Health Information and Quality Authority

An tÚdarás Um Fhaisnéis agus Cáilíocht Sláinte

Report of the unannounced inspection of maternity services at University Hospital Galway

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

Dates of inspection: 30 and 31 August 2018

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.

Table of Contents

1.0 Information about this monitoring programme

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

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

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

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

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

This monitoring programme examined if specified[3] National Standards in relation to effective care and support and safe care and support had 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

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

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.

1.1 Information about this inspection

University Hospital Galway is a statutory acute hospital which is owned and managed by the Health Service Executive (HSE). The hospital is part of the Saolta University Health Care Group.[†] Within the hospital group structure, maternity services are managed through the Women's and Children's Directorate. University Hospital Galway is the tertiary referral hospital and the largest maternity service provider within this hospital group. The Maternity Unit is co-located with the general hospital. The hospital provides a range of general and specialist maternity services designed to meet the needs of women with low risk and high risk pregnancies. There were 2,894 births at the hospital in 2017.

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

Table 1: Inspection details

Dates	Times of inspection	Inspectors
30 August 2018	14:00hrs to 19:15hrs	Aileen O' Brien Dolores Dempsey Ryan Siobhan Bourke Joan Heffernan
31 August 2018	07:45hrs to 16:30hrs	

[†]Saolta University Healthcare Group includes University Hospitals Galway (University Hospital Galway and Merlin Park Hospital), Mayo University Hospital, Sligo University Hospital, Portiuncula University Hospital, Letterkenny University Hospital, and Roscommon University Hospital. Maternity services are provided in all of the hospitals in the group with the exception of hospitals in Roscommon and Merlin Park.
[‡]All maternity hospitals and maternity units were asked to complete a self-assessment tool designed by HIQA for this monitoring programme

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

- representatives of the hospital's Executive Management Team and the Saolta University Health Care Group Women's and Children's Directorate, and
- the hospital's associate clinical directors in the clinical specialties of obstetrics, anaesthesiology and neonatology.

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 a maternity admissions department, a maternity day assessment unit, a labour ward triage area and the Emergency Department.
- The Labour Ward where women were cared for during labour and childbirth which also included an emergency operating theatre, a triage room and one high dependency bed.
- The Neonatal Unit where babies requiring additional monitoring and support were cared for.
- A postnatal ward where women were cared for following childbirth.
- The Intensive Care Unit where women requiring additional monitoring and support were cared for.

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

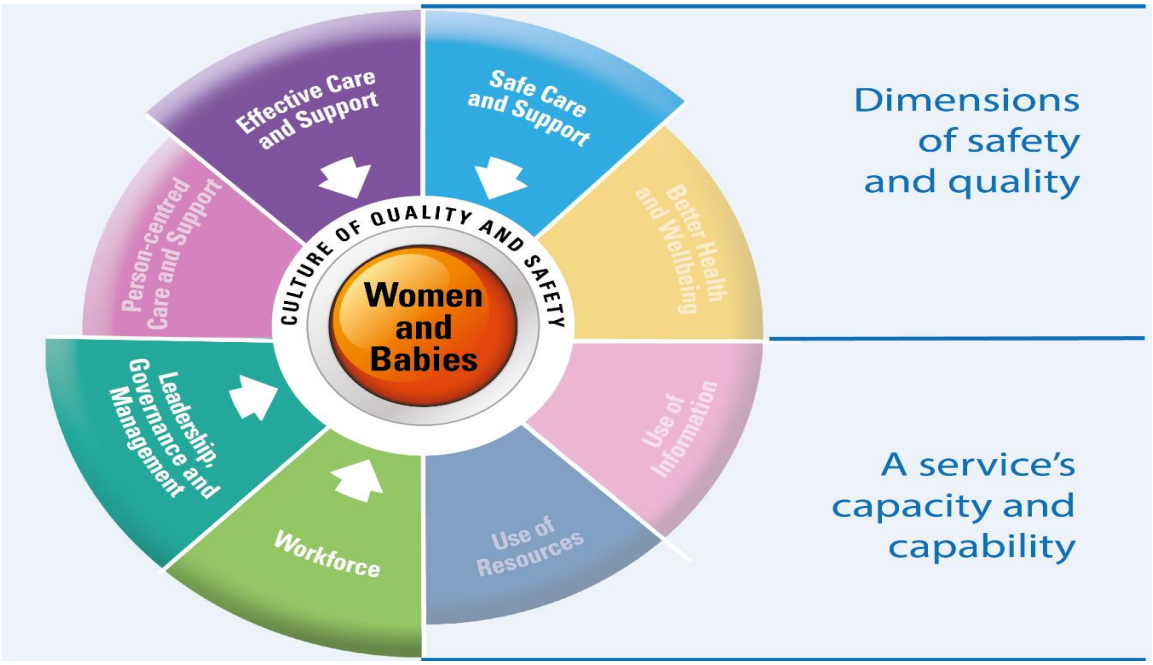
HIQA would like to acknowledge the cooperation of the hospital management team and all staff who facilitated and contributed to this unannounced inspection.

1.2 How inspection findings are presented

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

The National Standards themes which were focused on in this monitoring programme are highlighted in Figure 1. 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 sections and corresponding National Standard themes and inspection lines of enquiry

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

2.0 Capacity and Capability

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

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

During this inspection, inspectors looked at 10 National Standards in relation to leadership, governance and management and workforce. Of these, University Hospital Galway was compliant with seven National Standards and substantially compliant with three 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 obligation.

A well-governed maternity service is clear about what it does, how it does it, and is accountable to the women who use the services and the people who fund and support it. Good governance arrangements acknowledge the interdependencies between 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

Saolta University Health Care Group had created a Women's and Children's Directorate management structure which included maternity services within the hospital group. The hospital group had not implemented a managed clinical network for maternity services as recommended in the National Maternity Strategy.[4] Inspectors were informed that the formation of a managed clinical network for maternity services was a work in progress.

The hospital group was in the process of formally linking women's and children's services at University Hospital Galway, Portiuncula University Hospital, Mayo University Hospital, Sligo University Hospital and Letterkenny University Hospital in line with the group's operational plan for 2018. Integration of maternity services at University Hospital Galway and Portiuncula Hospital in order to merge all aspects of governance and management at both units was the stated priority for 2018. Following this, the hospital group aimed to implement a managed clinical network for women's and children's services to include all five maternity units in the hospital group in 2019.

A hospital group multidisciplinary maternity, neonatal and gynaecology clinical policies, procedures, guidelines and pathways committee met every month to standardise policies and pathways across the group. Maternity units within the hospital group were working together to develop shared policies, procedures and guidelines in order to promote the standardisation of care provided. In addition, the hospital group was in the process of formalising transfer and referral protocols. These protocols were required, so that it was clear what needed to happen when a woman or a newborn required care from another service or in another hospital, either within or outside the hospital group.

The hospital group was progressing the development of neonatal services at University Hospital Galway and was working towards expanding neonatal service capacity for the Saolta University Health Care Group.

A hospital group-level maternity services strategic group oversaw the implementation of national recommendations in relation to maternity care across the five hospitals in the group that provided maternity services. The annual clinical report from the Saolta Women's and Children's Directorate included clinical data for all five maternity units in the group. Annual strategy reports were also produced in respect of maternity services and neonatal services across the hospital group.

All hospitals in the group had an integrated electronic system for recording incidents, complaints and audits. The Women's and Children's Directorate also used this system to manage guidelines, group-wide policies and local or site specific policies.

University Hospital Galway leadership, governance and management

The General Manager had overall managerial responsibility and accountability for the maternity service at the hospital. The General Manager reported to the Chief Executive Officer of the hospital group and attended monthly performance meetings with the hospital group management team.

Clinical governance for the maternity service was led by the Saolta University Health Care Group Clinical Director for the Women's and Children Directorate and was supported by the General Manager at the hospital. There was oversight of the governance of the maternity service at the hospital at local directorate team meetings which took place every two weeks. The directorate team at the hospital monitored performance indicators against service objectives and monitored outcome and activity data in the maternity service. Directorate team meetings were attended by the Clinical Director, the Director of Midwifery, and the Associate Clinical Director for Obstetrics, a business manager and other directorate team members at the hospital.

Clinical leads known as associate clinical directors had been appointed in each of the specialties of obstetrics, anaesthesiology and neonatology at University Hospital Galway. These clinicians were appointed on a rotational basis and were responsible for arranging training for non-consultant hospital doctors and representing their respective specialties in relation to service provision at hospital and directorate management level. The Director of Midwifery who was responsible for the organisation and management of the midwifery service was a member of the hospital's executive management committee.

A hospital group level maternity services strategic group oversaw the implementation of national recommendations from various external reviews to develop and share guidelines across the five Hospitals in the hospital group that provide maternity services. A local maternity services implementation group which met every two months was responsible for the implementation of recommendations at University Hospital Galway as directed by the maternity services strategic group. A hospital group level multidisciplinary maternity, neonatal and gynaecology clinical policies procedure and audit committee met every month to standardise policies within the maternity service and to audit practice.

Safety alerts in relation to medical devices and medicines were communicated to staff at the hospital. The hospital's statement of purpose outlined maternity service aims, services available at the hospital, and staffing resources. This should be made publicly available in line with the National Standards.

Inspectors found that there was a clearly defined and effective leadership, governance and management structure to ensure the quality and safety of the maternity services provided at the hospital.

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

Table 3 - HIQA's judgments against the National Standards for Safer Better Maternity Services for leadership, governance and management that were monitored during this inspection
Standard 5.1 Maternity service providers have clear accountability arrangements to achieve the delivery of safe, high-quality maternity care. **Judgment:** Compliant
Standard 5.2 Maternity service providers have formalized governance arrangements for assuring the delivery of safe, high-quality maternity care. **Key findings:** Maternity network arrangements, with a single governance structure, 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. **Judgment:** Compliant
Standard 5.5 Maternity service providers have effective management arrangements to support and promote the delivery of safe, high-quality maternity services. **Judgment:** Compliant
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, neonatology and obstetric anaesthesiology at the hospital. Inspectors also reviewed the uptake and provision of training and education of staff relevant to obstetric emergencies.

Inspection findings in relation to workforce are described next.

Inspection findings

2.2.1 Midwifery and nursing staffing

The hospital had a sufficient number of midwives in place to meet service needs on a 24-hour basis in line with the HSE's Midwifery Workforce Planning Project.[5] An experienced midwife shift leader was in place for each shift in the Labour Ward and all women in established labour had one to one support.

Specialist support staff

A sufficient number of trained fetal ultrasonographers were employed to provide a fetal ultrasound service during core working hours. Recruitment of specialist midwife positions and community-based midwives was in progress. The hospital employed two neonatal nurse practitioners who provided clinical service and training in relation to neonatal resuscitation and clinical skills to non-consultant hospital doctors. The hospital employed a clinical skills facilitator to support nurses and midwives working in the Maternity Unit. The hospital was working to develop an advanced midwife practitioner role.

2.2.2 Medical staff

Medical staff availability

On-call consultant obstetricians, anaesthesiologists, paediatricians and or neonatologists 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 grades 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.

Consultants in the specialties of obstetrics, anaesthesiology and paediatrics or neonatology were employed on permanent contracts and were registered as specialists with the Medical Council in Ireland. The use of locum and agency staff was kept to a minimum at the Maternity Unit.

Obstetrics

The hospital had an on-call rota outside of core working hours for consultant obstetricians whereby consultants were on-call usually one in every seven nights. A consultant obstetrician was rostered to be in attendance in the Labour Ward for three sessions or 15 hours each week. A consultant obstetrician was also rostered to be on-call for the Labour Ward from Monday to Friday during core working hours. On-call consultant obstetricians conducted ward rounds on Saturdays, Sundays and public holidays. A rota of two non-consultant hospital doctors in obstetrics, one at registrar grade and one at senior house officer grade was in place in the Labour Ward 24 hours a day.

Inspectors were informed that there were plans to recruit two consultant obstetricians to be ultimately appointed jointly between Portiuncula Hospital and University Hospital Galway. These appointments would increase consultant obstetrician presence in the Labour Ward.

Anaesthesiology

The hospital had an on-call rota outside of core working hours for consultant anaesthesiologists whereby consultants were on-call usually one in every seven nights. Three consultant anaesthesiologists were on-call for the hospital site outside of core working hours with responsibilities for intensive care, trauma and for general and maternity services. The consultant anaesthesiologist responsible for general services was also responsible for maternity services.

During core working hours one registrar in anaesthesiology was rostered to cover the Labour Ward and was free from other duties as recommended in national guidelines. However, this was not the case outside of core working hours when a rota of four non-consultant hospital doctors in anaesthesiology, two at registrar grade and two at senior house officer grade were on-call onsite for the hospital. These doctors covered both the general service and the maternity service. Guidelines recommend that a duty anaesthesiologist should be immediately available for the Labour Ward 24 hours a day and must have no other responsibilities outside obstetrics.[7]

A consultant anaesthesiologist with specialist training and experience in obstetric anaesthesiology was the lead anaesthesiologist in the Maternity Unit and also delivered the anaesthetic high risk clinic at the hospital. The anaesthetic team worked to respond to obstetric emergencies and calls from the Labour Ward in a timely manner. Response times for attendance by an anaesthesiologist for an emergency caesarean section were audited and found to be timely.

One consultant anaesthesiologist from the general pool of consultant anaesthesiologists covered the operating theatre in the Maternity Unit. Inspectors were informed that a number of business plans had been submitted to the Hospital Management Team to sanction recruitment of additional consultant anaesthesiologists so that a 24 hour dedicated obstetric anaesthesiology service could be provided at the hospital. This had yet to be progressed. Hospital management had recently applied to the HSE for funding for two additional consultant anaesthesiologists.

This service needs to be sufficiently resourced to deliver a designated obstetric anaesthesiology service in line with relevant guidelines and National Standards.

Neonatologists and paediatricians

Care of newborns in the hospital during core working hours was shared by the two consultant neonatologists. The consultant neonatologists and the paediatric team at the hospital operated a shared on-call rota. The hospital employed two consultant neonatologists comprising one whole time equivalent position and 6.2 whole time equivalent consultant paediatricians to work across paediatric and neonatal services at the hospital. These consultants covered the on-call rota for the Neonatal Unit. These consultants covered the on-call rota for the Neonatal Unit and the Paediatric Department at the hospital and were on-call from home usually one in seven nights.

The number of consultant neonatologists at the hospital was insufficient to provide a split neonatology and paediatric on-call rota or to expand neonatology service provision at the hospital. Recruitment of two additional consultant neonatologists to enable the hospital to separate the paediatric and neonatal services at the hospital was in progress at the time of inspection. The consultant neonatologists at the hospital were supported by two experienced neonatal advanced nurse practitioners.

2.2.3 Training and education of multidisciplinary staff

Mandatory training requirements

The hospital had clearly defined mandatory training requirements for clinical staff which were documented in the hospital's mandatory training policy. Non-consultant hospital doctors in obstetrics were required to undertake formal training in fetal ultrasonography before they were permitted to perform fetal ultrasounds on pregnant women.

Mandatory training requirements for medical staff working in the maternity service included practical obstetric multi-professional training and basic life support every two years. Non-consultant hospital doctors in obstetrics and paediatrics were required to undertake training in neonatal resuscitation prior to commencing work with pregnant and postnatal women and newborns and thereafter every two years. Non-consultant hospital doctors in obstetrics were also required to undertake fetal monitoring training every two years. Midwifery staff were required to undertake training in fetal monitoring, basic life support, neonatal resuscitation and practical obstetric multi-professional training every two years.

Regular formal multidisciplinary cardiotocography review meetings were not held at the hospital, it is recommended that the skills gained by staff through fetal monitoring training are supported by regular cardiotocography review meetings. Regular formalised cardiotocography review meetings should be implemented at the hospital for clinical staff responsible for cardiotocography interpretation.

Uptake of mandatory training

Data in relation to the uptake of mandatory training by medical staff working in the maternity service was not available at the time of inspection. Recording of training uptake among medical staff was included in an action log for meetings of the Local Maternity Services Implementation Group in June 2018. This issue now needs to be addressed and appropriate arrangements implemented to facilitate accurate record keeping of medical staff training uptake.

Training records reviewed showed that 65% of midwifery staff had attended fetal monitoring training in the previous two years and that 77% of staff had attended training in the management of obstetric emergencies. Three in every four (75%) of midwifery and nursing staff had attended neonatal resuscitation training. It is essential that hospital management ensures that staff are facilitated to meet mandatory training requirements in relation to fetal monitoring in line with the National Standards.

Hospital management must be assured that clinical staff have undertaken mandatory and essential training at the required frequency, appropriate to their scope of practice.

Orientation and training of new staff

A full day of induction training was provided for new non-consultant hospital doctors in January and July each year. New medical staff were also provided with a series of specialty specific training sessions in the months following induction. Non-consultant hospital doctors working with newborns and children were provided with a paediatric handbook which had been recently updated. Doctors working in the obstetric team were provided with an orientation pack and an obstetric hand book**.**

Medical staff were provided with training on clinical handover, the Irish Maternity Early Warning System and sepsis at induction. Midwifery and nursing staff were provided with clinical and corporate induction when commencing employment at the hospital. Each of the clinical areas in the Maternity Unit had an orientation and induction programme for newly registered midwives, newly employed midwives and for staff midwives on internal rotation.

Other training and education opportunities for staff

Obstetric emergencies were practiced through live skills and drills in the Labour Ward once a week for midwives and doctors. Multidisciplinary obstetric emergency training days were regularly scheduled throughout the year for clinical staff working in the Maternity Unit. Inspectors were informed that doctors in anaesthesiology did not participate in these sessions because of the time commitment required and available staffing resources. Ideally this training should be attended by all clinical staff working in the maternity service.

Neonatal resuscitation drills were held weekly in the Neonatal Unit for clinical staff. Medical staff in anaesthesiology undertook training in relation to advanced cardiorespiratory resuscitation for adults.

Midwifery staff were rotated to the Labour Ward from different clinical areas in the maternity service to maintain their skills as is best practice. A proportion of midwives in the Labour Ward had undertaken postgraduate training in high dependency care. Only six of 24 nursing staff working in the obstetric operating theatre had undertaken specialist training in peri-operative nursing. This finding should be reviewed by hospital management and measures should be implemented to ensure that operating theatre nurses are facilitated and supported to undertake relevant training in peri-operative nursing.

The hospital was recognised as a site for undergraduate and postgraduate midwifery training and higher specialist training for doctors in the specialties of obstetrics and gynaecology, anaesthesiology and paediatrics. Doctors undertaking higher specialist training in obstetrics and gynaecology and anaesthesiology had competency-based

assessments for procedural and technical skills. The hospital had frequent meetings to provide teaching and learning opportunities for non-consultant hospital doctors in obstetrics, anaesthesiology and paediatrics. Medical staff said they received very good support from consultants and that they had no hesitation about contacting the consultant on-call to discuss a clinical case or to ask for advice or support.

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

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

Standard 6.1 Maternity service providers plan, organize and manage their workforce to achieve the service objectives for safe, high-quality maternity care **Key findings:** Staffing levels for doctors in the specialities of anaesthesiology and neonatology did not meet service needs. **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 staff had completed mandatory training within recommended timeframes. Data relating to medical staff uptake of mandatory training was not available. **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, University Hospital Galway was compliant with nine National Standards and 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

University Hospital Galway provided a range of general and specialist maternity services for women with low 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

Assessment and referral

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

- a maternity day assessment unit in the maternity outpatients department
- an early pregnancy assessment unit
- a triage room in the Labour Ward
- a high risk antenatal clinic
- combined obstetric and diabetic clinics
- a high-risk anaesthetic clinic.

Fetal ultrasound scans were offered to all pregnant women at intervals recommended in the National Standards. The hospital had an Early Pregnancy Assessment Unit for women with suspected complications in early pregnancy. This unit was operated by appointment from 8am to 1pm four days a week.

Women could be referred to a number of specialised clinics such as a feto-maternal high risk antenatal clinic or a combined obstetric and diabetic clinic depending on their risk factors or underlying medical conditions. These clinics were led by consultants in specialties including obstetrics and endocrinology.

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. Where preterm birth at 27 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.[6]

During core working hours[§] pregnant and postnatal women who presented with pregnancy-related problems attended the Maternity Day Assessment Unit for assessment and review. The Maternity Day Assessment Unit was located in the maternity outpatients department at the hospital and provided a dedicated service for women with complications during pregnancy with referral to either inpatient or outpatient management of care following clinical assessment.

Women less than 13 weeks gestation were assessed outside of core working hours in the Emergency Department and were reviewed by a doctor from the obstetric team on-call. Women greater than 13 weeks gestation who presented to the hospital outside of core working hours were assessed and reviewed in the Labour Ward. Women in labour went directly to the Labour Ward for assessment 24 hours a day.

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. In addition, the hospital had implemented an early warning score for neonates. The hospital had put in place a mechanism to ensure that these early warning systems are implemented.

3.1.2 Access to specialist care and services for women and newborns

As a tertiary referral hospital there was direct access to a number of medical and surgical specialties onsite such as general and vascular surgery, urology and also to radiology services. Clinical staff could access these specialties as needed for women attending the maternity service.

There was 24-hour access to advice from consultants in the specialties of haematology and microbiology at the hospital. Interventional radiology services were available for women at University Hospital Galway for the management of pregnancy-related complications such as placental anomalies. Other maternity units in the hospital group could refer women to this service.

Pregnant or postnatal women who presented to the maternity unit with a surgical or medical condition unrelated to pregnancy were referred to medical or surgical specialists who were available onsite. Women who experienced a traumatic birth were

[§] The self-assessment tool submitted by Galway University Hospital reported that core working hours for medical staff at the hospital ranged from 08.00hrs to 17.00hrs Monday to Friday.

offered a follow-up outpatient appointment with a consultant obstetrician at the hospital and counselling.

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.

The anaesthetic service in the Maternity Unit was led by a consultant anaesthesiologist with specialist training in obstetric anaesthesia. However, the hospital did not have a designated obstetric anaesthetic service in line with National Standards. The anaesthetic service was largely staffed by anaesthesiologists from the general anaesthesiology rota at the hospital.

Guidelines[7] and National Standards recommend that there is an agreed system in place for the antenatal assessment of high risk mothers to ensure that the anaesthetic service is given sufficient notice of women at higher risk of potential complications. The hospital held a weekly anaesthetic high risk clinic for pregnant women with risk factors for anaesthesia or a history of previous complications during anaesthesia. This clinic was delivered by the lead consultant anaesthesiologist for the maternity service.

Critical care

Pregnant and postnatal women who required short term invasive monitoring or close observation were managed in a high dependency room in the Labour Ward.
There were guidelines for transfer and admission for critical care to either the High Dependency Unit, the Coronary Care Unit or the level 3†† Intensive Care Unit[8] at the hospital if a pregnant woman or postnatal woman's condition necessitated specialist care. Pregnant women admitted to critical care facilities at the hospital were also reviewed by the obstetric team at least daily and midwifery care was provided as clinically indicated by midwives from 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.

†† 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.

Neonatal care

Galway University Hospital had a level 2 neonatal unit which meant that the hospital provided high dependency and intensive neonatal care for premature infants born at greater than 27 weeks gestation and for sick term infants. Where there was a risk of premature delivery at 27 weeks or less, the hospital arranged for in-utero transfer to a tertiary maternity hospital usually in Dublin in line with the HSE's model of care for neonatal services in Ireland.[6] Premature babies born at less than 27 weeks gestation at the hospital were stabilised and transferred soon after birth to a tertiary maternity hospital with a level 3 tertiary neonatal unit. Newborns that required therapeutic cooling[‡‡] for neonatal encephalopathy had passive cooling commenced at the hospital and were then transferred to a tertiary maternity hospital. Urgent transfers of newborns requiring neonatal intensive care were organised through the National Neonatal Transport Programme.[§§] The hospital had a guideline in place for passive cooling of babies who met the criteria for therapeutic cooling and had audited implementation of this guideline at the end of 2017. The Neonatal Unit at the hospital again provided care for these babies when they were transferred back from the specialist hospital for ongoing care.

Medical care for newborns was provided by both the consultant neonatologists and the paediatric service at the hospital. Plans were in place to develop the neonatal service at the hospital to provide neonatal service capacity for Saolta University Health Care Group to care for premature babies born at less than 27 weeks gestation.

This would require additional staff and supports in addition to investment in hospital infrastructure. As the neonatal speciality was being developed and was not as yet sufficiently resourced, the Neonatal Unit at the hospital only accepted admissions that it was safely resourced to manage.

Where conditions were detected antenatally that meant infants were likely to require specialist neonatal care, the neonatal consultants arranged to meet with parents at the antenatal clinic to explain the type of neonatal care that the baby would likely require.

[‡‡] 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.

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 the attendance of designated response teams for obstetric and neonatal emergencies whereby a multidisciplinary response team could be summoned for an emergency using either an electronic pager number or by telephoning the hospital emergency number. Because of medical staffing deficiencies in the anaesthetic department it was necessary, outside of core working hours only, to call the on-call, onsite anaesthesiologist (if they were required) on a separate pager number. An anaesthesiologist was always rostered to respond to such calls. Deficiencies in relation to anaesthesiology staffing resources need to be addressed at the hospital.

Inspectors were informed that the anaesthetic team was not always informed about the level of urgency[***] when they were contacted to attend for an emergency caesarean section. This information is required by the anaesthetic team so that they can prioritise their workload. The absence of this is of concern and should be addressed by the hospital.[7] Audit findings showed that response times for an anaesthesiologist to attend the Maternity Unit were timely. The hospital should review internal communication arrangements in this regard and address any opportunities for improvement if indicated.

Multidisciplinary handover

There were formal arrangements in place for multidisciplinary clinical handover in the Labour Ward. There was frequent team discussion around care planning during the day about existing and new admissions at both clinical handover and consultant-led rounds in the Labour Ward. Clinical staff used the Identity-Situation-Background-Assessment-Recommendation (ISBAR) communication format to communicate information about patients in line with national guidelines.[9] The HSE conducted an audit of compliance with implementation of multidisciplinary clinical handover at the hospital between November 2017 and July 2018, which found that there was a formal structure for clinical handover within the Maternity Unit which followed the recommended ISBAR format. Staff in clinical areas also held a daily 'safety pause' meeting to discuss potential risks and to share relevant information about high risk women or infants.

[***] In general four categories are used when determining the urgency of caesarean sections. Category 1: Described as an immediate threat to the life of the woman or fetus. Category 2: Maternal or fetal compromise which is not immediately life-threatening. Category 3: No maternal or fetal compromise but needs early delivery. Category 4: Delivery timed to suit the woman or staff.

There were a number of clinical complex cases where relevant obstetric, anaesthesiology or paediatric or neonatology consultants were routinely notified so that they could be in attendance, for example in cases of massive obstetric haemorrhage, complex delivery, 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 relevant consultant on-call.

The obstetric team discussed anticipated births and transfers from other hospitals with staff in the Neonatal Unit and the neonatal team on-call. The anaesthesiologist on duty was informed by midwifery staff when women with known anaesthetic risks were admitted. Clinical assessment information from the anaesthetic high risk clinic was included in the woman's healthcare record.

Other findings relevant to communication

Medical and midwifery staff who spoke with inspectors said that they would have no hesitation about contacting a consultant on duty if they had concerns about the wellbeing of a woman or when advice or additional support was needed. There was an agreed process in place for accessing an operating theatre for emergency surgery during and outside of core working hours. The hospital described a code red alert system in place to notify the onsite blood bank of an urgent requirement for blood products.

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.

A labour ward forum met regularly to enhance communication among multidisciplinary staff working in the Maternity Unit. Staff in the unit had implemented a 'just take five' communication tool where alerts, reminders in relation to safe practice or recent audit findings were discussed for five minutes each day after clinical handover to increase multidisciplinary team awareness of these issues.

3.1.4 Written policies, procedures and guidelines

The hospital had a suite of policies, procedures and guidelines in relation to obstetric emergencies for example, resuscitation of the pregnant woman and umbilical cord

[†††] Non-consultant hospital doctor 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

prolapse. These were readily accessible electronically to staff in clinical areas. Hard copies of the most frequently used guidelines were also readily accessible in the Labour Ward.

The hospital also had policies based on National Clinical Effectiveness Committee[‡‡‡] guidelines in relation to sepsis, clinical handover in maternity services and the Irish Maternity Early Warning System. A national maternal sepsis audit was carried out by the HSE at the hospital in May 2018. This audit identified some areas requiring further improvement. Hospital management demonstrated that following receipt of this report, they had developed an action plan with agreed timeframes and identified persons responsible for implementing the recommendations of the audit report. It is essential that hospital management ensures that national guidelines in relation to sepsis are consistently implemented at the hospital.

A safe surgery checklist[§§§] was completed for emergency and elective surgical procedures in obstetric operating theatres in line with best practice recommendations. The Maternity Unit had a standardised procedure for the estimation and measurement of maternal blood loss.

3.1.5 Maternity service infrastructure and facilities and resources

Assessment areas

Assessment areas for pregnant women were located together in the Maternity Outpatients Department in the Maternity Unit. The hospital was in the process of renovating the assessment area for women presenting to the Maternity Day Assessment Unit. This included moving the Early Pregnancy Assessment Unit to the first floor, next to the gynaecological ward as the current infrastructure was not appropriate for women experiencing a pregnancy loss. The planned renovation also included a proposal to move the maternity triage admissions office nearer to the reception area so that a midwife was the first point of contact for women presenting to the Maternity Day Assessment Unit.

[‡‡‡] Guidelines produced by the national clinical effectiveness committee have been formally mandated by the Minister of Health.
[§§§] A surgical safety checklist is a patient safety communication tool that is used by operating theatre nurses, surgeons, anaesthesiologists and others to discuss together important details about a surgical case so that everyone is familiar with the case and that important steps are not forgotten. Surgical checklists work to improve patient safety during surgery.

Antenatal and postnatal wards

The hospital had 18 inpatient beds for antenatal care and 30 inpatient beds for postnatal care.

The Labour Ward

The Labour Ward had seven delivery rooms, one double triage room and one emergency operating theatre. One single bedded room in the Labour Ward was equipped for high dependency care of women who required close observation or monitoring during pregnancy or immediately after birth. The triage room in the Labour Ward comprised two beds in one room separated by a curtain. The infrastructure of the Labour Ward did not meet recommended design and infrastructural specifications for maternity services and as such needs to be upgraded.[10]

Operating theatres for gynaecology and obstetrics

There was 24-hour access to emergency obstetric surgery at the hospital. Elective surgical cases, including caesarean sections, were performed during core working hours in the gynaecology operating theatre. Hospital management had identified the need to increase operating theatre capacity at the hospital to support increased demands in elective and emergency obstetric and gynaecology services.

In the event of an immediate risk to the woman or her baby, emergency surgery such as a caesarean section was performed in an operating theatre located in the Labour Ward during core working hours or in the gynaecology operating theatre outside of core working hours. The hospital was staffed and managed so that emergency caesarean sections could be performed within recommended time frames.

There was only one dedicated operating theatre for obstetric and gynaecology cases within the Operating Theatre Department at the hospital. This operating theatre was located on the floor above the Labour Ward accessible by an elevator immediately outside the entrance to the Labour Ward. Ideally, operating theatres for obstetrics should be on the same level as the Labour Ward. A second operating theatre used for emergency obstetric cases was located immediately inside the main door of the Labour Ward opening directly onto the main corridor in the ward. However, this operating theatre did not meet recommended design and infrastructural specifications for an operating theatre.[11,12]

Obstetric operating theatre capacity at University Hospital Galway needs to be increased and operating theatre design and infrastructure at the hospital needs to be in line with recommended guidelines for surgical facilities.[11,12]

Neonatal unit

The hospital provided level 2[****] neonatal services. The Neonatal Unit at the hospital had 17 cots but at the time of inspection was only staffed for 14 cots which were allocated for special care, high dependency care and intensive care. Expansion of neonatal services to increase service capacity would necessitate an increase in the cot capacity of the unit and related staffing resources.

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 visited by inspectors had emergency resuscitation equipment for women and newborns. Checklists showed that emergency equipment was checked daily in the clinical areas inspected. Emergency supplies and medications were readily available in the clinical areas inspected to manage obstetric emergencies such as maternal haemorrhage, 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 following pages 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.

[****] Level 2 neonatal units provide routine neonatal care to term infants, special care, high dependency care and short-term ventilation to infants more than 27 weeks gestation

[††††] 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. **Key findings:** Lack of a dedicated anaesthetic on-call rota for maternity services and absence of a split neonatology medical staff rota. **Judgment:** Substantially compliant
Standard 2.3 Women and their babies receive integrated care which is coordinated effectively within and between maternity and other services. **Judgment:** Compliant
Standard 2.4 An identified lead healthcare professional has overall clinical responsibility for the care of each woman and that of her baby. **Judgment:** Compliant
Standard 2.5 All information necessary to support the provision of effective care, including information provided by the woman, is available at the point of clinical decision-making. **Judgment:** Compliant
Standard 2.7 Maternity care is provided in a physical environment which supports the delivery of safe, high-quality care and protects the health and wellbeing of women and their babies. **Key findings:** Outdated maternity unit infrastructure, operating theatre in Labour Ward not in line with recommended guidelines for surgical facilities. Need to increase operating theatre capacity. **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, the 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 inspection also looked at how the hospital monitored, evaluated and responded to information and data relating to outcomes for women and infants and feedback from service users and staff.

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

Inspection findings

3.2.1 Maternity service risk management

The hospital had systems in place to identify and manage risks. Risks in relation to the maternity service were recorded in the Women's and Children's Directorate risk register along with agreed risk treatment measures. Reported clinical incidents were discussed at directorate meetings held every two weeks. The risk register was reviewed and updated on a quarterly basis by hospital management. Risks that could not be managed at hospital level were escalated to the Saolta University Health Care Group. Risks recorded in the risk register relevant to this monitoring programme included:

- the infrastructure of the Labour Ward and the Labour Ward operating theatre
- consultant anaesthesiologist and consultant neonatologist staffing resources
- operating theatre capacity
- lack of a tertiary neonatal unit and
- increased caesarean section rates.

Hospital management had met with the HSE in July 2018 to discuss design plans for another operating theatre, an extension to the Neonatal Unit and two 'home from home' rooms for low-risk births. There was no agreed funding or time frame for completion of this work. Hospital management had identified the need for a new maternity unit and increased operating theatre capacity. Funding had also been requested from the HSE for maintenance and improvements in inpatient areas. Work was underway to complete a new Early Pregnancy Assessment Unit due for completion in 2018.

Inspectors were informed that recruitment of two consultant neonatologists was in progress and that a submission had been made by the hospital to the HSE for two additional consultant anaesthesiologist positions.

Over the past decade in Ireland, increasing proportions of women have had caesarean sections. All hospitals are advised to analyse their deliveries and clinical outcomes, including caesarean sections rates.[13]

Hospital management was aware that caesarean section rates at the hospital were similar to the national average but had slightly increased. In order to address this trend, a key performance indicator in relation to vaginal delivery after caesarean section was regularly monitored at directorate level. In addition, the Director of Midwifery was developing an advanced midwife practitioner role in the Maternity Unit to facilitate promotion of vaginal delivery after caesarean section.

Clinical incident reporting

Inspectors found that there was an established practice of incident reporting at the hospital based on the number of clinical incidents reported each month. Staff who spoke with inspectors were aware of their responsibility to report clinical incidents. Not all staff were clear about the process for reporting a clinical incident on the hospital's electronic reporting system. Hospital management was aware that staff had identified that they would like more feedback on clinical incidents and were working to address this. Every two weeks the directorate team held a meeting where reported clinical incidents were reviewed and managed by members of the multidisciplinary team.

Clinical incidents were tracked and trended and where improvements were required, plans were put in place to address these. Patient safety incidents were reported onto the National Incident Management System[‡‡‡‡] in line with national guidelines.[14]

The management of serious incidents and serious reportable events[§§§§] was overseen at a monthly hospital group serious incident management forum. There were plans to establish a serious incident management team specifically for the Saolta Health Care Group Women's and Children's Directorate as part of progression towards a maternity network.

[‡‡‡‡] 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.

[‡‡‡‡]Serious Reportable Events are a defined subset of incidents which are either serious or that should not occur if the available preventative measures have been effectively implemented by healthcare providers. The HSE requires that Serious Reportable Events are mandatorily reportable by services to the Senior Accountable Officer of the service.

Feedback from women

There was a formalised process to monitor compliments and respond to complaints from women using the maternity service.

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 Office of the National Women and Infants Health Programme and the National Clinical Programme for Obstetrics and Gynaecology.[13] This information facilitates national oversight by the HSE in relation to specified clinical outcome and activity measures across the 19 maternity units and maternity hospitals. This information also allows individual maternity units and maternity hospitals to benchmark their performance against national rates over time.

The Women's and Children Directorate had also developed key performance indicators in relation to the progression of identified service priorities which were monitored monthly. These included parameters in relation to:

- fetal ultrasound availability
- vaginal delivery after caesarean section and
- the percentage of eligible women who received anti-D immunoglobulin

Progress with directorate key performance indicators was presented to the Directorate Management Team in a monthly performance dashboard. Maternity service data was presented to hospital group management in relation to activity levels, caesarean sections, clinical indicators, neonatal unit admissions and maternal readmissions. The hospital published monthly maternity patient safety statements in line with national HSE reporting requirements. Performance measurements were overseen at departmental meetings, directorate meetings and monthly hospital group performance meetings. Monthly performance reports were also sent by the Director of Midwifery to the General Manager and the hospital group.

Other sources of information such as findings from national quality midwifery metrics, clinical incident reviews, risk assessments, complaints, and audit were used by management at the hospital to identify potential risks to patient safety and opportunities for improvement.

Multidisciplinary perinatal mortality and morbidity meetings were held monthly at hospital level. Any untoward trends were reviewed and recommendations for practice, if indicated, were addressed at directorate level. Minutes of perinatal mortality and

morbidity meetings were not recorded as recommended in the National Standards. This needs to be addressed. Meetings were held to discuss the cases of women who had caesarean sections the previous month. The hospital planned to establish separate maternal morbidity meetings.

Clinical audit

Two nationally-led audits were performed by the HSE in the maternity service in University Hospital Galway in relation to the following:

- implementation of national guidelines on clinical handover and
- maternal sepsis.

At local level, clinical audits undertaken in the maternity service in the previous 12 months included audits in relation to:

- post-partum haemorrhage
- obstetric anal sphincter injuries
- venous thromboembolism prophylaxis
- emergency caesarean sections
- fetal monitoring
- midwifery metrics
- midwifery handover
- neonatal early warning system
- adult emergency trolleys
- healthcare records and laboratory test result follow up
- vaginal delivery after caesarean section discussion adherence.

Audit results were fed back to staff in clinical areas and discussed at clinical midwifery senior management meetings and at audit committee meetings. The anaesthetic department monitored anaesthesiologist response times for calls to administer epidural analgesia and for emergency caesarean sections.

It did not appear that there was a system in place to ensure that all of the audits conducted in the maternity service were consistently followed up with clear action plans to address any opportunities for improvement that had been identified. Documentation indicated that not all audits were completed at the recommended frequency, this should prompt a review of the resources required to undertake audits and a review of the audit schedule.

There were plans at the hospital to establish a coordinated approach to clinical audit. Documentation reviewed by inspectors showed that a clinical audit coordinator had been appointed to the hospital group in quarter 1, 2017 and that a clinical audit

committee had been re-established at University Hospital Galway in October 2017. A training programme called 'quality improvement in action' was being undertaken by staff representatives across the hospital group and the audit committee was hoping to develop a clinical audit database and to ratify a group-level clinical audit policy.

Formal oversight of clinical audit at the hospital needs to be progressed to ensure that audits undertaken are of value to the service and to ensure that the audit cycle is completed.

Annual clinical report

Saolta University Health Care Group published a comprehensive annual clinical report that detailed maternal and neonatal outcomes, service activity and initiatives at each hospital providing maternity services within the hospital group including University Hospital Galway. The hospital used the Robson Classification for assessing, monitoring and comparing caesarean sections rates for women at the hospital as recommended nationally.[15] These rates were published in the annual clinical report. Senior managers and clinical staff attended an annual meeting with colleagues from other maternity units in Ireland. At the Annual Clinical Reports Meeting, organised by the Institute of Obstetricians and Gynaecologists, maternity service annual clinical reports from participating hospitals are assessed by an external assessor and peer-reviewed to enable benchmarking of performance against similar sized units. This is good practice.

3.2.3 Quality improvement initiatives developed by staff at the hospital

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

- A workshop facilitated by the hospital in May 2018 that included participation from maternity service users and staff which was aimed at improving service user experience and multi-professional working across different groups.
- The launch of a designated website www.uhgmaternity.ie in May 2018 to provide information to women and families on all aspects of pregnancy, labour and parenthood.
- Development of a guideline for the prevention and management of infant falls. A poster providing information to parents about safety measures to prevent falls was displayed in inpatient wards at the hospital.
- Clinical staff in the hospital group had been trained to undertake structured, facilitated discussion of a clinical situation to help staff identify what happened, what went well and to identify learning that could be used to make improvement if necessary.

- Staff in the maternity unit had developed education material to help pregnant women recognise normal movements of baby in-utero. This information was displayed on posters in the unit.

Table 6 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

Overall, inspectors found that the Galway University Hospital was compliant with the majority of the National Standards that were focused on during this inspection.

University Hospital Galway had a clearly defined and effective leadership, governance and management structure at the hospital and within the Saolta University Health Care Group directorate structure to ensure the safety and quality of maternity services. 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. The hospital's senior management team monitored performance data including patient outcomes, service user feedback and patient safety incidents and benchmarked its performance against other similar sized hospitals.

The hospital had developed collaborative working arrangements with other hospitals providing maternity services in the Saolta University Health Care Group but this was not a formally managed clinical maternity network. The implementation of such a network needs to be progressed by the hospital group and the HSE in line with the National Standards and the National Maternity Strategy.

The hospital employed medical staff in the specialties of obstetrics, paediatrics, neonatology and anaesthesiology who were available onsite to provide care to women and newborns on a 24-hour basis.

Anaesthetic services for the Maternity Unit were provided by the general pool of consultant anaesthesiologists at the hospital and an obstetric anaesthesiologist led the service and the anaesthetic risk assessment clinic. However, there were an insufficient number of consultant anaesthesiologists at the hospital to provide a dedicated obstetric anaesthetic service. This service needs to be sufficiently resourced in line with National Standards and national guidelines. In addition, the neonatology service at the hospital needs to be additionally resourced to develop neonatal services for the Saolta University Hospital Care Group.

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. However, the hospital needs to ensure that mandatory training is always completed by medical, midwifery and nursing staff within recommended timeframes.

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 HSE to progress the development of maternity services at the hospital and the transition to a managed clinical network.

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