



**Health
Information
and Quality
Authority**

An tÚdarás Um Fhaisnéis
agus Cáilíocht Sláinte

Report of the unannounced inspection at St Michael's Hospital, Dun Laoghaire, Dublin

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 February 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.

Table of Contents

1. Introduction	2
2. St Michael's Hospital Profile	4
3. Findings.....	5
3.1 Environment and Facilities Management	5
3.2 Waste.....	8
3.3. Hand Hygiene.....	9
3.4 Communicable/Transmissible Disease Control	13
4. Summary	14
5. References	15

1. Introduction

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

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

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

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

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

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

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

This report sets out the findings of the unannounced inspection by the Authority of St Michael's Hospital's compliance with the Infection Prevention and Control Standards. It was undertaken by Authorised Persons from the Authority, Naomi Combe, Katrina Sugrue and Alice Doherty, on 19 February 2014 between 08:15hrs and 12:15hrs.

The areas assessed were:

- Female Ward (medical and surgical)
- Male Ward (medical and surgical).

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

2. St Michael's Hospital Profile[‡]

St Michael's Hospital was founded in 1876 and was governed by the Sisters of Mercy. Transfer of ownership of St Michael's to the Religious Sisters of Charity took place in March 2001. In 2001, additional public beds were opened in the former St Michael's Private Hospital in conjunction with the then Eastern Regional Health Authority to further reduce patient waiting lists in the region.

St Michael's Hospital is now part of the St Vincent's Healthcare Group which includes St Vincent's University Hospital and St Vincent's Private Hospital. St Michael's Hospital is an acute general hospital serving the community and patients of South County Dublin and Wicklow. The hospital has 125 inpatient beds incorporating seven-day, five-day and day care options. The hospital provides facilities for acute medical and surgical patients, outpatient clinics and an enhanced 8am-8pm daily Emergency Department service, in association with St Vincent's University Hospital. The hospital also provides a varied range of general and specialist services which include:

- anti-coagulant monitoring services
- cardiac rehabilitation programme
- diabetes unit
- heart failure unit
- pulmonary rehabilitation care
- pelvic floor unit.

St Michael's is a teaching hospital and is affiliated to University College Dublin as part of the St Vincent's Healthcare Group for Medical and Nursing training.

[‡] The hospital profile information contained in this section has been provided to the Authority by the hospital, and has not been verified by the Authority.

3. Findings

On inspection at St Michael's Hospital on 19 February 2014, there was evidence of both compliance and non-compliance with some of the criteria in the Infection Prevention and Control Standards. In the findings outlined below, observed non-compliances with some of the criteria in the Standards are grouped and described alongside the relevant corresponding Standard/Criterion.

3.1 Environment and Facilities Management

Standard 3. Environment and Facilities Management

The physical environment, facilities and resources are developed and managed to minimise the risk of service users, staff and visitors acquiring a Healthcare Associated Infection.

Criterion 3.6. The cleanliness of the physical environment is effectively managed and maintained according to relevant national guidelines and legislation; to protect service-user dignity and privacy and to reduce the risk of the spread of Healthcare Associated Infections. This includes but is not limited to:

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

Female Ward (medical and surgical)

Environment and equipment

- There was paint missing from radiators, bedframes, patient equipment (for example, a patient hoist) and the doorframe inside the 'dirty'[±] utility room, hindering effective cleaning.

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

- The wheel areas on equipment observed during the inspection such as patient bedside tables, intravenous stands, patient hoists, a trolley used to store supplies in the clean utility room and commodes, were unclean.
- Rust-coloured staining was visible on the wheels of equipment such as trolleys and commodes.
- There was an orange-coloured label on a socket above a bed and sticky tape residue on (i) the light switch in the store room and (ii) on shelves in the clean utility room, all of which hinder effective cleaning.
- A small area of white residue was visible along a joint on one section of the shower room floor.
- There was dust and grit on the floors in the store room, clean utility and 'dirty' utility rooms.
- Effective cleaning of the floor in the clean utility room was hindered by cardboard boxes stored directly on the floor. In addition the narrow spacing between bottom shelves of the units used for storage and the floor hindered effective cleaning.
- There was a tear in the floor covering beside the linen cupboard in the store room, hindering effective cleaning.
- Dust was visible on the drawer supports on a trolley used to store supplies in the clean utility room.
- The signage on the door of isolation room 207 was unclean.

Linen

- Two linen bags stored outside isolation room 209 were more than two thirds full at the time of the inspection, which is not in line with best practice.
- Some items of hospital laundry were placed on top of the non-clinical waste disposal bin in the shower room at the time of the inspection, which is not in line with best practice.

Male Ward (medical and surgical)

Environment and equipment

- There was paint missing from radiators, hindering effective cleaning.
- A light layer of dust was visible on intravenous stands, a cardiac monitor, a resuscitation trolley and temperature probes.
- A moderate layer of dust was visible on suction apparatus.
- Dust was visible on a computer keyboard.
- Some of the daily patient-equipment-cleaning-checklist sheets observed by the Authority on the Male Ward were not completed. On enquiry, the Authority was

informed that there was no designated responsible person for checking that the daily cleaning-checklist was completed.

- A light layer of dust was visible around the edges of the floor in a shower room.
- A light layer of dust was visible on shelving and in the drawers of the storage system in the clean utility room.
- A heavy layer of dust was visible on the top of a medication cupboard in the clean utility room.
- There was brown staining around the sluice hopper.
- There was dust and debris on the floor in the 'dirty' utility room.
- A heavy layer of dust was visible on the frame of a sharps box stored in the 'dirty' utility room.
- The Authority was informed that there is no process in place for monitoring the ongoing suitability of mattresses on the Male Ward.
- While the clean utility room was lockable, the door was open for periods of time during the inspection, potentially allowing unauthorised access to needles, syringes and medications.
- The clean utility room was cluttered with equipment such as sharps boxes, a crutch and a pressure relieving cushion stored directly on the floor, hindering effective cleaning.
- Rust-coloured staining was visible on the frame and wheel areas of a commode and brown-coloured staining was visible under the seat of a second commode. The wheel areas of commodes were unclean.
- Some paper-based signage in the clean utility room was not laminated and was curled and torn, hindering effective cleaning.
- Access to fire extinguishers was temporarily blocked by cleaning equipment and mobile patient equipment.

Linen

- At the time of the inspection, clean linen was stored on shelving in the clean utility room, which is not in line with best practice.

3.2 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.

- Access to the clinical waste disposal bin was obstructed by bags of non-clinical waste stored beside the bin in the 'dirty' utility room in the Female Ward.
- The non-clinical waste disposal bin in the 'dirty' utility room in the Female Ward and a cytotoxic waste bin on the Male Ward were more than two thirds full at the time of the inspection, which is not in line with best practice.
- Rust-coloured staining and chipped paint was visible on a number of clinical and non-clinical waste disposal bins in the Female Ward.

Summary

The Authority was informed that monthly environmental audits are carried out by the company contracted by the hospital to carry out on-site cleaning and that the results of these audits are reviewed by the Infection Control Team. The Authority was also informed that infection control nurses carry out random spot checks in addition to regular scheduled environmental and equipment audits. The Senior Management Team conducts weekly inspections throughout the hospital campus.

Following an inspection undertaken by the Authority in 2013, the hospital formed a special sub-committee to address issues raised in the inspection report. To date, bathrooms on the Female and Male Medical Wards have been refurbished, some wards have been completely refurbished and refurbishment is in progress on other wards. Hand wash sinks are being replaced as areas are being refurbished and the hospital has a painting programme in place.

In conclusion, the Authority found that some improvements are required in the cleanliness and maintenance of the environment and equipment.

3.3. Hand Hygiene

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

WHO Multimodal Hand Hygiene Improvement Strategy

3.3.1 System change³: *ensuring that the necessary infrastructure is in place to allow healthcare workers to practice hand hygiene.*

Standard 6. Hand Hygiene

Hand hygiene practices that prevent, control and reduce the risk of the spread of Healthcare Associated Infections are in place.

Criterion 6.1. There are evidence-based best practice policies, procedures and systems for hand hygiene practices to reduce the risk of the spread of Healthcare Associated Infections. These include but are not limited to the following:

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

- The design of some clinical hand-wash sinks on both the Female and Male Wards did not conform to Health Building Note 00-10 Part C: Sanitary assemblies.⁴
- Waste disposal bins on the Female Ward were not positioned beside the hand-wash sinks in the patient area assessed or the clean utility room at the time of the inspection.

3.3.2 Training /education³: *providing regular training on the importance of hand hygiene, based on the 'My 5 Moments for Hand Hygiene' approach, and the correct procedures for hand-rubbing and hand-washing, 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.

- The Authority was informed that annual hand hygiene training is mandatory. However, up-to-date hand hygiene training records could not be readily determined at a local or corporate level.
- The Authority was informed that the HSElanD e-learning programme (the Health Service Executive's (HSE's) online resource for learning and development) is available to staff. The Authority was also informed that monthly education sessions on standard precautions and hand hygiene are carried out. However, it was reported by staff that the opportunity to avail of this training is not protected time.
- During the inspection, staff on the Male Ward were unsure as to when it is not appropriate to use alcohol-based hand rub for hand hygiene.

3.3.3 Evaluation and feedback³: *monitoring hand hygiene practices and infrastructure, along with related perceptions and knowledge among healthcare 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

- St Michael's Hospital participates in the national hand hygiene audits which are published twice a year.⁵ The results below taken from publically available data from the Health Protection Surveillance Centre's website demonstrate an overall improvement in hand hygiene from period 1 (June 2011) to period 6 (October 2013). The overall compliance for 2013 is in line with the HSE's national target of 90%.⁶

Period	Results
June 2011	83.3%
October 2011	81.4%
June/July 2012	85.9%
October 2012	89%
May/June 2013	89%
October 2013	90%

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

Local area hand hygiene audit results

- The Authority was informed that the most recent hand hygiene audit carried out on the Female Ward was in January 2014 and covered hand hygiene facilities and hand hygiene actions. The results of the audit were viewed by the Authority. These showed 94% compliance for hand hygiene facilities and 83% for hand hygiene actions. Local auditing revealed that non-compliances with the 'My 5 Moments for Hand Hygiene' were observed 'after contact with patient surroundings'.
- The Authority was informed by staff on the Male Ward that auditing occurred twice yearly, in line with the hospital-wide audit. The Authority was also informed that the hospital is attempting to carry out more frequent hand hygiene audits.

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 WHO⁷ and the HSE.⁸ 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^χ 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 Authorised Persons observed 25 hand hygiene opportunities in total during the inspection. Hand hygiene opportunities observed comprised of the following:
 - five before touching a patient
 - two before clean/aseptic procedure
 - seven after touching a patient
 - 11 after touching patient surroundings.

- Fifteen of the 25 hand hygiene opportunities were taken. The 10 opportunities which were not taken comprised of the following:
 - three before touching a patient
 - two before clean/aseptic procedure
 - two after touching a patient
 - three after touching patient surroundings.

- Of the 15 opportunities which were taken, the hand hygiene technique was observed (uninterrupted and unobstructed) by the Authorised Persons for 10 opportunities. Of these, the correct technique was observed in six hand hygiene actions.

In addition the Authorised Persons observed:

- seven hand hygiene actions that lasted greater than or equal to (\geq) 15 seconds as recommended
- five hand hygiene actions where there were barriers to the correct technique, such as sleeves to the wrist and wearing a wrist watch.

^χ The inspectors observe if all areas of the hands are washed or if alcohol hand-rub is applied to cover all areas of the hands.

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

- Hand hygiene advisory posters were available, up to date, clean and appropriately displayed throughout St Michael's Hospital.

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

- St Michael's Hospital achieved 90% compliance in 2013 in the national hand hygiene audits which is in line with the HSE's national target.

3.4 Communicable/Transmissible Disease Control

Standard 7. Communicable/Transmissible Disease Control

The spread of communicable/transmissible diseases is prevented, managed and controlled.

Criterion 7.6. Evidence-based best practice, including national guidelines, for the prevention, control and management of infectious diseases/organisms are implemented and audited. These include but are not limited to the:

- *National Guidelines for the Prevention of Nosocomial Invasive Aspergillosis During Construction/Renovation Activities, National Disease Surveillance Centre, 2002.*

- It was noted that renovations were ongoing in the hospital during the inspection. The Authorised Persons were informed that any planned construction is discussed with the Infection Prevention and Control Team prior to work commencing to mitigate potential infection risks.
- The Authority was also informed that staff are made aware of the risk posed to patients from Aspergillus as a result of ongoing building work. However, there was no evidence to support that any aligned education programme on Aspergillus had been carried out. It is recommended that education of staff be included as part of the overall Aspergillus risk mitigation strategy for current and future building work.

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 designed and maintained to maximise patient safety.

The Authority found that some improvements are required in the cleanliness and maintenance of the environment and equipment. It is recommended that education of staff be included as part of the overall Aspergillus risk mitigation strategy for current and future building work.

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 Authority found that improvements in hand hygiene are required, in particular regarding training records and auditing.

St Michael's Hospital 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 St Michael's Hospital to formulate, resource and execute its QIP to completion. The Authority will continue to monitor the hospital's progress in implementing its QIP, as well as relevant outcome measurements and key performance indicators. Such an approach by the hospital will act 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 *

1. Health Information and Quality Authority. *National Standards for the Prevention and Control of Healthcare Associated Infections*. Dublin: Health Information and Quality Authority; 2009. Available online: <http://www.hiqa.ie/publication/national-standards-prevention-and-control-healthcare-associated-infections>
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: <http://www.hiqa.ie/publications?topic=17&type=All&date%5Bvalue%5D%5BYear%5D=>
3. A Guide to the Implementation of the WHO Multimodal Hand Hygiene Improvement Strategy. Geneva: World Health Organization; revised August 2009. Available online: http://www.who.int/gpsc/5may/tools/system_change/en/
4. Health Building Note 00-10 Part C: Sanitary assemblies. UK: Department of Health; 2013. Available online: http://www.dhsspsni.gov.uk/hbn_00-10_part_c_l.pdf
5. Hand Hygiene Audit Results. Health Protection Surveillance Centre. Available online: <http://www.hpsc.ie/hpsc/A-Z/Gastroenteric/Handwashing/HandHygieneAudit/HandHygieneAuditResults/>
6. National Service Plan 2014. Health Service Executive; 2013. Available online from: <http://www.hse.ie/eng/services/Publications/corporate/serviceplan2014/nationalserviceplan2014.pdf>
7. WHO Guidelines on Hand Hygiene in Healthcare. Geneva: World Health Organization; 2009. Available online: http://whqlibdoc.who.int/publications/2009/9789241597906_eng.pdf?ua=1
8. Hand Hygiene Observation Audit Standard Operating Procedure. Health Service Executive; April 2013. Available online: http://www.hpsc.ie/hpsc/A-Z/Gastroenteric/Handwashing/HandHygieneAudit/HandHygieneAuditTools/File_12660,en.pdf.

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

Published by the Health Information and Quality Authority.

For further information please contact:

Health Information and Quality Authority
Dublin Regional Office
George's Court
George's Lane
Smithfield
Dublin 7

Phone: +353 (0) 1 814 7400

Email: qualityandsafety@hiqa.ie

URL: www.hiqa.ie

© Health Information and Quality Authority 2014