



**Health
Information
and Quality
Authority**

An tÚdarás Um Fhaisnéis
agus Cáilíocht Sláinte

Report of the unannounced inspection of maternity services at the Regional Hospital Mullingar

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

Dates of inspection: 16 July 2019 and 17 July 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 birth, 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 need to be able to quickly identify potential problems and respond effectively to evolving clinical situations.

The monitoring programme assessed if specified³ 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 explored if clinical staff were supported with specialised regular training to care for women and their newborn babies.

This monitoring programme examined if specified³ National Standards in relation to effective care and support and safe care and support had been 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 purposes 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 was 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 hospitals are interconnected within hospital groups to enable sharing of expertise and services under a single governance framework.

1.1 Information about this inspection

The Regional Hospital Mullingar is a statutory acute hospital which is owned and managed by the Health Service Executive. The hospital is part of the Ireland East Hospital Group.[†] The Maternity Unit is co-located with the general hospital. There were 1959 births at the hospital in 2018.

To prepare for this inspection, inspectors reviewed a completed self-assessment tool[‡] and preliminary documentation submitted by the Regional Hospital Mullingar 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 Regional Hospital Mullingar is included in the Table 1.

Table 1- Inspection details

Dates	Times of inspection	Inspectors
16 July 2019	11:10hrs to 17:30hrs	Siobhan Bourke Mary Dunnion
17 July 2019	09:00hrs to 13:45hrs	Aileen O' Brien Kay Sugrue

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

- representatives of the hospital's Executive Management Board including the Deputy General Manager, the Clinical Director, and the Director of Midwifery.
- the hospital's lead consultants in each of the clinical specialties of obstetrics, anaesthesiology and paediatrics.

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

- Assessment areas where pregnant and postnatal women who presented to the hospital with pregnancy-related concerns were reviewed. These included the Emergency Department of the hospital and the Assessment Room in the Antenatal Ward.
- The Labour Ward where women were cared for during labour and childbirth.

[†] Ireland East Hospital Group comprises 11 hospitals across counties Dublin, Westmeath, Meath, Wexford and Kilkenny. Maternity services are provided in four of these hospitals namely, the National Maternity Hospital, Wexford General Hospital, Regional Hospital Mullingar and St. Luke's General Hospital, Kilkenny.

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

- The Intensive Care Unit where women who required additional monitoring and support were cared for.
- An obstetric operating theatre in the hospital's Operating Theatre Department for women undergoing surgery, for example in the case of caesarean section.
- The Special Care Baby Unit where babies requiring additional monitoring and support were cared for.
- The Postnatal Ward where women were cared for after childbirth.

Information was gathered through speaking with midwifery and nursing managers, and 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.

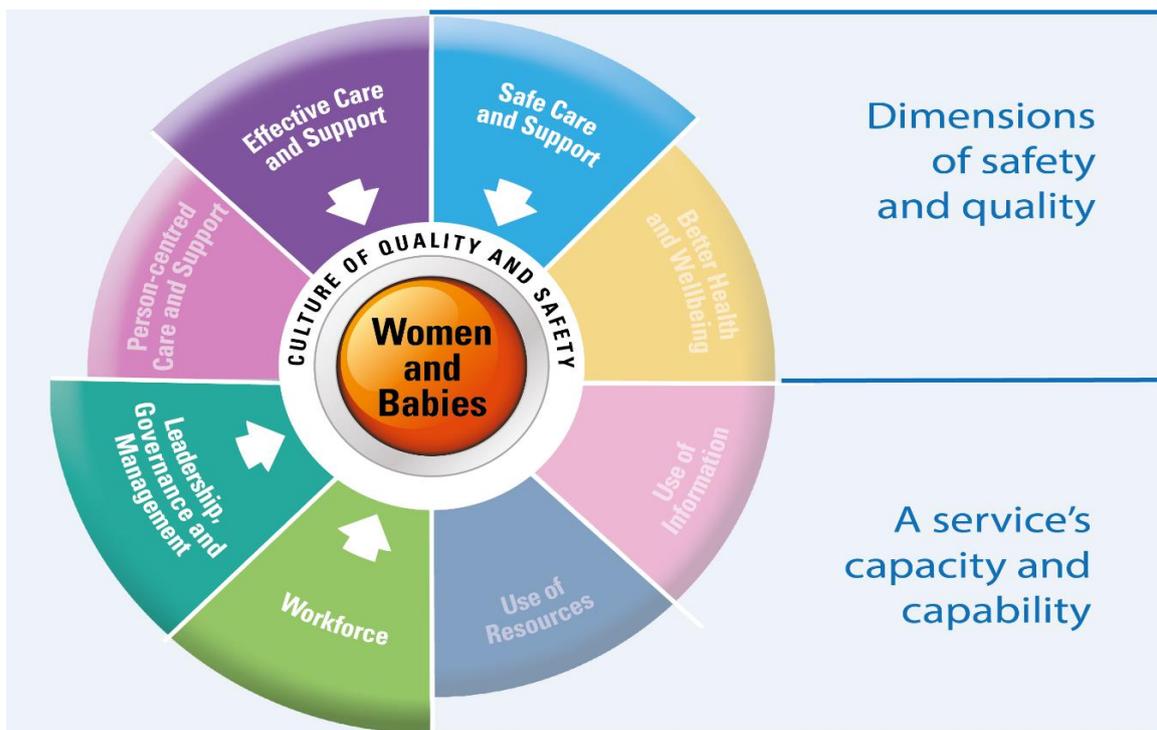
HIQA would like to acknowledge the cooperation of the hospital management team and all staff who facilitated and contributed to this unannounced inspection.

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 Guide³ 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 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 structure and corresponding National Standards and Lines of Enquiry

Report sections	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 twenty-four hours a day.

During this inspection, inspectors looked at 10 National Standards in relation to leadership, governance and management and workforce. Of these, the Regional Hospital Mullingar Hospital was compliant with six National Standards, and substantially compliant with four National Standards.

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 service and the people who fund and support it. Good governance arrangements acknowledge the interdependencies between organisational 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

At the time of inspection HIQA found that the maternity service at the Regional Hospital Mullingar was not part of a formal maternity network.[§] In 2018, Ireland East Hospital Group established a number of forums to progress a Women and Children's Health Clinical Academic Directorate to provide oversight of maternity and paediatric services across the hospital group.⁴

Ireland East Hospital Group established a Maternity Oversight Group in October 2018. This group worked to develop the structures and processes to oversee and monitor quality and safety across maternity services provided at the Regional Hospital Mullingar, and the other maternity units and maternity hospital within the Ireland East Hospital Group. This Group was chaired by the Chief Executive of Ireland East Hospital Group and the Director of Midwifery and the Clinical Director from the Regional Hospital Mullingar were members. This group met regularly and worked to improve communication and referral pathways between the maternity services within Ireland East Hospital Group. Clinical activity recorded in Maternity Patient Safety Statements^{**} for each of the maternity units were reviewed and discussed at these meetings. In March 2019, a consultant obstetrician was appointed Executive Lead of the Women and Children's Health Clinical Academic Directorate for the Ireland East Hospital Group.

In 2018, the Ireland East Hospital Group Director of Nursing and Midwifery implemented a monthly forum where directors of midwifery from the four maternity services in the group met and reviewed issues such as workforce planning and new service initiatives.

There was evidence of collaborative working between the National Maternity Hospital as the tertiary referral maternity hospital in the hospital group and the Regional Hospital Mullingar. Senior managers at the Regional Hospital Mullingar reported that the hospital had close links with the fetal medicine service at the National Maternity Hospital and clinical staff could readily access clinical expertise and advice from the National Maternity Hospital.

Although there were no formalised care pathways to ensure that women with complex high-risk pregnancies were cared for in a tertiary maternity hospital, inspectors were informed that women and newborns from the Regional Hospital

[§] The National Maternity Strategy 2016 states that smaller maternity services require formal links to larger maternity units to enable sharing of expertise and clinical services to support safe quality maternity services across the country

^{**} The Maternity Patient Safety Statement contains information on 17 metrics covering a range of clinical activities, major obstetric events, modes of delivery and clinical incidents

Mullingar were prioritised, when indicated, for admission to the National Maternity Hospital.

However, shared clinical meetings such as perinatal mortality and morbidity meetings between the Regional Hospital Mullingar's Maternity Unit and other maternity units or maternity hospital within the Ireland East Hospital Group did not occur.

There was no capacity for the rotation of medical or midwifery staff between the sites. Inspectors were informed that one consultant obstetrician had been appointed between the Regional Hospital Mullingar and the National Maternity Hospital in 2016 but that this position worked full time in the Maternity Unit at the Regional Hospital Mullingar for the previous two years and no longer rotated between the two sites.

While it was evident to inspectors that work had commenced to develop the Ireland East Hospital Group's Women and Children's Health Academic Directorate, at the time of this inspection, there were no formalised pathways for referral of women with complex pregnancies between the hospitals and the Regional Hospital Mullingar was not part of a formal maternity network under a single governance structure.

The Ireland East Hospital Group needs to progress with the development of a maternity network under a single governance framework, as recommended in the National Maternity Strategy.

Regional Hospital Mullingar leadership, governance and management

HIQA found that Regional Hospital Mullingar had a clearly defined leadership, governance and management structure to ensure the quality and safety of maternity services provided at the hospital.

The General Manager had overall managerial responsibility and accountability for the maternity service at the hospital. A newly appointed General Manager was in position for four weeks at the hospital at the time of the inspection. The General Manager at the hospital was supported in the operational management of the maternity and general hospital services by the Executive Management Group. The General Manager reported to the Chief Executive of Ireland East Hospital Group.

The hospital had a clinical directorate model in place, whereby a hospital clinical director was appointed at the hospital on a rotational basis every two years. The hospital's directorates included the:

- women's health directorate
- medicine and emergency medicine directorate
- perioperative and radiology directorate
- paediatric directorate.

The clinical lead for the Women's Health Directorate was also the clinical director for the hospital since August 2018.

Membership of the hospital's Executive Management Group included all four clinical leads for each directorate and senior operational managers at the hospital. The Director of Midwifery, who was responsible for the organisation and management of midwifery and nursing services in the Maternity Unit, was also a member of the hospital's Executive Management Group in line with National Standards. The Director of Midwifery was also responsible for the nursing service provided in the hospital's paediatric service. At the time of inspection, recruitment of an assistant director of nursing position for paediatric services was in progress. Inspectors were informed that once this position was filled, the Director of Nursing would assume responsibility for paediatric nursing services instead of the Director of Midwifery.

The hospital's Executive Management Group terms of reference indicated that the frequency of meetings was every two weeks. Senior managers informed inspectors that in practice, the group aimed to meet each month. However, a sample of meeting minutes provided to inspectors indicated that the Group met less frequently than at intervals described in their terms of reference or at interview. This should be reviewed by hospital management.

The hospital's Clinical Governance Quality and Safety Committee was chaired by the Clinical Director. Terms of reference indicated that the objectives of the committee were to support the Executive Management Group and the Clinical Director with clinical governance at the hospital. Committee meeting agenda items included clinical risk management, tracking and trending of clinical incidents, reporting of feedback from patients, clinical audits and updates from each directorate at the hospital. The terms of reference for this committee stated that the committee should meet on a monthly basis. Review of a sample of minutes of committee meetings indicated that the committee had met five times in the 12 months prior to inspection. This should be reviewed by hospital management.

The Maternity Unit held an obstetric governance meeting each month that was attended by the Director of Midwifery, midwifery and nursing managers, consultant obstetricians and a business manager. These meetings were chaired by a consultant obstetrician. A sample of minutes from these meetings provided to inspectors indicated that members of the multidisciplinary team for example the hospital's quality and safety manager, the hospital's clinical risk manager and pharmacist and physiotherapist also attended these meetings to give updates relevant to the Maternity Unit.

The Women's Health Directorate had a strategic plan for 2019 with objectives that included the following:

- recruitment of three consultant obstetricians
- development of a bereavement suite in line with the National Standards for Bereavement Care following pregnancy loss⁵
- establishment of a High Dependency Unit in the Labour Ward to avoid separation of women who required level 2⁺⁺ critical care from their babies
- expansion of the fetal ultrasound service so that all pregnant women booked into the Maternity Unit were offered fetal ultrasounds in line with National Standards
- expansion of midwifery-led clinics and development of community-based midwifery services for women
- recruitment of a social worker to support women and newborns at the hospital
- provision of a blood gas analyser in the Operating Theatre Department.

Inspectors found that the strategic plan for maternity services at the hospital did not include short, medium or long-term objectives with clear timelines in line with National Standards. This needs to be reviewed.

Statement of Purpose

The hospital's statement of purpose outlined maternity service aims, services available at the hospital, and staffing resources. This was publicly available on the hospital's website in line with the National Standards.

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.

⁺⁺ Level 2 is the level of care needed for patients requiring invasive monitoring and or intervention including support for a single failing organ system (excluding advanced respiratory support).

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.

Key findings: The frequency of Executive Management Group meetings and the hospital's Executive Quality and Safety Committee meetings were not in line with the terms of reference for these forums. Maternity network arrangements, with a single governance structure were not formalised at time of inspection.

Judgment: Substantially 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.

Key findings: The strategic plan for maternity services did not include short, medium or long term objectives with clear timelines in line with National Standards.

Judgment: Substantially 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

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 providers 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, paediatrics 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 staff

The hospital did not meet the HSE's national benchmark for midwifery staffing in line with the HSE's Midwifery Workforce Planning Project.⁶ The hospital had 65 whole time equivalent^{‡‡} (WTE) midwifery positions approved at the hospital at the time of inspection but had nine permanent vacancies. Local and overseas recruitment campaigns were ongoing at the hospital. Vacant shifts were filled by offering overtime to existing midwifery staff and the hospital also employed agency midwives who were familiar with the Maternity Unit. Internal rotation of midwives enabled hospital management to redeploy midwives to areas of high activity when required. A clinical midwife manager was in place for each shift in the Labour Ward. Clinical midwifery managers rostered on night duty in the Labour Ward were included in WTE numbers so therefore at times of high activity were not always supernumerary. Women in established labour in the Labour Ward had one to one support from a midwife.

The Special Care Baby Unit had approval for 11 WTE nursing and midwifery staff and 10 of these positions were filled at the time of the inspection.

The Operating Theatre Department was staffed with a roster of three staff nurses who were on call for emergency surgery including caesarean sections that were performed outside of core working hours.^{§§} Contingency arrangements were in place at the hospital to staff a second operating theatre to manage concurrent emergency surgery cases outside of core working hours. These arrangements relied on operating theatre nurses who lived near the hospital who would be contacted to

‡‡ Whole-time equivalent: one whole-time equivalent employee is an employee who works the total number of hours possible for their grade. WTEs are not the same as staff numbers as many staff work reduced hours.

§§ The Self-assessment tool submitted by the Regional Hospital Mullingar reported that core working hours for the operating theatre at the hospital were from 09.00hrs to 17.00hrs Monday to Friday.

attend in an emergency situation. Inspectors were informed that there was one episode of concurrent emergency surgeries outside of core working hours in the Operating Theatre Department in 2019 and none in 2018.

Specialist support staff

Two of four fetal ultrasonographer positions were vacant at the time of inspection. Two midwives from the hospital were undertaking specialist training and education in fetal ultrasonography at the time of inspection so that these positions could be filled.

The hospital employed a clinical skills facilitator who worked with midwifery staff to support them to develop their required skills and competencies.

The hospital did not employ a social worker. At the time of inspection, clinical staff at the Regional Midlands Hospital accessed support and advice from community-based social work services for women and newborns as required. Inspectors were informed that Ireland East Hospital Group had recently appointed one WTE social worker, based at the National Maternity Hospital to provide social work support to the three maternity units in the Ireland East Hospital Group. Maternity service providers should ensure that women have timely access to social workers, as appropriate, in line with the National Standards.

Medical staff availability

On-call consultant obstetricians, anaesthesiologists and paediatricians were accessible to medical and midwifery staff and staff who spoke with inspectors said that they were onsite promptly when called to attend. The hospital was staffed with medical staff at specialist registrar, registrar and senior house officer grade in the specialties of obstetrics, anaesthesiology and paediatrics 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.

All consultants employed on permanent contracts across the specialties of obstetrics, anaesthesiology and paediatrics were registered as specialists with the Medical Council in Ireland. There was some dependency on locum consultant medical staff in the specialties of obstetrics, anaesthesiology and paediatrics at the hospital. The hospital experienced difficulty with the recruitment of permanent consultant obstetricians, consultant paediatricians. Despite ongoing recruitment a number of these positions remained vacant.

Obstetrics

The hospital had approval for six WTE permanent consultant obstetricians at the hospital. Four of these positions were filled at the time of inspection. Three of these positions were filled on a permanent basis and the fourth position was filled by a locum

consultant obstetrician on a long-term basis. Recruitment of permanent consultant obstetrician positions was due to commence. Inspectors were informed that these new consultant obstetrician positions would have arrangements in place for rotation to the National Maternity Hospital for three hours to six hours each week.

At the time of inspection, consultant obstetricians were on call one in every three nights. HIQA is of the view that this level of consultant obstetrician staffing does not enable a sustainable on-call rota. A consultant obstetrician was rostered to be on call for the Labour Ward from Monday to Friday during core working hours and was free from other duties during this time. A rota of two non-consultant hospital doctors in obstetrics, one at registrar grade and one at senior house officer grade were on-call onsite in the Maternity Unit 24 hours a day.

Anaesthesiology

The hospital had five WTE consultant anaesthesiologists employed at the hospital. Four of these positions were filled on a permanent basis and one position was filled by a long term locum consultant anaesthesiologist. All five consultant anaesthesiologists were on the specialist register of the Irish Medical Council. These consultant anaesthesiologists were responsible for providing anaesthetic services for the Emergency Department, Intensive Care Unit, general surgery and the Maternity Unit. During core working hours two consultant anaesthesiologists were assigned to the Operating Theatre Department, one consultant anaesthesiologist was assigned to the Intensive Care Unit and another consultant anaesthesiologist was assigned to the Maternity Unit.

The hospital had an on-call rota outside of core working hours for consultant anaesthesiologists whereby consultants were on call usually one in every five nights. National Standards recommend that specialised birth centres^{***} have resident on-call non-consultant hospital doctors in anaesthesiology and a dedicated obstetric anaesthesiology service.¹ During and outside core working hours one registrar in anaesthesiology was on call onsite and assigned to the Maternity Unit. A second registrar in anaesthesiology was on call onsite outside of core working hours for the general hospital. Inspectors were informed that this arrangement ensured that the hospital had a dedicated obstetric anaesthesiology service in line with National Guidelines.⁷

Paediatrics

Neonatal care at the hospital was led by consultant paediatricians. The hospital had approval for six WTE consultant paediatrician positions. At the time of the inspection three of these positions were filled on a permanent contract. One of the permanent consultants was on long-term leave and the hospital employed two locum consultant

*** A specialised birth centre is a delivery suite or labour ward in a maternity unit or maternity hospital.

paediatricians. All four consultant paediatricians were on the specialist register of the Irish Medical Council. The hospital was actively recruiting to fill the vacant consultant paediatrician positions since 2017. At the time of the inspection, consultant paediatricians at the hospital were on call one in every four nights.

A rota of two non-consultant hospital doctors in paediatrics, one at registrar grade and one at senior house officer grade was in place to provide emergency neonatal care at the hospital 24 hours a day.

2.2.3 Training and education of multidisciplinary staff

Mandatory training requirements

The hospital had defined mandatory training requirements for clinical staff. Clinical staff were expected to undertake training aligned to their clinical responsibilities for example in relation to basic life support, neonatal resuscitation, sepsis, the Irish Maternity Early Warning System (IMEWS), the management of obstetric emergencies and electronic fetal monitoring.

In February 2019, the Regional Hospital Mullingar implemented a new programme to provide multidisciplinary team-based training for the management of obstetric emergencies. To facilitate this programme, a team comprising a consultant obstetrician, a consultant anaesthesiologist and midwives had completed a training programme in the United Kingdom. The hospital had provided one course of the new programme in February 2019 and had planned to provide the course four times each year to replace the hospital's previous training programme around the management of obstetric emergencies.

At the Regional Hospital Mullingar, obstetric medical staff were required to undertake training in the management of obstetric emergencies every two years and electronic fetal monitoring training every year. Midwifery staff were required to complete a fetal monitoring training programme online every year and also to attend a fetal monitoring study day every two years provided by the Centres for Midwifery Education in the three Dublin Maternity Hospitals. Midwifery staff were also required to undertake training in the management of obstetric emergencies every two years.

The Maternity Unit also provided a mandatory two-day in-service training programme for midwives and nursing staff which included areas of practice such as basic life support, electronic fetal monitoring, and updates on obstetric emergencies and neonatal resuscitation.

Paediatric medical staff, midwifery staff and neonatal nursing staff were required to undertake a neonatal resuscitation training programme every two years. A neonatal resuscitation training programme was provided at the hospital six times each year.

Anaesthetic medical staff were required to undertake basic life support, advanced cardiovascular life support and training in the management of obstetric emergencies every two years.

Uptake of mandatory training

Overall inspectors found that attendance at mandatory training within the required timeframes by midwives and nursing staff was good at the hospital.

Training records provided to inspectors in relation to the uptake of training in electronic fetal monitoring indicated that 92% of midwives and 60% of obstetric medical staff had undertaken fetal monitoring training within the required timeframe.

Ninety three percent of midwives and 60% of obstetric medical staff had completed multidisciplinary training in the management of obstetric emergencies in the previous two years. Inspectors were informed that as a number of non-consultant medical staff had commenced employment at the hospital in the week preceding the inspection, they were in the process of completing mandatory training at the hospital.

All nursing staff in the Special Care Baby Unit and 86% of midwives had completed neonatal resuscitation training. All paediatric medical staff were up to date with neonatal resuscitation training.

Ninety percent of medical staff and 80% of midwifery staff in the Maternity Unit had completed basic life support in the previous two years.

Hospital management should ensure that medical staff are up to date with mandatory training in the management of obstetric emergencies and electronic fetal monitoring as relevant to their scope of practice.

Orientation and training of new staff

Medical, midwifery and nursing staff were provided with induction training when commencing employment at the hospital. Discipline-specific induction booklets and packs were provided to new staff. The hospital held a two-day induction programme for non-consultant hospital doctors in January and July each year. The induction programme was provided by members of the multidisciplinary team at the hospital on areas of practice such as infection prevention and control, sepsis management, accessing laboratory services and clinical risk management. The Maternity Unit had an orientation and induction programme for newly registered midwives and newly employed midwives.

Other training and education opportunities for staff

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

The hospital held regular meetings each week to provide teaching and learning opportunities for non-consultant hospital doctors in obstetrics, anaesthesiology and paediatrics.

In 2018 the Maternity Unit introduced weekly cardiotocography ⁺⁺⁺ meetings that were facilitated by a consultant obstetrician, an obstetric registrar and the midwifery clinical skills facilitator. These meetings were attended by midwives and obstetric medical staff. Clinical staff who spoke with inspectors reported that these meetings enhanced learning in cardiotocography interpretation.

The clinical skills facilitator in the Maternity Unit organised skills and drills training for the management of obstetric emergencies for clinical staff in the Maternity Unit every two months and for management of obstetric emergencies in the operating theatre every six months. Written feedback was provided to clinical staff on what worked well and what needed to improve following these drills to facilitate learning.

Anaesthetic staff provided regular skills and drills training in the management of an unanticipated difficult airway in the Operating Theatre Department.

The hospital also had a lunch and learn session each week. These sessions provided updates on quality improvement projects for frontline clinical staff.

Table 4 on the next page 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.

⁺⁺⁺ 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 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

Key findings: Deficiencies existed in relation to consultant obstetrician, consultant paediatrician, consultant anaesthesiologist and midwifery staffing levels.

Judgment: Substantially 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: Not all obstetric medical staff were up to date with mandatory training in the management of obstetric emergencies and electronic fetal monitoring.

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 Regional Hospital Mullingar was compliant with nine National Standards, substantially compliant with one National Standard 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

The Regional Hospital Mullingar provided maternity services for women with normal, medium and high-risk pregnancies. In line with the National Standards, each woman and infant had a named consultant with clinical responsibility for their care.

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

The hospital had agreed pathways in place 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 women included:

- an early pregnancy assessment unit
- a fetal assessment unit
- consultant-led antenatal clinics
- midwife-led antenatal clinics
- a combined endocrine and antenatal clinic for women with diabetes mellitus and gestational diabetes.

The hospital had an early pregnancy assessment unit that expanded its opening hours in 2019 from 08.30hrs to 17.00hrs every weekday. Women were referred to this unit by their general practitioner or obstetric team. The early pregnancy assessment unit was led by a midwife with specialist training in fetal ultrasonography who reported to one of the consultant obstetricians with clinical responsibility for the service. The fetal assessment unit was open four days a week from 14.00hrs to 17.00hrs.

Pregnant women at risk of developing complications, who were referred by their general practitioner for booking at the hospital, were assessed at one of the consultant-led antenatal clinics with multidisciplinary care provided by midwives and doctors. The hospital also provided a combined obstetric and endocrine clinic for women with pre-pregnancy or gestational diabetes mellitus. Consultant-led outreach antenatal clinics were provided in Tullamore and Longford.

Women with normal risk pregnancies who were referred by their general practitioner could attend midwife-led antenatal clinics either at outreach clinics that were provided in Longford and Tullamore or at the hospital.

In line with National Standards, the hospital increased its resources and staffing levels to provide all women booked at the Maternity Unit with a dating fetal ultrasound scan in the first trimester of pregnancy and a detailed fetal assessment ultrasound scan at 20–22 weeks' gestation. The hospital had implemented a service-

level agreement with a private fetal ultrasonography service to provide first trimester dating fetal ultrasounds to all women who booked at the hospital. These ultrasound scans were provided both at the hospital and at an outreach clinic in Longford. Two midwives had completed training and education in fetal ultrasonography to provide detailed fetal assessment ultrasound scans for pregnant women at 20–22 weeks' gestation. Two additional midwives were progressing with training and education in fetal ultrasonography at the time of the inspection. Since May 2019, fetal ultrasound scans were offered to all pregnant women, who booked for maternity care, at intervals recommended in the National Standards.

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 a week. During and outside core working hours women up to 20 weeks gestation attended the Emergency Department where they were reviewed by medical staff from the obstetric team.

During and outside of core working hours, women at greater than 20 weeks gestation and women in labour were reviewed in the assessment room in the Antenatal Ward which was located beside the Labour Ward. Women who required admission for pregnancy-related concerns were admitted to the antenatal and gynaecology ward in the Maternity Unit.

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

3.1.2 Access to specialist care and services for women and newborns

Where preterm birth at 32 weeks gestation or less was anticipated, women were referred to a specialist maternity hospital with higher level neonatal intensive care facilities in line with current national guidelines.⁸

There were no formalised care pathways for the transfer of women and neonates to the specialist maternity hospital, the National Maternity Hospital in Ireland East Hospital Group. However, as outlined previously, inspectors were informed that in practice, the National Maternity Hospital was the first hospital contacted if a pregnant woman or newborn infant required transfer for specialist maternity or neonatal care. Inspectors were informed that over 80% of women and neonates requiring specialist care in Regional Hospital Mullingar were transferred to the National Maternity Hospital. If the National Maternity Hospital did not have bed capacity to admit the woman or newborn, transfer to another Dublin maternity hospital was arranged.

If pregnant women with complex cardiac conditions needed specialist cardiac care, inspectors were informed that the hospital on occasion required support from other tertiary hospitals to facilitate this. For example if women needed to give birth in the Mater Misericordiae University Hospital, the maternity and neonatal team at the Rotunda Hospital would be contacted to arrange this.

Access to clinical specialists

As the Maternity Unit was co-located with a general hospital, pregnant and postnatal women who presented to the Maternity Unit with a surgical or medical condition unrelated to pregnancy were referred to medical or surgical teams who were available onsite.

Women who developed medical or surgical complications during pregnancy had access to general surgeons and medical consultants in cardiology, respiratory medicine, endocrinology and psychiatry when required. There was 24-hour access to advice from consultants in the specialties of haematology and microbiology at the hospital.

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 anaesthesia for women in labour and for the provision of anaesthesia for women who require caesarean section and other surgery during birth. Guidelines recommend that there is a duty anaesthesiologist immediately available to attend women in the Labour Ward 24 hours a day.⁷

The anaesthetic service in the Maternity Unit was led by a consultant anaesthesiologist with specialist training in obstetric anaesthesia. The anaesthetic service was staffed by anaesthesiologists from the general anaesthetic rota at the hospital. The anaesthetic rota was arranged so that a duty anaesthesiologist was immediately available to attend women in the Labour Ward 24 hours a day.

Outside of core working hours, the hospital had an on-call rota whereby a consultant anaesthesiologist was on call from home and two registrars in anaesthesiology were on call on site at the hospital. One of the registrars was allocated to respond immediately to the Maternity Unit.

††† 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.

Guidelines⁷ 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 had an anaesthetic pre-assessment service where pregnant women with risk factors for anaesthesia or a history of previous complications during anaesthesia were reviewed. This service operated five days a week and included telephone assessment and or clinic appointment with a clinical nurse specialist. Women with anticipated anaesthetic risks were reviewed by a consultant anaesthesiologist as indicated and a detailed anaesthetic care plan was included in the healthcare record. Alerts were communicated from the anaesthetic pre-assessment service to operating theatre staff to highlight care requirements for patients with anticipated anaesthetic risks.

Critical care

Pregnant and postnatal women were cared for in the Intensive Care Unit at the hospital if their condition necessitated level 2 or level 3^{§§§} critical care. The Maternity Unit was not resourced or equipped to facilitate the provision of level 2 critical care similar to a number of smaller maternity units in Ireland,⁹ National Standards recommend that specialised birth centres^{****} have a high-dependency or observation unit to manage the clinically deteriorating woman. Inspectors were informed that the hospital had submitted a business case to Ireland East Hospital Group to seek funding to develop a high dependency unit in the Labour Ward in 2019. At the time of inspection, approval for this funding was awaited.

The hospital had a combined critical care unit with six beds which could provide high dependency care, coronary care and level 3 intensive care. The Critical Care Unit was managed under the governance of the Department of Anaesthesia.

Pregnant and postnatal women who required cardiovascular monitoring and or intensive care, for example women with severe pre-eclampsia, sepsis or massive obstetric haemorrhage, were cared for in the Intensive Care Unit at the hospital. Admission to the Intensive Care Unit was authorised by the consultant anaesthesiologist on-call for the hospital. The hospital had a policy in place for the admission of a pregnant or postnatal woman to the Intensive Care Unit.

Following initial assessment and admission to the Intensive Care Unit, women were reviewed jointly by a consultant obstetrician and a consultant anaesthesiologist every

^{§§§} Level 3 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.

^{****} A specialised birth centre is a delivery suite in an Irish maternity unit or maternity hospital.

day and more frequently as required. Midwifery review and care was provided by midwives from the Labour Ward as needed. Information provided to inspectors indicated that 13 women were transferred to the Intensive Care Unit between January 2018 and June 2019.

Neonatal care

The hospital had a Level 1 neonatal unit (local unit).⁸ In line with the model of care for neonatal services in Ireland, this meant that the hospital provided special care for premature infants born at greater than 32 weeks gestation and for sick term infants. Medical care for infants admitted to the Special Care Baby Unit was provided by one of four consultant paediatricians working at the hospital who undertook newborn care as part of their duties and on-call roster. The Special Care Baby Unit provided Continuous Positive Airway Pressure (CPAP)^{†††} to babies over 32 weeks who required it.

Newborns that required therapeutic cooling^{‡‡‡} for neonatal encephalopathy had passive cooling commenced at the hospital and were then transferred to the National Maternity Hospital or one of the other Dublin Maternity Hospitals. Urgent transfers of newborns requiring neonatal intensive care were organised through the National Neonatal Transport programme.^{§§§} The Special Care Baby Unit at the hospital again provided care for these babies when they were transferred back from the specialist hospital for ongoing care. Twenty six babies were transferred out of the Special Care Baby Unit from January 2018 to June 2019.

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. There was an established procedure for requesting support for obstetric and neonatal emergencies whereby a multidisciplinary response team could be summoned for an emergency by telephoning the hospital emergency number. A specific emergency number differentiated maternal and neonatal emergencies from the cardiac arrest emergency alert.

††† Method of maintaining low pressure distension of lungs during inspiration and expiration when infant breathing spontaneously.

‡‡‡ 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 maternity hospitals in Dublin and Cork.

§§§ The National Neonatal Transport Programme is a retrieval service for the stabilisation and transportation of premature and sick neonates up to the age of six weeks corrected gestational age, who require transfer for specialist care within Ireland and abroad. The service operates 24 hours a day seven days a week.

In response to recommendations arising from a patient safety investigation at the hospital, the hospital had reviewed the processes and procedures to communicate with staff required for emergency caesarean sections. A direct telephone line was installed to link the Labour Ward with the Operating Theatre Department. This telephone line facilitated rapid access to operating theatre staff during the day.

Outside of core working hours there was a formal procedure in place for communication between the Labour Ward, anaesthetic team and operating theatre staff.

Multidisciplinary handover

There were formal arrangements in place for multidisciplinary clinical handover in each of the inpatient clinical areas inspected. Multidisciplinary clinical handover took place every morning in the Labour Ward when the on-call obstetric team handed over to the obstetric team on duty in the morning and this was repeated in the evening to hand over to the on-call team on duty. This clinical handover was led by the consultant obstetrician on-call for the day. Clinical midwifery managers from clinical areas also attended the morning handover in the Labour Ward. Clinical activity levels in the Maternity Unit, any high risk pregnancies and potential patient safety concerns were discussed and planned at this handover. Short staff meetings called safety pauses were conducted in the Labour Ward, the Postnatal Ward and the Special Care Baby Unit twice a day to discuss key safety issues after each change of shift.

The hospital had developed a proforma to communicate information to the paediatric team about women with complex pregnancies who had been referred to give birth in the National Maternity Hospital. This was to ensure that the paediatric team were informed of the planned care for these newborns if these women presented to the Regional Hospital Mullingar in labour.

The anaesthesiologist on duty was informed by midwifery staff when women with known anaesthetic risks were admitted. Clinical assessment information from the anaesthetic pre-assessment clinic was included in the woman's healthcare record.

There were a number of clinical situations where relevant obstetric, anaesthesiology or paediatric consultants were routinely notified so that they could be in attendance at birth. These included, for example, massive obstetric haemorrhage, anaesthetic risks, medical comorbidities, difficult caesarean section, placental abnormalities or anticipated complex neonatal issues. It was practice for the most senior non-consultant hospital doctors^{*****} on-call to discuss complex cases and transfers with the consultant obstetrician on-call.

***** Non-consultant hospital doctor (NCHD) is a term used in Ireland to describe qualified medical practitioners who work under the (direct or nominal) supervision of a consultant in a particular speciality

Inspectors were informed that the on-call consultant obstetrician conducted daily ward rounds with members of the obstetric team in the Labour Ward during and outside of core working hours including Saturdays, Sundays and public holidays. The consultant obstetricians not on call also conducted ward rounds every week day to review women they were clinically responsible for.

Clinical staff used the Identity-Situation-Background-Assessment-Recommendation (ISBAR) communication format to communicate information about patients in line with national guidelines.¹⁰

Other findings relevant to communication

There was a clear process in place to inform clinical staff about external and internal safety alerts concerning medicines and medical equipment. All information and the responses relating to safety alerts (external and internal) were shared in electronic ward communication folders and during safety pauses at shift handovers.

Medical and midwifery staff who spoke with inspectors said that they would have no hesitation about contacting a consultant if they had concerns about the wellbeing of a woman or baby or when advice or additional support was needed. Staff who spoke with inspectors were clear about who was the most senior doctor to be called in line with the Irish Early Maternity Warning System escalation process.¹¹

3.1.4 Written policies, procedures and guidelines

The hospital had a comprehensive suite of up-to-date policies, procedures and guidelines in relation to maternal and neonatal care and obstetric emergencies. These were readily accessible to staff electronically from the computer desktops in all clinical areas visited by inspectors. Governance and oversight for the development and ratification of all policies, procedures and guidelines relating to maternal and obstetric care was overseen by a multidisciplinary committee that met every second month.

The Maternity Unit had a standardised procedure for the estimation and measurement of maternal blood loss. A safe surgery checklist⁺⁺⁺⁺ was completed for emergency and elective surgical procedures in obstetric operating theatres in line with best practice recommendations. The hospital conducted an audit in May 2019 that showed 100% compliance with the use of the safe surgery checklist in the operating theatre.

⁺⁺⁺⁺ A safe surgery 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.

3.1.5 Maternity service infrastructure, facilities and resources

Overall, the infrastructure and design of the Maternity Unit was outdated and did not meet recommended specifications for maternity services.¹²

Assessment areas

Emergency Department

The designated area within the Emergency Department for the assessment of pregnant women was located in the main assessment bay and was one of eight bays. Due to the limited privacy afforded by this assessment area, a single room with ensuite facilities was used when possible, to accommodate women presenting for assessment. However, inspectors were informed that availability of this room was limited due to Emergency Department activity levels. This should be addressed.

Antenatal Assessment Room

Women who presented who were greater than 20 weeks gestation were reviewed in a two-bedded assessment room in the antenatal ward that was adjacent to the Labour Ward. This room was equipped to assess maternal and fetal wellbeing.

Postnatal ward

The Maternity Unit had a postnatal ward with 26 beds. The ward had five four-bedded rooms, five single rooms and one isolation room. The wards were spacious enough to accommodate cots at the bedside.

Labour Ward

The Labour Ward had four single rooms. One of these rooms was renovated and refurbished to provide a home from home labour room for women with normal risk pregnancies. This room known as "The Serenity Room" was equipped to provide a less clinical environment to support women in labour. All emergency equipment was readily available in this room should it be required for an obstetric emergency.

Critical Care

The Critical Care Unit at the hospital was a combined Coronary Care Unit, High Dependency Unit and Intensive Care Unit with six beds. The Unit had two single rooms and four beds in an open plan room. The Intensive Care Unit did not have an isolation room and this was recorded as a risk on the hospital's risk register. Overall, the infrastructure of the Intensive Care Unit was outdated and did not meet the specifications of a modern critical care facility.¹³

Operating theatre for obstetric surgery

National Standards recommend that an obstetric operating theatre is in or adjacent to the labour ward.¹ The Operating Theatre Department at the hospital was located on the floor below the Maternity Unit. Inspectors were informed that it took between two to four minutes to transfer a woman from the Labour Ward to the Operating Theatre Department for an emergency caesarean section. There was a written pathway in place outlining the process for transfer of women who required an emergency caesarean section. Rapid access to the operating theatre for emergency surgery was facilitated through the use of a lift override system. The hospital had purchased portable fetal monitoring equipment to facilitate fetal monitoring during transfer to the operating theatre for women undergoing emergency caesarean sections.

There was 24-hour access to emergency obstetric surgery at the hospital. One operating theatre was available for emergency surgery such as emergency caesarean sections at all times.

The Operating Theatre Department comprised three operating theatres and a post anaesthetic care unit. Inspectors found that the operating theatre complex did not meet recommended infrastructural specifications for a modern surgical facility.¹⁴ The hospital had identified the infrastructural deficiencies within its current operating theatre facility as a risk and had plans for the development of a new operating theatre complex comprising four new operating theatres. However, implementation of these plans was dependent on approval of capital funding. In the interim, hospital management should ensure the use of current operating theatre capacity should be closely monitored and risk assessed.

Special Care Baby Unit

The Special Care Baby Unit was a Level 1 neonatal unit and provided special care for premature infants born at greater than 32 weeks gestation and for sick term infants. The Special Care Baby Unit was staffed and equipped to provide Level 1 neonatal care for five babies in either cots or incubators in an open plan area. There was one isolation room with an ante room. A large well-equipped resuscitation room was in place to accommodate one or more neonates if required.

Laboratory services

Blood and blood replacement products were accessible when required in an emergency for women and infants. 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 inspected had emergency resuscitation equipment for women and newborns. This equipment was checked every day.

The Operating Theatre Department was equipped with supplies and equipment for unanticipated difficult airway management in line with best practice guidelines.¹⁵

Emergency supplies and medications were readily available in the clinical areas inspected to manage obstetric emergencies such as maternal haemorrhage, pre-eclampsia and neonatal resuscitation. Cardiotocography^{†††††} machines for fetal monitoring viewed by inspectors were 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.

Key findings: Pathways for the transfer of women who required specialist maternity care to the tertiary maternity hospital in the Ireland East Hospital Group were not formalised.

Judgment: Substantially 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 was not in line with recommended guidelines in the operating theatre, the Labour Ward and the Maternity Unit. There was limited access to a dedicated room with ensuite toilet facilities in the Emergency Room for women who required assessment.

Judgment: Non-compliant

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 2.8 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 if learning was shared across the service. The inspectors 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.

3.2.1 Maternity service risk management

The hospital had systems in place to identify and manage risk. Risks in relation to the maternity service were recorded in a maternity service risk register along with agreed risk treatment measures. Risks were also recorded in the hospital risk register. The risk register was reviewed and updated on a quarterly basis by hospital management at executive quality and safety governance meetings. Risks that could not be managed at hospital level were escalated to the Ireland East Hospital Group. Risks recorded in these risk registers relevant to this monitoring programme included:

- lack of an obstetric theatre adjacent to the Labour Ward
- lack of a High Dependency Unit in the Labour Ward
- shortage of consultant obstetricians
- midwifery staffing vacancies
- maternity social worker vacancy
- operating theatre capacity.

The distance and location of the operating theatre in relation to the Maternity Unit was documented as a risk on the maternity risk register. Controls in place to mitigate this risk included early identification of women who may require emergency surgery, the use of an emergency override key for the lift and the practice of emergency skills and drills to keep staff up to date with the process of transferring women to the operating theatre urgently.

The lack of a dedicated high dependency unit in the Maternity Unit was also recorded on the risk register. Controls in place to manage this risk were that the hospital had access to the critical care beds located in the Intensive Care Unit in the hospital. Eighty percent of midwives at the hospital had completed extra training on high dependency maternity care. As outlined previously, the hospital team had also submitted a business plan for funding to develop a High Dependency Unit in the Maternity Unit in 2018 but funding had yet to be secured.

The risk associated with high level of activity in the operating theatre was also recorded on the hospital risk register. A quality improvement initiative was underway in the operating theatre to manage theatre activity and reduce delays to increase current capacity. As outlined in Section 3.1.5 capital funding for a new operating theatre was yet to be approved.

Clinical incident reporting

Inspectors found that there was an established practice of incident reporting at the Maternity Unit and staff who spoke with inspectors were aware of their responsibility to report clinical incidents.

The hospital had a Clinical Incident Management Committee which met regularly where reported clinical incidents including serious reportable events^{§§§§§} and serious incidents from the Maternity Unit and the general hospital were reviewed and discussed. Membership of this committee included the General Manager, the Clinical Director, the Director of Midwifery, the Director of Nursing and the hospital's Clinical Risk Manager. The Clinical Incident Management Committee reported to the hospital's Executive Quality and Safety Committee. Patient safety incidents were reported onto the National Incident Management System^{*****} in line with national guidelines.¹⁶

Feedback from women

There was a formalised process to monitor and respond to complaints. Complaints and compliments were a standing item on the agenda of the hospital's Executive Quality and Safety Committee meetings. In 2019, women who used the home from home room for labour and birth were surveyed to seek their views on their experience of using the room. Overall, women who completed the survey reported positively on their experience. In 2018, the hospital completed a survey of women's satisfaction with their maternity care. Overall the survey findings were positive with suggestions for improvement required in relation to provision of special diets.

3.2.2 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 HSE's Office of the National Women and Infants Health Programme and the National Clinical Programme for Obstetrics and Gynaecology.¹⁷ This

§§§§§ The Health Service Executive developed a list of Serious Reportable Events (SREs) in 2015 as a defined subset of incidents. The HSE requires that SREs are mandatorily reportable by services to the Senior Accountable Officer of the service.

***** The State Claims Agency (SCA) National Incident Management System (NIMS) is a risk management system that enables public hospitals to report incidents in accordance with their statutory reporting obligations.

information also allows individual maternity units and maternity hospitals to benchmark performance against national rates over time. The hospital published monthly maternity patient safety statements⁺⁺⁺⁺⁺ in line with national HSE reporting requirements.

Irish Maternity Indicator System data and clinical audit data was reviewed at monthly obstetric governance meetings. Through reviewing this information, senior managers had identified an increase in rates of induction of labour at the Maternity Unit. In response to these findings, a clinical audit to review the incidence and indications for induction of labour was undertaken at the hospital. The findings from this audit were reviewed at the obstetric governance meetings.

Hospital management was also aware that caesarean section rates at the hospital were higher than the national rate. In 2018 information provided to inspectors indicated that caesarean section rates at the hospital were 35.2%. Internationally, the rate of caesarean section has risen steadily over the last number of decades with wide variation in caesarean section rates among countries. Ireland's caesarean section rate is above the average rate for Organisation for Economic Cooperation and Development (OECD) countries.¹⁸ Due to considerable variation in caesarean section rates across Ireland, maternity services are advised to analyse their deliveries and outcomes using the Robson 10-Group Classification Scheme.⁹

The hospital used the Robson 10 Group Classification Scheme for assessing, monitoring and comparing caesarean section data for women at the hospital.⁹ Midwifery metrics in relation to care planning, medication and guideline implementation were monitored monthly at the hospital.

Clinical audit

Service providers should regularly audit the care provided to women and their babies to ensure that it is being provided in line with the National Clinical Effectiveness Committee's National Clinical Guidelines and HSE national programme guidelines.¹ The Maternity Unit developed a planned programme of clinical audit for 2018 and 2019 that was overseen by the Clinical Director. The hospital had a dedicated clinical audit nurse who supported clinical staff with completing the clinical audit cycle by assisting them with reporting, developing recommendations and assigning reaudit dates. A hospital policy was in place to support best practice with clinical audit management.

Multiple clinical audits undertaken in the maternity service in the previous 12 months included audits in relation to the following:

+++++ The Maternity Patient Safety Statement contains information on 17 metrics covering a range of clinical activities, major obstetric events, modes of delivery and clinical incidents

- postpartum haemorrhage
- management of pulmonary embolus
- the efficacy of the home from home room
- management of obstetric anal sphincter injury
- compliance with midwifery clinical handover
- compliance with Irish Maternity Early Warning System
- compliance with checking of emergency trollies
- surgical site infection surveillance.

In 2018, an audit of the incidence and causes of postpartum haemorrhage in the Maternity Unit was conducted. Findings from this audit indicated that hospital had higher rates of postpartum haemorrhage than the national rate. Recommendations from this audit were to review the process and documentation of collection and measurement of blood loss for women during surgery. Following implementation of this recommendation, the hospital planned to repeat the audit in July 2019 to ascertain if this rate was now lower.

A clinical audit of compliance with guidelines on the management of obstetric anal sphincter injuries⁺⁺⁺⁺⁺ was completed in June 2018 at the hospital. This audit found that there was good compliance with aspects of the guideline in relation to follow up with a physiotherapist, medication management and referral to the perineal clinic in the National Maternity Hospital. Areas for improvement identified were improving documentation, ensuring this type of perineal suturing was undertaken in the operating theatre, and ensuring women were reviewed six weeks after birth at the hospital. An action plan was developed and implemented from these recommendations and education was provided to clinical staff. The hospital also introduced a care bundle^{§§§§§} aimed at reducing the incidence of obstetric anal sphincter injuries.

An audit of compliance with use of the Identify, Situation, Background, Assessment, Recommendations (ISBAR) communication tool for midwife to midwife handover was completed in March 2019. Compliance rates of 72% were found and areas requiring improvement were found to be in relation to recording of documentation of

+++++ Many women experience tears to the vaginal and perineum during childbirth. Obstetric anal sphincter injuries are also known as third and fourth degree perineal tears. These types of tears usually occur unexpectedly during childbirth and it is not possible to predict these types of tears. These are tears that involve the muscle (the anal sphincter) that controls the anus, known as a third degree tear. If the tear extends into the lining of the anus or rectum, it is known as a fourth degree tear. (HSE Clinical Practice Guideline: Management of obstetric anal sphincter injury. Institute of Obstetricians and Gynaecologists and Directorate of Clinical Strategy and Programmes, HSE. 2014).

§§§§§ Care bundle is a small straight forward set of evidenced based practices that when performed collectively and reliably have been proven to improve patient outcomes.

recommendations. Action plans were developed following the audit which included education for clinical staff and revision of the existing template.

An audit to assess compliance with checking the emergency trolley was undertaken in the Labour Ward, the Postnatal Ward and the Antenatal Ward in November 2018. While compliance with completion of the checklist was 100% in the Postnatal Ward, the Labour Ward and Antenatal Ward scored 66% and 83% respectively. Recommendations for improvement included reminding staff of the importance of checking the trolley at the safety pause at handover each day and designation of a named person to check the trollies each day. A repeat of this audit in July 2019 found 100% compliance in all clinical areas.

Annual clinical report

The hospital published an annual clinical report that included a Women's Health Directorate and Paediatric Directorate report with maternal and neonatal outcomes.

Maternal and perinatal morbidity and mortality multidisciplinary meetings

Multidisciplinary maternal and perinatal mortality and morbidity meetings were held every month in the hospital. Attendance records reviewed by inspectors indicated that these meetings were well attended by midwifery, paediatric and obstetric medical staff. Learning from perinatal mortality and morbidity meetings was shared with staff at clinical handover.

3.2.3 Quality improvement initiatives

The hospital had a structured quality improvement programme in place to drive improvement in relation to the quality and safety of care. Midwives and midwifery managers at the hospital established a forum where suggestions and proposed action plans to drive quality improvement for women and their babies could be discussed and planned. This forum were working to progress with the development of a bereavement room in the Maternity Unit. Other initiatives under review by this group were promoting upright positions for birth and supporting women to be active during labour.

The hospital had engaged with an external company to implement a number of quality improvement projects aimed at improving the quality and safety of care provided at the hospital. Inspectors reviewed examples of these improvement initiatives in relation to improving the pathway for women who experienced miscarriage and required surgery. The operating theatre had also developed a quality improvement initiative to improve the efficiency of the patient pathway through the operating theatre complex.

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

- Renovation and refurbishment of a labour ward room to provide a less clinical environment to support women with normal risk labours. Known as the “Serenity Room”, this room was equipped birthing aids.
- The hospital introduced a care bundle aimed at reducing the number of obstetric anal sphincter injuries.
- “Thoughts before and after birth midwife” was initiated to provide women with an opportunity to discuss their concerns or queries about previous or current pregnancies with an experienced midwife.
- A lunch and learn initiative was implemented at the hospital where weekly education sessions were available to staff.
- A quality improvement initiative was underway at the hospital to ensure newborns maintained their temperatures after birth in the operating theatre and the Maternity Unit.
- A weekly cardiotocography meeting was held for medical and midwifery staff to enhance staff learning.

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

Maternity services should have effective leadership, governance and management arrangements in place to ensure best practice and safe service provision. These arrangements should be underpinned by risk management and audit, multidisciplinary guidelines, adequate staffing resources, adequate equipment, and sufficient training and education for clinical staff, to facilitate the delivery of safe care and the effective management of obstetric emergencies.

Overall, inspectors found that the Regional Hospital Mullingar was compliant or substantially compliant with the majority of the National Standards that were focused on during this inspection.

There was a clearly defined leadership, governance and management structure at the hospital to ensure the safety and quality of maternity services. However, the hospital needs to review the frequency of operational and governance meetings at the hospital. Hospital management was actively working to optimise maternal care and to progress implementation of the National Standards. Hospital management should ensure that the strategic plan for maternity services at the hospital includes short, medium or long-term objectives with clear timelines in line with National Standards.

There was good oversight of the quality and safety of services by senior managers at the hospital who used multiple sources of information to identify opportunities for improvement. There was a focus on quality improvement at the hospital and through a structured programme, clinical staff used quality improvement methodology to enhance patient safety and experience where opportunities for improvement were identified.

HIQA found that the Regional Hospital Mullingar was not part of a formalised maternity network under a single governance structure. Nonetheless, there was evidence during the inspection that the hospital had access to specialist services from the National Maternity Hospital, the specialist maternity hospital in the Ireland East Hospital Group.

The Ireland East Hospital Group needs to progress with the establishment of a managed clinical network for maternity services under a single governance framework as recommended in the National Maternity Strategy and National Standards. Ireland East Hospital Group should ensure that formalised care pathways are progressed between the Regional Hospital Mullingar and specialist maternity services in the hospital group.

The hospital employed medical staff in the specialties of obstetrics, paediatrics, neonatology and anaesthetics who were available onsite to provide care to women and newborns on a 24-hour basis. The hospital experienced difficulty with the recruitment of permanent consultant obstetricians, consultant paediatricians and

midwives. Despite ongoing recruitment a number of these positions remained vacant.

The hospital had recently commenced providing fetal ultrasounds for women who booked at the hospital at intervals recommended in the National Standards. Hospital management need to ensure that this service is sufficiently resourced to continue providing this service.

The hospital had clearly defined training requirements for clinical staff in relation to fetal ultrasound, fetal monitoring, adult and neonatal resuscitation and multi-professional training for the management of obstetric emergencies. Inspectors found that the uptake of mandatory training among midwives and nurses was good at the hospital. At the time of inspection, newly appointed medical staff were in the process of completing mandatory training.

Infrastructure was not in line with recommended guidelines in the operating theatre, the Labour Ward and the Maternity Unit. There was limited access to a dedicated room with ensuite toilet facilities in the Emergency Room for women who required assessment.

The hospital had arrangements in place to identify women at higher risk of complications and to ensure that their care was provided in the most appropriate setting. Inspectors found that effective arrangements were 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.

Following this inspection the hospital needs to address the opportunities for improvement identified in this report and requires the support of the hospital group and the HSE to progress the development of maternity services at the hospital and the transition to a maternity network.

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