



**Health
Information
and Quality
Authority**

An tÚdarás Um Fhaisnéis
agus Cáilíocht Sláinte

Report of the unannounced inspection at Connolly Hospital, Blanchardstown, 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: 12 February 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.

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1. Introduction

The Health Information and Quality Authority (the Authority) carries out unannounced inspections in public acute hospitals in Ireland to monitor compliance with the *National Standards for the Prevention and Control of Healthcare Associated Infections*.¹ The inspection approach taken by the Authority is outlined in guidance available on the Authority's website, www.hiqa.ie – *Guide: Monitoring Programme for unannounced inspections undertaken against the National Standards for the Prevention and Control of Healthcare Associated Infections*.²

The 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 Connolly Hospital Blanchardstown on 12 February 2015 by Authorised Persons from the Authority, Alice Doherty, Katrina Sugrue, Leanne Crowe and Noelle Neville between 10:00hrs and 15.40hrs. The areas assessed were:

- **Cherry Day Ward** which provides an infusion service for rheumatology and haematology patients. The ward consists of eight arm chairs in daily use but there is a capacity of 11 armchairs available if required and a room with four bays. A rheumatology clinic was running concurrently in adjacent rooms at the time of the inspection.
- **Cherry In-Patient Ward** which is a 15-bedded in patient ward and consists of three four-bedded rooms and three single rooms.
- The **Physiotherapy Gym** which consists of one large room.

- **Elm Ward** which is a 31-bedded acute medical ward and consists of four six-bedded rooms, seven single ensuite rooms and one room which is used for sleep studies. Seven patients were isolated at the time of the inspection.

In addition, Maple Ward and Laurel Ward were inspected during an unannounced inspection by the Authority on 10 April and a re-inspection on 29 May 2014. They were re-visited to assess the level of progress which had been made after the 2014 inspections.

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

2. Connolly Hospital Blanchardstown Profile[‡]

Connolly Hospital is located in the West Dublin Village of Blanchardstown. It services a catchment population of 331,000 in Dublin West (including Finglas West and Lucan), North Kildare and South County Meath and is one of the fastest growing catchment population areas in the country.

Connolly Hospital is a Major Academic Teaching Hospital providing a range of acute medical and surgical services, acute psychiatric services, long stay care, day care, outpatient, diagnostic and support services. Emergency services are provided on a 365-day, 24 hour basis. Multidisciplinary teams representative of medical, nursing, allied health professionals, management and general support staff play a pivotal role in the development, delivery, monitoring and evaluation of these services.

The hospital is affiliated to the Royal College of Surgeons in Ireland for medical education, to Dublin City University for nursing education and to University College Dublin, Trinity College Dublin and the Institute of Technology for allied health professional education. A Regional Centre for Nurse Education is located on site.

Hospital Specialties

Specialty areas included in service provision in Connolly Hospital are outlined below:

Anaesthesia and Intensive Care	General Medicine	Orthopaedics
Acute Medicine for the Elderly / Rehab / Day Hospital / Extended Care	General Surgery	Pathology
Cardiology	Gynaecology	Plastic Surgery
Dermatology	Haematology	Radiology
Emergency Department	Intensive Therapy	Respiratory Medicine
Endocrinology	Microbiology	Rheumatology
ENT	Neurology	Urology
Gastroenterology	Oncology	Vascular Medicine
General Adult Psychiatry Psychiatry of Old Age	Ophthalmology	Nephrology

Bed Numbers

Total Bed Capacity 407
Includes Acute and Non Acute 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 is structured as follows:

- **Section 3.1** outlines the level of progress made in the implementation of the Quality Improvement Plan (QIP)³ after the unannounced inspections on 10 April and 29 May 2014.
- **Section 3.2** presents the key findings of the unannounced inspection on 12 February 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 strategy⁴ during the unannounced inspection on 12 February 2015.

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

3.1 Progress since unannounced inspections on 10 April and 29 May 2014

The Authority reviewed the QIP published by Connolly Hospital following the 2014 inspections which was last updated on its website in September 2014.³ Evidence was provided during the inspection that demonstrated the implementation of the QIP. Inspectors revisited Maple and Laurel Wards which were inspected during the unannounced inspections in 2014. Individual QIPs were developed for each ward to address the findings of the 2014 inspections. It was evident that progress has been made in both areas. For example, protected time for health care assistants has been allocated to allow for the cleaning of patient equipment. On Maple Ward, the cleanliness of commodes was an issue during the 2014 inspections. Commodes are now cleaned twice each day and records of cleaning are signed by the person doing the cleaning and counter signed by the Ward Manager.

The frequency of hand hygiene training at the hospital has increased with six sessions being provided one day each month. This is coupled with training on standard precautions. Ward based training on hand hygiene technique is facilitated using an electronic training unit placed on each ward. The Authority was informed on Laurel Ward that hand hygiene audits are carried out every three months and compliance had improved. However, the results for the national hand hygiene audit carried out in October/November 2014 indicate that further improvements are required as only one of the seven areas included in the audit achieved the Health Service Executive (HSE) target of 90% for 2014⁵.

Regular mattress audits are carried out and are documented on patient end of bed notes. The documents viewed indicated if a mattress for a particular bed has passed or failed and whether it was referred for replacement of a cover or mattress base if it failed. However, the documentation does not show if the mattress or cover was replaced when identified.

Regular environmental hygiene audits are carried out and the Authority was informed that improvements have been observed by staff on both Maple and Laurel Wards particularly relating to increased awareness of staff on matters relating to environmental hygiene. Staff involved in environmental auditing have been educated on the audit tool. There has been an increase in hygiene 'walkabouts' by members of the senior management team and improved response to closing out issues identified through hygiene audits. Ward Managers receive copies of hygiene audits carried out by the on-site cleaning company which highlight issues and how they are being resolved and attend regular meetings with hygiene supervisors.

A hygiene and maintenance budget has been allocated for 2015. Business plans have been submitted for the replacement of equipment such as drug trolleys, shower chairs, foot stools, mattresses, commodes, the covering of chairs and shelving. The Authority was informed that replacement of the equipment identified is ongoing, however the close out of some of the issues relating to maintenance have not yet been addressed due to resource constraints.

3.2 Key findings of the unannounced inspection on 12 February 2015

Unsafe injection practices

During inspection of Cherry Day Ward, the Authority observed eight pre-filled unlabelled syringes of clear fluid sitting in a tray with empty sterile water containers. Four unlabelled infusion bags of saline with administration sets attached and run through with fluid were hanging from an intravenous stand. The Authority was informed that syringes of sterile water are pre-filled first thing in the morning in addition to the preparation of infusions of normal saline to assist with the high capacity of patients requiring intravenous medications and infusions on a daily basis. This practice is of concern to the Authority as it has the potential to increase the risk of transmission of infectious pathogens to patients. Assurances could not be provided that the sterility and integrity of these pre-filled syringes or infusion bags with attached administration sets were maintained prior to use.

In addition, three vials of reconstituted medication were observed lying on open shelving in a medicines refrigerator. It was explained to the Authorised Person that these medications are reconstituted in situ on the ward, and that there is sufficient dosage in the vials of medication observed to provide treatment to two patients which can significantly reduce the cost of the treatment. However, the treatment

may not necessarily be administered on the day the medication is reconstituted as indicated by one of the vials which was labelled as having been reconstituted on 11 February 2014, the day before this inspection. In situations where intravenous medication is not reconstituted in an aseptic clean room compounding unit, best practice dictates that it should ideally be administered immediately, or potentially within 24 hours if it is stored in an appropriate and clean environment. The practices observed in this unit during the inspection increased the risk of transmission of infection to patients, and must be reviewed by the hospital.

Patient equipment

Patient equipment on Cherry Day Ward was generally clean with a few exceptions. A blood pressure cuff was stained and the inside of a thermometer probe holder was unclean. The portable equipment used for monitoring patient observations was not cleaned between patient use at the time of the inspection. A pillow was not cleaned or the pillow cover changed between patient use when performing phlebotomy.

Varying levels of dust were present on patient equipment such as hoists, a patient trolley, walking frames and walking bars in the Physiotherapy Gym beside the Cherry Day Ward. There was a poor awareness of whose responsibility it was to clean this equipment. The Authority was informed that frequently touched areas of patient equipment were cleaned after patient use but staff did not clean equipment fully on a daily basis.

Patient equipment on both Cherry In-patient Ward and Elm Ward was generally clean. However, small areas of red staining were observed on two blood glucose monitors on both wards and on the interior of the holder for the monitor on Elm Ward. Evidence viewed on Cherry Day Ward and Cherry In-patient Ward indicated that blood glucose monitors and their holders, which contained supplies of finger stick blood sampling devices and cotton wool were brought to the patient bedside when taking blood samples for monitoring patient's blood sugar. This is not in line with best practice as it increases the risk of equipment contamination and transmission of blood borne viruses. It is recommended that only the equipment required for a single procedure on an individual patient should be brought to the patient bedside. The Authority recommends that the practice of blood glucose monitoring within the hospital should be reviewed to ensure that the risks to the patient of acquiring a Healthcare Associated Infection through this procedure is fully mitigated.

Patient environment

The patient areas on Cherry Day Ward were generally clean and well maintained. However, the general patient environment appeared to be cluttered and overcrowded and did not meet the capacity needs of the infusion clinic and

outpatient services provided in line with national guidelines to minimise the risk of infection.⁷ There was no waiting area. It was of particular concern to the Authority that there was no suitable designated isolation facility for the haematology and rheumatology patients who are treated there and who are often immunocompromised due to their treatment or condition. The Authority was informed that the ward is in the middle of a change process and hospital management are aware of the issues relating to over capacity, space and deficits in isolation facilities and an inappropriate waiting area. The hospital plans to address the deficits by reallocating the space that is currently occupied by the Physiotherapy Gym and a dexta scanner machine to the Cherry Day Ward.

The patient environment on Cherry In-patient Ward and Elm Ward was generally clean and well maintained. However, heavy dust was visible on the undercarriages of beds on Elm Ward.

Waste management

The waste sub-collection areas in the hospital were unsecured during the inspection potentially allowing unauthorised access to the areas. Inspectors entered these areas on three occasions during inspection. In one of the areas, the clinical waste bin was locked but a bag of clinical waste was sitting on top of the bin. In a second area, the clinical waste bin was unlocked. This is a similar finding to the 2014 inspections and is not in line with best practice.⁶ The Authority was informed that waste management at the hospital is currently under review.

3.3 Key findings relating to hand hygiene

3.3.1 System change⁴: *ensuring that the necessary infrastructure is in place to allow healthcare workers to practice hand hygiene.*

- The design of some clinical hand wash sinks on the Cherry Day Ward, Cherry In-patient Ward and Elm Ward did not conform to Health Building Note 00-10 Part C: Sanitary assemblies.⁷
- It was noted that alcohol hand rub dispensers were not present at the end of every patient bed on Elm Ward. The Authority was informed that this was not intentional and would be remedied immediately.
- A member of staff was observed washing a patient's fork in a designated clinical handwash sink in the Cherry In-patient . This suggested that awareness that the sink should be solely used for handwashing can improve on the ward.

3.3.2 Training/education⁴: *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.*

- Staff are required to attend hand hygiene training on an annual basis in Connolly Hospital. Overall, 84% of staff attended hand hygiene training up to the end of December 2014. On Cherry Day Ward and Cherry In-patient Ward, 80% of staff were up-to-date with hand hygiene training, and all nurses except one on Elm Ward were up-to-date with hand hygiene training.
- The Authority was informed that the hospital is planning to link the issuing of parking permits to staff when evidence is provided that they have completed hand hygiene training in line with hospital policy.

3.3.3 Evaluation and feedback⁴: *monitoring hand hygiene practices and infrastructure, along with related perceptions and knowledge among health-care workers, while providing performance and results feedback to staff.*

National hand hygiene audit results

- Connolly Hospital participates in the national hand hygiene audits which are published twice a year.⁸ The average compliance achieved by the hospital in 2013 was above 90% but the results show that compliance in 2014 decreased below the HSE's target of 90% for May and November 2014⁵.

Period 1-7	Result
Period 1 March/April 2011	85.7%
Period 2 October/November 2011	85.7%
Period 3 May/June 2012	89.5%
Period 4 October/November 2012	80.5%
Period 5 May/June 2013	91.0%
Period 6 October/November 2013	91.9%
Period 7 May/June 2014	87.6%
Period 8 October/November 2014	81.4%

Source: Health Protection Surveillance Centre – national hand hygiene audit results.⁸

Local hand hygiene audit results

- The Authority was informed that the result of the most recently available hand hygiene audits for Cherry Day and In-patient Wards was August 2014 where compliances of 87% and 85% were achieved respectively. Elm, Maple and Laurel Wards were randomly selected for the national hand hygiene audits in October/November 2014 and achieved compliances of 77%, 80% and 73% respectively, which is considerably lower than the 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. 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 WHO⁹ and the HSE.¹⁰ 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^γ 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 28 hand hygiene opportunities in total during the inspection. Hand hygiene opportunities observed comprised the following:

- four before touching a patient
 - eight before clean/aseptic procedure
 - seven after body fluid exposure risk
 - four after touching a patient
 - five after touching patient surroundings.
- Eighteen of the 28 hand hygiene opportunities were taken. The 10 opportunities which were not taken comprised the following:
- one before touching a patient
 - four before clean/aseptic procedure
 - two after body fluid exposure risk
 - one after touching a patient
 - two after touching patient surroundings.
- Of the 18 opportunities which were taken, the hand hygiene technique was observed (uninterrupted and unobstructed) by the Authorised Persons for 14 opportunities and the correct technique was observed in all 14 hand hygiene actions.

In addition the Authorised Persons observed:

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

3.4.4 Reminders in the workplace⁴: *prompting and reminding healthcare workers about the importance of hand hygiene and about the appropriate indications and procedures for performing it.*

- Hand hygiene advisory posters were available, up-to-date, clean and appropriately displayed in the areas inspected at Connolly Hospital.

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

3.3.5 Institutional safety climate⁴: *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.*

- Hand hygiene compliance in national hand hygiene audits at Connolly Hospital was 81.4% at the end of 2014 which was a decrease in compliance from the audits carried out in May/June 2014 and also a decrease when compared with the compliances achieved by the hospital in 2013. It is noted that only one out of the seven areas included in the October/November national hand hygiene audit in 2014 achieved a compliance of 90% or above. Hand hygiene compliance observed by the Authority on the day of the inspection was 64%.
- The hospital is in the process of training staff on the wards as local hand hygiene auditors and hand hygiene champions are being sought to drive hand hygiene at ward level. The frequency of hand hygiene talks has increased and these are now being held early in the morning to facilitate staff.

4. Summary

The Authority found that progress had been made in Maple and Laurel Wards since the 2014 inspections. Regular environmental audits were being conducted and improvements in environmental hygiene were observed by staff on the wards. A hygiene and maintenance budget had also been allocated to these wards for 2015.

In view of the unsafe injection practices observed Cherry Day Ward, the Authority recommends that the hospital reviews the practice relating to the preparation and administration of intravenous medication to assure itself that the potential risks to patients in this regard are fully mitigated.

Patient equipment in the areas inspected was generally clean with some exceptions. However, varying levels of dust were observed on patient equipment in the Physiotherapy Gym and the Authority found that there was poor awareness of whose responsibility it was to clean the equipment.

The patient areas on Cherry Day Ward, the Cherry In-patient Ward and Elm Ward were generally clean and well maintained. However, the general environment on Cherry Day Ward was cluttered and overcrowded. The Authority was informed that the hospital is aware of issues on this ward and plans to remedy the situation in the short term.

The waste sub-collection areas in the hospital were unsecured during the inspection potentially allowing for unauthorised access which is similar to the findings of the 2014 inspections. The Authority was informed that waste management is currently under review.

Evidence provided and viewed at the time of the inspection indicates that the

hospital is working towards improving hand hygiene compliance at all levels. However, compliance in national audits, local internal audits and practices observed by the Authority during the inspection remain below the HSE national target of 90%. The hospital needs to continue to build on hand hygiene compliances achieved to date to ensure that good hand hygiene practice is improved and maintained in all areas.

5. Next steps

Connolly 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 the Authority with details of the web link to the QIP.

It is the responsibility of Connolly 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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