Health Information and Quality Authority

An tÚdarás Um Fhaisnéis agus Cáilíocht Sláinte

Report of the unannounced monitoring assessment at Midland Regional Hospital, Tullamore, Co Offaly

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

Date of on-site monitoring assessment: 20 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.

Table of Contents

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 Midland Regional Hospital, Tullamore'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.

The unannounced assessment was carried out at Midland Regional Hospital, Tullamore by Authorised Persons from the Authority, Catherine Connolly Gargan and Breeda Desmond, on 20 May 2013 between 12:00hrs and 16:30hrs. The Authorised Persons from HIQA commenced the monitoring assessment in the Emergency Department (ED).

The areas subsequently assessed were:

- Emergency Department
- Orthopaedic (Trauma) Ward

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

2. Midland Regional Hospital Tullamore Profile[‡]

Described as one of the most modern health care facilities in the country the Midland Regional Hospital at Tullamore was built at a cost of €150m and is one of the few purpose-built, standalone hospital buildings outside of Dublin, it opened on a phased basis between May 2007 and December 2008.

Since the initial opening in 2007 the Hospital won Best Health Care Building at the Irish Architectural Awards and received international recognition when it was 'highly commended' at the Building Better Healthcare Awards in 2009.

The staffing complement at 30th June 2013 is 922.81 WTE's
In the period January to June 2013 the following number of patients have been treated at the hospital:
6136 Inpatients, 16794 Day Cases, 15295 Emergency patients, 1114 AMAU patients and 52477 Outpatients
The new hospital has a current treatment capacity of 259 beds of which 181 are Inpatients, 67 are Day Beds and 11 are Acute Medical Assessment Unit (AMAU) beds

[‡] 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.

The hospital is the regional centre for Orthopaedics, ENT, Rheumatology, Nephrology/Renal Dialysis, Oncology and Haematology. It also provides services in the specialities of General Medicine, General Surgical, Endoscopy, Cardiology and Palliative Care. Outreach clinics are held for Obstetrics/Gynaecology, Paediatrics, Ophthalmic and Vascular patients. The hospital has four major operating theatres inclusive of day theatres, and also has a dedicated endoscopy suite.

The full range of clinical support services are available on site including radiology, pathology, physiotherapy, occupational therapy, speech and language therapy, clinical nutrition and dietetics, oncology pharmacy, general pharmacy, audiology, hydrotherapy pool, cardiology and pastoral care. The hospital has a high specification fibre optic IT system which supports the patient administration system and a filmless x-ray system.

In addition, the hospital has nine fully landscaped internal courtyards, and has a large concourse/entrance area with waiting area and children's play area, café and shop facilities.

3. Findings

The findings of the unannounced monitoring assessment at Midland Regional Hospital, Tullamore on 20 May 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 HCAIs.

Overall, the Authority found that while improvements were required in the cleanliness of some areas in the Orthopaedic ward, it was generally clean. However, the environment and equipment in the Emergency Department were generally unclean, placing patients at moderate risk of HCAIs.

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 in the ED and the Orthopaedic ward.
- All seating in both areas assessed was covered with an impermeable material facilitating effective cleaning.
- Bed frames, pillows, mattresses, wall surfaces, high and low surfaces, curtain rails and radiators in the patient areas of the Orthopaedic ward were found to be clean, intact and free of dust, rust and grit.
- Information displayed was clean, securely fixed, laminated and up to date in clinical areas in the Orthopaedic ward and the Emergency Department.
- Showers and accessories used by patients were clean and intact in both areas assessed.
- IV pumps, blood pressure cuffs, oxygen equipment and suction apparatus were clean in both areas assessed.

- The Authority observed a system where equipment was labelled indicating cleaning had taken place after use of commodes in the Orthopaedic ward.

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:

- Moderate amounts of dust were found in the Emergency Department on surfaces of the undercarriage of some patient trolleys, base of a patient bed table, high and low surfaces of some patient areas, curtain rail in the 'see and treat' room, in the grooves of the rubber surface on steps, resuscitation trolley surface and on shelves of patient equipment trolleys.
- There was slight dust in the interior of some patient lockers assessed in the Orthopaedic ward.
- Although visibly clean, the work station in the Orthopaedic ward was untidy, which may hinder effective cleaning.
- The Authority observed grime and grit along the edges and in corners of flooring in the clinical room in the Orthopaedic ward, and in corners on the floor of the cleaner's room and 'dirty' utility* room in the ED. There was also a moderate amount of dust found on high surfaces in the 'dirty' utility room in the ED.
- Two patient washbowls observed by the Authority on the Orthopaedic ward were not stored inverted.
- A sanitary waste disposal bin was observed by the Authority to be overflowing in one of the Emergency Department patient toilets.
- Near patient testing equipment assessed was not clean. A glucometer assessed in the Orthopaedic ward and an ECG machine and temperature probes assessed in the Emergency Department were not in a clean state.
- There was light dust on the base of a mobile IV stand and a sticky residue was found on the surface of IV stand attached to the resuscitation trolley in the Emergency Department.
- The clinical rooms in both areas assessed were untidy and cluttered with storage of boxes of IV fluids on a pallet on the floor, which hindered access for effective cleaning. Boxes of gloves were stored on the floor behind the door to the cleaners' room in the ED.
- Signage displayed in the clinical rooms in both areas assessed was not well maintained and not all signs were covered with a surface that could be cleaned.
- The walls and floor of the clinical room in the Emergency Department were stained and paint was missing on some areas of the walls.

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

- The Authority found that paint was chipped and missing from the surface of radiators in the ED and on low surfaces of the walls of the 'dirty' utility in the Orthopaedic ward.
- Dressing trolleys assessed in the ED were unclean; doors fitted on the front of dressing trolleys were heavily stained.
- Areas for safe storage of hazardous material/equipment were not in accordance with evidence-based codes of best practice, current legislation and Standard 3 of the National Standards in all areas assessed by the Authority. Access by unauthorised persons to rooms containing potentially hazardous chemicals/equipment was not adequately controlled. The Authority observed unattended open doors to the 'dirty' utility, clinical storage room, clinical waste segregation room and the cleaners' room in the ED. Unattended open doors were observed to the 'dirty' utility room, waste segregation room and the cleaners' room in the Orthopaedic ward.
- The Authority assessed a 'see and treat' room in the ED. The fabric cover of the examination couch was stained. A dressing trolley was dusty. A sink designated for hand hygiene was obstructed by a non-clinical waste disposal bin, located in front of it.

Waste segregation

There was evidence of good practice which included the following:

- Foot operated clinical and non- clinical waste disposal bins were available and were appropriately placed in both areas assessed.
- Waste management posters were appropriately displayed, advising on best practice throughout the ED and Orthopaedic ward.
- Clinical and non clinical waste was tagged with unique identification numbers at source 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* including:

- In the ED, there was dust and grit on the floor of the waste segregation room. Although a cleaners' room was available, a vacuum cleaner was inappropriately stored in the waste segregation room.
- While the waste management policy was up to date, approved for staff reference in January 2013 and due for review in November 2015, it did not adequately inform all aspects of best practice for waste management including disposal and storage at clinical level.
- The Authority found in the ED that some waste bins were greater than 2/3 full, the temporary locking mechanism was not engaged on all hazardous sharps bins and two partially filled small hazardous sharps bins located on

the resuscitation trolley were not disposed of following use. Contaminated linen was not secured in water soluble alginate bags prior to disposal into red canvas bags to minimise risk of cross contamination during collection and the laundering process. Contaminated red canvas linen bags were not securely tied and linen was observed to be spilling out of one canvas bag. The non clinical waste storage bin was overfilled in the ED waste segregation room preventing the lid closing to secure contents. The Authority found that the lids of clinical waste storage bins in the waste segregation rooms of the ED and the Orthopaedic ward were not closed or secured. There was a risk of unauthorised persons entering the waste segregation rooms in both areas, as the doors to these rooms were not secured.

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:

- Floor cleaning solutions were not reconstituted in line with hospital protocols informing cleaning solution reconstitution in both areas assessed by the Authority. There was no supervisor of cleaning staff. The hospital informed the Authority that they were actively recruiting for the post of Household Supervisor. This post was vacant at the time of the unannounced assessment by the Authority on 30 May 2013.
- Some cleaning devices were not effectively stored or decontaminated in the ED. A vacuum cleaner was stored in the waste segregation room. A heavily soiled dustpan was left unattended in the clinical area of the ED and the bases of the cleaners' trolley in both areas assessed were unclean, with surface dust and grit visible.
- Potentially hazardous cleaning chemicals were not stored in line with best practice in the Orthopaedic ward or in the ED. The Authority found that the cupboard designated for storing hazardous cleaning chemicals in the cleaners' room in the Orthopaedic ward was not of an adequate standard. The surfaces of internal shelving were heavily rusted, hindering effective cleaning. The lock was broken and staff reported that it had been notified as requiring repair to the maintenance department. While hazardous cleaning chemicals/solutions had been relocated to the 'dirty' utility area, unauthorised access was not controlled as the door to this area was not secured. Neither doors to the cleaners' room nor to the hazardous cleaning chemical/solutions cupboard in the ED were secured at the time of assessment by the Authority.

Isolation rooms

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

- Care being provided to patients in the Emergency Department was not compliant with Standard 7 of the National Standards. In particular:
  - one patient with suspected transmissible infection was being cared for in a room without handwashing facilities and the door to the room was open as standard directly to where other patients were being cared for
  - contaminated personal protective equipment was not disposed of appropriately
  - precautionary signage to a room in use for isolation purposes was not of an acceptable standard as it did not advise staff or visitors of precautions to be taken.
- A personal protective equipment dispensing unit located in the 'see and treat' room in the ED was devoid of plastic aprons throughout the assessment.

Linen

There was evidence of good practice which included the following:

- Clean linen was stored in a designated lockable linen cupboard in both areas assessed.
- It was reported to the Authority that curtain changing is the responsibility of multitask support staff with records maintained locally and demonstrated at assessment. Disposable curtain changing in the ED took place every three months as standard and more often if necessary. Date of changing was recorded on each curtain. Replacement curtains in the Orthopaedic ward were non disposable and were changed as standard every six months or more often if contaminated. Curtains in the isolation rooms were changed following each patient discharge.

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:

- Clean trolley covers in the linen cupboard were found to be stained.

- The Authority found that there were five bags of patient property in a box on the floor of the ED linen cupboard and two cooling pads for emergency use, one of which was heavily stained.
- Although used linen was segregated in the clinical areas, evidenced by colour-coded linen bags, contaminated linen was not placed in alginate bags within the red linen bags in the ED.

Water outlet flushing

- The Authority found that a water flushing schedule was in place for infrequently used water outlets to reduce the risk of waterborne infection. Records of flushing were maintained and demonstrated to the Authority. However, record demonstrated represented water outlets in a room collectively without specifying which tap/shower was flushed.

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 Midland Regional Hospital, Tullamore. The physical environment and equipment were unclean in the Emergency Department and therefore were 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 HCAIs.

Hand hygiene

- Hand hygiene soap, alcohol gel and hand towels were located within easy access to the sinks designated for hand hygiene.
- Advisory signage instructing correct hand hygiene procedures was displayed at sinks designated for hand hygiene in the areas assessed.
- Monitoring of hand hygiene practices was demonstrated by internal audits and national hand hygiene compliance audits.
- Hand hygiene of staff in the areas assessed was mostly in line with best practice guidelines and Standard 6 of the NSPCHCAI. Training records reviewed by the Authority confirmed that hand hygiene training was in place. Hand hygiene training records demonstrated listed staff who had attended hand hygiene training but did not reveal the identity of non attendees to facilitate follow-up if required.
- Hand-wash sinks in some clinical areas were not compliant with the HSE's Health Protection Surveillance Centre's *Guidelines for Hand Hygiene* (2005), for example, the water jet was directly located over the plughole and the plughole had a metal grid in situ. The area surrounding the metal grid located at the water outlet of most hand-wash sinks assessed were unclean. A black substance was observed between the edge of the grid and the sink surface in each case.

Observation of hand hygiene opportunities

- The Authority observed 24 hand hygiene opportunities during the monitoring assessment. Hand hygiene opportunities observed comprised:

  - 10 before touching a patient
  - four after touching a patient
  - one after bodily fluid exposure risk
  - nine after touching a patient's surroundings.

- The Authority observed that 19 of the 24 hand hygiene opportunities were taken, all of which were observed to comply with best practice hand hygiene technique.

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. The Authority's hand hygiene observations suggest that a culture of hand hygiene practice is not embedded at all levels. Non-compliant hand washing facilities observed by the Authority posed a moderate risk of spread of Healthcare Associated Infections (HCAIs) to patients.

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 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 Midland Regional Hospital, Tullamore. The physical environment and equipment were unclean in the Emergency Department and therefore were not effectively managed and maintained to protect patients and reduce the spread of Healthcare Associated Infections (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.

The Authority observed that 19 of the 24 hand hygiene opportunities were taken, all of which were observed to comply with best practice hand hygiene technique. The Authority concluded from these findings that hand hygiene practice observed by the Authority in the areas assessed posed a minor risk of spread of HCAIs to patients.

The Midland Regional Hospital, Tullamore 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 the 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 webpage on the Health Service Executive (HSE) 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 service provider is implementing and meeting the NSPCHCAIs and is making quality and safety improvements that safeguard patients.

The unannounced monitoring assessment at the Midland Regional Hospital, Tullamore on 20 May 2013 was a snapshot of the hygiene levels in some 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 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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