



**Health
Information
and Quality
Authority**

An tÚdarás Um Fhaisnéis
agus Cáilíocht Sláinte

Report of the unannounced monitoring assessment at the Mater Misericordiae University Hospital, Dublin

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

Date of on-site monitoring assessment: 6 August 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 assessment 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 Mater Misericordiae University Hospital's compliance with the *National Standards for the Prevention and Control of Healthcare Associated Infections* (NSPCHAI).

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 NSPCHAI 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.

The unannounced assessment was carried out at the Mater Misericordiae University Hospital by Authorised Persons from the Authority, Catherine Connolly Gargan and Breeda Desmond, on 6 August 2013 between 11:30hrs and 16:00hrs. The Authorised Persons from HIQA commenced the monitoring assessment in the Emergency Department.

The areas subsequently assessed were:

- St Teresa's Ward (Medical)
- St Joseph's Ward (Surgical).

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

2. The Mater Misericordiae University Hospital Profile[†]

The Mater Misericordiae University Hospital is the main charitable and voluntary general hospital serving Dublin's north inner city. It is a university teaching hospital providing acute and tertiary specialist services. The population of its local catchment area is approximately 185,000. The hospital was established in 1861 under the auspices of Sr Catherine McAuley and the Sisters of Mercy. At full capacity it has approximately 600 beds including day beds. Approximately 18,000 patients are admitted annually, including 12,000 emergencies. Approximately 49,000 patients annually attend for day cases and 50,000 attend the Emergency Department each year. Outpatient attendances exceed 215,000 per annum.

The Mater is a designated cancer care centre and is the national centre for:

- cardiac surgery
- heart and lung transplantation
- extra corporeal life support (ECLS)
- spinal injuries
- pulmonary hypertension
- National Isolation Unit
- bone anchored hearing aid
- adult congenital heart disease (ACHD) service.

Other specialties include but are not limited to cardiology, ophthalmology, haematology/oncology, nephrology, urology, infectious diseases, psychiatry, ear nose and throat, rheumatology, diabetes and endocrinology, neurology and stroke care, a multidisciplinary breast care centre, respiratory medicine, vascular surgery, interventional radiology, emergency and intensive care medicine, plastic surgery, general and colorectal surgery, orthopaedics, medicine for the elderly, pain and palliative care medicine.

In addition to medical and nursing training and its link with the postgraduate colleges and faculties it has significant teaching and research commitments in association with the largest university in Ireland, University College Dublin. The teaching and research commitments range from diagnostic radiology, oncology, cardiology and other clinical specialties to healthcare informatics.

[†] 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.

3. Findings

The findings of the unannounced monitoring assessment at the Mater Misericordiae University Hospital on 6 August 2013 are described below.

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 HCAs.

Overall, the Authority found that many improvements were required in the cleanliness of the environment in both areas assessed, with some exceptions.

St Joseph's Ward

Environment and equipment

There was evidence of some good practice which included the following:

- Work station equipment, including telephones and keyboards was observed to be clean and free of dust, dirt and debris. A protective cover was placed over keyboards.
- Bedrails, pillows and mattresses assessed were found to be clean, intact and free of dust, rust and grit.
- Intravenous (IV) stands, pumps, blood pressure cuffs, dressing trolleys, temperature probes and oxygen equipment were clean.
- All equipment in the clinical area was found to be appropriate.

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

- There were light levels of dust and grit in the corners of the mattress bases on beds assessed.

- The outer surface of some locker doors and drawers had a sticky residue on them. There was also a light level of dust on the inner surfaces of open shelving in some lockers assessed.
- Paint on parts of the walls in patient and non-patient areas was cracked, peeling or missing.
- There was a light to moderate level of dust on high surfaces in the patient toilets assessed and in patient areas.
- Grit and dust was found along the edges of floor covering in patient areas.
- The surface of wooden armrests on patient seating was worn, hindering effective cleaning.
- The area in the crevice around the outside of patient call-bells assessed was soiled.
- The area between the base of the wall tiles and the shower tray had a black substance on its surface. Grouting was also stained with a black substance between tiles adjacent to the shower tray.
- A patient bathroom assessed was non-compliant with National PCHCAI Standards due to the following findings:
 - There were two unlocked cupboards containing sanitiser which posed a potential health and safety risk to unauthorised persons accessing this room.
 - The surface of two stacked wooden chairs was worn, hindering effective cleaning.
 - Two boxes of washcloths and two boxes containing 20 boxes of disposable gloves were stored on the floor.
 - The surface of the bath hoist was unclean and a crack was visible in the seat.
 - A ceiling tile was missing and a second tile was partially fitted.
 - The wall surface was damaged above the border surrounding the base of the wall.
 - The floor was wet with talcum powder residue and staining on its surface.
- There was light dust on the surface of the resuscitation trolley and the emergency suction unit. The defibrillator handle was stained and an oxygen saturation probe assessed was also unclean.
- Bedrails and intravenous poles were stored on the floor of the clean utility room.
- The floor surface of the drug storage room was stained; in addition the laminate surface of shelving was damaged in a number of areas and a wooden floor border along the back of the worktop was not intact.

- Access to areas containing hazardous waste/chemicals was not adequately controlled to prevent access by unauthorised persons. The door to the 'dirty' utility* room was closed but unlocked.
- The interior, exterior and under surface of the sluice hopper and equipment cleaning sink unit in the 'dirty' utility room was unclean. In addition the supporting frame of this unit was heavily rusted hindering effective cleaning. The surface of the bedpan washer was stained. A sharps waste disposal bin did not have assembly details completed as required. Light dust was present on high surfaces and grit was found on the edges of the flooring.
- Eight patient washbowls and bed urinals were not stored inverted. Bed urinals were found stored upright in a box on the stainless steel worktop of the sluice hopper and patient equipment cleaning sink unit. The interior and exterior surfaces of some bedpans were stained.

Waste segregation

There was evidence of good practice which included the following:

- Clinical and non-clinical waste was tagged with unique identification numbers at the point of generation facilitating tracking to source if required.

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

- While secure, large colour-coded waste collection bins were stored along the corridor outside the ward, which was not in line with waste management best practice procedures.
- A waste management policy was available, approved for staff reference in May 2011 and was overdue for review since May 2013.
- Two sharps waste bins in use did not have assembly details completed.

Isolation rooms

There was evidence of good practice which included the following:

- The door from the isolation room to the main ward corridor was closed at all times during the monitoring assessment by the Authority.

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

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

- While there was precautionary advisory signage displayed on the isolation room door, it was partially occluded by other signage. The door between an isolation room accommodating a patient with a communicable infection, and an anteroom (in which staff don protective gowns) between two isolation rooms was ajar. The patient accommodated in the other room was free of any communicable infection disorders and therefore at risk of contracting a HCAI.
- No hand hygiene advisory signage was displayed by the sink in the isolation ante-room.
- The temporary locking mechanism on a sharps waste disposal bin in the isolation ante-room was not engaged. Assembly details were not completed.

Linen

There was evidence of good practice which included the following:

- Documentation demonstrated that curtains are changed as necessary and every three months as standard or as required. Curtains were changed on each patient discharge from isolation rooms. Shower curtains were changed weekly as standard.
- Clean linen was stored in an appropriate designated linen room separate from used linen.
- There were no inappropriate items stored in the clean linen room.
- Used linen was segregated in colour-coded canvas bags.

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:

- Floor tiles were worn and damaged in some areas of the flooring.

Water outlet flushing

There was evidence of good practice:

- The Authority found that a water flushing schedule was in place for all water outlets to reduce the risk of waterborne infection. Records of flushing were maintained and demonstrated to the Authority.

St Teresa's Ward

Environment and equipment

There was evidence of some good practice which included the following:

- Bedrails, pillows and mattresses in both patient areas assessed were found to be clean, intact and free of dust, rust and grit.
- IV pumps, resuscitation trolley and emergency equipment, blood pressure cuffs, oxygen equipment, temperature probes and hoists were clean in both areas assessed.
- All equipment in the clinical area was found to be appropriate.

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

- Unlabelled syringes containing unknown solutions with attached and unattached uncapped needles were found stored in two kidney dishes on a worktop in the clean utility room. This finding presented a risk of sharps injury and was not in line with best medication management practice.
- There was a moderate level of dust on the undercarriage of beds assessed.
- The surfaces of protective ledges on bed tables were unclean.
- A light layer of dust was found on curtain rails in both areas assessed and moderate levels of dust were found on the surfaces between the bed headboard and the wall.
- Grit and dust were found along the edges of floor covering in patient areas.
- Not all potentially hazardous substances were securely stored; a bottle of bleach was stored on a designated hand-wash sink in a patient area.
- The bases, including the area over the wheels of intravenous stands assessed were unclean.
- A heavy amount of dust was found on the surfaces of shelving containing incontinence wear in a storeroom. In addition, an overfilled large clinical waste disposal bin was in this storeroom. Portable oxygen cylinders and a walking stick were also stored on the floor.
- The door to the clean utility room was unsecured and was held ajar by a waste glass disposal bin which was overfilled. The floor surface was stained and unclean. The temporary closure mechanism was not engaged on two sharps waste disposal bins assessed.
- Access to areas containing hazardous waste/chemicals was not adequately controlled to prevent access by unauthorised persons. The door to the 'dirty' utility room was unlocked and was held ajar by a non-clinical waste disposal bin.
- Debris and dust was found on the floor surface. There was staining on the wall behind the sluice hopper and patient equipment cleaning sink in the 'dirty' utility room.

- Inappropriate storage of hazardous chemicals was found in the 'dirty' utility room. Twenty five, five-litre containers of disinfectant were stored on the floor underneath the sluice hopper and patient equipment cleaning unit in addition to multiple wire catheter holders, some of which were rusted.

Waste segregation

There was evidence of good practice which included the following:

- Clinical and non clinical waste was tagged with unique identification numbers at the point of generation, facilitating tracking to source if required.

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

- Neither approval nor review dates for the waste management policy were included on the copy reviewed by the Authority.
- Clinical waste was stored in the 'dirty' utility room awaiting collection, the door to which was found to be unlocked. Therefore potentially hazardous waste was accessible to unauthorised persons.
- Not all waste disposal bins were clean or no more than two thirds full, in line with best practice.

Cleaning equipment

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

- The room was found to be heavily cluttered.
- Paint on the wall surface behind the sink was unclean and peeling.

Isolation rooms

There was evidence of good practice which included the following:

- All doors to isolation rooms were appropriately closed at all times
- Waste was appropriately managed in the ante-room to the isolation room

Linen

There was evidence of good practice which included the following:

- Curtains were changed every three to four months as standard or as required. Curtains were changed on each patient discharge from isolation rooms. Records viewed by the Authority confirmed this. Clean linen was stored in an appropriate designated linen room separate from used linen.
- There were no inappropriate items stored in the clean linen room.
- Used linen was segregated in colour-coded canvas bags.

Water outlet flushing

- The Authority was informed that a risk assessment of all water outlets had been completed and no water flushing schedule was required as all water outlets were in daily use.

Conclusion

In conclusion, the Authority found that there was much evidence of practice that was not compliant with the *National Standards for the Prevention and Control of Healthcare Associated Infections* in both areas assessed in the Mater Misericordiae University Hospital. Overall, the Authority found that many improvements were required in the cleanliness of the environment in both areas assessed, with some exceptions.

Patient equipment was clean with some exceptions. Therefore the environmental cleaning in both areas was not effectively managed and maintained to protect patients and reduce the spread of Healthcare Associated Infections (HCAIs).

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 HCAs.

Hand hygiene

There was evidence of good practice which included the following:

- Hand hygiene soap, alcohol gel and hand towels were located within easy access to the sinks designated for hand hygiene.

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:

- Not all clinical hand-wash sinks were compliant with the HSE's Health Protection Surveillance Centre's *Guidelines for Hand Hygiene* (2005) and many did not have hand hygiene procedure advisory information displayed. Designated clinical hand-wash sinks in the clean utility rooms in both areas assessed had metal grids in situ. The sink in the patient bathroom in St Joseph's ward had a bung and overflow port in situ. In St Teresa's ward, the area around the water taps and around the perimeter of the metal grid in the sink in the clean utility room was unclean.

Observation of hand hygiene opportunities

- The Authority observed 17 hand hygiene opportunities in total during the monitoring assessment. Hand hygiene opportunities observed comprised:
 - five before touching a patient
 - one after touching a patient
 - two before clean/aseptic procedure
 - five after body fluid exposure risk
 - four after touching a patient's surroundings.

- The Authority observed that between the two areas assessed nine of the total 17 hand hygiene opportunities were taken, eight of which were observed to comply with best practice hand hygiene technique. Non-compliance with hand hygiene best practice included failure to take opportunities to perform hand hygiene, wearing of sleeves to the wrist and wearing a wrist watch. A small number of medical staff wore a shoulder bag while attending to patients, which presented risk to patients of cross infection.

Conclusion

The Authority found that there was evidence of practice that was not compliant with the *National Standards for the Prevention and Control of Healthcare Associated Infections*. Hand-wash sinks in some clinical areas were not compliant with the HSE's Health Protection Surveillance Centre's *Guidelines for Hand Hygiene* (2005) and some designated hand-wash sinks were unclean. Non-compliant hand-washing facilities observed by the Authority posed a risk of spread of Healthcare Associated Infections (HCAs) to patients. The Authority's hand hygiene observations suggest that a culture of hand hygiene practice is not embedded at all levels, especially among staff practices observed by the Authority on St Joseph's ward.

4. Overall Conclusion

The risk of the spread of Healthcare Associated Infections 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 there was much evidence of practice that was not compliant with the *National Standards for the Prevention and Control of Healthcare Associated Infections* in both areas assessed in the Mater Misericordiae University Hospital. The Authority found that many improvements were required in the cleanliness of the environment in both areas assessed, with some exceptions. Patient equipment was clean with some exceptions. Therefore the environmental cleaning in both areas was not effectively managed and maintained to protect patients and reduce the spread of Healthcare Associated Infections (HCAs).

Hand hygiene is recognised internationally as the single most important preventative measure in the transmission of HCAs 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 not all hand hygiene practices in the Mater Misericordiae University Hospital were in compliance with the National Standards and this poses a risk to patients of contracting a HCAI.

The Mater Misericordiae University 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.

The unannounced monitoring assessment at the Mater Misericordiae University Hospital on 6 August 2013 was a snapshot of the hygiene levels in two areas of the Hospital at a point in time. Based on the findings of this assessment the Authority will, within the next six months, undertake a follow-up assessment against the *National Standards for the Prevention and Control of Healthcare Associated Infections.*

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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