



**Health
Information
and Quality
Authority**

An tÚdarás Um Fhaisnéis
agus Cáilíocht Sláinte

Report of the unannounced inspection at Louth County Hospital, Dundalk, Co Louth

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

Date of on-site inspection: 3 April 2014

About the Health Information and Quality Authority

The Health Information and Quality Authority (HIQA) is the independent Authority established to drive high quality and safe care for people using our health and social care services. HIQA's role is to promote sustainable improvements, safeguard people using health and social care services, support informed decisions on how services are delivered, 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.
- **Supporting Improvement** – Supporting services to implement standards by providing education in quality improvement tools and methodologies.
- **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

Preventing and controlling infection in healthcare facilities is a core component of high quality, safe and effective care for patients. In order to provide quality assurance and drive quality improvement in public hospitals in this critically important element of care, the Health Information and Quality Authority (the Authority or HIQA) monitors the implementation of the *National Standards for the Prevention and Control of Healthcare Associated Infections*.¹

These Standards will be referred to in this report as the Infection Prevention and Control Standards. Monitoring against these Standards began in the last quarter of 2012. This initially focused on announced and unannounced inspections of acute hospitals' compliance with the Infection Prevention and Control Standards.

The Authority's monitoring programme will continue in 2014, focusing on unannounced inspections. This approach, outlined in guidance available on the Authority's website, www.hiqa.ie – *Guide: Monitoring Programme for unannounced inspections undertaken against the National Standards for the Prevention and Control of Healthcare Associated Infections*² – will include scope for re-inspection within six weeks where necessary. The aim of re-inspection is to drive rapid improvement between inspections.

The purpose of unannounced inspections is to assess hygiene as experienced by patients at any given time. The unannounced inspection focuses specifically on observation of the day-to-day delivery of hygiene services and in particular environment and equipment cleanliness and adherence with hand hygiene practice. Monitoring against the Infection Prevention and Control Standards¹ is assessed, with a particular focus, but not limited to, environmental and hand hygiene under the following standards:

- Standard 3: Environment and Facilities Management
- Standard 6: Hand Hygiene.

Other Infection Prevention and Control Standards may be observed and reported on if concerns arise during the course of an inspection. It is important to note that the Standards may not be assessed in their entirety during an unannounced inspection and therefore findings reported are related to a criterion within a particular Standard which was observed during an inspection. The Authority uses hygiene observation tools to gather information about the cleanliness of the environment and equipment as well as monitoring hand hygiene practice in one to three clinical areas depending on the size of the hospital. 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's journey through the

hospital. The inspection approach taken is outlined in guidance available on the Authority's website.²

This report sets out the findings of the unannounced inspection by the Authority of Louth County Hospital's compliance with the Infection Prevention and Control Standards. It was undertaken by Authorised Persons from the Authority, Alice Doherty and Judy Gannon, on 3 April 2014 between 09:50hrs and 13:50hrs.

The area assessed was the:

- Stroke Rehabilitation Unit.

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

2. The Louth County Hospital Profile[‡]

Louth County Hospital is part of the Louth/Meath Hospital Group in conjunction with Our Lady of Lourdes Hospital, Drogheda and Our Lady's Hospital, Navan.

Bed capacity includes eight stroke rehabilitation beds, eight step down beds and two overnight surgical beds on the Stroke Rehabilitation Ward. There are 25 step-down beds on the Step-Down Ward and 13 step-down beds on the Medical 1 ward. The Day Services Unit has 17 beds, the Endoscopy Unit has 8 day case beds and the Colposcopy Unit has 3 day case beds. Services at the hospital are as follows:

- Minor Injury Unit.
- Out-Patients Services (Orthopaedics, Ante-Natal, Medicine, Diabetic, Surgery, Genito-urinary medicine, Urology, Paediatrics, Gynaecology and Cardiology Clinics).
- Day Services - (Geriatric Assessment Unit, Venesection, Endoscopy, Theatre, Regional Colposcopy and Regional Colorectal Screening Service).
- Clinical Nurse Specialists services – Heart Failure, Diabetes, Cardiac Rehab, Smoking Cessation, Pre Assessment, Health Promotion, and Infection Control.
- Allied Health Professional Services – Radiology, Physiotherapy, Occupational Therapy, Speech and Language Therapy, Pharmacy, Cardiac Services.

[‡] 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

On inspection at Louth County Hospital on 3 April 2014, there was evidence of both compliance and non-compliance with the criteria selected in the Infection Prevention and Control Standards. In the findings outlined below, observed non-compliances are grouped and described alongside the relevant corresponding Standard/criterion.

3.1 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.

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 Healthcare Associated Infections. This includes but is not limited to:

- all equipment, medical and non-medical, including cleaning devices, are effectively managed, decontaminated and maintained
- the linen supply and soft furnishings used are in line with evidence-based best practice and are managed, decontaminated, maintained and stored.

Stroke Rehabilitation Unit

The stroke rehabilitation unit is an 18 bedded unit consisting of eight stroke rehab beds, eight step-down beds and two overnight surgical beds. Out of the 18 beds there are three single rooms which are used for isolation of patients colonised or infected with transmissible infective diseases or multidrug resistant organisms when required. There was one patient isolated at the time of the inspection. In general, the environment and patient equipment in the Stroke rehabilitation Unit were clean with some exceptions.

Environment and equipment

- The paintwork on radiators, skirting boards and window ledges in patient areas was badly chipped, hindering effective cleaning. Chipped paint was also observed on a number of bed frames, hindering effective cleaning.
- The walls in two of the wards observed were noted to be scuffed and marked.
- A light layer of dust was found on the top surface of two high patient lockers and the wheels of another patient bedside locker were rusted. In addition, there was a light layer of dust on a window ledge and black staining around a window
- Material covering a stool was not intact, hindering effective cleaning.
- There was a large brown stain on a curtain around one patient bed.
- Three patient bathrooms were inspected. They were generally clean – with the exception of some black staining around the doorframe and floor in one bathroom, some ill fitting or stained ceiling tiles, and staining around some of the plug holes. In addition, there was a lack of waste disposal bins in each bathroom which is not in line with best practice.
- A large number of hand gel fixtures in patient wards, corridors, clean utility and 'dirty' utility rooms in patient areas were unclean with sticky residue on the front surface and in the area around the nozzle. Splash marks were also noted on the wall around a number of gel dispensers.
- A computer keyboard in the workstation was unclean with a small amount of sticky residue in one area. There was also a light layer of dust on the telephone in the workstation.
- White residue was noted on the legs of one intravenous stand and the wheel areas of two dressing trolleys were unclean and rusted.
- A clinical waste disposal bin was not available in the clean utility room and there was a sticky tape residue on some cupboard doors. There were chipped areas of paint work on the wall behind the non-clinical waste disposal bin and there was sticky tape residue on the lid of the bin. The wheel areas of the drug trolley stored in the clean utility room were unclean.
- The floor of the 'dirty'[±] utility room was unclean and stained with a sticky residue in places. There was a considerable amount of chipped plasterwork behind the bed pan washer in the 'dirty' utility room and the outer surface of the bedpan washer was unclean. There was sticky tape residue on the walls of the 'dirty' utility room. There was rust-coloured staining on the wheel areas of a commode and a trolley used to hold a rigid yellow bin stored in the 'dirty' utility room.
- There was a cushion stored directly on the floor of the store room under storage shelving, hindering effective cleaning. An infusion pump was stored on top of the lid of a non-clinical waste disposal bin.

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

Linen

- Clean linen was stored in a designated room separate from used linen. However, during the inspection, the door to this room was open and a window inside the room was open, which is not in line with best practice as it may increase the risk of airborne contamination of clean linen prior to use.
- There were cobwebs on a window frame inside the clean linen storage room and the paint work on a window ledge was chipped, hindering effective cleaning.

Cleaning equipment

- There was a considerable amount of water on the floor under the sink in the cleaning room and the floor covering under the sink was raised. The skirting board and the wall area under the sink were badly damaged with chipped paint and plaster work. There was rust-coloured staining under the sink used for disposal of cleaning waste fluids.
- There were cardboard boxes containing cleaning products and tissues stored directly on the floor of the cleaning room, hindering effective cleaning.
- There was no waste disposal bin available for paper towels or other waste.
- Paintwork on the walls, door, skirting board and wooden shelving unit was chipped, hindering effective cleaning.

Summary

The Authority was informed that the Stroke Rehabilitation Unit was refurbished three years ago. The Authority found that some improvements in the cleanliness and maintenance of the environment and equipment are required in the Stroke Rehabilitation Unit. In general, the environment and patient equipment were clean with some exceptions. The Unit operates a tagging system for patient equipment with a green label indicating that the equipment is clean. This green tag is removed before the equipment is used. A red label indicates that the equipment is for disposal. The Unit's staff also complete a weekly inspection of all mattresses which is tracked by a paper tagging system which records the date and signature of the staff member.

The Authority was informed that environmental audits conducted by trained hygiene auditors from other wards/departments are carried out on the Stroke Rehabilitation Unit every three months. There are also trained auditors on the unit. A non-conformance sheet is completed for the audit and the ward manager rectifies non-conformances where possible. Otherwise, non-conformances are escalated, for example, to the maintenance manager. The Authority was informed that non-conformances are usually corrected within one week.

The Authority was also informed that environmental audits are carried out by the Hygiene Services Team approximately every two weeks in different areas of the hospital but there is no formal schedule for these audits at present. The audits encompass the environment, patient equipment, waste, linen, sharps, hand hygiene and kitchens areas. The Authority reviewed records of these audits at ward level. The Authority was informed that the hospital had experienced difficulty in releasing the small number of clinical staff trained as environmental auditors from their day-to-day ward duties to complete environmental audits. To address this, the hospital is in the process of training more clinical staff to undertake audits on behalf of the Hygiene Services Team. Once this training is completed an audit schedule will be formalised with a plan to have two teams of auditors conduct environmental audits on a weekly basis.

There are 19 departments in the hospital and it is the senior management teams plan to have each area audited twice a year. In accordance with the hospital's audit tool, an area will be re-audited within two working days if it scores below 85%. It will be the responsibility of the ward manager to address any areas of non conformance. The results of the audits will be disseminated at hygiene meetings. Any issues that cannot be addressed at ward level will be escalated to the Hygiene Services Team or the Hygiene Advisory Group.

3.2 Hand Hygiene

Assessment of performance in the promotion of hand hygiene best practice occurred using the Infection, Prevention and Control Standards¹ and the World Health Organization (WHO) multimodal improvement strategy.³ Findings are therefore presented under each multimodal strategy component, with the relevant Standard and criterion also listed.

WHO Multimodal Hand Hygiene Improvement Strategy

3.3.1 System change³: *ensuring that the necessary infrastructure is in place to allow healthcare workers to practice 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 Healthcare Associated Infections. These include but are not limited to the following:

- the implementation of the *Guidelines for Hand Hygiene in Irish Health Care Settings, Health Protection Surveillance Centre, 2005*
- the number and location of hand-washing sinks
- hand hygiene frequency and technique
- the use of effective hand hygiene products for the level of decontamination needed
- readily accessible hand-washing products in all areas with clear information circulated around the service
- service users, their relatives, carers, and visitors are informed of the importance of practising hand hygiene.

- The design of clinical hand wash sinks in the clean and 'dirty' utility rooms did not conform to Health Building Note 00-10 Part C: Sanitary assemblies.⁵ Additionally, the only sinks available in the isolation rooms were the patient sinks in the en suite areas, there were no clinical sinks in the isolation rooms. The Authority was informed that the replacement of sinks is on-going from the previous inspection carried out by the Authority on 1 July 2013 and is outlined in the hospital's QIP which was prepared following the 2013 inspection. The Authority was informed that the hospital has a sink replacement programme in place based on the results of a hand hygiene facilities audit conducted in all clinical areas by the hospital in 2013. Priority has been given to replace hand wash sinks in ward areas and 15 sinks were replaced in 2013. The Authority was informed that the hospital management team is aware of the lack of appropriate sinks in isolation rooms and this had recently been communicated to the Louth/Meath Hospital Group Hygiene Services Advisory Group. However, further progress in relation to this was not reported to the Authority on the day of the inspection. In addition, it was reported that the infection control team are currently undertaking a further hand hygiene facilities audit throughout the hospital.

3.3.2 Training/education³: *providing regular training on the importance of hand hygiene, based on the 'My 5 Moments for Hand Hygiene' approach, and the correct procedures for handrubbing and handwashing, to all healthcare workers.*

Standard 4. Human Resource Management

Human resources are effectively and efficiently managed in order to prevent and control the spread of Healthcare Associated Infections.

Criterion 4.5. All staff receive mandatory theoretical and practical training in the prevention and control of Healthcare Associated Infections. This training is delivered during orientation/induction, with regular updates, is job/role specific and attendance is audited. There is a system in place to flag non-attendees.

- Hand hygiene records provided to the Authority showed that all nursing and healthcare assistants working on the Stroke Rehabilitation Ward had received hand hygiene training in the last two years.
- Overall, hand hygiene training records provided to the Authority showed that 90.5% of nursing staff, care assistants, domestic/catering staff and allied health professionals working at Louth County Hospital have carried out hand hygiene training in the last two years. The Authority was informed that all non-consultant

hospital doctors working at the hospital receive hand hygiene training at Our Lady of Lourdes Hospital, Drogheda and their training records are maintained at Our Lady of Lourdes Hospital. Records of same were not viewed by the Authority on the day of the inspection.

- The Authority was informed that manual records of training are updated after each hand hygiene training session and these are then inputted onto a database. This database does not currently identify when training is due but the Authority was informed that a database to provide this was being developed across the hospital group.
- The Authority was informed that feedback is given to staff directly at the time of hand hygiene audits to address areas of non compliance. Additional training on the ward in hand hygiene practices is also provided when necessary.

3.3.3 Evaluation and feedback³: *monitoring hand hygiene practices and infrastructure, along with related perceptions and knowledge among health-care workers, while providing performance and results feedback to staff.*

Criterion 6.3. Hand hygiene practices and policies are regularly monitored and audited. The results of any audit are fed back to the relevant front-line staff and are used to improve the service provided.

The following sections outline audit results for hand hygiene.

National hand hygiene audit results

- Louth County Hospital participates in the national hand hygiene audits which are published twice a year.⁶ The results below taken from publically available data from the Health Protection Surveillance Centre’s website demonstrate some variation from one period to the next however, overall compliances for 2011, 2012 and 2013 were above the Health Service Executive’s (HSE’s) national targets of 75%, 85% and 90% for each year respectively.⁶

Period	Results
June 2011	91.9%
October 2011	85.7%
June/July 2012	90%
October 2012	91.9%
May/June 2013	89.5%
October 2013	94.8%

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

Hospitalwide level hand hygiene audit results

- Outside of the national hand hygiene audits the hospital conducts additional spot hand hygiene audits on an as required basis. These spot audits are prioritised to target areas with the highest level of patient activity or if a specific infection prevention and control risk is identified.

Local area hand hygiene audit results

- The hand hygiene compliance rate for the stroke rehabilitation was 93.3% in October 2013. These results were disseminated by the hygiene team to the ward nurse management by email and discussed at the Hygiene Team Meetings and at Clinical Nurse Manager meetings. It is the responsibility of the ward manager to disseminate results to the staff on the ward and this is done at the monthly ward meetings.

Observation of hand hygiene opportunities

Authorised Persons observed hand hygiene opportunities using a small sample of staff in the inspected areas. This is intended to replicate the experience at the individual patient level over a short period of time. It is important to note that the results of the small sample observed is not statistically significant and therefore results on hand hygiene compliance do not represent all groups of staff across the hospital as a whole. In addition results derived should not be used for the purpose of external benchmarking.

The underlying principles of observation during inspections are based on guidelines promoted by the WHO⁸ and the HSE.⁹ In addition, Authorised Persons may observe other important components of hand hygiene practices which are not reported in national hand hygiene audits but may be recorded as optional data. These include the duration, technique^γ and recognised barriers to good hand hygiene practice. These components of hand hygiene are only documented when they are clearly observed (uninterrupted and unobstructed) during an inspection. Such an approach aims to highlight areas where practice could be further enhanced beyond the dataset reported nationally.

- The Authority observed eight hand hygiene opportunities in total during the inspection. Hand hygiene opportunities observed comprised of the following:
 - three after touching a patient
 - five after touching patient surroundings.

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

- All eight of the hand hygiene opportunities were taken.
- Of the eight opportunities which were taken, the hand hygiene technique was observed (uninterrupted and unobstructed) by the Authorised Persons for three opportunities. Of these, the correct technique was observed in three hand hygiene actions.

In addition the Authorised Persons observed:

- Five hand hygiene actions that lasted greater than or equal to (\geq) 15 seconds as recommended.
- no barriers to the correct technique in the eight hand hygiene actions.

3.3.4 Reminders in the workplace³: *prompting and reminding healthcare workers about the importance of hand hygiene and about the appropriate indications and procedures for performing it.*

- Hand hygiene advisory posters were available, up-to-date, clean and appropriately displayed in the areas inspected at Louth County Hospital.

3.3.5 Institutional safety climate³: *creating an environment and the perceptions that facilitate awareness-raising about patient safety issues while guaranteeing consideration of hand hygiene improvement as a high priority at all levels.*

Louth County Hospital achieved 89.5% compliance in the national hand hygiene audit in May/June 2013 and 94.8% compliance in the October 2013 audit giving an average compliance of 92.15% for 2013 which is in compliance with the HSE's national target of 90%. These results show that the hospital is performing well in the national hand hygiene audits. The hospital needs to continue to build on the compliances achieved to date, to ensure that good hand hygiene practice is sustained.

4. Summary

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.

Overall, the environment and patient equipment in the Stroke Rehabilitation Unit were clean with some exceptions. The Authority found that improvements are required in the maintenance of the environment.

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

Some of the issues identified by this inspection, for example, the need for clinical hand wash sinks in the isolation rooms, are on-going from the previous inspection carried out by the Authority on 1 July 2013 and are outlined in the hospital's QIP which was prepared following this inspection⁴. Louth County Hospital needs to ensure that the contents to that QIP are fully actioned to provide the best possible conditions for optimal hand hygiene performance. It is recognised that the Hospital has performed well in all six of the national hand hygiene audits and has good levels of attendance for hand hygiene training. It is important that this good performance is maintained, and that efforts are sustained to ensure that consistently good practice in hand hygiene performance continues in the interest of ongoing patient safety.

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

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

5. References[‡]

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[‡] The URLs referenced here were inserted at the time this document was being created.

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