Report of the unannounced inspection at Midlands Regional Hospital, Mullingar

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

Date of on-site inspection: 25 June 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 Infections² – 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 Midlands Regional Hospital, Mullingar’s compliance with the Infection Prevention and Control Standards. It was undertaken by an Authorised Person from the Authority, Judy Gannon on 25 June 2014 between 10:00hrs and 15:15hrs.

The area assessed was:

Medical Three Ward (Level B)

The Authority would like to acknowledge the cooperation of staff with this unannounced inspection.
2. **The Midland Regional Hospital, Mullingar Profile**

The Midland Regional Hospital at Mullingar is part of the Dublin/Midlands Hospital Group. The aim of the Hospital is to deliver a quality driven people centred service to the population of Dublin/Midlands and in particular the Longford/Westmeath area.

The Hospital has 204 beds (186 inpatient, 12 day beds and a six-bedded Medical Assessment Unit) and provides a range of services, on a 24 hour basis.

Services provided are:
- Accident & Emergency
- Radiology
- General Medicine including Endoscopy, Gerontology, Respiratory Medicine, Endocrinology and Cardiology
- General Surgery
- Obstetrics and Gynaecology
- Paediatrics
- Pathology
- Dermatology
- Out-Patient Services inc Ophthalmology

The Hospital also provides diagnostic Radiological and Pathology services as well as Physiotherapy, Occupational Therapy, Speech & Language Therapy, Cardiac Diagnostic and Rehabilitation Services, Pulmonary Function Laboratory and Respiratory Services.

In September 2013 the GP Out of Hours Service (MIDOC) was relocated to the Hospital and is located in the Hospital’s Out Patients Department.

In 2013, the Hospital had 21,922 inpatient discharges with an average length of stay of 3.07 days and dealt with 7,571 day case procedures. There were 2,461 deliveries recorded and 31,461 E.D. attendances. The Hospital’s expenditure in 2013 was €61.07m.

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† 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

This section of the report outlines the findings of the unannounced inspection at Midlands Regional Hospital, Mullingar on 25 June 2014. The clinical area inspected was Medical Three.

Medical Three is a 26 bedded ward located on the first floor (level B) of Midlands Regional Hospital, Mullingar. It is a general medical ward providing a range of medical services from respiratory, cardiology, gastroenterology and gerontology. It comprises five four-bedded rooms, one two-bedded room and four single rooms that are used for the isolation of patients colonised or infected with transmissible infective diseases or multidrug resistant organisms when required. Three patients were isolated at the time of the inspection.

On inspection at Midlands Regional Hospital, Mullingar, there was evidence of both compliance and non-compliance with the criteria selected in the Infection Prevention and Control Standards on Medical Three Ward. The report is outlined as follows;

- **Section 3.1** of the report, outlines the key findings relating to non-compliance with the Standards which include environment and facilities management, hand hygiene, waste management and communicable/transmissible disease control. The significance of these findings is discussed. In addition, a detailed description of the findings of the unannounced inspection undertaken by the Authority is shown in Appendix 1
- **Section 3.2** outlines details of environmental auditing at Midland Regional Hospital, Mullingar.
- **Section 3.3** presents the findings relating to hand hygiene at Midland Regional Hospital, Mullingar under the headings of the five key elements of a multimodal hand hygiene improvement strategy.
- **Section 4** provides an overall summary of all findings.

Overall, the environment and patient equipment on Medical Three was clean, with some exceptions. Some required improvements in the maintenance of the environment were identified.
3.1. Key findings relating to non-compliance with the Standards

The Authority found evidence during the inspection of both compliance and non-compliance with Standard 3 and 7 of the Infection Prevention and Control Standards. An overview of the most significant non-compliances relating to Standard 3 is discussed below. A more detailed description of the findings of the unannounced inspection is included in Appendix 1

**Standard 3 Environment and Facilities management**

**Patient equipment**

The cleanliness of equipment associated with blood monitoring was identified as an issue on Medical Three during the inspection. A red stain was visible on the back surface of a glucometer and on the outer surface of a container containing testing strips. This finding was brought to the attention of ward staff at the time of the inspection and the glucometer was cleaned immediately and the container disposed of.

Ineffective cleaning of equipment used for blood monitoring has been linked to the transmission of blood borne pathogens.\(^3\)\(^5\) This risk has also been identified previously by the HSE. The Authority recommends that the hospital review the practices and current management system for glucometers to provide assurances that the recommended standard precautions and infection prevention and control interventions are in place to prevent the transmission of blood borne pathogens in the healthcare setting.

**Standard 7 Communicable/Transmissible Disease Control**

**Prevention and control of *Legionella pneumophila***

On the day of inspection it was reported to Authorised persons that water samples had tested positive for *Legionella pneumophila* at a significant number of water outlets in the hospital during routine water testing on 26 May 2014. It was reported that an action plan in line with regional *Guidelines for control of Legionella in water supplies*\(^6\) had been enacted in response to these results. This included the removal of all showerheads from the facility to reduce the chance of water aerosolisation, water tank cleaning, disinfection of the water system, additional training for staff on the outlet flushing process and daily flushing in each area. On the day of inspection the Authority observed that shower heads had been removed from shower fittings on Medical Three and daily flushing records were being completed on the ward.
Following the inspection the Authority wrote to the Midland Regional Hospital, Mullingar to seek further written assurances that the water system was designed, maintained and audited in line with the *National Guidelines for the Control of Legionellosis in Ireland*\(^7\) to minimise the possible spread of *Legionella* species. Moreover, assurance was sought that a risk assessment had been conducted to determine the likely risk, if any, this incident posed for patients and staff at the hospital. Further information on the assurances sought can be found in appendix 1. Following the receipt of these additional assurances, the Authority was satisfied that the hospital had both effectively managed the initial incidence of water colonisation, and put in place measures to more effectively manage this risk on an ongoing basis. The Authority recommends that the hospital should continue with measures to actively manage this risk in line with national and international best practice standards.

**Isolation rooms**

New signage detailing precautions to prevent transmission of infections for patients in isolation had been developed by the hospital’s infection prevention and control committee and was being implemented on the day of the inspection. There was an inaccuracy in this signage which caused confusion amongst ward staff on the day of inspection. This inaccuracy was brought to the attention of the ward manager, the regional infection prevention and control nurse and senior management and immediately rectified.

**Non-compliance with infection prevention and control best practice**

It was reported at the time of the inspection that the Infection Prevention and Control Nurse post at Midlands Regional Hospital, had been vacant since March 2014. The hospital had identified this vacancy as a risk on its risk register and members of the senior management team reported that it had also been included on the Dublin Mid-Leinster Hospitals collective Risk Register.

It was reported that the hospital had been actively attempting to fill this post. In the interim the hospital reported that the identified risk was managed through the implementation of a revised infection control plan based on the existing resource allocation with the infection prevention and control nursing services and advice at the hospital being provided by the Assistant Director of Nursing, Infection Prevention and Control for the Midlands Region. Additionally, the hospital had recently engaged an external company to provide hand hygiene training sessions for staff. Whilst acknowledging these risk mitigating arrangements, the Authority recommends that the vacant Infection Prevention and Control Nurse post be filled as a matter of priority to better ensure that the infection prevention and control programme at the
hospital is effectively implemented and managed. At the time of publication of this report the hospital reported that a temporary Infection Prevention and Control Nurse had been appointed to the hospital pending permanent filling of this post.
3.2 Environmental auditing at Midland Regional Hospital, Mullingar.

This section gives an overview of environmental hygiene auditing activities which are carried out at Midlands Regional Hospital, Mullingar.

The Authority was informed that the Support Services Team conduct environmental audits examining the cleanliness of ward areas and patient equipment in each clinical area of the hospital every two months. The results of the audits are fed back to the ward manager and a corrective action plan is developed to rectify any non-conformances identified. Audit results and any outstanding non-conformances, that cannot be addressed at ward level, are discussed at the hospital’s monthly Hygiene Committee meeting.

A compliance rate of 85% or higher must be achieved in order to pass these environmental audits. It is the responsibility of the ward manager to address any areas of non-conformance. If a ward scores less than 85% the ward is re-audited as soon as the corrective actions have been put in place. The Authority reviewed records of these environmental audits at ward level. Medical Three had failed an environmental audit in April 2014 achieving a score of 80%. Accordingly, the Ward was re-audited in May 2014 following implementation of corrective actions and achieved a score of 89%.

It was reported that in addition to these two monthly environmental audits additional “ancillary spot audits” examining the cleanliness of ward areas are conducted by the Support Services Team on both a random and “as and when required” basis.
3.3 Hand Hygiene

Assessment of performance in the promotion of hand hygiene best practice occurred using the Infection, Prevention and Control Standards\textsuperscript{1} and the World Health Organization (WHO) multimodal improvement strategy.\textsuperscript{8} 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 change\textsuperscript{8}: ensuring that the necessary infrastructure is in place to allow healthcare workers to practice hand hygiene.

<table>
<thead>
<tr>
<th>Standard 6. Hand Hygiene</th>
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<tbody>
<tr>
<td>Hand hygiene practices that prevent, control and reduce the risk of the spread of Healthcare Associated Infections are in place.</td>
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<table>
<thead>
<tr>
<th>Criterion 6.1.</th>
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<tbody>
<tr>
<td>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:</td>
</tr>
</tbody>
</table>

- 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.

- No barriers were identified in terms of the necessary infrastructure to allow healthcare workers to practice hand hygiene on Medical Three.
3.3.2 Training/education: 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.

**Hospital training**

- Hand Hygiene training is mandatory for all staff every two years. The Authority was informed that 76.9% of all clinical staff, including doctors, nurses and healthcare assistants have attended mandatory hand hygiene training within the hospital in the last two years. This training includes information on correct hand hygiene technique, the WHO’s 5 Moments for Hand Hygiene, standard precautions, the hospital’s Uniform Policy and hand hygiene audit results. Attendance at this training is recorded both at ward level and centrally on the hospital’s human resource software system which enables individual staff who had not attended training in the last two years to be highlighted.

- It was reported that the induction programme for non consultant hospital doctors had been amended in 2013 to include more detail on hand hygiene.

- It was reported that a clinical placement co-ordinator nurse had been trained to conduct hand hygiene audits and provide hand hygiene training. Hand hygiene is primarily provided by the clinical placement co-ordinator and the regional infection control nurse. However, given the shortage of infection prevention and control nursing staff the hospital had recently engaged an external company to provide hand hygiene training sessions to thirty staff members on the 20 June 2014. It was reported that staff feedback for this training was positive and that further sessions may be provided by this company if the Infection Prevention and Control Nurse vacancy is not filled in the short term.
Local area training

- Hand hygiene records for Medical Three demonstrated that 100% of nurses, healthcare assistants and multi-task attendants working on the ward had attended hand hygiene training at the hospital in the last two years.

3.3.3 Evaluation and feedback: 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**

- Midlands Regional Hospital, Mullingar Hospital participates in the national hand hygiene audits which are published twice a year. The results below taken from publically available data from the Health Protection Surveillance Centre’s website demonstrate that Midlands Regional Hospital, Mullingar did not meet the national target of 85% in Period 3 2012 and fell significantly below the national target of 90% in both audits conducted in 2013.

<table>
<thead>
<tr>
<th>Period 1-6</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Period 1 June 2011</td>
<td>74.3%</td>
</tr>
<tr>
<td>Period 2 October 2011</td>
<td>75.7%</td>
</tr>
<tr>
<td>Period 3 June/July 2012</td>
<td>75.2%</td>
</tr>
<tr>
<td>Period 4 October 2012</td>
<td>87.6%</td>
</tr>
<tr>
<td>Period 5 May/June 2013</td>
<td>76.7%</td>
</tr>
<tr>
<td>Period 6 October 2013</td>
<td>71.4%</td>
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</tbody>
</table>

Source: Health Protection Surveillance Centre (HPSC) – national hand hygiene audit results.
Corporate hand hygiene audit results

- The Authority was informed that outside of the national twice yearly hand hygiene conducted for the HPSC audits, no additional local hand hygiene audits have recently been conducted at Midlands Regional Hospital, Mullingar due to a shortage of infection prevention and control nursing staff at the hospital. The HPSC audit for Period 7 had recently been completed by the regional infection prevention and control nurse and the clinical placement co-coordinator nurse and submitted to the HPSC. The final results of this audit were awaited at the time of inspection.

Local area hand hygiene audit results

- In the HPSC audit conducted in October 2013 (Period 6) Medical Ward 3 scored an overall compliance score of 53.3%. This was broken down by category as a 69.2% compliance rate for nursing staff, 41.7% compliance for auxiliary staff and 50% compliance for doctors on the ward. This audit examines the compliance of staff with the World Health Organization 5 moments opportunities. The Authority was informed that the results of these audits are communicated to the ward manager by an email which is sent from the Hospital Manager and these are then communicated to staff on the ward at handover 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 WHO and the HSE. 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 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.

Footnote: The inspectors observe if all areas of hands are washed or alcohol hand rub applied to cover all areas of hands.
The Authority observed 13 hand hygiene opportunities in total during the inspection. Hand hygiene opportunities observed comprised of the following:
- Three before touching a patient
- Six after touching a patient
- Four after touching patient surroundings.

11 of the 13 hand hygiene opportunities were taken. The two opportunities which were not taken comprised of the following:
- One before touching a patient
- One after touching a patient

Of the 11 opportunities which were taken, the hand hygiene technique was observed (uninterrupted and unobstructed) by the Authorised Persons for 11 opportunities. Of these, the correct technique was observed in 11 hand hygiene actions.

In addition the Authorised Persons observed:
- 11 hand hygiene actions that lasted greater than or equal to (≥) 15 seconds as recommended
- 11 hand hygiene actions where there were no barriers to the correct technique, such as sleeves to the wrist and wearing a wrist watch.

3.3.4 Reminders in the workplace⁸: 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 at the hospital entrance, reception area and in the clinical areas inspected at Midlands Regional Hospital, Mullingar. These posters included prompts and reminders to staff and patients about the importance of hand hygiene, the correct technique for performing hand hygiene and the WHO 5 moments for hand hygiene.

In addition to general hand hygiene advisory signage authorised persons observed additional innovative signage. For example, targeted posters detailing infection control advice for patients with peripheral intravenous lines were displayed in clinical areas including ward areas, patient bathrooms and the ‘dirty’ utility.
3.3.5 Institutional safety climate: 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.

Midlands Regional Hospital, Mullingar achieved compliance rates of 76.7% in May/June 2013 and 71.4% in October 2013 in the national hand hygiene audits which is significantly below the HSE’s national target of 90%. Additionally, a previous HIQA unannounced inspection at the hospital carried out in November 2012 observed poor hand hygiene compliance rates on the day of inspection. In response to this the hospital formulated a quality improvement plan (QIP) which included a number of initiatives to improve hand hygiene including inclusion of practical hand hygiene training as a component of NCHD inductions, introduction of the HSElanD e-learning programme (the HSE’s online resource for learning and development) for hand hygiene, hand hygiene audit training of the clinical placement co-ordinator, implementation of a dress code for all staff and improvement of hand hygiene signage.

The Authority was informed that the hospital management recognise the importance of changing the culture with regards to hand hygiene. It was reported that hand hygiene is a fixed agenda item on the Clinical Governance Committee, which includes representation across all medical and surgical specialities, and hand hygiene is regularly discussed at other committees and clinical meetings throughout the organisation at both senior management and ward level. It was also reported that disciplinary options for repeated non compliance with hand hygiene were being discussed at the Clinical Governance Committee.

Some publications have suggested that to better promote a culture of hand hygiene best practice, the introduction of a policy of encouraging short sleeves should be worn, or longer sleeves to be turned up, should be considered. Midlands Regional Hospital, Mullingar has implemented a ‘Bare Wrists’/‘Bare Below the elbows’ dress code policy which is outlined in its hospital’s Dress Code Policy. This policy was implemented in February 2014 and is applicable to all employees and students when working in the clinical environment at the hospital.

The hospital has displayed poor performance in results of national HPSC audits relative to other hospitals. Outside of these HPSC audits there had been no recent audits conducted to assess overall hand hygiene compliance rates and provide assurances that hand hygiene rates were improving. It is imperative that the hospital continues to work to improve hand hygiene practices and demonstrate assurances of this improvement.
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 on Medical Ward 3 were clean with some exceptions. The Authority found that improvements are required in the maintenance of the environment. Additionally, the Authority recommends that the hospital should continue to review the management of Legionella on an ongoing basis to assure itself that the risk to patients of acquiring Legionellosis is fully mitigated, and that compliance with national guidelines is maintained.

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.

The hospital did not meet national compliance targets in the national hand hygiene audits conducted in 2013. The hospital has introduced a number of initiatives aimed at improving rates of hand hygiene compliance focused on hand hygiene training, implementation of a bare below the elbow dress code for all staff and improvements in hand hygiene signage. However, outside of the HPSC audits there had been no recent audits conducted to assess overall hand hygiene compliance rates and provide assurances that hand hygiene rates were improving. It is imperative that the hospital continues to work to improve hand hygiene practices and demonstrate assurances of this improvement.

At the time of inspection the Infection Prevention and Control Nurse post at Midlands Regional Hospital, Mullingar had been vacant since March 2014. The Authority recommends that this issue be addressed as a matter of priority to better ensure that the infection prevention and control programme at the hospital is effectively implemented and managed. At the time of publication of this report the hospital reported that a temporary Infection Prevention and Control Nurse had been appointed to the hospital pending permanent filling of this post.

The Midlands Regional Hospital, Mullingar must now revise and amend its quality improvement plan (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 Midlands Regional Hospital, Mullingar 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**


2. Health Information and Quality Authority. *Guide: Monitoring programme for unannounced inspections undertaken against the national standards for the prevention and control of Healthcare Associated Infections.* Dublin: Health Information and Quality Authority; 2014 Available online from: http://www.hiqa.ie/publications?topic=17&type=All&date%5Bvalue%5D%5Byear%5D=


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* All online references were accessed at the time of preparing this report.


6. Appendix 1

Detailed description of findings from unannounced inspection on 25 June 2014

Medical Three Ward (Level B)

3.1.2 Additional non-compliances with Standard 3

In this section, additional non-compliances with Criterion 3.6 of Standard 3 of the Infection Prevention and Control Standards which were observed during the inspection are listed below.

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.

Patient equipment

- The internal surfaces of three tympanic (ear) temperature probe holders were observed to be unclean and the casing of another temperature probe was damaged hindering effective cleaning.
- A patient call bell was observed to be unclean and a light layer of dust was observed on suction equipment at a patient bedside.
- The cover of a wheelchair seat stored in the assisted bathroom was damaged hindering effective cleaning. A standing aid also stored in the assisted bathroom was observed to be unclean with white residue.
- The trays and wheel areas of two dressing trolleys stored in the linen room were observed to be unclean.
- The Authority was informed that healthcare assistants on Medical Ward Three were responsible for ensuring patient equipment has been cleaned on a daily basis and that this is overseen by the cleaning supervisor. All staff are responsible for the cleaning of patient equipment between each patient. Daily checklists sheets for the cleaning of patient equipment were viewed on
Medical Three. However, these had not been completed in full each day some patient equipment was not signed off as having being cleaned each day.

Patient environment

- In one patient area red staining was noted on the wall surface, patient table and bed frame. This finding was brought to the attention of the ward manager at the time of the inspection for immediate cleaning.
- A number of chairs in patient areas in both ward and isolation rooms were badly damaged with tears to their surface covers meaning that they were no longer impermeable, hindering effective cleaning and posing a potential risk transmission of infective microorganisms to patients and staff.

Patient toilets/washrooms

- A shower curtain in the patient bathroom in room six was torn at the base. Additionally, the floor and skirting board were unclean with staining.

General cleanliness and maintenance

- Pumps used for enteral feeding stored in equipment room two were observed to be unclean with staining and sticky label residue hindering effective cleaning.
- Dust was observed in some areas inspected. For example,
  - A moderate layer of dust was observed on the floor in one of the patient areas and there was a small amount of used gauze on the floor.
  - A moderate layer of dust was observed on the floor of the clean utility and along with black and yellow staining, scuff marks and some pieces of paper debris.
- The door was broken on a patient locker meaning it did not shut completely, hindering effective cleaning.
- Chipped paint was observed on walls, doors, doorframes, and bed rails and framing in patient areas, the ward corridor, ‘dirty’± utility and store rooms hindering effective cleaning. The edges of a worktop beside the sink in the clean utility were also chipped, hindering effective cleaning.

Ward facilities

- The ‘dirty’ ± utility room was not secure and a risk assessment had not been completed at ward level to assess the risk posed by this matter. However, no chemical cleaning products were kept in the room.

* A ‘dirty’ utility room is a temporary holding area for soiled/contaminated equipment, materials or waste prior to their disposal, cleaning or treatment.
- The wall area over the window in the clean utility was unclean and cobwebs above the window were observed.
- While the majority of signage observed on the day of inspection was clean, updated and laminated a couple of signs in the clean utility were observed to be watermarked and stained.

**Personal Protective Equipment**

- Two staff members were observed leaving an isolation room wearing personal protective equipment and re-entering the room wearing the same personal protective equipment.

**Linen**

- The following non-compliances were observed in the linen store room:
  - Inappropriate items (such as an umbrella and a walking stick) were stored beside shelving in the linen store room. This is not in line with best practice as such items attract and retain dust and therefore increase the risk of linen contamination.
  - There was a moderate layer of dust on the floor of the linen room and the skirting board was unclean.
  - One ceiling tile above the shelving in the linen room was not in place correctly increasing the risk of dust from the ceiling space entering the room.
  - Small holes in the walls of the linen room and a large amount of chipped paint on the walls were observed hindering effective cleaning. A footstool in the linen room was unclean and the rubber surface covering was badly damaged.

**Cleaning facilities**

- A sweeping brush stored in the cleaning equipment room was observed to be unclean with dust and debris.

**Waste**

**Criterion 3.7.** The inventory, handling, storage, use and disposal of hazardous material/equipment is in accordance with evidence-based codes of best practice and current legislation.

- The temporary closing mechanism on one of the sharps waste disposal bins stored in the clean utility room was not engaged which is not in line with best practice.
Assurances Provided in Relation to Legionella Control

The Hospital confirmed that the following actions had taken place in response to the significant number of water samples which tested positive for *Legionella pneumophila*:

- Shower heads were immediately removed to reduce the risk of aerosol generation of *Legionella* species.
- Correspondence was sent to all clinicians in the hospital and general practitioners in the area informing them of the positive *Legionella* results and the need to be vigilant in considering Legionnaires disease in patients presenting with respiratory symptoms.
- Low level disinfection of the entire water system took place on 30 May 2014.
- The two water tanks servicing the hospital were cleaned and entire system was again disinfected on 6 June 2014.
- The level of flushing of all water outlets was increased at the hospital. It was reported that the Hospital’s maintenance department were able to verify this as water consumption in the hospital had increased on the introduction of these increased flushing arrangements. It was reported that the hospital continues to closely monitor this marker on an ongoing basis as an additional assurance mechanism.
- Ten random samples of water were tested on the 4 June 2014 and the results were negative.
- A full re-testing of the water system took place on the 25 - 26 June 2014 and the results were negative.
- The hospital was able to confirm that a risk assessment of the potential risk to patients or staff had been conducted, and that it had been adjudged that the potential risk from this incident was low. Moreover it was reported to the Authority that the hospital had not identified any cases of possible or confirmed Legionellosis during or following this period.

Midlands Regional Hospital Mullingar also provided evidence of the arrangements in place for the ongoing management, maintenance and audit of the water systems. These included:

- Clearly documented governance structures which outline the roles and responsibilities of identified staff in the implementation of control measures for Legionella at the hospital.
- Participation by the hospital in a regional Legionella sub-committee of the environmental monitoring Committee which meets four times a year. The Authority reviewed minutes of these meetings which showed that the positive *Legionella* results were discussed. It was reported that the Legionella
prevention and control programme at the hospital is also discussed at the Healthcare Associated Infection monthly meetings and monthly Hospital Hygiene Committee meetings.

- A routine risk assessment of the water system is conducted for the hospital by an external company every two years which is in line with *National Guidelines for the Control of Legionellosis in Ireland, 2009*. The last risk assessment was conducted in October 2012. The Authority reviewed this risk assessment, associated recommendations and action plans to address these. Moreover, the hospital provided the Authority with details of maintenance work completed, underway or in planning as part of its ongoing continuous approach to mitigating the risk of *Legionella*.

- The hospital also performs ongoing water outlet testing for Legionella on a six monthly basis.

- The hospital has a flushing policy in place which is in line with the HSE’s national policy. The hospital’s policy states that all showers are to be flushed every day; all other outlets are flushed once a week. However, it was reported in minutes of the Legionella subcommittee following the positive *Legionella* results that daily water consumption rates had dropped 30-40% since December 2013 which would indicate that adequate flushing was not taking place. These minutes also identified inconsistencies in the flushing regime. To address this issue the hospital provided refresher training on flushing to all applicable staff, updated the flushing check sheets to ensure identification and sign off by staff and increased validation and oversight processes for check sheet completion with all concerns reported immediately to the maintenance department by the support services manager.