



**Health  
Information  
and Quality  
Authority**

An tÚdarás Um Fhaisnéis  
agus Cáilíocht Sláinte

# **Report of the unannounced inspection at Mallow General Hospital**

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

Date of on-site inspection: 20 April 2016

## **About the Health Information and Quality Authority**

The Health Information and Quality Authority (HIQA) is an independent Authority established to drive high quality and safe care for people using our health and social care and support services in Ireland. HIQA's role is to develop standards, inspect and review health and social care and support services, and support informed decisions on how services are delivered. HIQA's ultimate aim is to safeguard people using services and improve the quality and safety of services across its full range of functions.

HIQA's mandate to date extends across a specified range of public, private and voluntary sector services. 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 health and social care and support services in Ireland.
- **Regulation** – Registering and inspecting designated centres.
- **Monitoring Children's Services** – Monitoring and inspecting children's social services.
- **Monitoring Healthcare Quality and Safety** – Monitoring the quality and safety of health services and investigating as necessary serious concerns about the health and welfare of people who use these services.
- **Health Technology Assessment** – Providing advice that enables the best outcome for people who use our health service and the best use of resources by evaluating the clinical effectiveness and cost-effectiveness of drugs, equipment, diagnostic techniques and health promotion and protection activities.
- **Health Information** – Advising on the efficient and secure collection and sharing of health information, setting standards, evaluating information resources and publishing information about the delivery and performance of Ireland's health and social care and support 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*.<sup>1</sup> The inspection approach taken by the Authority is outlined in guidance available on the Authority's website, [www.hiqa.ie](http://www.hiqa.ie) – *Guide: Monitoring Programme for unannounced inspections undertaken against the National Standards for the Prevention and Control of Healthcare Associated Infections*.<sup>2</sup>

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*,<sup>2</sup> 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 guidelines<sup>3 4</sup> and international best practice<sup>5</sup>. Assessment of performance is focused on the observation of the day-to-day delivery<sup>2</sup> 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 2016, unannounced inspections will aim to identify progress made at each hospital since the previous unannounced inspection conducted in 2015.

An unannounced inspection was carried out at Mallow General Hospital on 20 April 2016 by Authorized persons from the Authority, Kathryn Hanly and Gearoid Harrahill between 09:35hrs and 13:45hrs. The area assessed was:

- St. Patrick's Ward which is a 13 bedded mixed medical ward. It consists of two four-bedded rooms, two two-bedded rooms and one single ensuite room.

In addition, St. Joseph's Ward, which was inspected during an unannounced inspection by HIQA on 06 March 2015, was re-visited to assess the level of progress which had been made after the 2015 inspection.

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

## 2. 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 inclusion in local quality improvement plans. However, the overall nature of the key areas of non-compliance are within this report.

This report is structured as follows:

- **Section 2.1** outlines the level of progress made by St. Joseph's Ward after the unannounced inspection on 06 March 2015.
- **Section 2.2** presents the key findings of the unannounced inspection on 20 April 2016.
- **Section 2.3** describes the key findings relating to hand hygiene under the headings of the five key elements of the World Health Organization (WHO) multimodal improvement strategy<sup>6</sup> during the unannounced inspection on 20 April 2016.
- **Section 2.4** describes the key findings relating to infection prevention care bundles during the unannounced inspection on 20 April 2016.

### 2.1 Progress since the last unannounced inspection on 06 March 2015

Authorized persons reviewed the quality improvement plan (QIP) developed by the hospital for St. Joseph's ward following the 2015 inspection. A copy of the most recent quality improvement plan was also provided to inspectors. While some improvements were made relating to maintenance, substantive issues and risks identified in the 2015 HIQA report relating to the infrastructure of St. Joseph's Ward remain outstanding. There are ongoing opportunities for improvement with respect to facilities, bed spacing and storage on the ward.

Authorized persons were informed that plans have been produced outlining options for reconfiguration and refurbishment of the ward and funding was available. However, on the day of the inspection there were as yet, no agreed timelines in place to address the issues which have been identified.

The dual role of support staff who are responsible for cleaning and catering was under review. A pilot of a division of the roles was underway in St Patrick's Ward.

It was identified by authorized persons during the 2015 inspection that a formal risk assessment of the Hospital's water system to ensure the prevention and control of Legionella had not been conducted in line with national guidelines.<sup>7</sup> This had since been addressed with a formal independent risk assessment of the Hospital's water system having been conducted in line with national guidelines.<sup>7</sup> A number of risks were identified via this assessment. The Hospital communicated to inspectors that

any immediate risks to patients were being effectively managed by the hospital. A collective log book detailing control measures implemented had not yet been commenced.

It was explained to HIQA by Mallow General Hospital that informal arrangements remain in place to ensure access to specialist advice from Medical Microbiologists based in Cork University Hospital over the phone. In the announced inspection<sup>8</sup> of the Cork University Hospital Group carried out by the HIQA in 2012 this lack of a formal arrangement was highlighted as an area of concern. In 2015 the management of Mallow General Hospital advised HIQA that plans were in place to formalise this arrangement through the intended recruitment of a Medical Microbiologist to the group who will have dedicated sessions at Mallow General Hospital. However at the time of the 2016 inspection planned recruitment had not progressed. It is recommended that the hospital group acts to address this issues, as recommended by HIQA in previous reports.

## **2.2 Key findings of the unannounced inspection on 20 April 2016**

Overall, the standard of cleaning in St. Patrick's ward was found to be good on the day of inspection. Records viewed showed that a programme of regular environmental audits is well established. Following environmental audits the ward initiated action plans, which included measures to rectify poor performance highlighted during the audit. The high levels of compliance achieved in recent environmental hygiene audits were also reflected on the day of inspection. However, a number of infrastructural and maintenance issues which had the potential to impact on infection prevention and control measures were identified during the course of the inspection.

### Maintenance

Authorized persons were informed that ward managers meet with maintenance staff every six weeks to discuss plans and priorities for maintenance works. However ongoing maintenance issues such as damage to plasterwork and paintwork on walls, door frames, pipework and radiators were observed by authorized persons in patient areas and throughout the ward in general. Pipework should be contained in a smooth surfaced box that is easy to clean; pipework sited along a wall can become a dust trap and can be very difficult to effectively clean.

### Infrastructure and facilities

St. Patrick's Ward has an ageing infrastructure. Ancillary rooms such as those required for sterile equipment and medication storage, cleaning equipment management, decontamination, equipment storage, linen storage and staff facilities were either absent, poorly designed or too small. There was lack of storage space in

the ward with inappropriate storage of equipment and supplies resulting in clutter and items of patient equipment continued to be stored along corridors and in linen rooms. The hospital should review arrangements for storage to ensure best use of the facilities and maintain a clutter free environment.

Not all patient rooms had ensuite toilet/shower facilities. In addition, as highlighted in previous reports it was evident at the time of inspection that bed spacing in multi-bedded wards was not in compliance with best practice guidelines. Staff should be able to attend to one patient without impinging on the adjacent patient or patient zone and without compromising infection control practices. Hospital management acknowledged they do not currently meet the minimum clinical workspace requirements as recommended in national recommendations.<sup>9</sup>

Male toilet facilities were not self contained with toilet cubicles opening directly onto the corridor which is not optimal from an infection prevention and control perspective and is not in line with best practice.

The clean utility room was a small sized, poorly ventilated room which did not facilitate effective infection prevention and control measures. For example, there was no hand hygiene sink and designated medication preparation area was insufficient.

The 'dirty' utility\* room was unlocked, allowing unauthorized access to chemicals, which were stored in an unlocked cupboard. There was no designated clinical hand hygiene sink available in this room. A sink was used for both hand hygiene purposes and cleaning of equipment. The use of hand-wash sinks for purposes other than handwashing should be avoided as this will significantly increase the risk of hand and environmental contamination. In addition there was no sluice hopper available for the disposal of body-fluid waste. Inspectors were informed that there is no planned preventive maintenance programme in place for servicing the macerators. This issue was also highlighted in the 2015 inspection report. Planned preventive maintenance requires the continuous undertaking of proactive work targeted at keeping equipment, fixtures and fittings in good working order. Mallow General Hospital should review its current practices to assure itself that maintenance is managed to minimise the risk of transmission of infection to patients, staff and visitors.

The ward did not have adequate space for the management and storage of cleaning equipment. The cleaning trolley was stored in the patient equipment storage room. It is recommended that clinical areas have a designated cleaning equipment room

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



with facilities for emptying and filling buckets, supply and equipment storage, and hand hygiene facilities.

### Safe Injection Practices

Inspectors were informed that blood glucose monitors and their holders containing sterile supplies for blood sampling were brought to the patient bedside when monitoring the patient's blood sugar. This practice increases the risk of transmission of blood-borne viruses and is not in line with best practice.<sup>10</sup> Red staining was visible on both the inside surface of the blood glucose monitor holder and also on the blood glucose monitor within the holder. It is recommended that only the equipment required for a single procedure on an individual patient should be brought to a patient bedside.<sup>11</sup> These issues were highlighted to staff at the time of the inspection for immediate mitigation.

## **2.3 Key findings relating to hand hygiene**

**2.3.1 System change<sup>6</sup> :** *ensuring that the necessary infrastructure is in place to allow healthcare workers to practice hand hygiene.*

- The design of clinical hand wash sinks in St Patrick's Ward did not conform to Health Building Note 00-10 Part C: Sanitary assemblies.<sup>12</sup>
- There were no dedicated hand hygiene facilities available in a 'dirty' utility rooms.
- The 'clean' utility room did not have a clinical hand wash sink.
- Not all multi-occupancy patient rooms had hand wash sinks. A minimum of one hand wash sink in each room is required. En-suite single rooms should have a hand wash basin in the en-suite facility in addition to a clinical hand-wash basin in the patients room.

**2.3.2 Training/education<sup>6</sup> :** *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.*

- The hospital maintains and regularly updates hand hygiene training records on a database which highlights staff members who require hand hygiene training. Inspectors reviewed hospital training and education records which illustrated that 100% of all staff (including medical staff) at the hospital had attended mandatory hand hygiene training in the previous two years.
- Inspectors were informed that, in addition to training provided by the Infection Prevention and Control Nurse, hand hygiene training and education is facilitated by a dedicated nurse, who has protected time to assist in hand hygiene training and education.

**2.3.3 Evaluation and feedback<sup>6</sup>:** *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 audits**

Mallow General Hospital participates in the national hand hygiene audits which are published twice a year. The results in table 1 are taken from publically available data on the Health Protection Surveillance Centre's website. The hospital has consistently achieved the desirable HSE's current national target, which currently requires performance to exceed 90%.<sup>13</sup>

Table 1: Mallow General Hospital hand hygiene audit results

<b>Period 1-10</b>	<b>Result</b>
Period 1 March/April 2011	77.1%
Period 2 October/November 2011	81.4%
Period 3 May/June 2012	85.7%
Period 4 October/November 2012	87.1%
Period 5 May/June 2013	90.5%
Period 6 October/November 2013	91.0%
Period 7 May/June 2014	91.9%
Period 8 October/November 2014	91.4%
Period 9 May/June 2015	92.4%
Period 10 October/November 2015	92.10%

Source: Health Protection Surveillance Centre – national hand hygiene audit results.<sup>14</sup>

### **Local hand hygiene audits**

In addition to nationally reported hand hygiene audits, local hand hygiene audits are carried out every six months in all areas of the hospital meaning that a hand hygiene audit is conducted every three months overall in the hospital. The results of the most recent available hand hygiene audits undertaken in January 2016 for St. Patrick's Ward show a compliance rating of 93%, which is in line with the HSE's target for hand hygiene compliance. Results of hand hygiene audits were displayed on a notice board in the ward office.

## **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<sup>15</sup> and the HSE.<sup>16</sup> 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<sup>γ</sup> 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 nine hand hygiene opportunities in total during the inspection. Hand hygiene opportunities observed comprised the following:

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

In addition the Authorised Persons observed that:

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<sup>γ</sup> The inspectors observe if all areas of hands are washed or alcohol hand rub applied to cover all areas of hands.

- While inspectors observed frequent hand hygiene actions taken by all staff on St Patrick’s Ward, a failure to differentiate patient and healthcare zones reduced compliance with the five moments of hand hygiene at the time of the inspection. Clarity on what constitutes the patient and healthcare zone should be a focus of future hand hygiene training.

**2.3.4 Reminders in the workplace<sup>6</sup>:** *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 St Patrick’s Ward.

**2.3.5 Institutional safety climate<sup>6</sup>:** *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.*

Training levels at the hospital were consistently high on the day of inspection, and a good awareness in relation to the systems and processes adopted to promote good hand hygiene performance were identified by HIQA at both ward and senior management level.

Ensuring good hand hygiene performance is the single most important factor in preventing the transmission of infection in healthcare settings and is a critical component of any infection prevention and control programme.<sup>5</sup> Sustained high performance requires a collective commitment from all staff. It also requires strong leadership, and active engagement from all staff groups. The embedded practices around training and audit identified on the day of inspection were indicative of extensive work at the hospital over a period of time to drive improvement. Having consistently achieved compliance with targets in national audits, it is important that Mallow General Hospital continues in its efforts to sustain this performance into the future.

**2.4 Key findings relating to infection prevention care bundles<sup>†</sup>**

Care bundles to reduce the risk of different types of infection have been introduced across many health services over the past number of years, and there have been a number of guidelines published in recent years recommending their introduction across the Irish health system.<sup>3,4</sup>

Authorised persons reviewed documentation and practices and spoke with staff relating to infection prevention care bundles in the areas inspected and re-visited.

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<sup>†</sup> A care bundle consists of a number of evidence based practices which when consistently implemented together reduce the risk of device related infection.

Through observation of practice, review of documentation and discussion with staff it was evident that the use of peripheral vascular catheter and urinary catheter care bundles were in use, and were operationally embedded in practice.

Inspectors were informed that nurses received training with regard to the implementation of care bundles. Staff on the wards had a good awareness and knowledge of care bundles. Peripheral venous access device and urinary catheter care bundle compliance was audited every month. Care bundle compliance of 100% was reported in the first three months of 2016 indicating that practices were well embedded and successful. Although individual episodes of peripheral vascular device phlebitis are reported locally, there was no surveillance system in place to collate infection incidence related to peripheral venous and urinary catheters.

### **3. Summary**

Good local ownership in relation to infection prevention and control was evidenced in St Patrick's Ward during the inspection and is commendable. Overall, the physical environment and patient equipment in St Patrick's Ward were clean.

HIQA acknowledges that the hospital has taken on board the recommendations of the 2015 unannounced inspection and the hospital is working towards improving the general facilities and infrastructure of St Joseph's Ward. However many of the findings in this report are similar to those observed in the unannounced inspection of Mallow General Hospital on 06 March 2015.

- HIQA notes the infrastructural challenges of the original older footprint of the hospital. Notwithstanding this, Mallow General Hospital should strive to address the identified maintenance issues in the St. Patrick's ward as a matter of priority. It is important that planned renovations are progressed to ensure the physical environment and equipment is planned, provided and maintained to maximise patient safety.
- The provision of a dedicated medical microbiology service was originally highlighted in the 2012 HIQA report of the Cork University Group.<sup>8</sup> It is recommended that the hospital group act to progress the filling of this position.

The hospital has successfully adopted a multimodal strategy aimed at improving hand hygiene practices. The Authority's observations during the inspection, combined with discussions in meetings with hospital staff, suggested that a culture of hand hygiene best practice is embedded in the hospital.

The hospital has extensively introduced infection prevention care bundles. Care bundle implementation is supported by regular audit with feedback on process measure implementation. Overall infection prevention and control bundles have been

well advanced and embedded in the hospital which is commendable. Mallow General Hospital should continue to build on progress to date to provide assurance that device related infections are effectively reduced or prevented.

#### **4. Next steps**

Mallow General Hospital must now revise and amend its quality improvement plan (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 Mallow General Hospital to formulate, resource and execute its QIP to completion. HIQA 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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