



**Health
Information
and Quality
Authority**

An tÚdarás Um Fhaisnéis
agus Cáilíocht Sláinte

Report of the unannounced inspection at St. Columcille's Hospital, 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: 6 May 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 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	1
2. St. Columcille's Hospital Profile	2
3. Findings	3
3.1 Progress since the last unannounced inspection on 2 September 2014 .	3
3.2 Key findings of the unannounced inspection on 6 May 2015	4
3.3 Key findings relating to hand hygiene.....	6
4. Summary	9
5. Next steps.....	9
6. References	11

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 purpose of the unannounced inspection is to assess hygiene as experienced by patients at any given time. It focuses specifically on the observation of the day-to-day delivery of hygiene services, in particular environmental and hand hygiene under the following standards:

- Standard 3: Environment and facilities management
- Standard 6: Hand hygiene.

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 St. Columcille's hospital on 6 May 2015 by Authorised Persons from the Authority, Katrina Sugrue and Christopher McCann between 09:00hrs and 14:30hrs. The areas assessed were:

- The **Day Ward** which is a seven bedded outpatient ward consisting of six trolley bays and one isolation room.
- The **Cardiac Rehabilitation Unit** which delivers cardiac rehabilitation services.

In addition, St. Josephs Ward was re-visited to assess the level of progress which has been made after an unannounced inspection on 2 September 2014.

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

2. St. Columcille's Hospital Profile[‡]

St Columcille's Hospital was built in 1841. The hospital provides extensive outpatient and inpatient services for patients requiring medical and surgical treatment. The hospital also has a three-bedded Medical Observation Unit. The hospital has a bed complement of 105 beds.

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

3. Findings

This 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 key areas of non-compliance are summarised within this report.

This report is structured as follows:

- **Section 3.1** describes the progress since the last unannounced inspection on 2 September 2014.
- **Section 3.2** presents the key findings of the unannounced inspection on 6 May 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 strategy³ during the unannounced inspection on 6 May 2015.

3.1 Progress since the last unannounced inspection on 2 September 2014

The Authority reviewed the QIP⁴ published by St. Columcille's Hospital following the September 2014 inspection which was last updated in October 2014. Many actions identified in the QIP had been addressed. For example, 10 new commodes were purchased and 10 trolleys were ordered. Equipment from each ward is steam cleaned on a regular basis which targets wheel areas. Increased monitoring of frequently used patient equipment such as thermometer probes is carried out by the health care attendant. All staff on St Joseph's Ward attended hand hygiene training in 2014 and the ward achieved 87% compliance in a hand hygiene audit carried out in January 2015.

The Authority was informed that some issues relating to maintenance on St Joseph's Ward remained unresolved in the intervening eight months due to resource constraints. For example, damaged floor covering identified during the 2014 inspection was repaired but further areas of damage have since been identified and costing for the replacement of floor covering throughout the ward is under review. Some maintenance issues relating to the clean utility room were not addressed since the 2014 inspection. The integrity of the surfaces of the cupboard doors and shelving were chipped exposing permeable material and have not been addressed. Non intact surfaces have the potential to compromise effective infection prevention and control practice in a healthcare environment and should be maintained.⁵

3.2 Key findings of the unannounced inspection on 6 May 2015

Overall the Authority found that improvements were required in the maintenance of the Day Ward and Cardiac Rehabilitation Unit. While the environment in the Day Ward was generally clean with some exceptions, improvements were required in the cleaning of the Cardiac Rehabilitation Unit.

Legionella Control

A risk assessment for the prevention and control of *Legionella* was carried out by the hospital on 29 May 2013 in line with national guidelines.⁶ The Authority was informed that remedial actions recommended by the risk assessment had been completed, however an up-to-date log relating to such control measures was not available to view at the time of the inspection. In addition, an annual review of the risk assessment was not evident. The Authority was informed that an external company provide an *Legionella* monitoring programme the records of which are held on-line. However, notwithstanding the work conducted by this external company, at the time of inspection the Authority were unable to determine through discussion with hospital staff if remedial works and control measures identified in the 2013 *Legionella* risk assessment were completed. This lack of internal corporate knowledge within the hospital with respect to Legionellosis control was of concern to the Authority on the day of inspection.

Following the inspection the Authority wrote to St Columcilles's Hospital, to seek further assurances that the hospital has the necessary internal quality assurance mechanisms in place to ensure that the assessment and management of risks related to Legionella control were in line with the *National Guidelines for the Control of Legionellosis in Ireland*.⁶ Documentation provided in response to this correspondence indicates that control measures are in place to monitor and manage the risk of *Legionella*. In addition, the agendas for the Environmental Committee 15 April 2015, Quality Safety and Risk Committee 21 January 2015 and Infection Prevention and Control Committee 13 May 2015 indicated that *Legionella* was on the agenda for each of these committees. However, minutes of these meetings were not provided to view. It was not clear in the documentation provided whether an annual review of the 2013 risk assessment was completed or if all the recommended remedial actions were addressed and up-to-date. The Authority recommends that the hospital actively documents all actions completed in relation to the management of Legionella, to provide itself with ready access to necessary continuous assurance information within the hospital.

Environmental Hygiene

The Day Ward was generally clean, however improvements were required in the maintenance of floor covering, plaster works on the walls and dust levels on floor

edges and skirtings in the day room. Maintenance and management issues were also seen in the patient toilet. Some ceiling and wall tiles were stained and foam adhesive residue was present on several wall tiles in addition to multiple small holes. Some piping was exposed and there was some peeling wall paint seen.

The Day Ward cleaning equipment was stored in a communal cleaning room located at the opposite end of an adjacent ward on the same floor level. Inspectors found inadequate storage facilities within the room resulting in extraneous items being stored inappropriately at either side of the janitorial sink. The cleaning equipment and the general environment of the cleaning storage room was unclean. In addition, personal items of clothing were observed to be inappropriately stored on the back of the storage room door.

Opportunities for improvement were identified in the cleanliness of the Cardiac Rehabilitation Unit. Varying levels of dust were present on some of the patient exercise equipment, floor edges, windows and door frames. A cleaning check list for patient equipment was not available to view at the time of the inspection. Improvements were also identified in the management and maintenance of the patient toilet and shower room facilities.

Paint work on walls and skirtings on the main corridor of the ground floor in the hospital was peeling and flaking in several places. A clean well maintained hospital environment is important to patient and visitors and promotes confidence in a safe environment for patients. The Authority notes that the fabric and 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.⁵

Surveillance of alert organisms

Documentation viewed by the Authority following the inspection indicates that not all alert organisms are monitored within the hospital surveillance programme. The 2014 Infection Prevention and Control Annual Report and the 2014 Annual Surveillance Report showed that extended spectrum β -lactamase producing Gram-negative organisms (ESBL) were not listed as an alert organism under the hospital's surveillance programme. The ESBL resistance mechanism may be readily spread between bacteria and confers resistance to many different classes of conventionally used antibiotics. Gram-negative organisms commonly cause urinary tract infection, abdominal infection, bloodstream infection and pneumonia and are frequently associated with sepsis and septic shock. It is recognised that the rising incidence of ESBL producing Gram-negative organisms and subsequent evolving resistance resulting from treatment of ESBL related infections with carbapenem antibiotics, has been linked to the rise in the reports of carbapenem resistant Enterobacteriaceae

(CRE) both nationally and internationally. Carbapenem resistance is of significant concern, as this class of antibiotics represents the last line of conventional antibiotics used to treat Gram-negative infection. It is therefore imperative that the spread of ESBLs is controlled in order to stop the increase in CRE in Irish healthcare.⁷ The documentation viewed demonstrates that CRE is under surveillance in the hospital which is an important element of monitoring multidrug resistant Enterobacteriaceae. However, in order to determine the true picture of Gram-negative antimicrobial resistance at the hospital, it is recommended that broader monitoring of other resistance mechanisms such as ESBL production is included in the hospitals surveillance programme.

3.3 Key findings relating to hand hygiene

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

- The design of some of the hand wash sinks in clinical areas assessed did not conform to Health Building Note 00-10 Part C: Sanitary assemblies.⁸ There was no designated hand hygiene sink in the Cardiac Rehabilitation Unit which has been identified as an issue in environmental audits carried out in the unit. The Authority recommends that this issue is reviewed as part of the the hospital sink replacement programme which is updating sinks on a phased basis.

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 handrubbing and handwashing, to all healthcare workers.*

- The hospital delivers annual hand hygiene training which is mandatory for all staff. Records of staff attendance at hand hygiene training sessions were viewed during the inspection. All staff were up-to-date with hand hygiene training at the hospital. Staff members who have not completed training are offered face to face training or advised to complete hand hygiene training using the HSE e-Learning programme⁹ (the HSE's online resource for learning and development). In addition, the infection prevention and control team deliver mandatory education for all staff which is tailored to meet the needs of individual departments and staff groups.

3.3.3 Evaluation and feedback³: *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. Columcille's Hospital participates in the HSE national hand hygiene audits which are published twice a year. Results contained in Table 1 are publically available on

the Health Protection Surveillance Centre's website and demonstrate an overall sustained improvement in staff compliance with hand hygiene from March/April 2011 to October/November 2014.¹⁰ Compliance however, remains just below the required compliance target of 90% set by the HSE¹¹ during 2014.

Table 1: National hand hygiene audit results

Hand hygiene audit period	Hand hygiene compliance result
March/April 2011	74.8%
Oct/Nov 2011	73.8%
May/June 2012	82.9%
Oct/Nov 2012	85.2%
May/June 2013	86.2%
Oct/Nov 2013	81.9%
May/June 2014	87.6%
Oct/Nov 2014	89.0%

Source: Health Protection Surveillance Centre – national hand hygiene audit results.¹⁰

Local hand hygiene audits

In addition to national hand hygiene audits undertaken twice a year, regular local hand hygiene audits are also carried out across the hospital by the Infection Prevention and Control Team. The most recent data from internal audits showed that compliance rates were meeting the HSE target of 90% with a reported average of 92% compliance achieved during 2014. In hand hygiene audits conducted in the fourth quarter of 2014, Day ward achieved 93% compliance and Cardiac Rehabilitation Unit achieved 100% which is well above the 90% HSE target.

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.

The underlying principles of observation during inspections are based on guidelines promoted by the WHO¹² and the HSE¹³. 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 only observed three hand hygiene opportunities at the time of inspection. The number of observed opportunities was low due to a lack of patient activity at the time of inspection. Hand hygiene opportunities observed comprised the following:

- One before touching a patient
- Two after touching a patient

All of these hand hygiene opportunities were taken. However, 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.

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.
- The hospital uses a hand hygiene initiative called 'amber' which is a code word that staff can use to remind colleagues about hand hygiene where someone has been observed to miss a hand hygiene opportunity. The 'amber' prompt was displayed on posters on the walls of the clinical areas inspected.

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.*

- Evidence provided and viewed at the time of the inspection indicates that the hospital is working towards improving hand hygiene compliance at all levels. The most recent national hand hygiene results increased to 89% compared to 81.9% during the previous year. Authorised Persons observed the use of visual reminders and the implementation of a nurse led 'amber' audible reminder system. The hospital needs to continue to build on hand hygiene compliances

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

achieved to date to ensure that good hand hygiene practice is improved and maintained in all areas.

4. Summary

Overall, the environment and patient equipment on Day Ward were clean with some exceptions. Improvements in the management of environmental hygiene are required in the Cardiac Rehabilitation Unit. Opportunities for improvement relating to the maintenance of the areas inspected were identified. In addition, some outstanding maintenance issues were not addressed in the hospital QIP developed following the 2014 inspection.

Authorised Persons note the infrastructural challenges of an older building however, St. Columcille's as an acute hospital providing medical, surgical and other services should continue to improve the hospital infrastructure and environment. The provision of a clean, safe and well maintained healthcare environment is a key component of effective infection prevention and control that demonstrates the existence of an effective patient safety culture.¹⁴

The Authority found that the necessary control measures were in place to mitigate the risks associated with *Legionella*. However, improvements in the recording and documenting of all remedial works and ongoing maintenance relating to *Legionella* control is required. The Authority recommends that the hospital reviews its approach to internal assurance with respect to Legionellosis risk mitigation in line with national guidelines.⁶

5. Next steps

The provision of a clean and safe healthcare environment is a key component of effective infection prevention and control and also promotes public confidence and demonstrates the existence of an effective patient safety culture.¹⁴

St. Columcille's Hospital must now revise and amend its QIP that prioritises the improvements necessary to fully comply with the Standards.¹ This QIP must be approved by the service providers 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. Columcille'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 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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Published by the Health Information and Quality Authority.

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