



**Health
Information
and Quality
Authority**

An tÚdarás Um Fhaisnéis
agus Cáilíocht Sláinte

Report of the unannounced inspection at St John's Hospital, Limerick

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

Date of on-site inspection: 19 May 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 (HIQA) 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 HIQA is outlined in guidance available on the HIQA'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 HIQA began assessing the the implementation of infection prevention care bundles. In particular this monitoring is focused on peripheral vascular catheter and urinary catheter care bundles, but monitoring of performance may include other care bundles as recommended in prior national guidelines^{3,4} and international best practice.⁵

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. HIQA 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. HIQA'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.

An unannounced inspection was carried out at St John's Hospital on 19 May 2016 by an Authorized Person from HIQA, Kathryn Hanly between 09:40hrs and 14:10 hrs. The area assessed was:

- **The First Floor**, a 35-bedded mixed medical and surgical ward, which comprises two five-bedded rooms, two four-bedded rooms, one three-bedded room, two double rooms and 10 single en-suite rooms.

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

2. Findings

This report outlines HIQA'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 the Ground Floor after the unannounced inspection on 6 November 2014.
- **Section 2.2** presents the key findings of the unannounced inspection on 19 May 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 strategy⁶ during the unannounced inspection on 19 May 2016.
- **Section 2.4** describes the key findings relating to infection prevention care bundles during the unannounced inspection on 19 May 2016.

2.1 Progress since the last unannounced inspection on 6 November 2014.

HIQA reviewed the quality improvement plan (QIP) published by St John's Hospital following the 2014 inspection. HIQA acknowledges that the hospital has addressed the majority of the findings of the 2014 unannounced inspection and had made some improvements including the refurbishment of the Ground Floor in 2015. The authorized person was informed that this refurbishment included new floor covering, washable wall panelling, painting and the installation of new clinical hand hygiene sinks. In addition all patient bathrooms and 'dirty' * utility rooms were upgraded.

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

2.2 Key findings of the unannounced inspection on 19 May 2016

Overall the environment and patient equipment hygiene on the First Floor were generally clean with some exceptions. There was evidence of clear processes and responsibilities for cleaning and there was good local ownership of environmental hygiene.

Opportunities for improvement were identified during the inspection in relation to transmission based precautions, the infrastructure and maintenance of the general environment and the monitoring and evaluation of ward hygiene. An overview of these findings is contained in the following section.

Transmission-based precautions

Poor compliance with transmission-based precautions was observed on the First Floor. The inspector noted that the doors to two rooms accommodating patients requiring transmission-based precautions were ajar during the inspection. Doors to rooms of patients requiring transmission-based precautions should be kept closed. If a risk assessment indicates a requirement to leave a door open for safety reasons this deviation from established transmission-based precaution practice should be clearly documented and communicated to staff and relevant visitors to the ward.

Advisory signage was not displayed on the door of a single room used to accommodate a patient requiring droplet precautions at the time of inspection.

Healthcare risk waste bins were located outside the rooms of some patients requiring transmission-based precautions. The authorized person observed that staff removed personal protective equipment outside the isolation room. St John's Hospital policy states that personal protective equipment should be disposed of within the isolation room.

The majority of single rooms on the First Floor, which are used to accommodate patients requiring transmission-based precautions did not have designated clinical hand wash sinks. In addition, the alcohol hand rub dispenser in one of these rooms was broken at the time of the inspection meaning there were no dedicated hand hygiene facilities in this room.

HIQA recommends that the hospital review the systems, procedures and processes in place to ensure that the risk of transmission of infection is prevented, managed and controlled in accordance with Criterion 3.2, Standard 3 of the Infection Prevention and Control Standards.¹

First Floor infrastructure and maintenance

It was evident at the time of inspection that bed spacing in multi-bedded wards in the area inspected was not in compliance with best practice guidelines. Limited spatial separation between beds did not facilitate ease of movement of staff or mobilisation of patients. Staff should be able to attend to one patient without impinging on the adjacent patient or patient zone and without compromising infection control practices.

The overall ward infrastructure was poorly maintained in that many of the surfaces and finishes throughout the ward, including wall paintwork, wood finishes, pipework and flooring was damaged and worn and as such did not facilitate effective cleaning. HIQA notes that the infrastructure of the hospital presents ongoing challenges to the maintenance and upkeep of the building. Notwithstanding this, it is essential that hospital environments are maintained at a high standard to ensure the effectiveness of infection control practices and prevent the transmission of infection.⁷

Monitoring and evaluation of ward hygiene

Overall, the general environment and equipment on the First Floor was clean with some exceptions. Monthly hygiene audits are performed by the ward manager. The ward achieved 88% and 100% compliance respectively in the most recent environmental and equipment elements of the April 2016 audit. The high levels of compliance achieved in hygiene audits were also reflected on the day of inspection.

The authorized person was informed that, in addition to local audits, audits of clinical rooms, isolation rooms and linen are also undertaken throughout the year by Infection Prevention and Control. However managerial audits of the general environment and equipment are not routinely carried out. Guidelines^{8,9} recommend that managerial audits, should be carried out to validate the local audit process, provide an independent objective view of cleanliness and should form part of the ongoing management and supervision of ward hygiene.

Checklists for the cleaning of patient equipment had been developed. However all items listed were scheduled to be cleaned on a weekly basis. Patient equipment should generally be cleaned after use and on a daily basis. National guidelines and best practice recommend that minimum cleaning frequencies should be defined by frequency of use and by risk category. The hospital should evaluate cleaning frequencies to ensure that they are sufficient.

2.3 Key findings relating to hand hygiene

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

- Alcohol gel was available at each point of care throughout the First Floor.
- The design of clinical hand wash sinks in the First Floor did not conform to Health Building Note 00-10 Part C: Sanitary assemblies.¹⁰
- There was no designated clinical hand wash sink in one 'dirty' utility room on the First Floor. A stainless steel utility sink located directly beside the sluice hopper was used for hand washing. This presents a risk of contamination of staff hands with faecal organisms and is a potential risk factor in the spread of enteric bacteria which can cause infection. Appropriate clinical hand washing facilities should be provided in this area.
- Liquid soap, alcohol hand gel and hand moisturiser was available at clinical hand wash sinks in the areas inspected. There may potentially lead to confusion in relation to which product to use. The hospital should review the provision and placement of hand hygiene products.

2.3.2 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.*

- St John's Hospital provides mandatory hand hygiene training to all staff working in patient areas on a yearly basis which is over and above the national recommendation of two yearly training. In total 93% of staff across the hospital were up to date in their hand hygiene training at the time of the 2016 inspection.
- Documentation viewed by the authorized person showed that 86% of staff on the First Floor had attended hand hygiene training in the previous 12 months.
- The hospital maintains hand hygiene training records on a database which highlights staff members who require hand hygiene training. Staff demonstrated the traffic light system used in the hospital to monitor hand hygiene training attendance with green indicating that training is up-to-date, amber indicating training is due to expire shortly and red indicating that training is out-of date.

2.3.3 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 audits

St John's 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 the hospital has failed to reach the national target of 90% since mid 2014. The hospital needs to improve overall performance in relation to hand hygiene in order to reach and sustain the national target hand hygiene in both the national and local audits.¹¹

Table 1: St. John's Hospital national hand hygiene audit results.

Period 1- 10	Result
Period 1 March/April 2011	71.2%
Period 2 October/November 2011	81.4%
Period 3 May/June 2012	82.4%
Period 4 October/November 2012	84.3%
Period 5 May/June 2013	78.1%
Period 6 October/November 2013	85.6%
Period 7 May/June 2014	92.4%
Period 8 October/November 2014	87.1%
Period 9 May/June 2015	75.5%
Period 10 October/November 2015	84.5%

Source: Health Protection Surveillance Centre – national hand hygiene audit results.¹²

Local hand hygiene audits

- In addition to national hand hygiene audits undertaken twice a year, monthly local hand hygiene audits are also carried by the ward manager as part of the hygiene audits.
- Local hand hygiene audits conducted on the First Floor in February, March and April 2016 showed high compliance of 89%, 89% and 100% respectively.
- Where poor compliance is demonstrated additional hand hygiene education is provided by the Infection Prevention and Control Nurse at ward level.

Observation of hand hygiene opportunities

The authorized person observed hand hygiene opportunities among a small sample of staff in the inspected area. 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 WHO¹³ and the HSE.¹⁴ In addition, authorized 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 authorized person observed seven hand hygiene opportunities in total during the inspection. Hand hygiene opportunities observed comprised the following:

- one before touching a patient
- one after body fluid exposure risk
- two after touching a patient
- three after touching patient surroundings.

Six of the seven hand hygiene opportunities were taken. The one opportunity which was not taken comprised the following:

- after touching a patient

Of the six opportunities which were taken, the hand hygiene technique was observed (uninterrupted and unobstructed) by the authorized person for six opportunities and the correct technique was observed in five hand hygiene actions.

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

In addition the authorized person observed:

- failure to perform hand hygiene prior to donning gloves on entering an isolation room.

2.3.4 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.

2.3.5 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.*

- Compliance with national hand hygiene audits has fluctuated to date and sustained compliance has not yet been achieved.

2.4 Key findings relating to infection prevention care bundles[†]

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.^{3,4}

The authorized person viewed documentation and practices and spoke with staff relating to infection prevention care bundles on the First Floor. All recommended elements of a urinary catheter care bundle were captured in a patient specific urinary catheter care plan. Urinary catheter care bundle compliance audits are completed monthly. Recent audit results demonstrated compliance of 100% in March 2016.

Peripheral vascular catheter care bundles have also been introduced. A daily review of peripheral vascular catheter management is in the Nursing Admission and Assessment Record booklet. Quarterly audits of peripheral vascular catheter care bundle elements are carried out by the Infection Prevention and Control Nurse. However, overall care bundle compliance is not trended and as a result there was a lack of awareness regarding ongoing trends at ward level. Feedback is an important means to raise awareness on deficits in good practices and to acknowledge the

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

results achieved. Patients interviewed were aware of the reason their peripheral vascular catheters were inserted but did not receive information leaflets relating to hand hygiene or device care.

The authorized person was informed that the University of Limerick Hospital Group is in the process of incorporating peripheral vascular catheter and urinary catheter care bundles into their national early warning score patient observation chart.

The routine application of infection prevention care bundles has been proven to reduce device-related infection internationally, and has been recommended in relevant national guidelines and the National Standards for the Prevention and Control of Healthcare Associated Infection, for a number of years. St John's Hospital needs to continue to build on the progress to date to fully implement infection prevention care bundles into routine practice in the best interest of patients.

3. Summary

Good local ownership in relation to infection prevention and control was evident in the First Floor during the inspection and is commendable.

HIQA notes that the age of the hospital building is a key barrier to improvement in the First Floor infrastructure and to achieve compliance with recommended Standards. HIQA was informed that a feasibility study for the provision of new inpatient ward accommodation to be located on the existing site has been undertaken. However, any proposed new hospital development will take a number of years to complete. In the interim, any changes and measures that can be implemented to address the issues identified and to enhance infection prevention and control practices should be progressed.

HIQA recommends that deficiencies in isolation facilities should be reviewed to provide assurance that the hospital complies with Criterion 3.1 of Standard 3 of the National Standards for the Prevention and Control of Healthcare Associated Infections. There were also opportunities for improvement in the frequency of cleaning patient equipment on the First Floor.

Treatment of patients in close proximity to each other increases the risk of spread of Healthcare Associated Infection. It is recommended that bed spacing on the First Floor be re-evaluated in consideration of infection prevention and control risks and in line with the Standards.

The hospital needs to continue to build on the awareness and best practices relating to hand hygiene to ensure that performance is improved in order to reach the national HSE target of 90% hand hygiene compliance in both national and local audits.

St John's Hospital, Limerick has demonstrated that it is working towards compliance with Standard 8 of the Infection Prevention and Control Standards¹ and is committed to improving the management of invasive devices.

4. Next steps

St John's Hospital 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 HIQA with details of the web link to the QIP.

It is the responsibility of the St John's 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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