forum (SIMF) and the implementation of care pathways for women at higher risk of complications and babies requiring complex neonatal care within the RCSI Hospitals group.

Senior Incident Management Forum

The RCSI Hospitals group had established a Senior Incident Management Forum (SIMF) in 2016 and this forum reported to the RCSI Hospitals Quality and Safety Committee. This forum met monthly and membership included staff from the Rotunda Hospital, Our Lady of Lourdes Hospital, Drogheda, Cavan & Monaghan Hospital and members of the RCSI Hospitals group. Consultant obstetricians, anaesthesiologists and neonatologists also attended these meetings.

The Senior Incident Management Forum supported the supervision of patient safety and the review of serious incidents within the maternity network and paediatric services. The forum reviewed adverse incidents, timelines relating to closing out reviews and ensured that learning and recommendations was disseminated to hospitals within the network. In addition, this forum provided an opportunity for sharing clinical performance metrics, audit findings and learning from the implementation of quality improvement initiatives within the group. This forum planned to hold their first annual review meeting early in 2019 to share learning and review recommendations across the maternity network.

[**] RCSI Hospitals group is comprised Beaumont Hospital, Cavan & Monaghan Hospital, Connolly Hospital, Louth County Hospital, Our Lady of Lourdes Hospital- Drogheda, Rotunda Hospital and RCSI (Academic Partner).

Pathways for women at higher risk of complications and babies requiring complex neonatal care within the RCSI Hospitals group

The Rotunda Hospital worked in partnership with the RCSI Hospitals group to implement a fetal medicine programme within the maternity network by appointing two consultant obstetricians with subspecialisation in maternal-fetal medicine between the Rotunda Hospital and two smaller maternity units. One of the two consultants had a joint appointment between the Rotunda Hospital and Cavan & Monaghan Hospital and the second consultant had a joint appointment between the Rotunda Hospital and Our Lady of Lourdes Hospital, Drogheda. This meant those women at higher risk of developing complications and or who have complex pregnancies had their care transferred and facilitated in the most appropriate setting.

There was also an established neonatal network where babies that required complex neonatal care from other maternity units within the RCSI Hospitals group were transferred to the Rotunda Hospital. Babies less than 32 weeks gestation (in-utero or after birth) were transferred from Cavan & Monaghan Hospital and babies less than 27 weeks gestation were transferred from Our Lady of Lourdes Hospital, Drogheda. All newborns requiring therapeutic cooling[††] in the RCSI Hospitals group were also transferred to the Rotunda Hospital. Neonatal network meetings were held twice a year and the network also held joint guideline committee meetings. There were no neonatology joint appointments within the network.

Overall, the Rotunda Hospital as a large tertiary centre supported the RCSI Hospitals group with the development of a functional maternity network. However, the RCSI Hospitals group needs to progress with the setting up of a managed clinical network for maternity services under a single system of clinical governance, as recommended in the National Maternity Strategy.

Rotunda Hospital leadership, governance and management

HIQA found that the Rotunda Hospital had clear accountability arrangements in place and strong clinical leadership to safeguard high standards and achieve the delivery of safe, high-quality maternity care. The Master had overall managerial responsibility and accountability for the maternity service at the Hospital. Day to day governance, oversight and management of the Rotunda Hospital was provided by an executive management team consisting of the Master, the Secretary/General Manager and the Director of Midwifery. The Executive Management Team monitored performance including patient outcomes, service

[††] Therapeutic cooling: Whole body neonatal cooling (WBNC) or therapeutic cooling is 'active' (not passive) cooling administered during the current birth episode as a treatment for Hypoxic Ischemic Encephalopathy (HIE). WBNC is only conducted in the four large tertiary hospitals in Dublin and Cork.

user feedback and patient safety incidents at a weekly meeting. A Master's quality and safety report was produced monthly for the Hospital Board.

The Quality and Safety Committee was operationally accountable to the Executive Management Team and through the Master, reported to the Board of Governors. This Committee was chaired by the Master and comprised members of the Executive Management Team, heads of departments, consultant microbiologist, clinical director and clinical leads in neonatology and anaesthesiology. This Committee met monthly and provided assurance to the Hospital's Executive Management Team on known risks and provided oversight of the hospital's performance.

The hospital had a Clinical Director system in place to provide local line management to consultants and the Clinical Director reported to the Master of the Hospital. A number of other committees also provided additional oversight of maternity services in the Rotunda Hospital. These committees included weekly clinical handover meetings and two monthly medical executive meetings.

Clinical leads known as Heads of Service had been appointed in the specialties of obstetrics, anaesthesiology, neonatology, laboratory medicine and gynaecology for a period of two to three years and could be reappointed. These clinician's responsibilities included leading departmental meetings and arranging training for non-consultant hospital doctors. They reported to the Master, the Clinical Director and the Hospital Secretary/ General Manager. Documentation provided to inspectors indicated that these clinical leads attended the medical executive meetings chaired by the Clinical Director.

Three members of the Board of Governors along with senior hospital management and hospital staff conducted regular leadership quality and safety walk-rounds in the clinical areas. The walk-rounds were used as an opportunity to identify, acknowledge and share good practice and support a proactive approach to minimising risk, timely reporting and feedback. Quality and patient safety walk-rounds reports were presented at the monthly quality and safety committee meetings and a yearly report was presented to the Board of Governors. Inspectors viewed a coloured poster that clearly outlined areas of the hospital visited in 2018 that included catering, physiotherapy and pharmacy departments and action completed relating to specific findings within set timeframes.

The hospital had a statement of purpose which was dated and completed in 2018 that detailed the specific services provided at the hospital. It included their mission statement and information that related to the organisational structure of the hospital.

The hospital had a five year strategic plan from 2017-2021 which included a number of key principles. HIQA noted that one of these principles included the explicit commitment by the hospital through this strategy to fulfil a leadership role in the development of maternity and gynaecology services within the RCSI Hospitals group.

The hospital had developed a strategic implementation plan that was aligned with the hospital's overall strategic plan for 2017-2021. This implementation plan provided details on key strategic projects with timelines, action plans and information on strategic workshop outputs. A quarterly report on the progress of the implementation plan was reviewed at the Board of Governors meetings. The implementation plan included the expansion and refurbishment of the neonatal unit which was completed in 2018.

Overall, inspectors found that the Rotunda Hospital has formalised leadership, governance and management arrangements in place with clearly defined reporting structures within the service and through the RCSI Hospitals group maternity network.

Table 3 lists the National Standards relating to leadership, governance and management focused on during this inspection and key findings in relation to the hospital's level of compliance with the National Standards monitored during this inspection.

Table 3: HIQA's judgments against the National Standards for Safer Better Maternity Services for leadership, governance and management that were monitored during this inspection

Standard 5.1 Maternity service providers have clear accountability arrangements to achieve the delivery of safe, high-quality maternity care. **Judgment:** Compliant
Standard 5.2 Maternity service providers have formalized governance arrangements for assuring the delivery of safe, high-quality maternity care. **Judgment:** Compliant
Standard 5.3 Maternity service providers maintain a publicly available statement of purpose that accurately describes the services provided to women and their babies; including how and where they are provided. **Judgment:** Compliant
Standard 5.4 Maternity service providers set clear objectives and have a clear plan for delivering safe, high-quality maternity services. **Judgment:** Compliant
Standard 5.5 Maternity service providers have effective management arrangements to support and promote the delivery of safe, high-quality maternity services. **Judgment:** Compliant

Table 3: HIQA's judgments against the National Standards for Safer Better Maternity Services for leadership, governance and management that were monitored during this inspection
Standard 5.8 Maternity service providers systematically monitor, identify and act on opportunities to improve the safety and quality of their maternity services. **Judgment:** Compliant
Standard 5.11 Maternity service provider's act on standards and alerts, and take into account recommendations and guidance issued by relevant regulatory bodies. **Judgment:** Compliant

2.2 Workforce

Effective maternity services need to ensure that there are sufficient staff available at the right time, with the right skills to deliver safe, high-quality care. Training specific to maternity care is required to enable staff to acquire the skills and knowledge to detect and respond to obstetric emergencies. This inspection looked at the number of nursing and midwifery staff who provided care to women and infants using the maternity service. This inspection also looked at the number and grade of medical staff who worked in the specialities of obstetrics, neonatology and obstetric anaesthesiology at the hospital. Inspectors also reviewed the uptake and provision of training and education of staff relevant to obstetric emergencies.

Inspection findings in relation to workforce are described next.

Inspection findings

2.2.1 Midwifery and nursing staffing

The hospital did not meet the HSE's national benchmark for midwifery staffing in line with the HSE's Midwifery Workforce Planning Project.[4] At the time of the onsite inspection, inspectors were informed by hospital management that there were 30 whole time equivalent (WTE) midwifery positions vacant at the hospital which equates to approximately 7.5% of the midwifery workforce at the hospital. Senior managers told inspectors that the hospital was actively recruiting midwifery staff and midwifery staff worked extra shifts to fill gaps in the staff roster. In addition, a monthly key performance indicator report was produced by the human resource department which provided oversight on vacancies and the status of the active recruitment process relating to specific vacancies including midwifery. This monthly report also was provided to the hospital board.

Medical, midwifery and nursing staff in the Rotunda Hospital were required to complete training on the *Maternal & Newborn Clinical Management System (MN-CMS)*[‡‡] to work in the hospital as this was the hospital's electronic maternity healthcare record system to record patient information relevant to patient care and treatment. Senior hospital managers and medical staff who spoke with inspectors reported that the hospital could not readily employ agency or locum staff who were not trained in the safe use of this system. As a consequence, midwifery staff worked extra shifts to fill gaps in the staff roster.

Neonatal nursing is fundamental to the delivery of neonatal care. The hospital had 80 whole time equivalent (WTE) neonatal nursing positions and there were seven vacancies at the time of the inspection. This equates to 8.8% of the neonatal nursing workforce at the

[‡‡] The National Maternal and Newborn Clinical Management System project is the design and implementation of an electronic health record for all women and babies in maternity services in Ireland. This record allows information to be shared with relevant providers of care as and when required.

hospital. The recommended ratios for neonatal nursing in the report on the Model of Care for Neonatal Services in Ireland are: 1:1 in intensive care, 1:2 in high dependency care and 1:4 in special care.[5] Inspectors were informed on the day of inspection that complying with these nurses to baby ratios was not always possible particularly during surges in activity and workload in the Neonate Intensive Care Unit (NICU). To address staff deficiencies, senior management reported to inspectors that they were actively working to recruit additional midwives and additional neonatal nurses to fill vacant positions. Nursing staff in NICU who spoke with inspectors reported that the hospital had recruited 16 to 20 nurses for the NICU in 2018.

The hospital has an experienced midwife shift leader in place for each shift in the Delivery Suite, but they were not always supernumerary.

Specialist support staff

Inspectors found that fetal ultrasound scans were offered to all pregnant women at intervals as set out in National Standards. This will be discussed further in section 3.1.1 below.

The hospital employed Clinical Skills Facilitators to support nurses and midwives and help them develop their required skills and competencies. Two Advanced Midwife Practitioners were employed in the Emergency and Assessment Unit and three Advanced Nurse Practitioners were also employed in the Neonatal Intensive Care Unit.

2.2.2 Medical staff

Medical staff availability

Staff who spoke with inspectors said that on-call consultant obstetricians, anaesthesiologists and neonatologists were accessible to medical and midwifery staff and were onsite promptly when called to attend.

The hospital was staffed with non-consultant hospital doctors at specialist registrar, registrar and senior house officer grade in the specialties of obstetrics, anaesthesiology and neonatology who were available onsite to provide care to women and newborns on a 24-hour basis.

Rapid response teams were available on site 24-hours a day, seven days a week to attend to obstetric emergencies, neonatal emergencies and cardiac arrests. Staff in the various clinical areas visited reported to inspectors that consultants were available within 30 minutes of being called out side of core working hours.

Consultants in the specialties of obstetrics, anaesthesiology and neonatology were employed on permanent contracts and were registered as specialists on the relevant specialist register with the Medical Council in Ireland.

Obstetrics

The hospital had 16.3 whole time equivalent consultant obstetricians employed at the hospital with one point one of a consultant obstetrician position filled by a locum consultant.

Consultant obstetricians conduct daily ward rounds with members of the medical team including the obstetric registrar. Consultant obstetricians reviewed patients for example, women post instrumental delivery and were always available to review any women post-delivery as warranted. Midwives reviewed and discharged normal risk women post-delivery.

The hospital had an on-call rota outside of core working hours for consultant obstetricians whereby consultants were on call from home, usually one in every seven nights. Medical, midwifery and nursing staff who spoke with inspectors confirmed that there were no problems accessing a consultant during core hours and outside core hours if they had any concerns about a pregnant woman or a baby. On-call consultant obstetricians conducted ward rounds, on Saturdays, Sundays and on public holidays.

A consultant obstetrician was rostered to be in attendance in the Delivery Suite during core working hours from Monday to Friday. A rota of two non-consultant hospital doctors in obstetrics at registrar grade and one at senior house officer grade was in place in the Delivery Suite 24-hours a day. A second senior house officer was onsite outside of core working hours between the hours of 16.00hrs to 20.00hrs Monday to Friday.

A consultant obstetrician was rostered each day to the Emergency and Assessment Unit. During core working hours, an obstetric senior house officer and an obstetric registrar were allocated to the unit on a daily basis and were accessible by staff at all times. During out of hours, on-call onsite obstetric registrar covered the Emergency Assessment Area supported by the on-call obstetric consultant.

Obstetric anaesthesiology

The hospital had 5.9 whole time equivalent consultant anaesthesiologists employed at the hospital. The hospital had an on-call rota outside of core working hours for consultant anaesthesiologists whereby consultants were on call from home usually one in every five nights.

An anaesthesiologist was available 24-hours a day onsite for emergency work on the Delivery Suite and this anaesthesiologist was free from other duties as recommended in national guidelines.[6] A rota of two non-consultant hospital doctors in anaesthesiology was in place in the Delivery Suite 24-hours a day.

There were non-consultant hospital doctor's onsite outside of core working hours who were on call for obstetric anaesthesiology. This arrangement was supported by the findings from two obstetric anaesthesiology workforce quality improvement audits carried out in June

2014 and December 2015 that identified the need for a second on-call onsite anaesthesiologist to meet case load and surges in activity during out of hours.

Neonatology

On the day of inspection, inspectors were informed that there were six consultant neonatologists and these appointments were joint appointments with two children's hospitals. This is less than recommended by the National Clinical Programme for Paediatrics and Neonatology who advise that each tertiary neonatal intensive care unit should have seven consultant neonatologists.[5]

Inspectors were informed that the hospital had an on-call rota outside of core working hours where a consultant neonatologist was on call from home usually one in every six nights. A rota of two non-consultant hospital doctors in neonatology, one at registrar grade and one at senior house officer grade was in place to provide emergency neonatal care in the hospital 24-hours a day.

2.2.3 Training and education of multidisciplinary staff

Mandatory training requirements

The National Standards state that healthcare professionals undertake multidisciplinary team training, as appropriate to their scope of practice, every two years in basic life support, neonatal resuscitation and obstetric and neonatal emergencies. HIQA found that the hospital had a mandatory training requirement plan that listed the mandatory training requirements for staff working in each of the clinical areas, and outlined the frequency of training. Clinical staff were expected to undertake training aligned to their clinical responsibilities for example in relation to basic life support, neonatal resuscitation, sepsis, Irish Maternity Early Warning Systems (IMEWS), obstetric emergencies and fetal monitoring.

The hospital had designed a bespoke in-house multi-disciplinary professional training course in the management of obstetric emergencies which was aligned to recognised international training courses. Obstetric medical staff, anaesthesiology staff, and midwifery staff were required to undertake the hospital's multi-professional training course in the management of obstetric emergencies. This course included management and assessments of

- maternal collapse
- cardiac arrest
- team working and communication
- postpartum haemorrhage
- haematological aspects of major obstetric haemorrhage
- umbilical cord prolapse.

Non-consultant hospital doctors working in neonatology, midwives and neonatal nurses were required to undertake training in neonatal resuscitation every two years.

Midwives and obstetric medical staff undertook fetal monitoring training every two years via an interactive online training programme and this training was supported with weekly multidisciplinary cardiotocography review meetings.

A process of rotation through the different clinical area every two years with the exception of the neonatal unit was in place facilitating staff midwives the opportunity to maintain clinical competency.

Uptake of mandatory training

Training records were stored electronically and the records reflected each staff's specialist and mandatory training records. The hospital provided documentary evidence to inspectors that indicated that 100% of medical staff and 70.3 % of midwives had undertaken a neonatal resuscitation training programme (NRP) at the hospital in the last two years. In the neonatal unit, 97% of all staff had attended an NRP training programme in the previous two years.

The National Standards state that that healthcare professionals undertake multidisciplinary team training, as appropriate to their scope of practice, in cardiotocography (CTG) interpretation every two years, or sooner if the need is identified. Documentary evidence provided to inspectors indicated that 96% of obstetric medical staff and 94% of midwives had completed a fetal monitoring training programme in the previous two years. Staff also attended cardiotocography[§§] workshops on the year their CTG formal training was not due for updating. The hospital held a CTG study day in September 2018 where staff attended from maternity units within the hospitals group and staff also attended from other tertiary maternity hospitals.

Training records relating to the two years prior to inspection, showed that 63% of midwives and nurses, and only 55% of obstetric medical staff had undertaken multi-professional training in the management of obstetric emergencies. However, staff who spoke with inspectors reported that the hospital provided a multi-professional training course in the management of obstetric emergencies on a monthly basis where approximately 10 members of the multidisciplinary team attended each training programme. Documentation viewed by inspectors indicated that nine multi-professional training courses in the management of obstetric emergencies were provided in 2018. Information provided to inspectors indicated that 14 consultant obstetricians, 11 obstetric registrars, 12 obstetric senior house officers, 8 anaesthesiologists and 72 midwives attended the multi-professional training course in the management of obstetric emergencies in 2018.

[§§] Cardiotocography (CTG) is used during pregnancy to monitor the fetal heart and contractions of the uterus. It is most commonly used in the third trimester.

Documentary evidence showed that only 49.4% of midwives and nurses and 17% of medical staff had attended training in adult basic life support (including resuscitation of the pregnant woman) in the two years prior to the onsite inspection.

Hospital management reported that the current staff shortages had impacted on the ability to release staff for mandatory training.

Overall, in light of the findings above relating to low levels of compliance with some mandatory training programmes, following this inspection the hospital needs to ensure that mandatory and essential training is always completed by medical, midwifery and nursing staff within recommended timeframes in line with the National Standards.

Orientation and training of new staff

The hospital conducted an induction programme for non-consultant hospital doctors (NCHDs) over two days and paediatric NCHDs had a separate two week induction programme. As part of this induction training programme, medical staff were provided with training on clinical handover and they completed a mini version of the hospital's multi-professional training course in the management of obstetric emergencies. Medical staff were also provided with weekly teaching sessions following induction.

Orientation and training of staff in the operating theatre department was supported by an in-house operating theatre orientation programme. Theatre nursing staff were required to complete this orientation/competency programme over a period of four to six weeks, but it could be extended to three months depending on a staff member previous operating theatre experience. There were four modules to this programme. One of the four modules included the management of emergency procedures such as the management of intra-operative, post-operative and post-partum haemorrhage. In addition, midwives were also required to complete a specific module related to orientation to theatre.

In the neonatal unit, new nursing staff were supernumerary for the first month during which time they completed an orientation and assessment tool under the supervision of a named mentor and the Clinical Skills Facilitator.

All new midwives in the Delivery Suite, antenatal and postnatal wards completed an orientation booklet. This orientation booklet included specifics relating to equipment and safety checks, documentation relating to the Irish Maternity Early Warning Score (IMEWS)[***] and completion of a competency assessment related to the management of emergency scenarios such as maternal collapse. Orientation and training of midwifery staff was supported by Clinical Skills Facilitators who were available Mon-Fri during core hours.

[***] The Irish Maternity Early Warning System (IMEWS) is a nationally agreed system developed for early detection of life threatening illness in pregnancy and the postnatal period.

Other training and education opportunities for staff

Doctors undertaking higher specialist training in obstetrics and gynaecology and anaesthesiology had competency-based assessments of procedural and technical skills. Clinical staff did not undertake invasive procedures[†††] independently until they had been deemed competent to do so. Medical staff who spoke with inspectors reported that they were able to seek support from consultants where risks or concerns about a patient were identified, and that they had no hesitation about contacting the consultant on call to discuss a clinical case or to ask for advice or support.

Registrars in anaesthesiology had direct supervision by consultant anaesthesiologists. Anaesthetic medical staff undertook training in relation to advanced cardiorespiratory resuscitation for adults. Non-consultant hospital doctors (NCHDs) in anaesthesiology were required to attend mandatory anaesthesiology lectures and were not included in the on-call roster until deemed competent.

Each consultant obstetrician was assigned a specific day to be present in the Delivery Suite. This provided direct supervision for non-consultant hospital doctors (NCHDs) to achieve competency for example, to undertake invasive procedures. Each consultant obstetrician also provided mentorship to a registrar and senior house officer and decided who was suitable for on call.

The hospital had appointed a consultant obstetrician as Director of the Delivery Suite to oversee this high risk area. The Director of the Delivery Suite also chaired the weekly multidisciplinary Cardiotocography (CTG) team meetings. These meetings were used as a forum to provide shared learning to medical and midwifery staff relating to reviews such as category one caesarean section cases.

Inspectors found that the hospital did not schedule regular skills and drills simulation training sessions for all non-consultant hospital doctors. However, medical staff and members of the Executive Management Team told inspectors that the hospital provided a multi-professional training course in the management of obstetric emergencies on a monthly basis and skills and drills simulation training was covered within this course. NCHDs also attended formal teaching sessions on a weekly basis and attended a journal club.

In the neonatal unit, neonatal senior house officers worked directly with neonatal consultants and Advanced Nurse Practitioners (ANPs) in neonatology. Neonatal resuscitation drills were also held weekly in the neonatal unit for clinical staff.

[†††] All surgical and interventional procedures performed in operating theatres, outpatient treatment areas, labour ward delivery rooms, and other procedural areas. Interventional procedures include making a cut or a hole to gain access to the inside of a patient's body or gaining access to a body cavity without cutting into the body.

Sixty nine per cent of nurses working in the neonatal unit had specialist qualifications in neonatal intensive care nursing. Three out of 30.5 theatre staff had completed the peri-operative course. Hospital management reported that there were challenges releasing staff for these courses because of current staff vacancies. This was particularly relevant for the peri-operative theatre course where staff had to transfer to another hospital for a year to complete the course.

The hospital was recognised as a site for undergraduate and postgraduate midwifery training and higher specialist training for doctors in the specialties of obstetrics and gynaecology, anaesthesiology and neonatology.

Table 4 lists the National Standards relating to workforce focused on during this inspection and key findings in relation to the hospital's level of compliance with the National Standards monitored during this inspection.

Table 4: HIQA's judgments against the National Standards for Safer Better Maternity Services for Workforce that were monitored during this inspection

Standard 6.1 Maternity service providers plan, organize and manage their workforce to achieve the service objectives for safe, high-quality maternity care **Judgment:** Compliant
Standard 6.3 Maternity service providers ensure their workforce has the competencies and training required to deliver safe, high-quality maternity care. **Key findings:** The hospital did not ensure that all midwifery and medical staff had undertaken mandatory training in adult and neonatal resuscitation and practical obstetric emergency management in the past two years. **Judgment:** Substantially compliant
Standard 6.4 Maternity service providers support their workforce in delivering safe, high-quality maternity care. **Judgment:** Compliant

3.0 Safety and Quality

Inspection findings in relation to safety and quality will be presented under the themes of the National Standards of Effective Care and Support and Safe Care and Support. The following section outlines the arrangements in place at the hospital for the identification and management of pregnant women at greater risk of developing complications. In addition, this section outlines the arrangements in place for detecting and responding to obstetric emergencies and for facilitating ongoing care to ill women and newborns.

During this inspection, inspectors looked at 11 National Standards in relation to safe and effective care. Of these, the Rotunda Hospital was compliant with 10 National Standards and non-compliant with one National Standard.

Inspection findings leading to these judgments and key findings in relation to the hospital's level of compliance with the National Standards monitored during this inspection are included in Table 5 and Table 6 within this section.

3.1 Effective Care and Support

The fundamental principle of effective care and support is that it consistently delivers the best achievable outcomes for women and their babies using maternity services. This can be achieved by using evidence-based information. It can also be promoted by ongoing evaluation of the outcomes for women and their babies to determine the effectiveness of the design and delivery of maternity care. Women and their babies should have access to safe, high-quality care in a setting that is most appropriate to their needs. How this care is designed and delivered should meet women's identified needs in a timely manner, while working to meet the needs of all women and babies using maternity services.

In relation to obstetric emergencies, this inspection included aspects of assessment and admission of pregnant women; access to specialist care and services; communication; written policies, procedures and guidelines; infrastructure and facilities; and equipment and supplies.

Inspection findings in relation to effective care and support are described next.

Inspection findings

3.1.1 Assessment, admission and or referral of pregnant and postnatal women

The Rotunda Hospital is a stand-alone maternity hospital that provides a number of general and specialist maternity services for women with normal and high risk pregnancies. In line with the National Standards, each woman and infant had a named consultant with clinical responsibility for their care.

Assessment and referral

The hospital had agreed pathways to identify, assess and ensure that women who were at risk of developing complications during pregnancy or around the time of birth were cared for in an appropriate setting. Assessment services for pregnant and postnatal women included:

- early pregnancy assessment unit (EPAU)
- emergency and assessment unit
- high risk anaesthetic pre-assessment clinic
- maternal fetal medicine
- maternal medicine service.

Women could be referred by a midwife at their booking appointment to a number of specialised clinics such as Endocrinology, Cardiology, Nephrology and Psychiatry. Offsite clinics available included respiratory and neurology. Women were reviewed by the obstetric registrar if a medical review was warranted to decide their care pathway.

The hospital had a maternal medicine service where high risk women with medical conditions were cared for during pregnancy and in the postnatal period by a team of consultant physicians, consultant obstetric anaesthesiologists, consultant radiologists, consultant obstetricians and specialist midwives. Combined obstetric maternal medicine care included the following:

- Combined obstetric endocrine service where women with conditions such as diabetes mellitus and thyroid dysfunction were cared for by a multidisciplinary team including consultant obstetricians, consultant endocrinologists, dietitians and specialist midwives.
- Combined epilepsy service where women with epilepsy were cared for by a consultant obstetrician and a clinical nurse specialist.
- Perinatal mental health service was provided by a multidisciplinary team including mental health midwives, a social worker and was led by a consultant psychiatrist.
- Pregnant women with cardiac disease were referred to the obstetric cardiology service provided jointly by the Rotunda Hospital and the Mater Misericordiae University Hospitals.
- Pregnant women if required were also referred to the haematology clinic, infectious disease clinic, twin pregnancy clinic or the normal risk pregnancy clinic.
- Community midwives clinics offer midwifery managed care, choice and continuity to normal risk pregnant women in Dublin North city and county.

The hospital had an Early Pregnancy Assessment Unit (EPAU) where women with complications in early pregnancy were reviewed. This unit was open from Monday to Friday from 08.30 hours to 12.30 hours. Fetal ultrasound scans were offered to all pregnant

women at intervals recommended in the National Standards. All women were offered a formal dating ultrasound and a detailed fetal-assessment ultrasound at 20-22 weeks gestation.

Ultrasound scanning in the EPAU was carried out by obstetric registrars and midwife sonographers. In the Emergency and Assessment unit, ultrasound scanning was carried out by obstetric registrars, senior house officers and Advanced Midwife Practitioners.

Admission pathways

There were established pathways for the assessment, management and where necessary admission of women who attended the hospital with obstetric problems 24-hours a day, seven days per week. There was a single point of entry to the hospital through the Emergency and Assessment Unit, 24-hours a day where women in labour or with concerns during pregnancy or after birth presented for review.

A triage system was in place to assess all women who presented to the unit. Pregnant women were seen and reviewed in the Emergency and Assessment Unit during and outside core working hours and including public holidays by members of the obstetric team. An obstetric senior house officer and obstetric registrar were allocated to the Emergency and Assessment Unit on a daily basis. Following triage, pregnant women were reviewed by the senior house officer and any concerns were escalated to the obstetric registrar and consultant obstetrician if required. Women who presented to the Emergency and Assessment Unit and found on assessment to be at high risk were reviewed by the obstetric registrar and by the consultant obstetrician if warranted. In addition, the unit had two Advanced Midwife Practitioners rostered to work alternate days, seven days per week. This unit was also staffed with two staff midwives, a clinical midwife manager, and one healthcare assistant.

Midwifery and medical staff carried out risk assessments of women at the time of booking, during pregnancy and during and after birth. The hospital had implemented the Irish Maternity Early Warning System (IMEWS) for pregnant and postnatal women.

Women who required complex or specialist maternity care were transferred for antenatal care and admitted for management of labour and childbirth to the Rotunda Hospital from other maternity hospitals or maternity units within the country, in particular from the Our Lady of Lourdes Hospital, Drogheda and Cavan & Monaghan Hospital. Information provided to inspectors indicated that 49 pregnant women were admitted to the hospital from other maternity units in 2018.

The hospital had a team based system in place to provide care to all obstetric public patients. There were four teams (A-D) and each team was made up of four consultant obstetricians and one of the four teams covered each week. In addition, a consultant obstetrician from the team of the week was nominated to cover out of hours. Members of the management team told inspectors that a consultant could be identified for a patient

during their journey. While a consultant's name was identified at the time of booking for each pregnant woman, their care as an inpatient was led by the consultant obstetrician rostered for that specific week on that team. For example, a pregnant woman may be assigned a specific consultant from 'Team A' at their booking visit, but on admission may be admitted under a consultant from 'Team D'. However, women with for example diabetes who required a specialist consultant were also booked under their care. The hospital reported that this system worked well. Information relating to women at higher risk of complications was communicated at the consultant's weekly clinical handover meetings.

Each baby had a named consultant with clinical responsibility for their care in accordance with the National Standards.

3.1.2 Access to specialist care and services for women and newborns

Access to clinical specialists

A number of consultant obstetricians and gynaecologists and consultant anaesthesiologists had joint appointments between the Rotunda Hospital and nearby Mater Misericordiae University Hospital. A consultant cardiologist, consultant endocrinologist, consultant nephrologist and consultant psychiatrist had regular session's onsite at the Rotunda Hospital.

The Rotunda Hospital had measures in place to access consultant specialists if required in an emergency situation onsite. While the hospital did not have specialist consultant surgeon's onsite, the hospital had arrangements in place to access a vascular surgeon in Beaumont Hospital and the Mater Misericordiae University Hospital. However, if a specialist consultant surgeon such as a vascular surgeon was required in an emergency situation onsite, the Rotunda Hospital reported to inspectors that they were more likely to access this consultant surgeon from the Mater Misericordiae University Hospital as it is the nearest acute tertiary hospital to the Rotunda Hospital located less than a kilometre from the Rotunda Hospital.

As the Mater Misericordiae University Hospital is in the Ireland East Hospital group and the Rotunda Hospital is in the RCSI Hospitals group, the two hospitals had a Memorandum of Understanding (MOU)[‡‡‡] to facilitate bidirectional movement of hospital staff between both hospitals when needed for patient care.

The hospital had pathways for women who were anticipated to require a caesarean section in the Mater Misericordiae University Hospital. Women with underlying medical conditions such as cardiac disease and women with some placental anomalies who were at increased risk of haemorrhage were transferred to the Mater Misericordiae University Hospital as

[‡‡‡]A memorandum of understanding (MOU) is a nonbinding agreement between two or more parties outlining the terms and details of an understanding, including each parties' requirements and responsibilities.

required. The hospital had arrangements in place to facilitate and support the birth of a baby at the Mater Misericordiae University Hospital in specific clinical situations for the wellbeing of the pregnant woman if required.

Maternal Medicine Multidisciplinary Team (MMMT) meetings were held on a Tuesday in the Mater Misericordiae University Hospital every six-to-eight weeks. These meetings provided a platform for multidisciplinary team input into the management of women at higher risk of complications with complex medical-obstetric backgrounds. Multidisciplinary team members attending these meetings included staff from both the Mater Misericordiae University Hospital and the Rotunda Hospital. These included clinical staff from haematology, radiology, maternal medicine consultants, midwifery staff, consultant obstetrician and anaesthesiologists and a chief pharmacist.

Inspectors were informed that the Rotunda Hospital could facilitate a visiting consultant surgeon in carrying out specialised surgery for example, bowel surgery at the same time as the pregnant woman was having an elective caesarean section.

When pregnant women presented to the Rotunda Hospital with concerns or clinical conditions that were not pregnancy related and required review by medical or surgical specialists, they were transferred to the Mater Misericordiae University Hospital. For example, pregnant women with medical concerns were referred to the Medical Assessment Unit (MAU) in the Mater Misericordiae University Hospital.

There was 24-hour access to clinical advice from consultants in the specialties of haematology and microbiology at the Rotunda Hospital. The hospital could access radiology services such as computerised axial tomography[§§§] and interventional radiology when required for women in the Mater Misericordiae University Hospital.

The hospital had a consultant-led clinic for review of women after birth who developed complications during pregnancy, after birth or who experienced unexpected outcomes. These clinics were consultant led with an obstetric registrar.

Obstetric anaesthesiology services

Obstetric anaesthesiologists are required to assist with the resuscitation and care of women who become critically ill due to pregnancy-related conditions for example haemorrhage and pre-eclampsia.[****] They are also responsible for the provision of pain relief such as epidural analgesia for women in labour and for the provision of anaesthesia for women who require caesarean section and other surgery during birth.

[§§§] Computerised axial tomography scan (CAT scan) makes use of computer-processed combinations of many X-ray measurements taken from different angles to produce cross-sectional (tomographic) images.
[****] Pre-eclampsia is a medical condition where high blood pressure and protein in the urine develop during pregnancy. If left untreated, it may result in seizures at which point it is known as eclampsia.

The anaesthetic service in the Rotunda Hospital was led by the Director of Anaesthesiology. The hospital had a dedicated obstetric anaesthesiology service in line with National Standards. There was a duty anaesthesiologist immediately available to attend women in the Delivery Suite 24-hours a day in line with relevant guidelines.[6]

Guidelines [6] and National Standards recommend that there is an agreed system in place for the antenatal assessment of high-risk mothers to ensure that the anaesthetic service is given sufficient notice of women at higher risk of potential complications. The hospital held anaesthetic pre-assessment clinics for women with risk factors for anaesthesia or a history of previous complications during anaesthesia. This clinic was led by a consultant anaesthesiologist.

Pregnant women identified as being at high anaesthetic risk at the maternal medicine clinic were automatically referred to the anaesthetic pre-assessment clinic. Midwifery staff could also refer pregnant women to the anaesthetic pre-assessment clinics if they had concerns.

Consultant anaesthesiologists were also part of the cardiac obstetric multidisciplinary team who provided care to pregnant and postnatal women with complex cardiac conditions. Membership of this team included consultant cardiologists from the Mater Misericordiae University Hospital and staff from the Rotunda Hospital that included consultant anaesthesiologists and consultant obstetricians, an obstetric registrar and a staff midwife. Some consultant obstetricians and consultant anaesthesiologists who attended these meetings had joint appointments across both sites. Documentation provided to inspectors indicated that obstetric and cardiology service meetings were held on a Wednesday in the Mater Misericordiae University Hospital every six-to-eight weeks and these meetings provided a forum for the cardiac obstetric multidisciplinary team to discuss individual cases and develop a plan of care for pregnant women with cardiac conditions in the Mater Misericordiae University Hospital.

Critical care

Critically ill pregnant and postnatal women who required invasive monitoring or close observation, for example women with pre-eclampsia, sepsis or obstetric haemorrhage, were monitored in the High Dependency Unit (HDU) at the hospital. The HDU comprising two single rooms was located outside of the Delivery Suite, on the same level as the main operating theatres adjacent to the gynaecology ward. Over 200 women were admitted to the High Dependency Unit in the hospital in 2018 where 97.5 % of patients were obstetric admissions and 2.5% were gynaecology patients. Women admitted to the HDU were reviewed daily by the consultant obstetricians and consultant anaesthesiologists depending on their clinical needs.

As a stand-alone maternity hospital, the Rotunda Hospital did not have a Level 3[††††] [7] Intensive Care Unit onsite. This meant that critically ill pregnant or postnatal women who required intensive care were transferred out of the hospital for this level of care to the Mater Misericordiae University Hospital or to Beaumont Hospital. Documentation provided to inspectors indicated that eight women were transferred out to the Mater Misericordiae University Hospital and one woman was transferred to Beaumont Hospital in 2018.

Inspectors were informed that while there were challenges in accessing a critical care bed, the care of these women was prioritised by tertiary hospitals and there was no critical delay in the transfers of these women. Documentary evidence provided to inspectors indicated that the Mater Misericordiae University Hospital had a written admission pathway in place to admit patients to a critical care bed from the Rotunda Hospital.

Senior management told inspectors that the Government's policy is to co-locate the Rotunda Hospital on the grounds of the Connolly Hospital campus in Blanchardstown.

Neonatal care

The neonatal unit at the Rotunda Hospital is a tertiary referral centre that provides specialist care not only to babies born in the Rotunda Hospital, but also to babies delivered at other hospitals throughout the country. This unit prioritised babies that required complex neonatal care from other maternity units within the RCSI Hospitals group. Acceptance criteria included babies less than 27 weeks' gestation from Our Lady of Lourdes Hospital, Drogheda and less than 32 weeks' gestation from Cavan & Monaghan Hospital.

Therapeutic cooling[‡‡‡‡] was also provided at the Neonatal Unit for infants born in the Rotunda Hospital and for infants transferred in from other maternity units throughout the country.

The Rotunda Hospital's neonatal nurses and neonatal doctors participated in the National Neonatal Transport Programme (NNTP) with the neonatal unit on call for that programme every three weeks. In addition, to completing the Neonatal Resuscitation Program (NRP)[§§§§] training programme, the neonatal staff involved in the NNTP had completed the STABLE[*****] training programme in the previous two years.

†††† Level 3 critical care unit is the level of care required for patients who need advanced respiratory support (mechanical ventilation) alone or basic respiratory support along with support of at least one additional organ.

‡‡‡‡Whole body neonatal cooling (WBNC) or therapeutic cooling is 'active' (not passive) cooling administered during the current birth episode as a treatment for hypoxic ischemic encephalopathy. WBNC is only conducted in the four large tertiary hospitals, three in Dublin and one in Cork.

§§§§ The Neonatal Resuscitation Program (NRP) course conveys an evidence-based approach to care of the newborn at birth and facilitates effective team- base care.

***** STABLE: NNTP conducts the 'STABLE program in hospitals nationally. It is an education tool developed for maternal /child healthcare providers' to organise care during post resuscitation/pre-transport stabilisation period. The aim of the program is to enhance the knowledge and skills of all staff involved in the pre-transport of neonates.

3.1.3 Communication

Emergency response teams

The hospital had emergency medical response teams in place 24-hours a day, to provide an immediate response to obstetric and neonatal emergencies including maternal collapse.

There was an established system for requesting support for obstetric and neonatal emergencies whereby a multidisciplinary response team could be summoned for an emergency using an automatic bleep system. The hospital had nine different bleep categories for different obstetric emergencies that identified the location and type of emergency. There were specific bleep numbers for each caesarean section category, baby collapse, maternal collapse, obstetric registrar urgent call, paediatric registrar urgent call and a bleep number to activate the code red communication system for massive obstetric haemorrhage. Inspectors observed emergency code contact numbers displayed in the clinical areas visited.

A designated contact number to the neonatal unit was used when neonatal nurse expertise was required on the postnatal ward to review a baby. All babies whose clinical condition deteriorated on the postnatal ward were reviewed by the neonatal registrar.

Outside core working hours the on-call consultant obstetrician, consultant anaesthesiologist and consultant neonatologist were off site. Staff in the clinical areas visited told inspectors that these consultants were accessible at all times and were on site within 30 minutes of being called.

Clinical staff used the Irish Maternity Early Warning System (IMEWS) to monitor pregnant and postnatal woman to detect clinical deterioration of illness. This information was recorded on the electronic healthcare record. Staff who spoke with inspectors were clear about the IMEWS escalation process for the hospital and which senior doctor should be called. Inspectors were informed that if a woman's condition clinically deteriorated or IMEWS parameters were triggered during core hours, the woman was reviewed by the obstetric senior house officer, who after review and assessment, consulted with and referred to the obstetric registrar. Outside of core hours the woman was reviewed and assessed by the obstetric registrar on-call. The anaesthetic team were also available if required to review a woman if their clinical condition deteriorated or IMEWS parameters were triggered.

The hospital had an IMEWS guideline dated 2014 that required updating. This guideline was based on the National Clinical Effectiveness Committee's[†††††] IMEWS guideline. The hospital collected monthly national midwifery metrics that included metrics relating to the measurement and documentation of each woman's IMEWS chart.

[†††††] Guidelines produced by the national clinical effectiveness committee have been formally mandated by the Minister of Health.

Staff reported that formal and informal debriefing sessions occurred after an emergency or clinical incident. Informal debriefing sessions were facilitated by the Clinical Midwife Manager and or others involved in the emergency or clinical incident. Formal debriefing sessions were facilitated by an assistant director of midwifery and consultant obstetrician. Medical staff also attended monthly debriefing sessions.

Information relating to effective communication techniques in an obstetric emergency was provided in the hospital's multi-professional training course in the management of obstetric emergencies. Clinical staff used the Identify-Situation-Background-Assessment-Recommendation (ISBAR) communication too [‡‡‡‡‡]to communicate information about women and babies.

Multidisciplinary handover

Multidisciplinary clinical handover facilitated the sharing of information relating to women and infants at higher risk of complications. This was underpinned by the hospital's inpatient clinical handover policy.

There were formal arrangements in place for multidisciplinary clinical handover in the Delivery Suite. Medical clinical handover took place twice a day when the on-call obstetric team handed over to the obstetric team on duty in the morning and in the evening. Inspectors observed the evening clinical handover in the Delivery Suite which was attended by medical staff including on-call medical staff. An electronic white board was used to communicate patient information. Staff were provided with training on clinical handover as part of the implementation of the Maternal and Newborn Clinical Management System (MN-CMS).

Staff who spoke with inspectors were clear regarding the circumstances where consultant obstetricians, consultant neonatologists and consultant anaesthesiologists were expected to attend the Delivery Suite. These included, for example cases of massive obstetric haemorrhage, complex delivery, instrumental deliveries, anaesthetic risks and caesarean section. A postpartum haemorrhage escalation guide was in place that outlined a traffic light rating system when an obstetric registrar was required to call a consultant obstetrician.

There were clear communication processes in place to inform the anaesthetic team when women, who had been identified at risk of complications following review in the anaesthetic clinic, were admitted. Information relating to the identity of women at risk of complications was communicated via email and also could be accessed on an electronic high risk white board in the anaesthetic office.

[‡‡‡‡‡] ISBAR: a mnemonic to encourage consistent language and to improve multidisciplinary communication. ISBAR correlates to: identify who you are talking to and who you are talking about, the current situation, relevant background, assessment of the situation and recommendations to correct the current situation.

The hospital held a weekly multidisciplinary consultant handover meeting every Monday morning at 07.30 hours where weekend clinical handover relating to on-going and new patient cases and clinical risk updates were discussed. The hospital planned to facilitate Non-Consultant Hospital Doctors to attend these meetings once a month.

Clinical staff in the postnatal ward and Emergency and Assessment Unit informed inspectors that multidisciplinary team huddles[§§§§§] were not routinely held. However, in the neonatal unit, all staff attended the neonatal grand rounds[******] every morning 09.00-10.00hrs and medication safety huddles were facilitated every week by a clinical pharmacist in the NICU. Theatre staff also attended multidisciplinary team huddles twice daily.

There was a clear process in place to inform clinical staff about external safety alerts concerning medicines and medical equipment. All information and the responses relating to safety alerts (external and internal) were shared in ward communication books and on white boards and inspectors observed examples of these in the clinical areas inspected.

Clinical Midwife Managers disseminated feedback and learning from the multidisciplinary team meetings to staff at ward level. This was facilitated at ward clinical handover and information was also recorded in the ward communication book which was accessible to all staff in the clinical areas inspected.

Other findings relevant to communication

There was an agreed process in place for accessing and staffing an operating theatre for emergency surgery during and outside core working hours[††††††]. Arrangements were also in place to manage two coinciding emergencies 24-seven.

During out of hours, contingency plans were in place to ensure that additional theatre nursing and midwifery staff were available to attend for two coinciding emergencies. This included the assistant director of midwifery redeploying staff from other areas of the hospital. In addition, staff could also be called in from home to assist in the management of an emergency if required. Two non-consultant hospital doctors in anaesthesiology were onsite and the on-call consultant anaesthesiologist was also available to attend within 30 minutes when required. Similarly, two obstetric registrars were also onsite and the on-call consultant obstetrician was also available to attend within thirty minutes when required.

[§§§§§] Safety huddles are brief and routine meetings for sharing information about potential or existing safety problems facing patients or workers. They aim to increase safety awareness among front-line staff, allow for teams to develop action plans to address identified safety issues, and foster a culture of safety.
[******] Grand rounds are methodology of medical education and inpatient care, consisting of presenting the medical problems and treatment of a particular patient to clinical staff.
[††††††] The Rotunda's Self-assessment tool reported that core working hours for Obstetrics and Gynaecology Consultants – 39 hours per week spread from 08.00hrs to 20:00; NCHDs (Non-Consultant Hospital Doctors) 8:00-16:00 hours.

3.1.4 Written policies, procedures and guidelines

The hospital had a suite of policies, procedures and guidelines in relation to obstetric emergencies, for example guidelines on the management of shoulder dystocia, pre-eclampsia and post-partum haemorrhage although a significant number of policies and guidelines required updating.

The majority of policies, procedures and guidelines were adapted from national and international policies, procedures and guidelines for use in the Rotunda Hospital. The neonatal unit had a policy, procedures and guideline committee that contributed to the hospital's policies, procedures and guidelines committee.

Staff could demonstrate to inspectors in the clinical areas visited that they could access these policies electronically. The hospital also had guidelines based on National Clinical Effectiveness Committee[‡‡‡‡‡‡] guidelines including an inpatient clinical handover policy in maternity services, the Irish Maternity Early Warning System and a sepsis management policy.

A safe surgery checklist[§§§§§§] was completed for emergency and elective surgical procedures in obstetric operating theatres in line with best practice recommendations. A re-audit of Time out/Safe Surgery process for elective gynaecology and elective lower segment caesarean section (LSCS) cases in the main theatre in February 2017 showed that overall completion of the safe surgery checklist was good and included a compliance rate between 90% to 100% with the 'time out' process. Areas for improvement included co-signing documentation at each check point and handover of the patient's condition on transfer to recovery staff.

3.1.5 Maternity service infrastructure, facilities and resources

The Rotunda Hospital is the oldest continuously operating maternity hospital in the world, founded in 1745. The Rotunda Hospital was built on a 4.5 acre campus in 1757 and the prenatal, postnatal and gynaecology wards are located in this protected and listed building.

While the Rotunda Hospital's infrastructure has been updated over many years, the age and overall configuration of the hospital represents a significant constraint with respect to its physical ability to function as a modern maternity service building. Overall, this inspection found that the hospital's physical environment was not in compliance with Standard 2.7 of the *National Standards for Safer Better Maternity Services*.

‡‡‡‡‡‡ Guidelines produced by the National Clinical Effectiveness Committee have been formally mandated by the Minister of Health.

§§§§§§ A surgical safety checklist is a patient safety communication tool that is used by operating theatre nurses, surgeons, anaesthesiologists and others to discuss together important details about a surgical case so that everyone is familiar with the case and that important steps are not forgotten. Surgical checklists work to improve patient safety during surgery.

Assessment Areas

The Emergency and Assessment Unit had one triage room, five assessment rooms and one neonatal assessment room. This unit which was located on the ground floor had limited space for the assessment and management of women who attended this clinical area.

Inspectors were told that availability of isolation rooms and toilet facilities in the Emergency and Assessment Unit can be a challenge for the hospital particularly during busy periods and winter months. While the hospital had a plan in place to deal with a surge in activity that required additional isolation facilities, staff reported that it remained a challenge in view of limited space available. Inspectors observed that accessing the resuscitation trolley in an emergency could be difficult given the limited space available to retrieve the trolley out of a room that required a swipe card to open the door to the room.

Staff informed inspectors that the unit had been remodelled three times in the last ten years to maximise the space available. Despite these renovations, the Emergency and Assessment Unit was not in line with recommended infrastructural guidelines for triage and assessment areas for pregnant women.[8] Members of the hospital's senior management team informed inspectors that the hospital planned to expand this area by building a number of clinical evaluations spaces in the Emergency and Assessment Unit in 2019 and provide discrete waiting areas for patients suffering from early pregnancy loss.

Antenatal and postnatal wards

The hospital had 128 inpatient beds for antenatal, postnatal and gynaecology care. On the day of inspection, inspectors visited a 23-bedded postnatal ward and found that the design and infrastructure of the postnatal ward required improvement to provide a more appropriate clinical environment for women and their babies. Inspectors found that space between beds and cots was limited and storage space for equipment was not optimal.

Inspectors found that there was no oxygen or suction at the bed side. However, two portable oxygen cylinders were available and located beside the adult and neonatal resuscitation equipment on the corridor. Health Building Note Guidelines for Maternity Care Facilities outline that an oxygen supply should be available at each bed space in multi-room in-patient accommodation.[8] The neonatal resuscitation equipment was located on the corridor. Given the design and layout of the ward and following a risk assessment conducted by the hospital, it was deemed to be the most accessible and spacious place to resuscitate the baby.

Notwithstanding the fact that the Rotunda Hospital is a listed and protected building, following this inspection the hospital needs to ensure that there is an oxygen supply at each bed space in line with Health Building Note Guidelines for Maternity Care Facilities.

Delivery Suite

There were 14 beds in the Delivery Suite. The Delivery Suite had nine single rooms and a five bedded assessment room. Two of nine single rooms had en-suite toilets and only one of the single delivery rooms had an en-suite shower. Modern delivery rooms should all be single patient occupancy with en-suite facilities.[8] The five bedded assessment room was located adjacent to the Delivery Suite entrance where women in early labour that required monitoring and observation were cared for. This five bedded assessment room had piped oxygen and also had a room with a bath, shower and toilet facilities for women in early labour. However, the number of delivery rooms was not sufficient to meet increasing service demands with over 8,500 deliveries per year.

There was very little storage space in the Delivery Suite for patient equipment and supplies. Inspectors found that a resuscitaire and associated supplies were located in an alcove in a corridor in the Delivery Suite outside the emergency Obstetric Operating Theatre.

Overall, the Delivery Suite had a restricted physical infrastructure which was outdated and did not meet recommended design and infrastructural specifications for modern maternity services.[8] These findings were consistent with a previous HIQA inspection report [9] findings in 2016.

Members of the hospital's Executive Management Team told inspectors that the hospital had an interim physical infrastructure optimisation plan in place to address the risks identified. Inspectors were informed that renovations and refurbishment of the Delivery Suite was due to commence in February 2019 which included reorganisation of the assessment room, refurbishment of the available nine delivery rooms and provision of a new obstetric operating theatre.

High dependency

The hospital had a High Dependency Unit, comprising two single rooms that were equipped to care for pregnant and postnatal women who required close monitoring and observation. This unit was located adjacent to the gynaecology and antenatal wards in close proximity to the operating theatres. The High Dependency Unit physical infrastructure did not meet recommended design for modern High Dependency Unit.[8]

Operating theatres for obstetrics and gynaecology

There was access 24-hours a day, seven days a week to designated obstetric operating theatres. During core working hours, emergency surgery such as emergency caesarean sections were performed in a designated obstetric operating theatre located in the Delivery Suite.

The hospital was staffed and managed so that emergency caesarean sections could be performed rapidly when required. The hospital audited the timing of Category 1 caesarean

sections[*******] over an eight week period from July to September 2017 to provide assurance that emergency caesarean sections were conducted within recommended timeframes. The audit findings indicated that all category 1 caesarean sections were conducted within the auditable standard of 30 minutes with a mean of 14 minutes.[10]

The hospital had an operating theatre department with three operating theatres. Two of the three operating theatres were located on the first floor below the Delivery Suite and the third obstetric operating theatre was the emergency obstetric operating theatre located in the Delivery Suite. The hospital had a three bedded recovery area in theatre for women undergoing obstetric or gynaecological surgery. The operating theatre department had a designated theatre manager who was also responsible for the organisation and management of the emergency operating theatre in the Delivery Suite.

The operating theatre in the Delivery Suite was reported to be used regularly outside core working hours for emergency caesarean sections where there was an immediate risk to the mother or baby and when rapid access to a theatre was required. It was practice to use the main operating theatres particularly if there were two coinciding obstetric emergencies. This facilitated medical, nursing and midwifery staff working across both operating theatres when staffing levels was reduced during out of hours.

Consistent with a previous HIQA inspection[9] in 2016, inspectors found that the infrastructure and design of the emergency obstetric operating theatre located in the Delivery Suite did not meet the recommended infrastructural specifications of a modern surgical facility. This operating theatre comprised an operating room and a small preparation room in one open plan space. Inspectors observed that there was no protective zone between the operating room and the Delivery Suite corridor. A single door separated the operating theatre from the main corridor. Floor space was limited and there were insufficient storage facilities for sterile supplies, patient equipment and designated cleaning equipment.

As already discussed above, the hospital planned to commence refurbishment of the delivery suite rooms and provision of a new obstetric operating theatre in February 2019.

Neonatal unit

The hospital provides level 3[†††††††] (tertiary) neonatal care services.[5] The Neonatal Intensive Care Unit (NICU) had 39 cots which included seven Neonatal Intensive Care cots,

[*******] National Institute for Clinical Excellence (NICE) recommends four categories when determining the urgency of Caesarean Sections. Category 1 is the most urgent where there is an immediate threat to the life of the woman or foetus that necessitates prompt delivery of the baby by caesarean section.

[†††††††] The primary function of tertiary neonatal units is to provide specialised care to infants who are critically unwell. Most of the workload is concentrated on very preterm infants, unwell term infants and infants with major congenital malformations.

12 High Dependency Care cots and 20 Special Care Baby cots. On the day of inspection the neonatal unit was at 54% capacity

The neonatal unit had recently undergone refurbishment and was reconfigured with the addition of a four bed area to allow for more space between cots. However, due to the overall restricted physical infrastructure of the NICU, storage space was limited with some equipment from the neonatal unit being stored on the corridor outside the unit. There were no single isolation rooms in the unit, but staff could identify a segregated area in the unit if babies required isolation.

While HIQA acknowledged that the NICU had been recently refurbished, the overall design and layout of the Neonatal Intensive Care Unit did not meet recommended guidelines.[11]

Laboratory services

Blood and blood replacement products were accessible when required in an emergency for women and infants. Haemovigilance statistics reports were produced for the Quality and Safety Committee detailing activity relating to major haemorrhage, postnatal transfusions, neonatal transfusions and serious adverse events. Urgent haematology, biochemistry and microbiology laboratory results were available to medical staff when required.

3.1.6 Maternity service equipment and supplies

The clinical areas visited by inspectors had emergency resuscitation equipment for women and newborns. Checklists showed that emergency equipment was checked daily and weekly as scheduled in the clinical areas inspected. Emergency supplies and medications were readily available in the clinical areas inspected to manage obstetric emergencies such as maternal haemorrhage, eclampsia and neonatal resuscitation. Cardiotocography[‡‡‡‡‡‡‡] equipment viewed by inspectors was labelled to indicate when they had been serviced.

Table 5 on the next page lists the National Standards relating to effective care and support focused on during this inspection and key findings in relation to the hospital's level of compliance with the National Standards monitored during this inspection.

[‡‡‡‡‡‡‡‡‡‡‡‡‡] Cardiotocography is an electronic means of recording the fetal heart beat and the uterine contractions during pregnancy. The machine produces a trace known as a cardiotocograph which illustrates the fetal heart rate and uterine activity.

Table 5: HIQA's judgments against the National Standards for Safer Better Maternity Services for Effective Care and Support that were monitored during this inspection

Standard 2.1 Maternity care reflects best available evidence of what is known to achieve safe, high-quality outcomes for women and their babies. **Judgment:** Compliant
Standard 2.2 Maternity care is planned and delivered to meet the initial and ongoing assessed needs of women and their babies, while working to meet the needs of all women and babies using the service. **Judgment:** Compliant
Standard 2.3 Women and their babies receive integrated care which is coordinated effectively within and between maternity and other services. **Judgment:** Compliant
Standard 2.4 An identified lead healthcare professional has overall clinical responsibility for the care of each woman and that of her baby. **Judgment:** Compliant
Standard 2.5 All information necessary to support the provision of effective care, including information provided by the woman, is available at the point of clinical decision-making. **Judgment:** Compliant
Standard 2.7 Maternity care is provided in a physical environment which supports the delivery of safe, high-quality care and protects the health and wellbeing of women and their babies. **Key findings:** Infrastructure and design of the Delivery Suite operating theatre and the High Dependency Unit did not meet best practice guidelines. The design and layout of the Neonatal Unit did not meet recommended guidelines and increased the risk of cross infection among neonates. **Judgment:** Non-compliant
Standard 2.8 The safety and quality of maternity care is systematically monitored, evaluated and continuously improved. **Judgment:** Compliant

3.2 Safe Care and Support

A maternity service focused on safe care and support is continually looking for ways to be more reliable and to improve the safety and quality of its service. In relation to obstetric emergencies, this inspection sought to determine how risks to the maternity service were identified and managed, how patient safety incidents were reported and how learning was shared across the service. The inspection team also looked at how the hospital monitored, evaluated and responded to information and data relating to outcomes for women and infants, and feedback from service users and staff.

Inspection findings in relation to safe care and support are described next.

Inspection findings

3.2.1 Maternity service risk management

The hospital had systems in place to identify and manage risks. Risks in relation to the maternity service were recorded in a corporate risk register along with agreed risk control measures.

The risk register was reviewed and updated monthly by the Hospital Secretary/ General Manager and by the Executive Risk Committee. Risks that could not be managed at hospital level were escalated to the RCSI Hospitals group. The hospital group had established a Senior Incident Management Forum to provide oversight of risks and reviews of adverse incidents.

Risks recorded in the hospital's corporate risk register relevant to this monitoring programme included:

- Risks associated with the age of the building and the suitability of campus for modern day maternity/gynaecology and neonatal service.
- Infection control risks associated with limited space and lack of isolation facilities.
- Lack of capacity.

Inspectors noted that the risks relating to the Rotunda Hospital's infrastructure and capacity was also recorded on the RCSI Hospitals group risk register. Senior management informed inspectors that the hospital had made a presentation to representatives from the Department of Health on these risks and concerns for patient safety and care on the existing campus and the suitability of this campus for modern day maternity/gynaecology and neonatal service.

The National Strategy outlines plans to co-locate the Rotunda Hospital on the grounds of the Connolly Hospital campus in Blanchardstown.[12] Inspectors were informed that the expected minimum timeframe for relocation to Connolly Hospital site is seven to 10 years. In the meantime, to address capacity issues, the hospital was seeking funding for a west wing development to increase capacity and improve the infrastructure of the Rotunda

Hospital to provide a modern maternity service building. Capital funding was required from the HSE to progress this development and at the time of inspection; this capital funding had yet to be sanctioned.

Clinical incident reporting

Inspectors found that there was an established practice of incident reporting at the hospital based on the number of clinical incidents reported each month. Staff who spoke with inspectors were aware of their responsibility to report clinical incidents.

Every month the hospital held a Quality and Safety Committee meeting where clinical incidents were reviewed. The hospital produced monthly incident reports for the Quality and Safety Committee meetings that detailed the number and type of incident reviews commissioned, the status of each incident review and incident trends. This report also provided information on the number and descriptions of serious reportable incidents reported to the Health Service Executive (HSE) and the number of patient safety incidents reported on the National Incident Management System§§§§§§§ in line with national guidelines.[13] The management of serious incidents and serious reportable events was also overseen at the monthly RCSI Hospitals group Senior Incident Management Forum meetings.

The hospital held weekly incident review meetings where clinical incidents which were reviewed by a senior obstetrician who chaired the meetings and was assisted by an assistant Director of Midwifery, additional senior consultant obstetricians, a consultant neonatologist and the Clinical Risk Manager. A report on the findings from these meetings and an overview of all complaints was presented at the weekly Executive Management Team meetings. However, documentation provided to inspectors indicated that there were delays in completing comprehensive and concise reviews in a timely way in line with national guidelines due to the resources required.

Clinical incidents were tracked and trended on a monthly basis to identify emergent trends and where improvements were required, plans were put in place to address these. For example, in response to the rise in the number of postpartum haemorrhage (PPH) incidents, the hospital planned to implement a quality improvement initiative that had been successfully implemented by another maternity unit within the network to reduce PPH incidents. This initiative related to training, appropriate use of medication and communication. This was an example of spreading the learning regarding the implementation of a successful quality improvement initiative within the group.

§§§§§§§The State Claims Agencies' (SCA) National Incident Management System (NIMS) is a risk management system that enables public hospitals to report incidents in accordance with their statutory reporting obligation to the SCA (Section 11 of the National Treasury Management Agency (Amendment) Act, 2000).

Clinical Midwifery Managers received monthly reports on clinical incidents for their areas and the majority of staff who spoke with inspectors reported that they received feedback from clinical incidents.

In the NICU, the Clinical Nurse Manager was provided with monthly updates on clinical incidents. In addition, patient safety meetings were also held twice a year in NICU to review clinical incidents and to decide on risks to inform the risk register. Patient safety meetings were also held in operating theatre every quarter. Hospital management told inspectors that risk champions were in place to support a staff member with the reporting of a clinical incident.

Feedback from women

There was a formalised process to monitor compliments and respond to complaints from women using the maternity service. Complaints were an agenda item at the Executive Management Team weekly meetings. A 2018 complaints report viewed by inspectors indicated that 100% of complaints received at the hospital were managed within less than 30 days in line with national guidelines.[14]

The hospital carried out a patient experience survey in 2018 and the findings indicated that 98.5% of patients were satisfied with the service they received. Actions taken to address findings from the survey included implementing a proposed call centre for appointment scheduling in order to improve access and facilitate automated messages.

2.2.2 Maternity service monitoring and evaluation

A range of different clinical measurements in relation to the quality and safety of maternity care were gathered at the hospital each month in line with national HSE Irish Maternity Indicator System reporting requirements. This data is gathered nationally by the Office of the National Women and Infants Health Programme[15] and the National Clinical Programme for Gynaecology and Obstetrics and it facilitates the benchmarking of performance data against national rates over time.

The Rotunda Hospital through the Executive Management Team and the Quality and Safety Committee proactively monitored, analysed and responded to information from multiple sources including serious reportable incidents, incident reviews, legal cases, risk assessments, complaints, audits and patient experience surveys to be assured about the effectiveness of the maternity service as required by National Standards.

A key performance indicator report and progress with key performance indicators was presented to the Quality and Safety Committee monthly meetings which were chaired by the Hospital Master. This report was also circulated to the Board of Governors. The key performance indicator report reflected hospital activity and performance indicators relating to caesarean section rates, maternal transfers to a level 3 critical care, admissions to the

Rotunda Hospital's High Dependency Unit (HDU), neonatal metrics, infection control rates, serious reportable events and medication incidents.

Irish Maternity Indicator System (IMIS) data was reviewed at monthly Quality and Safety Committee meetings and at weekly Executive Management Team meetings. The Medical Executive Committee composed of members of the Executive Management Team and the clinical leads in obstetrics, anaesthesiology, neonatology, laboratory medicine and gynaecology also met every two months and reviewed patient outcomes and clinical activity. The hospital published monthly maternity patient safety statements in line with national HSE reporting requirements.

Inspectors found that the hospital used patient outcome data to identify potential risks to patient safety and opportunities for improvement. For example, the IMIS report 2017 identified outliers******** that included women who had perineal tears. Senior management and midwifery staff told inspectors that the hospital was implementing a care bundle to reduce the incidence of perineal tears as part of a quality and safety project.

Maternal morbidity meetings were held quarterly and the hospital used the Robson†††††††† Classification for assessing, monitoring and comparing caesarean sections rates for women at the hospital. Multidisciplinary perinatal mortality and morbidity meetings were held monthly at the hospital and while minutes were not recorded, recommendations were recorded on the hospital's information system. However, the hospital did not participate in regular multidisciplinary perinatal morbidity and mortality meetings at group level.

The Rotunda Hospital's performance data which included IMIS and NPEC‡‡‡‡‡‡‡‡ data was reviewed in conjunction with data from both the maternity units Cavan & Monaghan Hospital and Our Lady of Lourdes Hospital at the RCSI Hospitals group Senior Incident Management Forum. Inspectors were informed that the Rotunda Hospital also benchmarked its data against other tertiary maternity hospitals of a similar size. The Hospital's Senior Management Team also attended monthly meetings of the three Dublin Maternity Hospitals.

Annual clinical audit plan

The Rotunda Hospital had a comprehensive clinical audit programme with planned audits defined in the hospital's annual clinical audit programme by the Clinical Audit Committee.

******** An outlier is an observation that lies an abnormal distance from other values in a random sample from a population.
†††††††† Robson Classification: the Robson classification is a system that classifies women into 10 groups based on their obstetric characteristics (parity, previous CS, gestational age, onset of labour, fetal presentation and the number of fetuses).
‡‡‡‡‡‡‡‡ The National Perinatal Epidemiology Centre (NPEC) conducts on-going national audits of perinatal mortality, maternal morbidity and home births in Ireland.

The hospital produced an annual clinical audit report by speciality. Inspectors viewed the annual audit report by speciality for 2018 and noted that it detailed specific audits by each speciality, audit type, department, audit supervision and status.

Audits completed in 2018 included the following:

- Sequential instrumental use for operative vaginal delivery and caesarean section for unsuccessful instrumental delivery June 2018-January 2019.
- Inpatient management of severe pre-eclampsia November 2018.
- Classification of caesarean sections, time to delivery interval and correct bleep category October 2017.
- Counselling of patients in relation to vaginal birth after caesarean (VBAC) in the antenatal clinic 2018.

Audit conducted in the hospital followed a prescribed structure. The audit report template highlighted the action plans to address any opportunities for improvement in practice and learning that had been identified. Clinical audit reports were presented at the monthly Quality and Safety Committee and audit findings were also presented at the biannual audit and research day.

Documentary evidence provided to inspectors indicated that monthly antimicrobial resistance and hospital healthcare associated infection data was submitted to the business intelligence unit of the HSE. However, inspectors were informed that clinical handover was not audited in line with National Guidelines.

Annual clinical report

The Rotunda Hospital produced a comprehensive annual clinical report that detailed services provided at the hospital, maternal and neonatal outcomes, service activity and initiatives at the hospital.

The 2017 annual clinical report highlighted that the hospital used the Robson Ten group classification for assessing, monitoring and comparing caesarean sections rates for women at the Hospital as recommended nationally.[16] The report also highlighted that the hospital reviewed the indication for caesarean sections on a weekly and monthly basis throughout the year to provide governance oversight of the caesarean section rates and patient outcomes

3.2.3 Quality improvement initiatives developed by staff at the hospital

The hospital had initiated and developed a number of quality improvement projects aimed at improving the quality and safety of maternity care.

One quality improvement initiative was implemented following an increase in the number of incidents relating to babies being admitted unexpectedly to the neonatal unit. The findings from a review group led to the implementation of a quality improvement initiative to provide education to all staff on hypothermia and to purchase blanket warmers for the postnatal wards, theatre and the delivery suite. In addition, the review group recommendations included auditing of ambient temperature in postnatal wards, delivery suite and theatre and audit of adherence to skin to skin guideline for term infants.

The hospital implemented the Maternal and Newborn Clinical Management System, an electronic health record (EHR) for all women and babies who access the Maternity Services in Ireland supported by a training programme.

The hospital had implemented a personalised postpartum venous thromboembolism (VTE) risk assessment for all women in the postnatal ward. This tool risk assessed women and determined the need for VTE prophylaxis.

Additional quality improvement initiatives included the following:

- A project called 'Welcome Aboard and Homeward Bound! Effective Discharge Planning in Post Natal A' led to the development of a new discharge plan. This initiative highlighted the importance of timely communication among the multidisciplinary team and women to achieve effective discharge planning processes and improve bed capacity.

- Beads of Courage programme encouraged parents of babies born prematurely to celebrate their progress and milestones while in the NICU.

- A project called 'Tentacles for Tinies: The many Arms of the Crocheted Octopus' launched in 2017 helped parents to feel more involved in the care of their baby.

Table 6 on the next page lists the National Standards relating to safe care and support focused on during this inspection and key findings in relation to the hospital's level of compliance with the National Standards monitored during this inspection.

Table 6: HIQA's judgments against the National Standards for Safer Better Maternity Services for Safe Care and Support that were monitored during this inspection

Standard 3.2 Maternity service providers protect women and their babies from the risk of avoidable harm through the appropriate design and delivery of maternity services. **Judgment:** Compliant
Standard 3.3 Maternity service providers monitor and learn from information relevant to providing safe services and actively promote learning, both locally and nationally. **Judgment:** Compliant
Standard 3.4 Maternity service providers implement, review and publicly report on a structured quality improvement programme. **Judgment:** Compliant
Standard 3.5 Maternity service providers effectively identify, manage, respond to and report on patient safety incidents. **Judgment:** Compliant

4.0 Conclusion

Women and their babies should have access to safe, high-quality care in a setting that is most appropriate to their needs. HIQA found that the Rotunda Hospital was compliant with the majority of the National Standards in relation to safety and quality and capacity and capability that were focused on during this inspection.

The Rotunda Hospital had strong leadership, governance and management arrangements in place to support safe, high-quality maternity services. The Master of the Rotunda Hospital was the Clinical Lead for obstetric and neonatal care for the RCSI Hospitals Group.

HIQA found that Rotunda Hospital was not part of a formalised maternity network under a single governance structure as described in the National Maternity Strategy. The hospital had however, through the RCSI Hospitals group, established structures and arrangements that facilitated effective collaborative working between maternity units within this hospital group. This included the formation of a Senior Incident Management Forum and implementation of care pathways for women at higher risk of complications and babies requiring complex neonatal care within the RCSI Hospitals group. The implementation of a formalised maternity network under a single governance structure needs to be progressed by the RCSI Hospitals group and the HSE in line with the National Standards and the National Maternity Strategy.

While the Rotunda Hospital's infrastructure was updated over many years, HIQA found that the hospital did not meet recommended design and infrastructural specifications for modern maternity services. This hospital should be supported through the RCSI Hospitals group to progress with improving the infrastructural deficiencies identified through this and previous hospital inspections to allow the hospital to meet the requirements of National Standards. While HIQA recognises that the Government's long term policy is to co-locate the Rotunda Hospital on the grounds of the Connolly Hospital campus in Blanchardstown, capital funding from the HSE is required in the meantime to progress with a time bound action plan to improve the infrastructure to provide a modern maternity service building.

HIQA found that the Rotunda Hospital as a large tertiary hospital, had arrangements in place to identify women at higher risk of complications and to ensure that their care is provided in the most appropriate setting. In addition, the hospital had arrangements in place to detect and respond to obstetric emergencies and to provide or facilitate on-going care to ill women and/or their newborn babies in the most appropriate setting.

The hospital had governance and accountability structures in place to provide oversight of patient outcome data and clinical incidents, implement quality improvement initiatives and learn from incidents. In addition, clinical audit in the hospital was also part of a structured organisational quality and patient safety programme for maternity services.

The hospital was staffed with medical staff in the specialties of obstetrics, neonatology and anaesthesiology who were available onsite to provide care to women and newborns on a 24-hour basis. However, the hospital did not meet the HSE's national benchmark for midwifery staffing in line with the HSE's Midwifery Workforce Planning Project, but were actively working to recruit additional midwives and neonatal nursing staff to fill vacant positions.

While HIQA found that the hospital had clearly defined mandatory training programme for clinical staff relevant to obstetric emergencies, the hospital needs to ensure that mandatory and essential training is always completed by medical, midwifery and nursing staff within recommended timeframes in line with the National Standards.

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