



**Health
Information
and Quality
Authority**

An tÚdarás Um Fhaisnéis
agus Cáilíocht Sláinte

Report of the unannounced inspection at the University Maternity Hospital, Limerick

Monitoring programme for unannounced inspections undertaken
against the National Standards for the Prevention and Control of
Healthcare Associated Infections

Date of on-site inspection: 27 January 2016

About the Health Information and Quality Authority

The Health Information and Quality Authority (HIQA) is an independent Authority established to drive high quality and safe care for people using our health and social care and support services in Ireland. HIQA's role is to develop standards, inspect and review health and social care and support services, and support informed decisions on how services are delivered. HIQA's ultimate aim is to safeguard people using services and improve the quality and safety of services across its full range of functions.

HIQA's mandate to date extends across a specified range of public, private and voluntary sector services. Reporting to the Minister for Health and the Minister for Children and Youth Affairs, the Health Information and Quality Authority has statutory responsibility for:

- **Setting Standards for Health and Social Services** – Developing person-centred standards, based on evidence and best international practice, for health and social care and support services in Ireland.
- **Regulation** – Registering and inspecting designated centres.
- **Monitoring Children's Services** – Monitoring and inspecting children's social services.
- **Monitoring Healthcare Quality and Safety** – Monitoring the quality and safety of health services and investigating as necessary serious concerns about the health and welfare of people who use these services.
- **Health Technology Assessment** – Providing advice that enables the best outcome for people who use our health service and the best use of resources by evaluating the clinical effectiveness and cost-effectiveness of drugs, equipment, diagnostic techniques and health promotion and protection activities.
- **Health Information** – Advising on the efficient and secure collection and sharing of health information, setting standards, evaluating information resources and publishing information about the delivery and performance of Ireland's health and social care and support services.

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1. Introduction

The Health Information and Quality Authority (HIQA) carries out unannounced inspections in public acute hospitals in Ireland to monitor compliance with the *National Standards for the Prevention and Control of Healthcare Associated Infections*.¹ The inspection approach taken by HIQA is outlined in guidance available on HIQA's website, www.hiqa.ie – *Guide: Monitoring Programme for unannounced inspections undertaken against the National Standards for the Prevention and Control of Healthcare Associated Infections*.²

The aim of unannounced inspections is to assess hygiene in the hospital as observed by the inspection team and experienced by patients at any given time. It focuses specifically on the observation of the day-to-day delivery of services and in particular environment and equipment cleanliness and compliance with hand hygiene practice. In addition, following the publication of the 2015 *Guide: Monitoring Programme for unannounced inspections undertaken against the National Standards for the Prevention and Control of Healthcare Associated Infections*,² HIQA will assess the practice in the implementation of infection prevention care bundles. In particular this monitoring will focus upon peripheral vascular catheter and urinary catheter care bundles, but monitoring of performance may include other care bundles as recommended in prior national guidelines^{3, 4} and international best practice.⁵

Assessment of performance will focus on the observation of the day-to-day delivery of hygiene services, in particular environmental and hand hygiene and the implementation of care bundles for the prevention of device related infections under the following Standards:

- Standard 3: The physical environment, facilities and resources are developed and managed to minimise the risk of service users, staff and visitors acquiring a Healthcare Associated Infection.
- Standard 6: Hand hygiene practices that prevent, control and reduce the risk of spread of Healthcare Associated Infections are in place.
- Standard 8: Invasive medical device related infections are prevented or reduced.

Other Standards may be observed and reported on if concerns arise during the course of an inspection. It is important to note that the Standards are not assessed in their entirety during an unannounced inspection and therefore findings reported are related to a particular criterion within a Standard which was observed during an inspection. HIQA uses hygiene observation tools to gather information about the cleanliness of the environment and equipment as well as monitoring hand hygiene practice in one to three clinical areas depending on the size of the hospital. HIQA's approach to an unannounced inspection against these Standards includes provision for re-inspection within six weeks if Standards on the day of inspection are poor.

This aims to drive improvement between inspections. In addition, in 2016, unannounced inspections will aim to identify progress made at each hospital since the previous unannounced inspection conducted in 2014.

An unannounced inspection was carried out at the University Maternity Hospital, Limerick on 27 January 2016 by Authorised Persons from HIQA, Katrina Sugrue and Kathryn Hanly between 10.20hrs and 17.30hrs. The area assessed was:

- The Delivery Ward

In addition, M3 Ward and the Neonatal Unit, which were inspected during an unannounced inspection by HIQA on 5 November 2014, were re-visited to assess the level of progress which had been made after the 2014 inspection.

HIQA would like to acknowledge the cooperation of staff with this unannounced inspection.

2. Findings

This report outlines HIQA's overall assessment in relation to the inspection, and includes key findings of relevance. A list of additional low-level findings relating to non-compliance with the Standards has been provided to the hospital for inclusion in local quality improvement plans. However, the overall nature of the key areas of non-compliance are within this report.

Overview of area inspected:

The **Delivery Ward** consisted of the Labour Ward and Theatre Department

- The Labour Ward which comprises six single birthing rooms, a home birthing room with ensuite shower and toilet facilities and a first stage room consisting of two bays and ensuite toilet facilities.
- The Theatre Department which comprises two operating rooms.

This report is structured as follows:

- **Section 3.1** outlines the level of progress made by M3 Ward and the Neonatal Unit after the unannounced inspection on 5 November 2014.
- **Section 3.2** presents the key findings of the unannounced inspection on 27 January 2016.
- **Section 3.3** describes the key findings relating to hand hygiene under the headings of the five key elements of the World Health Organization (WHO) multimodal improvement strategy⁶ during the unannounced inspection on 27 January 2016.
- **Section 3.4** describes the key findings relating to infection prevention care bundles during the unannounced inspection on 27 January 2016.

2.1 Progress since the last unannounced inspection on 5 November 2014

HIQA reviewed the QIP published by University Maternity Hospital, Limerick following the 2014 inspection. The Neonatal Intensive Care Unit and M3 Ward were inspected in 2014 and were revisited during the January 2016 inspection to follow-up on progress made in implementing the QIP prepared after the 2014 unannounced inspection.

Monthly hygiene audits are ongoing. A quarterly management hygiene walkabout is also conducted. The walkabout team consists of the Directorate manager, Assistant Director of Midwifery and a Clinical Midwife. Group-wide unannounced external hygiene audits are also conducted by a team from University Hospital Limerick.

Folders containing weekly equipment cleaning records are dated and signed by healthcare assistants following cleaning. HIQA was informed that a painting schedule had commenced in November 2015. Following the 2014 inspection, mattress audits are now carried out twice a year and 80 replacement mattresses have been ordered.

HIQA acknowledges the improvements and progress made by the hospital management team and staff since the last inspection.

2.2 Key findings of the unannounced inspection on 27 January 2016

Overall, the general environment and patient equipment in the the Labour Ward and Theatre Department were clean with some exceptions. For example, opportunities for improvement were identified during the inspection in relation to infrastructure, maintenance, cleaning processes and safe injection practices. An overview of these findings is contained in the following section.

Infrastructure and facilities

Theatre Department

Overall the environment in the Theatre Department was generally clean. The Theatre Department achieved 95% compliance in the most recent environmental audit carried out. However, a number of infrastructural and maintenance issues which had the potential to impact on infection prevention and control measures were identified during the course of the inspection. For example, several of the surfaces and finishes including wall paintwork, wood finishes and flooring were worn and poorly maintained and as such did not facilitate effective cleaning. The wood finish on the doors and door frames leading from the main corridor to Operating Theatre 2 were damaged. Furthermore, when closed these doors did not seal fully which is not in line with best practice. The quality of finishes, particularly in high-risk functional areas such as Theatre Departments, should be readily cleaned and resilient. Identified maintenance issues should be prioritised and addressed to facilitate effective infection prevention and control practices.

Inspectors observed that the Theatre Department was a thoroughfare for staff en route to the doctor's residence. Traffic in semi-restricted areas such as the theatre reception and corridors must be limited to authorised personnel only.⁷

The lack of storage space in the Theater Department resulted in unnecessary overstocking within the operating rooms and sterile consumables being stored inappropriately on open shelves and in a number of mobile cabinets in the operating theatres. To prevent inadvertent contamination, sterile and clean supplies in operating theatres should be kept to a minimum and should be stored in fully enclosed storage units.

Both the male and female staff changing facilities in the Theatre Department were inadequate. The changing rooms were not of sufficient capacity, were cluttered and contained toilet facilities within the room. To avoid the risk of contamination Health Building Note 00-02: Sanitary Spaces recommends that toilets should be located separately, ensuite or adjacent, to staff changing facilities.⁸ Authorised persons observed organic contamination on theatre boots and clogs in both staff changing rooms. Storage and washing of theatre boots requires special consideration. Theatre

footwear, whether clean or dirty, should be stored tidily on a designated and easily accessible boot rack. Theatre footwear should be thoroughly cleaned daily or if visibly contaminated. As with all communal areas shared by staff, changing rooms should be kept clean be well-maintained and free from obstructions.

In the absence of caesarean section surgical site infection surveillance, the hospital does not have appropriate mechanisms in place to assure itself that infrastructural deficits in the Theatre Department do not negatively impact on patients from an infection prevention and control perspective.

Labour Ward

A blood gas analyser and cleaning equipment were inappropriately located within the clean utility room on the Labour Ward. Red staining was visible on the blood gas analyser. There should be clear separation of functional activity and of clean and potentially contaminated items or equipment.

Not all delivery suites in the Labour Ward had access to ensuite toilet/shower facilities as recommended in Health Building Note 09-02 – Maternity care facilities.⁹

Equipment

Overall patient equipment on the Labour Ward was generally clean with some exceptions. For example, organic contamination was observed on several surfaces including the under surfaces a dressing trolley and on the underside of two patient beds. The design of patient beds did not facilitate effective cleaning or inspection of mattress cores. Authorised persons were informed that the Delivery Ward is awaiting the delivery of nine new birthing beds. The Labour Ward achieved 93% compliance in an environmental audit and 96% compliance in an equipment audit carried out in December 2015.

'Dirty' Utility Rooms *

There was no door on the 'dirty' utility room in the Labour Ward. Dirty utility rooms should be lockable and secure. This had been identified as a risk and had been placed on the hospital risk register. Authorised persons were informed that a new door was due to be installed the following week.

'Dirty' utility rooms in the Theatre Department and Labour Ward were used for the examination and processing of clinical specimens. As there was no door on the 'dirty' utility room in the Labour Ward, specimens were being examined in plain sight of passing visitors and hospital personnel. Organic contamination was observed by authorised persons on a number of surfaces in the rooms. Specimen sampling,

* A 'dirty' utility room is a temporary holding area for soiled/contaminated equipment, materials or waste prior to their disposal, cleaning or treatment.

when necessary following delivery, should take place on a dedicated surface in an appropriate controlled environment. A risk-based approach should be taken to ensure that there is sufficient space for clinical activities to take place while avoiding cross-contamination of the environment, supplies and equipment stored in the area.

The 'dirty' utility room shared between the two operating theatres was only accessible via the operating theatres with no separate exit access for the removal of waste generated in the theatres. During the inspection, authorised persons observed waste being removed from the dirty utility room through a partially cleaned operating theatre. This does not facilitate appropriate workflow and poses a risk of cross contamination. Units should be designed so that the flow of goods, services and waste materials is such that cross-contamination between contaminated and clean items is minimised.¹⁰

There was no designated hand wash basin or sluice hopper in the dirty utility room shared between the two operating theatres. The equipment sink was multifunctional and used for the disposal of waste water, washing of hands and cleaning of equipment including cleaning equipment. Using sinks for both hand-washing cleaning of equipment and disposing of waste water increases the risk of hand and environmental contamination.

Waste Management

There was no designated waste disposal hold on the Labour Ward. Bags of clinical waste were observed on the floor at the entrance to the dirty utility room awaiting collection. In the absence of a door on the dirty utility room, unauthorised access to the clinical waste could not be prevented. National guidelines advise that primary healthcare risk waste packages must not be stored loose in corridors or other locations accessible to unauthorised personnel.¹¹

Inspectors observed waste and pathology specimens being transported on a dressing trolley from a delivery suite to the 'dirty' utility room in the Labour Ward where it was subsequently segregated and disposed of. National guidelines on waste management¹¹ recommend that waste is segregated and disposed of at point of generation.

Cleaning processes and the management of cleaning equipment

The clinical areas inspected did not have dedicated rooms for the storage of cleaning equipment and supplies. Cleaning equipment was inappropriately stored within both 'dirty' and clean utilities. Organic contamination observed on surfaces in the 'dirty' utility room shared between the operating theatres at the time of the inspection was of particular concern due to the potential for contamination of the cleaning equipment and products stored in this area.

Reusable spray bottles for detergent were not used appropriately in that bottles were reconstituted in the dirty utility room in both areas inspected. There was no defined process or appropriate area in which to decontaminate spray bottles each day. Poorly maintained bottles may facilitate the growth of bacteria and subsequent use may result in environmental contamination.¹² Neonates are highly susceptible to infection and it is therefore recommended that these reusable spray bottles for detergent are not used in these areas.

HIQA was informed that there were deficiencies in respect of cleaning resources in the Theatre Department and Labour Ward particularly after 5pm. Furthermore, the cleaners allocated to cover the Labour Ward and Theatre Department have dual cleaning and catering duties which further dilutes the cleaning resource and may hinder the effectiveness of cleaning practices. The hospital informed HIQA that this is not the operational norm in other areas of the hospital. The reported cleaning resources allocated to the Labour Ward and Theatre Department did not provide assurance that the cleanliness of the physical environment can be effectively managed and maintained particularly during surges in activity. HIQA was informed by hospital management that the recruitment of additional cleaning staff was nearing completion and should rectify these deficiencies.

The cleaning checklist from a birthing room on the Labour Ward was viewed. The list was not comprehensive, cleaning duties were not clearly allocated and did not provide assurances that all patient equipment is cleaned on a daily basis in line with best practice. The equipment cleaning schedule should be reviewed to itemise all items of patient equipment.^{13, 14}

Safe Injection Practice

Syringes containing reconstituted intravenous anaesthetic medications were observed, in both operating theatres, to be unattended, insufficiently labelled and stored uncovered on top of the anaesthetic trolleys. It was reported that multiple syringes of intravenous anaesthetic medications are pre-prepared at the beginning of each day for emergency use. In addition, a partially used bag of saline for intravenous use was observed with a needle inserted into the top of the bottle and stored directly on a worksurface in a communal medication preparation area following a procedure in Theatre 1. This practice carries risks for bacterial contamination, growth, and infection. Assurance could not be provided that the integrity and sterility of these medications were maintained from compounding to administration. Before use, prepared syringes and needles should be stored, covered, on an aseptic injection tray with syringes capped to avoid inadvertent contamination from the surrounding environment.¹⁵

Authorised persons also observed an infusion of compound sodium lactate primed and hanging on an intravenous stand in the store room adjacent to Theatre 1. The label on the infusion indicated that the giving set had been primed on 25 January 2016, two days prior to the inspection. It is recommended that intravenous fluids should be prepared immediately prior to administration to avoid the risk of inadvertent administration of microbiologically contaminated fluids.

Not all the needles observed had safety engineered mechanisms. For example, 21 gauge needles were safety needles whereas 23 gauge needles were not. Inspectors observed that both safety needles and needles without safety mechanisms were mixed and stored together in both Theatre and the Delivery Ward. HIQA recommends that the hospital review its compliance with EU Sharps Directive and Regulations 2010/32/EU.¹⁶

Authorised persons observed a staff member leave the operating theatre carrying a syringe by hand and proceed to administer to a patient without performing hand hygiene. Intravenous medication should be transported and administered in a manner that maintains sterility and minimizes risk for infection. These issues were communicated to management for immediate mitigation.

2.3 Key findings relating to hand hygiene

2.3.1 System change⁶ : *ensuring that the necessary infrastructure is in place to allow healthcare workers to practice hand hygiene.*

- The design of the majority of clinical hand wash sinks in Labour Ward and Theatre Department did not conform to Health Building Note 00-10 Part C: Sanitary assemblies.¹⁷ A hospital wide audit conducted in July 2015 found that only 40% clinical hand wash basins were Health Building Note 00-10 Part C compliant. HIQA was informed that a hand wash sink replacement and upgrade programme has been put in place; it is important that high-risk functional areas such as the Theatre Department and Labour Ward are prioritised.
- A wall mounted alcohol hand rub dispenser at the entrance to the Labour Ward was empty.
- A room used as a 'clean' utility room, located at the entrance to the Labour Ward did not have a clinical hand wash sink.
- As mentioned, there was no dedicated hand hygiene sink in the dirty utility room shared by the operating theatres.
- The inside of several soap dispensers in both areas were observed to be unclean.

2.3.2 Training/education⁶ : *providing regular training on the importance of hand hygiene, based on the 'My 5 Moments for Hand Hygiene' approach, and the correct procedures for handrubbing and handwashing, to all healthcare workers.*

Hospital training

- It was reported that 78% of clinical staff, excluding staff on sick leave and maternity leave, have received hand hygiene training in 2015.
- A breakdown of hand hygiene training attended in 2015 for each staff group was viewed. The figures showed that only 15% of medical staff in the Maternal and Child Health Directorate had attended hand hygiene training which was considerably lower than other staff groups. This is a concern to HIQA and should be addressed by the hospital as part of its QIP.
- Records indicated that 57% staff in the Theatre Department and 83% in the Labour ward had attended hand hygiene training in 2015.
- 100% staff in the Neonatal Unit and M3 Ward had attended hand hygiene training within the previous two years.
- HIQA was informed that local hand hygiene trainers within each department are responsible for hand hygiene training.

2.3.3 Evaluation and feedback⁶: *monitoring hand hygiene practices and infrastructure, along with related perceptions and knowledge among health-care workers, while providing performance and results feedback to staff.*

National hand hygiene audits

The national hand hygiene audits are published twice a year. From March/April 2011 to May/June 2013, University Maternity Hospital Limerick participated in the national hand hygiene audits as part of the Mid Western Regional Hospital Dooradoyle. University Maternity Hospital Limerick, together with five other hospitals, is a member of the University of Limerick Hospitals Group (UL Hospitals Group). Since October 2013, the UL Hospitals Group commenced reporting data as a group in the national hand hygiene audits and submits under three Directorates. University Maternity Hospital Limerick has submitted its hand hygiene data as part of the UL Hospitals Group Maternal and Child Health Directorate.

National hand hygiene audits are carried out by the Infection Prevention Control Nurse twice yearly. The University of Limerick Hospitals Maternal and Child Health Directorate achieved a compliance of 92.4% in the October/ November 2015 audit which was in line with the national target set by the HSE.¹⁸ The hospital needs to build on the achievements to date to ensure that hand hygiene compliance is sustained.

Period 1-10	Result
Period 1 March/April 2011 (Mid Western Regional Hospital Dooradoyle)	78.1%
Period 2 October/November 2011 (Mid Western Regional Hospital Dooradoyle)	83.8%
Period 3 May/June 2012 (Mid Western Regional Hospital Dooradoyle)	77.6%
Period 4 October/November 2012 (Mid Western Regional Hospital Dooradoyle)	82.4%
Period 5 May/June 2013 (Mid Western Regional Hospital Dooradoyle)	83.8%
Period 6 October/November 2013 (UL Hospitals Maternal and Child Health Directorate)	88.6%
Period 7 May/ June 2014 (UL Hospitals Maternal and Child Health Directorate)	88.1%
Period 8 October/ November 2014 (UL Hospitals Maternal and Child Health Directorate)	82.9%
Period 9 May/ June 2015 (UL Hospitals Maternal and Child Health Directorate)	85.7%
Period 10 (Oct/Nov 2015) (UL Hospitals Maternal and Child Health Directorate)	92.4%

Source: Health Protection Surveillance Centre – national hand hygiene audit results.¹⁸

Local hand hygiene audits

- In addition to twice yearly national hand hygiene audits, internal hand hygiene audits are also carried out locally across the hospital in all patient care areas by the Infection Prevention and Control Clinical Nurse Specialist. Feedback of results are given to staff in the areas audited by the infection prevention and control nurses. Where poor compliance is demonstrated additional hand hygiene education is provided by the Infection Prevention and Control Nurse.
- HIQA was informed that hand hygiene audit compliance of 100% was achieved in the Theatre Department and Labour Ward in December 2015. This was an increase from the 87% compliance achieved in a June 2015 audit.
- Medical staff achieved 66.7% compliance in the June 2015 audit which falls short of the HSE's national target of 90%.¹⁹

Observation of hand hygiene opportunities

Authorised persons observed hand hygiene opportunities using a small sample of staff in the inspected areas. It is important to note that the results of the particularly small sample observed is not statistically significant and therefore results on hand hygiene compliance do not represent all groups of staff across the hospital as a whole. In addition results derived should not be used for the purpose of external benchmarking.

The underlying principles of observation during inspections are based on guidelines promoted by the WHO²⁰ and the HSE.²¹ In addition, authorised persons may observe other important components of hand hygiene practices which are not reported in national hand hygiene audits but may be recorded as optional data. These include the duration, technique^γ and recognised barriers to good hand hygiene practice. These components of hand hygiene are only documented when they are clearly observed (uninterrupted and unobstructed) during an inspection. Such an approach aims to highlight areas where practice could be further enhanced beyond the dataset reported nationally.

Due to the personal nature of care delivered in both the Labour Ward and the Operating Theatre, only two hand hygiene opportunities were observed in the areas inspected. Hand hygiene opportunities observed comprised the following:

- one before clean/ aseptic technique.
- one after body fluid exposure risk.

Neither of these hand hygiene opportunities were taken.

2.3.4 Reminders in the workplace⁶: *prompting and reminding healthcare workers about the importance of hand hygiene and about the appropriate indications and procedures for performing it.*

- Hand hygiene advisory posters were not consistently displayed near all sinks inspected in the general Theatre Department and Labour Ward. Hand hygiene signage needs to be reviewed throughout the Delivery Ward.

^γ The inspectors observe if all areas of hands are washed or alcohol hand rub applied to cover all areas of hands.

2.3.5 Institutional safety climate⁶: *creating an environment and the perceptions that facilitate awareness-raising about patient safety issues while guaranteeing consideration of hand hygiene improvement as a high priority at all levels.*

The UL Hospitals Maternal and Child Health Directorate, of which University Maternity Hospital Limerick is a member, needs to continue to build on compliances achieved to date regarding hand hygiene to ensure that recent improvements in hand hygiene practice are maintained in all clinical areas and across all staff groups and that national targets are attained.

2.4 Key findings relating to infection prevention care bundles[†]

Documentation and practices relating to the use of infection prevention care bundles was reviewed. A group-wide policy and procedure for adult peripheral intravascular cannulation management had been implemented. However, observations by authorised persons at the time of the inspection found that a template for care bundles was not included in the policy and there was a lack of focus on peripheral venous catheter care bundle application within the policy reviewed.²² The policy for urinary catheter management had recently been approved and detailed the care bundle implementation and audit procedures.

The hospital has been collecting invasive medical device quality care-metrics since October 2015. A recent drop in compliance indicates that further improvement in the management of invasive medical devices is required. Theatre Department and Labour Ward achieved 60% compliance in November and December 2015 and 75% compliance in January. However, compliance had improved and remained consistently high on M3 Ward with 100% compliance maintained in November, December 2015 and January 2016.

The hospital informed HIQA that midwives/ nurses have received training with regard to the implementation of care bundles. Staff on the wards had a good awareness and knowledge of urinary catheter and peripheral venous catheter care bundles. The hospital has demonstrated a commitment to improving and fully embedding care bundles. The hospital anticipates that invasive medical device quality care-metrics will continue to be used to guide improvement.

Group-wide surveillance reports are published for each Directorate quarterly by the Microbiology Department, University Hospital Limerick. The Maternal and Child Health Directorate had consistently low levels of peripheral and central line associated *Staphylococcus aureus* bacteraemia. HIQA was informed that infections related to invasive medical devices are reported back to relevant clinical areas if they occur.

[†] A care bundle consists of a number of evidence based practices which when consistently implemented together reduce the risk of device related infection.

3. Summary

HIQA notes that the fabric and infrastructure of University Maternity Hospital, Limerick presents ongoing challenges to the maintenance and upkeep of the building. The current infrastructure and design of the Theatre Department does not meet international best practice guidelines for operating theatre infrastructure.⁹ The design and workflow of the Theatre Department should take into account the need to prevent the risk of cross-infection. Clean and dirty areas should be kept separate and the workflow patterns of each area should be clearly defined. Storage areas need to be appropriate for the operational requirements of each clinical area.

HIQA was informed that plans for a new custom built maternity hospital to be located on the campus at University Hospital Limerick have been announced. However, the proposed new hospital development will take a number of years to complete. In the interim, any changes and measures that can be implemented to address the issues identified and to enhance infection prevention and control practices should be progressed.

Despite the challenges posed by the Theatre Department infrastructure, there was evidence of good local ownership with regard to hygiene in general. Some opportunities for improvement in respect of cleaning processes and the management of cleaning equipment were identified in both areas inspected. HIQA recommends that adequate cleaning resources are provided across the hospital, and particularly in high-risk clinical areas.

HIQA recommends that the hospital reviews local practices relating to the preparation, storage and administration of intravenous anaesthetic medications to assure itself that the potential risks to patients in this regard are fully mitigated.

Poor uptake of hand hygiene training by medical staff is a concern and should be addressed by the hospital as part of its QIP. The hospital needs to build on compliances achieved to date to ensure that good hand hygiene compliance is maintained across all clinical areas.

University Maternity Hospital, Limerick has demonstrated that it is working towards compliance with Standard 8 of the Infection Prevention and Control Standards¹ and is committed to improving the management of invasive devices.

4. Next steps

University Maternity Hospital, Limerick must now revise and amend its quality improvement plan (QIP) that prioritises the improvements necessary to fully comply with the Standards. This QIP must be approved by the service provider's identified individual who has overall executive accountability, responsibility and authority for the delivery of high quality, safe and reliable services. The QIP must be published by the hospital on its website within six weeks of the date of publication of this report and at that time, provide HIQA with details of the web link to the QIP.

It is the responsibility of University Maternity Hospital, Limerick to formulate, resource and execute its QIP to completion. HIQA will continue to monitor the hospital's progress in implementing its QIP, as well as relevant outcome measurements and key performance indicators. Such an approach intends to assure the public that the hospital is implementing and meeting the Standards, and is making quality and safety improvements that safeguard patients.

5.0 References[‡]

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- ¹ Health Information and Quality Authority. *National Standards for the Prevention and Control of Healthcare Associated Infections*. Dublin: Health Information and Quality Authority; 2009. [Online]. Available from: <http://www.hiqa.ie/publication/national-standards-prevention-and-control-healthcare-associated-infections>.
- ² Health Information and Quality Authority. *Guide: Monitoring Programme for unannounced inspections undertaken against the National Standards for the Prevention and Control of Healthcare Associated Infections*. Dublin: Health Information and Quality Authority; 2015. [Online]. Available from: <http://www.hiqa.ie/system/files/Guide-to-HCAI-Unannounced-Inspections-2015.pdf>
- ³ Health Protection Surveillance Centre. *Prevention of Intravascular Catheter - related Infection in Ireland. Update of 2009 National Guidelines September 2014*. 2014 [Online]. Available from: <http://www.hpsc.ie/A-Z/MicrobiologyAntimicrobialResistance/InfectionControlandHAI/IntravascularIVlines/Publications/File,14834,en.pdf>
- ⁴ Health Protection Surveillance Centre. *Guidelines for the prevention of catheter-associated urinary tract infection. SARI Working Group*. 2011. [Online]. Available from: https://www.hpsc.ie/A-Z/MicrobiologyAntimicrobialResistance/InfectionControlandHAI/Guidelines/File,12913_en.pdf
- ⁵ Loveday H.P., Wilson J.A., Pratt R.J., Golsorkhi M., Tingle A., Bak A., Browne J. et al (2014) epic 3: National evidence-based guidelines for preventing healthcare-associated infections in NHS hospitals in England. *Journal of Hospital Infection*. 2014 January, Volume 86, Supplement 1: ppS1-S70. [Online] Available from: <http://www.sciencedirect.com/science/article/pii/S0195670113600122>
- ⁶ World Health Organization. *A Guide to the Implementation of the WHO Multimodal Hand Hygiene Improvement Strategy*. Revised August 2009. [Online]. Available from: http://www.who.int/gpsc/5may/tools/system_change/en/.
- ⁷ Department of Health, United Kingdom. *Health Building Note 26: Facilities for surgical procedures: volume 1*. [Online]. Available from: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/148490/HBN_26.pdf

[‡] All online references were accessed at the time of preparing this report.

- ⁸ Department of Health, United Kingdom. Health Building Note 00-02 Part C: Sanitary spaces. [Online]. Available from: http://www.dhsspsni.gov.uk/hbn_00_02.pdf
- ⁹ Department of Health, United Kingdom. Health Building Note 09-02 – Maternity care facilities. [Online]. Available from: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/147876/HBN_09-02_Final.pdf
- ¹⁰ Health Protection Surveillance Centre, Infection Prevention and Control Building Guidelines for Acute Hospitals in Ireland. *SARI. 2008*. [Online]. Available from: <https://www.hpsc.ie/A-Z/MicrobiologyAntimicrobialResistance/InfectionControlandHAI/Guidelines/File,3439,en.pdf>
- ¹¹ Department of Health and Children. Segregation Packaging and Storage Guidelines for Healthcare Risk Waste [Online] Available from: http://health.gov.ie/wp-content/uploads/2014/03/healthcare_waste_packaging2010.pdf
- ¹² Centers for Disease Control and Prevention. Guideline for Disinfection and Sterilization in Healthcare Facilities, 2008. [Online]. Available from: http://www.cdc.gov/hicpac/Disinfection_Sterilization/3_4surfaceDisinfection.html
- ¹³ National Hospitals Office, Quality, Risk & Customer Care. HSE Cleaning Manual Acute Hospitals. *September 2006*. [Online]. Available from: http://hse.ie/eng/services/publications/Hospitals/HSE_National_Cleaning_Standards_Manual.pdf
- ¹⁴ The British Standards Institute. PAS 5748:2014 Specification for the planning, measurement and review of cleanliness services in hospitals. [Online]. Available from: <http://shop.bsigroup.com/ProductDetail/?pid=000000000030292594>
- ¹⁵ The Association of Anaesthetists of Great Britain and Ireland. Infection Control in Anaesthesia. 2008 <http://www.aagbi.org/publications/guidelines/infection-control-anaesthesia-2>
- ¹⁶ European Union (Prevention of Sharps Injuries in the Healthcare Sector) Regulations 2014 (S.I. No. 135 of 2014) [Online]. Available from: http://www.hsa.ie/eng/Legislation/New_Legislation/S_I_135_of_2014.pdf
- ¹⁷ Department of Health, United Kingdom. Health Building Note 00-10 Part C: Sanitary Assemblies. [Online]. Available from: http://www.dhsspsni.gov.uk/hbn_00-10_part_c_l.pdf

- ¹⁸ The Health Protection Surveillance Centre. *National Hand Hygiene Audit Results*. [Online]. [Online]. Available from: <http://www.hpsc.ie/hpsc/A-Z/Gastroenteric/Handwashing/HandHygieneAudit/HandHygieneAuditResults/>.
- ¹⁹ Health Service Executive. *National Service Plan 2015*. [Online]. Available from: <http://www.hse.ie/eng/services/publications/corporate/sp2015.pdf>.
- ²⁰ World Health Organization. *Guide to Hand Hygiene in Healthcare and WHO Hand Hygiene Technical Reference Manual*. [Online]. Available from: http://whqlibdoc.who.int/publications/2009/9789241597906_eng.pdf?ua=1
- ²¹ Health Service Executive. *Hand Hygiene Observation Audit Standard Operating Procedure April 2013*. [Online]. Available from: http://www.hpsc.ie/hpsc/A-Z/Gastroenteric/Handwashing/HandHygieneAudit/HandHygieneAuditTools/File,12660_en.pdf.
- ²² The Health Protection Surveillance Centre. Care Bundles [Online]. Available from <http://www.hpsc.ie/A-Z/MicrobiologyAntimicrobialResistance/InfectionControlandHAI/IntravascularIVlines/Carebundles/>

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For further information please contact:

Health Information and Quality Authority
Dublin Regional Office
George's Court
George's Lane
Smithfield
Dublin 7

Phone: +353 (0) 1 814 7400

Email: qualityandsafety@hiqa.ie

URL: www.hiqa.ie

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