Health Information and Quality Authority

An tÚdarás Um Fhaisnéis agus Cáilíocht Sláinte

Report of the unannounced monitoring assessment at the Rotunda Maternity Hospital, Dublin

Monitoring Programme for the National Standards for the Prevention and Control of Healthcare Associated Infections

Date of unannounced on-site monitoring assessment: 15 May 2013

About the Health Information and Quality Authority

The Health Information and Quality Authority (HIQA) is the independent Authority established to drive continuous improvement in Ireland's health and personal social care services, monitor the safety and quality of these services and promote person-centred care for the benefit of the public.

The Authority's mandate to date extends across the quality and safety of the public, private (within its social care function) and voluntary sectors. 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 those health and social care services in Ireland that by law are required to be regulated by the Authority.

- **Social Services Inspectorate** – Registering and inspecting residential centres for dependent people and inspecting children detention schools, foster care services and child protection services.

- **Monitoring Healthcare Quality and Safety** – Monitoring the quality and safety of health and personal social care services and investigating as necessary serious concerns about the health and welfare of people who use these services.

- **Health Technology Assessment** – Ensuring the best outcome for people who use our health services and best use of resources by evaluating the clinical and cost effectiveness of drugs, equipment, diagnostic techniques and health promotion activities.

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

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1. Introduction

The Health Information and Quality Authority (the Authority or HIQA) commenced Phase 1 of the monitoring programme for the *National Standards for the Prevention and Control of Healthcare Associated Infections* (the National Standards) in the last quarter of 2012. This initially focused on announced and unannounced assessments of acute hospitals' compliance with the National Standards.

Phase 2 commenced in January 2013, and will continue throughout 2013 and into 2014 to include announced assessments at all acute hospitals in Ireland and the National Ambulance Service.

This report sets out the findings of the unannounced monitoring assessment by the Authority of the Rotunda Maternity Hospital's compliance with the *National Standards for the Prevention and Control of Healthcare Associated Infections* (NSPCHCAI).

The purpose of the unannounced monitoring assessment is to assess the hygiene as experienced by patients at any given time. The unannounced assessment focuses specifically on the observation of the day-to-day delivery of hygiene services and in particular environment and equipment cleanliness and compliance with hand hygiene practice.

An unannounced on-site monitoring assessment focuses on gathering information about compliance with two of the NSPCHCAI Standards. These are:

- Standard 3: Environment and Facilities Management, Criterion 3.6
- Standard 6: Hand Hygiene, Criterion 6.1.

The Authority used hygiene observation tools to gather information about the cleanliness of the environment and equipment as well as hand hygiene compliance. Documents and data such as hand hygiene training records are reviewed during an unannounced monitoring assessment.

The emergency department (ED) is usually the entry point for patients who require emergency and acute hospital care, with the outpatient department (OPD) the first point of contact for patients who require scheduled care. In Irish hospitals in 2011, there were over 1 million attendances at EDs and over 3 million outpatient attendances.

Accordingly, the monitoring assessment will generally commence in the ED, or in the OPD and follow a patient's journey to an inpatient ward. This provides the Authority with an opportunity to observe and assess the hygiene as experienced by the majority of patients. The Authority uses hygiene

observation tools to gather information about the cleanliness of at least two clinical areas. Although specific clinical areas are assessed in detail using the hygiene observation tools, Authorised Persons from the Authority also observe general levels of cleanliness as they follow the patient journey through the hospital. The monitoring approach taken is outlined in Appendix 1.

Authorised Persons from the Authority, Breeda Desmond and Catherine Connolly Gargan carried out the unannounced assessment at the Rotunda Maternity Hospital on 15 May 2013 between 08:30hrs and 12:00hrs.

The Authorised Persons from HIQA commenced the monitoring assessment in the Emergency Assessment Unit.

The areas assessed were:

- Pre-natal ward
- Post-natal ward.

The Authority would like to acknowledge the cooperation of staff at the Rotunda Maternity Hospital with this unannounced monitoring assessment.

2. Rotunda Maternity Hospital profile[‡]

Current services

The Rotunda Maternity Hospital has been providing care to generations of women and their families since 1745. 2013 is the 256th year of unbroken service on the Parnell Square, Dublin, site. It is a 198-bed teaching hospital with the following services:

Specialties

- maternity (including Community Midwifery Services)
- gynaecology
- neonatology
- anaesthetics
- infertility
- sexual assault forensic examination and treatment.

Maternity, neonatal and gynaecology services are provided to meet the needs of its local community. Regional services are also provided for women with high risk pregnancies likely to require delivery prior to 27 weeks gestation and for men and women suffering from sexual assault. National services are provided in the areas of maternal-fetal medicine, neonatal intensive care, human assisted reproduction and gamete cryopreservation.

Activity trends

The hospital has experienced an unprecedented demand for services over the past number of years, evidenced by a 33% accumulative increase in births since 2005. In 2012, 8,845 women gave birth to 9,041 babies weighing greater than (>) 500 grams. One thousand and ninety two babies were admitted to the Neonatal Unit for intensive and/or specialist care. There were 24,558 presentations to the Assessment and Emergency Unit and 65,712 public outpatient attendances. There has also been a marked increase in demand for gynaecology care over the past number of years.

Infrastructure

The Rotunda Maternity Hospital's 4.5 acres campus consists of buildings that vary in age from 256 years to a building commissioned four years ago. The main hospital was built in 1757 and the Prenatal, Postnatal and Gynaecology wards are located in this protected and listed building. The Outpatients Department building dates back to the 1950s. In 1992, the Plunkett Cairnes

[‡] The hospital profile information contained in this section has been provided to the Authority by the hospital, and has not been verified by the Authority.

wing was constructed, which consists of two operating theatres, and a nine-bedded Delivery Suite. In 2003, the new Neonatal Unit, which is a modern 39-bedded specialist Neonatal Unit, was opened, along with a new Postnatal ward – the Lillie Suite. The most recent capital project included the modernisation of the Front Reception and the Assessment and Emergency Unit, which were officially opened in 2009.

3. Findings

The findings of the unannounced monitoring assessment at the Rotunda Maternity Hospital, Dublin on 15 May 2013 are described below.

During the course of the monitoring assessment, the Authority did not identify any immediate serious risks to the health and welfare of patients receiving care in the areas assessed at the hospital.

3.1 Standard 3. Environment and Facilities Management

Standard 3. Environment and Facilities Management

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 (HCAI).

Criterion 3.6. The cleanliness of the physical environment is effectively managed and maintained according to relevant national guidelines and legislation; to protect service-user dignity and privacy and to reduce the risk of the spread of HCAIs.

Overall, the Authority found the areas assessed to be generally clean, with some areas for improvement identified.

Post-natal Ward

Environment and equipment

There was evidence of good practice which included the following:

- Bed frames, bedrails, pillows, mattresses, bedside tables and curtain rails assessed were clean, intact and free of dust.
- Patient equipment, for example the resuscitation trolley, dressing trolley and observation equipment stands were clean and free of dust.

- Chairs in clinical areas were covered with an impermeable material and were clean and intact.

- Isolation rooms had appropriate signage displayed in the ante-room. Appropriate protective equipment was available and both clinical and non-clinical waste bins were in place.

- A 2013 schedule of 13 hygiene inspections by the hospital's senior management was demonstrated to Authorised Persons during the assessment. Participants in these hygiene inspections include the General Manager, Director of Nursing, Support Services Manager, Quality and Marketing Manager and the Governor. Household supervisors undertake monthly environmental audits with household personnel. Nursing staff undertake monthly audits of clinical areas. Results of audits were demonstrated, which identified actions to be taken, dates for completion and the person/department to whom the responsibility is assigned.

However, there was also evidence of practice that was not compliant with the *National Standards for the Prevention and Control of Healthcare Associated Infections* including:

- Paintwork throughout the ward including radiators, walls and skirting boards required attention.

- There was no designated 'clean' utility room on this ward. The nurses' station room also functioned as the clean utility room and was cluttered. Preparation of medicines, including intravenous preparations, occurred in a very confined space on the worktop in the room. The protective varnish covering the work surfaces and cupboard surfaces here were eroded, thus impeding effective cleaning.

- There were two 'general post-natal trays' on a shelf in the clean area of the nurses' station. These are used by medical staff when checking babies. The trays contained paper measuring tapes, gloves, ophthalmoscope (instrument for checking eyes) and uncovered tongue depressors. These trays were grubby, dusty and all the contents were uncovered and exposed.

- There was no designated 'dirty'* utility room. The bedpan washer, bedpan storage and other equipment were situated at the front of the patient toilets, hand-wash basins and bath cubicle room. There was a

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

sink alongside the bedpan washer and it was unclear if this sink served a dual purpose, that is, if it was used both for hand washing and washing patient equipment. While there was no signage indicating hand-wash use, there were paper towels and a hand-wash soap dispenser in place. This was brought to the attention of the Ward Manager during the assessment to review work practice and usage of this area.

- Travel incubators, baby cots and the resuscitation trolley were clean and covered with a heavy-duty plastic for protection. However, these were stored on the main corridor of the ward, as well as linen trolleys and chairs, making the corridor cluttered.

- There was moderate dust on the underneath surface of an unused baby cot.

- The surface of bedside lockers assessed was eroded, making effective cleaning difficult.

- While patients had bedside lockers, there was no other storage for their belongings, which were placed on the ground alongside their bed.

- While hand-wash sinks were hands-free, they did not comply with the Health Service Executive's (HSE's) Health Protection Surveillance Centre's *Guidelines for Hand Hygiene* (2005). Water flowed directly into the water outlet, which contained a metal grid.

- Tiles behind one hand-wash sink were chipped and cracked in one patient bathroom. There was a mould-like substance observed on the grouting behind the taps of this sink.

- While a clinical waste information poster identifying waste segregation was displayed in the nurses' station, it was not laminated, along with other information signage, making effective cleaning difficult.

- There were designated storage areas for sterile equipment which contained such items as sterile scissors. While this cupboard was lockable, it was not locked and posed a safety risk. This was brought to the attention of the Ward Manager during the assessment.

Linen

There was evidence of good practice which included the following:

- The Authority was informed that, as standard, curtains were changed on a monthly basis and when necessary, by household staff. Local records of curtain changing were demonstrated.

- Clean linen was stored appropriately in a dedicated linen cupboard. The linen room was found to be clean and free of dust, dirt, grit or inappropriate equipment. Linen examined was free of stains and was intact.

- Used linen was segregated in line with best practice, evidenced by colour-coded linen bags and alginate bags.

Cleaning equipment

There was evidence of good practice which included the following:

- Authorised Persons from HIQA observed that the 'household' cupboard containing potentially hazardous cleaning solutions was locked and inaccessible to unauthorised persons in line with best practice. There was a second cubicle which contained other detergents and this was also secure.

- Cleaning staff spoken with by the Authority were knowledgeable regarding infection prevention and control protocols.

- Cleaning equipment was clean, with an established cleaning process evident. A colour-coded system was in place and demonstrated in the area assessed.

However, there was also evidence of practice that was not compliant with the *National Standards for the Prevention and Control of Healthcare Associated Infections* including:

- Chemicals for disinfection purposes were maintained in an unsecure cupboard in the sluice area of the public toilets. Best practice outlines that chemicals must be secure and inaccessible to unauthorised persons, to mitigate a health and safety risk.

Water outlet flushing

There was evidence of good practice which included the following:

- Daily flushing records were observed. The Authority was informed that regular water sampling is also undertaken to mitigate the risk associated with impurities including Legionella. This was confirmed by supporting documentation.

Waste Segregation:

- Hazardous waste was labelled and placed in a designated holding unit while awaiting collection. However, this unit was not locked or lockable. This was not in keeping with best practice and posed a health and safety risk. This was brought to the attention of the Ward Manager during the monitoring assessment.

Pre-natal ward

Environment and equipment

There was evidence of good practice which included the following:

- Bed frames, pillows, mattresses, and curtain rails assessed were clean, intact and free of dust.
- Chairs in clinical areas were covered with an impermeable material and were clean and intact.
- There were four single en suite rooms available for isolation purposes when necessary. While no one required isolation during this assessment, staff outlined best practice regarding isolation procedures, including use of protective equipment.
- Information signage was laminated and clean.

However, there was also evidence of practice that was not compliant with the *National Standards for the Prevention and Control of Healthcare Associated Infections* including:

- Paintwork on radiators required attention.
- There was no designated 'clean' utility room on this ward. The ante-room leading into the nurses' station room was designated as a clinical storage room. The nurses' station was also used as the clean utility room including medication storage and preparation. Preparation of medicines, including intravenous preparations, occurred in a very confined space on the worktop in the room. Although there was a ward clerk at a desk in the nurses' station, for the majority of the time during the monitoring assessment by the Authority, this area was not secure.
- There was no designated 'dirty' utility room. Patients' toilets and shower were located within the sluice area. There is one hand-wash sink by the toilets, a second hand-wash sink by the shower room and a third by the sluicing area. Bedpans were stored in the sluice area and

two of these were visibly soiled. The seat of a commode was also stained.

- Travel incubators, baby cots and the resuscitation trolley were clean and covered with a heavy-duty plastic for protection. However, these were stored on the main corridor of the ward making the corridor cluttered.

- Protective paint covering was missing from the base of some bedside tables, thus impeding effective cleaning.

- While patients had bedside lockers, there was no other storage for their belongings which were placed on the ground alongside their bed. This impeded effective floor cleaning.

- While hand-wash sinks were hands-free, they did not comply with the Health Protection Surveillance Centre's *Guidelines for Hand Hygiene* (2005). Water flowed directly into the water outlet, which contained a metal grid.

- The surfaces of some shower trays were worn. There were small areas of a mould-like substance evident on some walls and showers.

- Hazardous waste was labelled and placed in a designated holding unit while awaiting collection. However, this unit was not locked or lockable. This was not in keeping with best practice and posed a health and safety risk.

Linen

There was evidence of good practice which included the following:

- The Authority was informed that, as standard, curtains were changed on a monthly basis and when necessary, by household staff. It was reported that curtains were changed following each patient discharge in the isolation rooms. Local records of curtain changing were demonstrated.

- Clean linen was stored appropriately on a dedicated linen trolley which was covered when not in use. Linen examined was free of stains and was intact.

- Used linen was segregated in line with best practice, evidenced by colour-coded linen bags and alginate bags used in the clinical areas.

Cleaning equipment

There was evidence of good practice which included the following:

- Authorised Persons from HIQA observed that the 'household' cupboard containing potentially hazardous cleaning solutions was locked and inaccessible to unauthorised persons in line with best practice.
- Cleaning staff spoken with by the Authority were knowledgeable regarding infection prevention and control protocols.
- A colour-coded system was in place and demonstrated in the area assessed.

However, there was also evidence of practice that was not compliant with the *National Standards for the Prevention and Control of Healthcare Associated Infections* including:

- Chemicals for disinfection purposes were maintained in an unsecure cupboard in the sluice area of the public toilets. Best practice outlines that chemicals must be secure and inaccessible to unauthorised persons to mitigate a health and safety risk.
- The cleaning trolley was unclean, with dust and grit evident on the base. All cleaning equipment belonging to the Pre-natal ward was stored on the floor above or on the floor below.

Water outlet flushing

There was evidence of good practice which included the following:

- Daily flushing records were observed. The Authority was informed that regular water sampling is also undertaken to mitigate the risk associated with waterborne diseases, including Legionella. This was confirmed by supporting documentation.

Waste segregation

There was evidence of good practice which included the following:

- The hospital waste management policy was implemented in 2012 and was accessible to all staff through the Q-Pulse document management system.
- Clinical waste information posters identifying waste segregation were displayed in the area assessed.

- Hazardous waste was tagged before leaving the point of production ensuring traceability if necessary.

However, there was also evidence of practice that was not compliant with the *National Standards for the Prevention and Control of Healthcare Associated Infections* including:

- Hazardous waste was labelled and placed in a designated holding unit while awaiting collection. However, this unit was not locked or lockable. This was not in keeping with best practice and posed a health and safety risk. This was brought to the attention of the Ward Manager during the monitoring assessment.

Conclusion

The Authority found that the two clinical areas assessed were generally clean. Authorised Persons note the infrastructural challenges of an older listed building. Notwithstanding this, there were opportunities for improvement.

3.2 Standard 6. Hand Hygiene

Standard 6. Hand Hygiene

Hand hygiene practices that prevent, control and reduce the risk of the spread of Healthcare Associated Infections are in place.

Criterion 6.1. There are evidence-based best practice policies, procedures and systems for hand hygiene practices to reduce the risk of the spread of HCAIs.

Hand hygiene is recognised internationally as the single most important preventative measure in the transmission of HCAIs in healthcare services. It is essential that a culture of hand hygiene practice is embedded in every service at all levels.

Hand hygiene
There was evidence of good practice which included the following:

- The hospital demonstrated that hand hygiene practices were monitored through internal audits and national hand hygiene compliance audits.

However, there was also evidence of practice that was not compliant with the *National Standards for the Prevention and Control of Healthcare Associated Infections* including:

- Hand hygiene training and monitoring was reported to be provided by the Infection Control Nurse. It was reported that a database was maintained that recorded names of staff on completion of training. This information was subsequently communicated to ward managers. Hand hygiene training records were demonstrated. Authorised Persons observed that the hand hygiene records demonstrated hand hygiene training compliance averaged 60% – 70% across all disciplines. The General Manager outlined that the remainder of staff will be targeted to ensure compliance with this mandatory training.

Observation of hand hygiene opportunities.
The Authority observed 20 hand hygiene opportunities throughout the monitoring assessment, comprising of:

- seven before touching a patient
- four after touching a patient
- eight after touching the patient's surroundings
- one before clean/aseptic procedure.

Fifteen of 20 hand hygiene opportunities were taken. Of those, nine were observed to comply with best practice hand hygiene technique. Non-compliance related to not following best practice hand-washing technique and the length of time taken to complete the hand hygiene procedure.

Conclusion

While the Authority recognises that the hospital had implemented a number of initiatives to improve hand hygiene, the observations by the Authority regarding hand hygiene compliance indicates that a culture of hand hygiene is not yet operationally embedded within all staff specialities.

4. Overall conclusion

The risk of the spread of Healthcare Associated Infections (HCAIs) is reduced when the physical environment and equipment can be readily cleaned and decontaminated. It is therefore important that the physical environment and equipment is planned, provided and maintained to maximise patient safety.

The Authority found that the two clinical areas assessed were generally clean. However, there were opportunities for improvement:

- clutter in the nurses' station/clean utility room
- lack of appropriate storage for equipment and patient belongings on both wards assessed
- unsecured chemical storage, clinical waste and sterile equipment
- lack of designated 'dirty utility room' with associated integration of sluicing facilities with patient toilets and showering facilities.

Hand hygiene is recognised internationally as the single most important preventative measure in the transmission of HCAIs in healthcare services. It is essential that a culture of hand hygiene practice is embedded in every service at all levels. The Authority found that hand hygiene practices in the Rotunda Maternity Hospital were inconsistent with the National Standards and this poses a clear risk to patients of contracting a HCAI.

The Rotunda Maternity Hospital must now develop a quality improvement plan (QIP) that prioritises the improvements necessary to fully comply with the *National Standards for the Prevention and Control of Healthcare Associated Infections.* 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.

The Authority will continue to monitor the hospital's QIP as well as relevant outcome measurements and key performance indicators, in order to provide assurances to the public that the hospital is implementing and meeting the NSPCHCAI and is making quality and safety improvements that safeguard patients.

Appendix 1. NSPCHCAI Monitoring Assessment

Focus of monitoring assessment

The aim of the NSPCHCAI together with the Health Information and Quality Authority's monitoring programme is to contribute to the reduction and prevention of Healthcare Associated Infections (HCAIs) in order to improve the quality and safety of health services. The NSPCHCAI are available at http://www.hiqa.ie/standards/health/healthcare-associated-infections.

Unannounced monitoring process

An unannounced on-site monitoring assessment focuses on gathering information about compliance with two of the NSPCHCAI Standards. These are:

Standard 3: Environment and Facilities Management, Criterion 3.6

Standard 6: Hand Hygiene, Criterion 6.1.

The Authorised Persons use hygiene observation tools to gather information about the cleanliness of the environment and equipment as well as hand hygiene compliance. Documents and data such as hand hygiene training records are reviewed during an unannounced monitoring assessment.

The Authority reports its findings publicly in order to provide assurances to the public that service providers have implemented and are meeting the NSPCHCAI and are making the quality and safety improvements that prevent and control HCAIs and safeguard service users.

Please refer to the Guide document for full details of the NSPCHCAI Monitoring Programme available at http://www.hiqa.ie/publications/guide-monitoring-programme-national-standards-prevention-and-control-healthcare-associa.

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