



**Health
Information
and Quality
Authority**

An tÚdarás Um Fhaisnéis
agus Cáilíocht Sláinte

Report of the unannounced monitoring assessment at University Hospital Limerick

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

Date of on-site monitoring assessment: 10 December 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 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 University Hospital Limerick'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. 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 University Hospital Limerick by Authorised Persons from the Authority, Naomi Combe and Alice Doherty on 10 December 2013 between 10:30hrs and 17:00hrs. The Authorised Persons from HIQA commenced the monitoring assessment in the Emergency Department.

The areas subsequently assessed were:

- Trauma Ward (Orthopaedic)
- Ward 3C (Female Medical).

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

2. University Hospital Limerick Profile[†]

UHL is a large academic teaching hospital on the outskirts of Limerick City with academic links to the University of Limerick. UHL provides acute care services across to the population of Limerick, Clare, North Tipperary and surrounding counties (approx 400,000)

UHL is the Model 4 hospital, within UL Hospitals group, which comprises:-

- University Hospital Limerick (UHL) 438 beds & 76 Day beds
- Ennis Hospital (EH) 50 inpatient & 16 day beds
- Nenagh Hospital (NH) 46 inpatient & 25 day beds
- Croom Hospital (CH) 37 inpatient & 13 Day beds
- University Maternity Hospital Limerick (UMHL) 83 inpatient beds & 19 cots
- St John's Hospital Limerick (SJH) (Voluntary) 69 inpatient & 10 day beds

UHL is one of the 8 designated cancer centres in the country and is also a designated 24/7 Primary Percutaneous Coronary Intervention (PPCI) centre for STEMIs and a thrombolysis centre for the management of acute stroke. UHL is the only hospital site that has a full 24/7 emergency service and critical care service in the region.

In 2013 29,259 inpatients and 20,192 day cases were treated at UHL. There were almost 60,000 attendances at the Emergency Department (ED). Patients attending UHL have access to a full range of medical and surgical services and allied health services.

A major redevelopment project is currently underway at UHL with the Critical Care development just completed and work commenced on a new Emergency

[†] 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.

Department, Dialysis Unit, Cystic Fibrosis, Stroke Dermatology and Symptomatic Breast Units

UL Hospitals is governed by an interim Board and an Executive Management Team led by the CEO who reports to the Board. The CEO is accountable to the National Director Acute Services within the HSE. Delegated authority for the operation of the services is through the National Director Acute Services to the CEO of UL Hospitals.

3. Findings

The findings of the unannounced monitoring assessment at University Hospital Limerick on 10 December 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.

Construction activity at University Hospital Limerick

Due to the level of construction activity at University Hospital Limerick, the Authority has been informed that the following control measures have been employed to ensure patient safety in relation to Aspergillus:

- The Infection Prevention and Control Team (IPCT) is involved at all stages of the building/refurbishment process. Work permits and method statements are reviewed and signed off by a member of the IPCT before any work commences. Any precautions that are required are implemented at this stage, for example, the sealing of windows/access points.
- An Aspergillus education session is provided to all construction teams before any project commences, emphasising the importance of Aspergillus infection, control and prevention.
- A Building Sites Committee chaired by the Chief Executive Officer and represented by all key stakeholders allows for any new developments and concerns to be discussed on a monthly basis. A structured routine for Aspergillus air sampling regularly takes place, with all results being discussed and any results that give rise to concern being addressed. Recommended dust audits and enhanced cleaning are conducted and issues arising from this are raised with the IPCT and addressed.
- Prior to the completion of a project, the IPCT conducts a review and audit of the new or renovated area. Environmental monitoring is conducted if necessary based on national and international guidelines and recommendations. On completion, the area is deep cleaned and audited to ensure patient safety.

Trauma Ward (Orthopaedic)

Environment and equipment

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

- The patient area assessed was generally clean, tidy and well maintained with some exceptions.
- The washrooms assessed were generally clean, tidy and well maintained with some exceptions.
- Surfaces of equipment assessed, for example, intravenous stands, a blood pressure machine, blood pressure cuffs, temperature probes, hoists and accessories were clean and well maintained.
- The clean utility room was tidy and well maintained.
- The 'dirty'[±] utility room was generally tidy and well maintained.

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

- A heavy layer of dust was visible on the casement of electrical fittings located over patients' beds.
- A heavy layer of dust was visible on the base underneath a bed.
- There was chipped and peeling paint on a radiator.
- There was a substantial hole in the wall around a radiator pipe in the main ward area.
- Two ceiling tiles were missing in the washroom in the main ward area.
- Rust coloured staining was visible at the base of handrails in some of the washrooms.
- Dust was visible on the wheels of a resuscitation trolley.
- Rust coloured staining was visible at the wheel area and the base of the legs of a dressing trolley.
- Five oxygen cylinders stored in the clean utility room were not secured.
- The covering on some commodes stored in the 'dirty' utility room was damaged, potentially hindering effective cleaning. However, the Authority observed documentation to show that new commodes had been ordered.
- A wall tile was missing in a corner of the 'dirty' utility room, hindering effective cleaning.

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

Waste segregation

There was evidence of good practice which included the following:

- Foot-operated clinical and non-clinical waste disposal bins were available.
- Waste bins were visibly clean and no more than two thirds full.
- Clinical waste was tagged and secured before leaving the area of production.
- Clinical waste advisory posters, informing of waste segregation best practice procedures, were displayed.

Isolation rooms

There was evidence of good practice which included the following:

- Appropriate signage was displayed at the entrances to isolation rooms.
- Personal protective equipment was available outside the isolation rooms.

Linen

There was evidence of good practice which included the following:

- Linen was segregated into appropriate colour-coded bags.
- Bags were less than two thirds full and capable of being secured.
- Clean linen was stored in a designated area.
- Clean linen examined by the Authority was found to be free of stains.
- The Authority was informed that (i) window blinds are dusted daily and deep cleaned every six weeks and (ii) curtains are changed every six months or more frequently if necessary. Records of blind and curtain cleaning were observed by the Authority.

Cleaning equipment

There was evidence of good practice which included the following:

- Cleaning staff spoken with by the Authority were knowledgeable regarding infection prevention and control protocols in relation to their role.
- Cleaning equipment was clean and a colour-coded cleaning system was in place and demonstrated.
- Personal protective equipment was available and appropriately used by staff.

Water outlet flushing

- The Authority reviewed weekly records of water outlet flushing.

Ward 3C (Female Medical)

Environment and equipment

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

- The patient area assessed was generally clean, tidy and well maintained with some exceptions.
- The washrooms assessed were generally clean, tidy and well maintained with some exceptions.
- Surfaces of equipment assessed, for example, a cardiac monitor, a resuscitation trolley, dressing trolleys, blood pressure cuffs, oxygen saturation probes, temperature probes, suction apparatus, wheelchairs and cushions, hoists and accessories were clean and well maintained.
- The clean utility room was tidy and well maintained.
- The 'dirty' utility room was generally tidy and well maintained with some exceptions.

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

- A moderate to heavy layer of dust was visible on the casement of electrical fittings located over patients' beds.
- A moderate to heavy layer of dust was visible on the base of a bed.
- A layer of dust was visible on the pipes leading into a toilet
- A ring of dark coloured residue was visible around a shower tray in a washroom.
- In the 'dirty' utility room, shelves under the hand-wash sink and cupboard doors were chipped, hindering effective cleaning.
- The covering was damaged on some commodes stored in the 'dirty' utility room potentially hindering effective cleaning and there was rust coloured staining on some wheel areas of the commodes.

Waste segregation

There was evidence of good practice which included the following:

- Foot-operated clinical and non-clinical waste disposal bins were available.
- Clinical waste was tagged and secured before leaving the area of production.
- Clinical waste advisory posters informing of waste segregation best practice procedures were displayed.

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

- Four non-clinical waste disposal bins in the patient area assessed were more than two thirds full.
- A small amount of non-clinical waste was lying directly on the floor in the 'dirty' utility room.

Isolation rooms

There was evidence of good practice which included the following:

- Appropriate signage was displayed at the entrances to isolation rooms.
- Personal protective equipment was available outside the isolation rooms.

Linen

There was evidence of good practice which included the following:

- Linen was segregated into appropriate colour-coded bags.
- Clean linen was stored appropriately in dedicated storage areas which were clean and free of dust.
- Clean linen examined by the Authority was found to be free of stains.
- The Authority was informed that curtains are changed every two months or more frequently if necessary and blinds in isolation rooms are fully cleaned after each patient.

Cleaning equipment

There was evidence of good practice which included the following:

- Cleaning staff spoken with by the Authority were knowledgeable regarding infection prevention and control protocols.
- Cleaning equipment was clean and a colour-coded cleaning system was in place and demonstrated.
- Personal protective equipment was available, appropriately used and disposed of by staff.

Water outlet flushing

- The Authority reviewed weekly records of water outlet flushing.

Conclusion

Overall, the physical environment and patient equipment were clean and well maintained, with some exceptions.

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 advisory information was appropriately displayed in the areas assessed.
- Liquid soap, warm water and paper hand towels were widely available.

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:

- A green/white residue was visible on the tap at the hand-wash sink in the clean utility room in the Trauma Ward and there was splashing from the tap when it was in the open position. Hand-wash sinks should be of adequate size to avoid splashing the surrounding floor and surround.
- The taps on the hand wash sinks in the clean utility room and the 'dirty' utility room in Ward 3C were not hands free.
- The joint between the worktop and the wall behind the hand-wash sink in the 'dirty' utility room in Ward 3C was not completely sealed.
- The alcohol hand-rub dispensers at the hospital reception, at the entrance to the ED and outside the 'dirty' utility room in Ward 3C needed to be replenished.

Observation of hand hygiene opportunities

Authorised persons observe hand hygiene opportunities using a small sample of staff in various locations throughout the hospital. It is important to note that the results may not be representative of all groups of staff within the hospital and hand hygiene compliance across the hospital as a whole. Observations reported represent a snapshot in time. The underlying principles are based on the detection of the five moments for hand hygiene that are promoted by the World Health Organization.

- The Authority observed 22 hand hygiene opportunities in total during the monitoring assessment. Hand hygiene opportunities observed comprised:
 - nine before touching a patient
 - 10 after touching a patient
 - three after touching a patient's surroundings.

Of the 22 hand hygiene opportunities, 18 were taken and the hand hygiene technique used in 17 of these was observed to comply with best practice hand hygiene technique.

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.

Overall, the physical environment and patient equipment were clean and well maintained, with some exceptions.

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. Of the 22 hand hygiene opportunities, 18 were taken and the hand hygiene technique used in 17 of these was observed to comply with best practice.

University Hospital Limerick 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 *National Standards for*

the Prevention and Control of Healthcare Associated Infections 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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