



**Health
Information
and Quality
Authority**

An tÚdarás Um Fhaisnéis
agus Cáilíocht Sláinte

Report of the unannounced inspection at Mid Western Regional Hospital Nenagh, Co Tipperary

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

Date of on-site inspections: 17 September 2015

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 special care units and inspecting children detention schools, foster care services and child protection services.
- **Monitoring Healthcare Quality and Safety** – Monitoring the quality and safety of health and personal social care services and investigating as necessary serious concerns about the health and welfare of people who use these services.
- **Health Technology Assessment** – Ensuring the best outcome for people who use our health services and best use of resources by evaluating the clinical and cost effectiveness of drugs, equipment, diagnostic techniques and health promotion activities.
- **Health Information** – Advising on the efficient and secure collection and sharing of health information, evaluating information resources and publishing information about the delivery and performance of Ireland's health and social care services.

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1. Introduction

The Health Information and Quality Authority (the Authority) carries out unannounced inspections in public acute hospitals in Ireland to monitor compliance with the *National Standards for the Prevention and Control of Healthcare Associated Infections*.¹ The inspection approach taken by the Authority is 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

The aim of unannounced inspections is to assess hygiene in the hospital as observed by the inspection team and experienced by patients at any given time. It focuses specifically on the observation of the day-to-day delivery of services and in particular environment and equipment cleanliness and compliance with hand hygiene practice. In addition, following the publication of the 2015 *Guide: Monitoring Programme for unannounced inspections undertaken against the National Standards for the Prevention and Control of Healthcare Associated Infections*,² the Authority will assess the practice in the implementation of infection prevention care bundles. In particular this monitoring will focus upon peripheral vascular catheter and urinary catheter care bundles, but monitoring of performance may include other care bundles as recommended in prior national guidelines³⁻⁴ and international best practice⁵.

Assessment of performance will focus on the observation of the day-to-day delivery of hygiene services, in particular environmental and hand hygiene and the implementation of care bundles for the prevention of device related infections under the following Standards:

- Standard 3: 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.
- Standard 6: Hand hygiene practices that prevent, control and reduce the risk of spread of Healthcare Associated Infections are in place.
- Standard 8: Invasive medical device related infections are prevented or reduced.

Other Standards may be observed and reported on if concerns arise during the course of an inspection. It is important to note that the Standards are not assessed in their entirety during an unannounced inspection and therefore findings reported are related to a particular criterion within a 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. The Authority's approach to an unannounced inspection against these Standards

includes provision for re-inspection within six weeks if Standards on the day of inspection are poor. This aims to drive improvement between inspections. In addition, in 2015, unannounced inspections will aim to identify progress made at each hospital since the previous unannounced inspection conducted in 2014.

An unannounced inspection was carried out at the Mid Western Regional Hospital Nenagh on 17 September by an Authorised Person from the Authority, Katrina Sugrue, between 11:55hrs and 17:10hrs. The area assessed was:

- The Endoscopy Unit, which comprises eight recovery bays and two procedure rooms.

In addition, Medical 2 Ward which was inspected during an unannounced inspection by the Authority on 21 October 2014 was re-visited to assess the level of progress made since the 2014 inspection.

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

2. Mid Western Regional Hospital Nenagh Profile[‡]

Mid Western Regional Hospital Nenagh was officially opened as Nenagh Hospital on 30 September 1936 and is now part of the UL Hospitals serving the County of North Tipperary and surrounding counties. Under the Acute Medicine Programme, Nenagh's Local Emergency Centre has evolved into a Local Injuries Unit, which includes the appointment of an Advanced Nurse Practitioner on 30 July 2013.

The services provided at Nenagh Hospital are appropriate for a Model 2 Hospital and delivers non-complex care as close as possible to patients' homes. Access for medical admissions is via the Medical Assessment Unit, Local Injuries Unit, direct GP admissions and transfer of patient's from the University of Limerick Hospital's Group.

Site governance on a day-to-day basis is provided by the Operational Director of Nursing and the Site Administrator who work with the individual Directorates within UL Hospitals to ensure the achievement of group objectives.

Bed Complement

- 49 inpatient medical beds
- 10 Surgical Day Ward beds and 4 chairs
- 8 endoscopy beds
- 5 Medical Assessment Unit (MAU) trolleys
- 5 Local Injuries Unit (LIU) trolleys.

[‡] 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.

Services Currently Provided at Nenagh Hospital include:

- inpatient medicine
- endoscopy
- pre-op assessment
- OPD Department
- Medical Assessment Unit
- Local Injuries Unit (open seven days per week)
- Surgical Day Ward
- cardiology services including echo
- X-ray
- laboratory
- physiotherapy
- pharmacy
- respiratory services including pulmonary function testing, half and full sleep studies testing and pulmonary rehab clinics
- infusions service with gastroenterology CNS and governed by gastroenterologist
- palliative care
- diabetic services.

3. Findings

This report outlines the Authority's overall assessment in relation to the inspection, and includes key findings of relevance. A list of additional low-level findings relating to non-compliance with the standards has been provided to the hospital for completion. However, the overall nature of the key areas of non-compliance are summarised within this report.

This report is structured as follows:

- **Section 3.1** outlines the level of progress made by the hospital after the unannounced inspection on 21 October 2014.
- **Section 3.2** presents the key findings of the unannounced inspection on 17 September 2015.
- **Section 3.3** describes the key findings relating to hand hygiene under the headings of the five key elements of the World Health Organization (WHO) multimodal improvement strategy⁶ during the unannounced inspection on 17 September 2015.
- **Section 3.4** describes the key findings relating to the prevention or reduction of invasive medical device related infection through the implementation of infection prevention care bundles during the unannounced inspection on 17 September 2015.

3.1 Progress since the unannounced inspection on 21 October 2014

The Authority reviewed the QIP⁷ published by Mid Western Regional Hospital Nenagh following the 2014 inspection. Medical 2 Ward was revisited to determine the progress made. It was reported to the Authority that improvements had been made with respect to environmental hygiene performance; however the deficiencies in cleaning resources highlighted during the 2014 inspection had not been fully addressed.

Cleaning staff on Medical 2 Ward were responsible for day to day cleaning of the ward in addition to cleaning patient equipment. It was reported to the Authority that commodes are fully cleaned each morning. Water outlets were numbered to allow clear identification and facilitation of weekly flushing. It was reported that the ward manager oversees that the flushing of water outlets is completed in line with hospital policy and best practice. Individual pieces of equipment are now listed with their corresponding codes to track that all patient equipment is cleaned. However, patient equipment cleaning check lists viewed by the Authority were regularly incomplete which was reportedly due to insufficient available resources on a given day.

Hygiene audit results viewed from January to August 2015 demonstrate a high compliance; however the Authority was informed that dust in the 10 bedded ward

remains an issue. Dust was also present on floor edges and bed frames in the 10 bedded ward at the time of the inspection. Hand hygiene compliance was 100% in Medical 2 Ward in an audit conducted in July 2015.

The hospital fully acknowledged that some issues related to environmental hygiene remained which were specifically related to a deficiency in cleaning resources. It was explained to the Authority that the recruitment of multitask attendants was in progress and was expected to be completed by the end of October 2015 which should address outstanding issues. Work was also ongoing on streamlining processes relating to waste management and hygiene to ensure that specific roles and responsibilities were clearly defined.

3.2 Key findings of the unannounced inspection on 17 September 2015

Endoscopy environment and facilities

The endoscopy environment was generally clean and well maintained, however some improvements were required. There were inadequate staff changing facilities, a lack of storage facilities, and a lack of office space. Each have been identified as risks and has been placed on the hospital risk register. In addition, the Endoscopy Unit had insufficient preparation rooms, inadequate patient waiting area, no patient discharge lounge and no separate cleaner's utility rooms for clean and dirty areas within its current foot print. The lack of storage and office space resulted in clutter which was observed on some work surfaces of Procedure Room 1, and had the potential to impede cleaning. It was reported to the Authority that this risk was placed on the hospital risk register.

The hospital plans to move the Medical Assessment Unit which is currently located adjacent to the Endoscopy Unit to the ground floor towards the end of 2015 or early 2016. This should facilitate the expansion and upgrade of the existing footprint of the Endoscopy Unit to address the deficiencies in the current infrastructure, in preparation for Joint Advisory Group (JAG) accreditation.

The Authority was informed that one multi task attendant was assigned to the decontamination of scopes in addition to portering and cleaning duties within the unit each day. This was not the operational norm the Authority viewed in other endoscopy units that were inspected where there were staff designated to the clean and dirty areas. A National Progress Report on Endoscopy Services in Ireland which was commissioned by the HSE and undertaken by the National Cancer Screening Service in 2011 found that only 30% of Endoscopy Units surveyed had designated decontamination technicians.⁸ Dedicated endoscopy decontamination technicians are recommended to improve standards and efficiency within endoscopy units. The hospital acknowledged that the resource deficiency identified was being addressed under an ongoing recruitment process.

The washer used for decontamination of transrectal ultrasound (TRUS) probes was not plumbed to facilitate emptying of the washer directly into a drain. Instead, it was reported to the Authority that the contents of the washer was drained into a bucket and emptied into a designated hand hygiene sink which was adjacent to the location of this washer. Hand hygiene sinks can be reservoirs and a means of transmission of *Pseudomonas aeruginosa* and other Gram-negative bacteria which can cause Hospital Acquired Infection, therefore hand hygiene sinks should only be used for hand hygiene practices.⁹

The Authority observed that the floor covering under the Reverse Osmosis water supply unit in the scope cleaning room was partially missing. The Authority was informed that the damage occurred following a leak. Although a risk assessment from March 2015 noted that the damage had been reported to maintenance and highlighted on a hygiene audit QIP, it had not been repaired at the time of the inspection. The quality of finishes in all clinical areas should be readily cleaned and resilient. In areas where frequent wet cleaning methods are employed, floors should be of a material that is unaffected by the agents likely to be used.⁵

Patient equipment

There was evidence of insufficient cleaning of an integrated sharps tray following a clean/aseptic procedure. In addition, sterile consumables were left on both sharps trays which were stored in a cupboard storing sterile supplies. The cleaning of equipment after use is the shared responsibility of all staff, and equipment should only be stored away once cleaning has been completed. Similar findings relating to the management of patient equipment were observed during the 2014 inspection which would suggest that further improvement is required. The Authority was also informed that glucose monitor holders with a supply of blood sampling equipment is taken to the patient bedside when monitoring blood sugars. Only the equipment required for individual patient procedures should be brought to the patient bedside, as doing so minimises the risk of microbiological contamination of shared equipment. The Authority recommends that the hospital review such practices to provide assurances that the recommended infection prevention and control precautions are in place to prevent blood borne virus transmission. Safe practice in relation to blood glucose monitoring should be standardised across the hospital.

Transmission based precautions

An isolation room door was open at the time of the inspection which is not in line best practice.

3.3 Key findings relating to hand hygiene

3.3.1 System change⁶: *ensuring that the necessary infrastructure is in place to allow healthcare workers to practice hand hygiene.*

- The clinical hand wash sink in the Endoscopy Unit was conformed with Health Building Note 00-10 Part C: Sanitary assemblies.¹⁰ Clinical hand wash sinks in Medical 2 Ward were of high specification but did not fully conform with Health Building Note 00-10 Part C: Sanitary assemblies.

3.3.2 Training/education⁶: *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.*

- Documentation viewed showed that 100% of staff were up to date in their hand hygiene training in the Endoscopy Unit, and over 90% of staff across the hospital were compliant with hand hygiene training at the time of the inspection.
- The hospital has local hand hygiene trainers who have attended a train the trainer programme.

3.3.3 Evaluation and feedback⁶: *monitoring hand hygiene practices and infrastructure, along with related perceptions and knowledge among health-care workers, while providing performance and results feedback to staff.*

National hand hygiene audit results

Mid Western Regional Hospital Nenagh is a member of the University of Limerick Hospitals Group (UL Hospitals). There are six hospitals in this group which include the three Mid Western Regional Hospitals in Limerick, Ennis and Nenagh. The UL Hospitals Group commenced reporting data as a group in the national hand hygiene audits in October 2013 and submits results under three directorate headings. The national hand hygiene audits are published twice a year.¹¹

From June 2011 to May/June 2013 Mid Western Hospital Nenagh supplied independent figures to the national hand hygiene audits. Since October 2013, the hospital has submitted its hand hygiene data as part of the Medicine Directorate of the UL Hospitals Group. The results below taken from publically available data from the Health Protection Surveillance Centre's website demonstrate that the UL Hospitals Medicine Directorate has demonstrated an increase in hand hygiene compliance in 2014 where compliance increased from 85.2% in May/June 2014 to 87.1% October/November 2014. The overall compliance of the Medicine Directorate for May/June 2015 was sustained at 87.1% which was below the HSE's national target of 90%.¹² The Authority was informed that Mid Western Hospital Nenagh was not randomly selected to participate in the May/June 2015 national hand hygiene audit.

Period 1-8	Result
Period 1 June 2011	79.0%
Period 2 October 2011	79.0%
Period 3 June/July 2012	86.7%
Period 4 October 2012	85.2%
Period 5 May/June 2013	81.9%
Period 6 October 2013 (UL Hospitals Medicine Directorate)	86.2%
Period 7 May/June 2014 (UL Hospitals Medicine Directorate)	85.2%
Period 8 October/November 2014 (UL Hospitals Medicine Directorate)	87.1%
Period 9 May/June 2015 (UL Hospitals Medicine Directorate)	87.1%

Source: Health Protection Surveillance Centre – national hand hygiene audit results.¹¹

Local hand hygiene audits

- Local hand hygiene audits are carried out by an infection prevention and control nurses on a regular basis. Traffic light posters are displayed at ward level which illustrates the results of the most recent local hand hygiene audits.
- Recent hand hygiene audits results viewed demonstrate compliance below the 90% HSE national target.
- Local hand hygiene audits had not been completed on the Endoscopy unit in over two years. It was reported to the Authority that there was no infection prevention and control link nurse in the Endoscopy unit.

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 inspection are based on guidelines promoted by the WHO¹³ and the HSE.¹⁴ 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^Y 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 10 hand hygiene opportunities in total during the September inspection. Hand hygiene opportunities observed comprised the following:

- two before touching a patient
 - one before clean/aseptic procedure
 - one after body fluid exposure risk
 - one after touching a patient
 - five after touching patient surroundings
- Eight of the 10 hand hygiene opportunities were taken. The two opportunities which were not taken comprised the following:
- one after body fluid exposure risk
 - one after touching patient surroundings.
- Of the 8 opportunities which were taken, the hand hygiene technique was observed (uninterrupted and unobstructed) by the Authorised Persons for 8 opportunities and the correct technique was observed in seven hand hygiene actions.

3.3.4 Reminders in the workplace⁶: *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.
- A poster campaign involving senior management was observed in the main hospital entrance.

3.3.5 Institutional safety climate⁶: *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.*

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

- Evidence provided at the time of the inspection indicates that the hospital is working towards improving hand hygiene compliance at all levels. The hospital needs to continue to build on hand hygiene awareness to ensure that good hand hygiene practice is improved and maintained in all areas.

3.4 Key findings relating to peripheral vascular catheter (PVC) and urinary catheter care bundles*

Peripheral vascular catheter (PVC) care bundles and urinary catheter care bundles were introduced to inpatient wards in the Mid Western Regional Hospital Nenagh one year ago. The hospital plans to extend the implementation of care bundles to theatre in the near future. Policies with regard to PVC care bundles and urinary catheter care bundles were in place. The hospital has been collecting invasive medical devices quality care-metrics since January 2015.

The Authority viewed documentation and practices relating to the use of infection prevention care bundles on Medical 2 Ward. Active audit and feedback systems around the implementation of infection prevention care bundles were evident through discussion with hospital management and a review of documentation.

PVC and urinary catheter care bundles were audited on a monthly basis by the ward manager at local level as part of nursing metrics. Ten patient records are audited each month. Compliance with date of insertion and removal of PVC, clinical indication for insertion of urinary catheter and the management of invasive devices are measured. The Authority was informed that QIPs were implemented at local level and re-education was provided if any deviation in good practice was observed. Feedback of results are given to staff on the day of audit and at ward report. The hospital reports results of invasive medical devices quality care-metrics at both local level and to the Regional Metrics Steering Group every two months. Metric results viewed for Medical 2 from January to August 2015 show that Medical 2 Ward achieved a mean average of 83.5% in the management of invasive devices, 91% on the documentation of the insertion date of PVC, 62% on the removal of a PVC and 66.6% on the clinical indication for the insertion of a urinary catheter.

Improvements were required in the completion of care bundle record sheets in Medical 2 Ward which were viewed by the Authority during the inspection. Documentation was viewed on two patients on Medical 2 with urinary catheters in place. However, a urinary catheter care bundle was only activated for one of these patients which was not in line with local policy. PVC care bundles were activated for all three patients reviewed by the Authority on Medical 2 Ward at the time of the inspection. However, the Authority was unable to determine if the PVC bundles were

* A care bundle consists of a number of evidence based practices which when consistently implemented together reduce the risk of device related infection.

fully compliant with daily assessments as the PVC insertion and removal details were incomplete on two of the three care bundles viewed.

The Authority was informed that infections related to invasive medical devices are reported back to relevant clinical areas if they occur.

The hospital informed the Authority that nurses received training with regard to the implementation of care bundles and non-consultant hospital doctors receive training during induction. Staff on the wards had a good awareness and knowledge of care bundles.

Overall infection prevention and control bundles have been well advanced in the hospital which is to be commended.

4. Summary

Overall, the Endoscopy Unit was clean and well maintained. However, improvements are required in the infrastructure, facilities, patient flow and resources which the hospital has identified and plans to address in the near future. Deficiencies in cleaning resources identified during the 2014 inspection remain but should be resolved with the recruitment of additional multitask attendants.

Performance in relation to hand hygiene was good on the day of inspection. However, the Authority notes scope for improvement in hand hygiene audits undertaken at a local level.

The Mid Western Regional Hospital Nenagh has demonstrated that it is working towards compliance with Standard 8 of the Infection Prevention and Control Standards and is committed to improving the management of invasive devices.

5. Next steps

Mid Western Regional Hospital Nenagh must now revise and amend its QIP that prioritises the improvements necessary to fully comply with the 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 Mid Western Regional Hospital Nenagh 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 Standards, and is making quality and safety improvements that safeguard patients.

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