



**Health
Information
and Quality
Authority**

An tÚdarás Um Fhaisnéis
agus Cáilíocht Sláinte

Report of the unannounced inspection at Waterford Regional Hospital, Waterford

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

Date of on-site inspection: 5 March 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.

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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 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 – and will include scope for re-inspection within six weeks should any high infection prevention and control risks be identified 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 Standards¹ 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 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 Waterford Regional Hospital's compliance with the Infection, Prevention and Control Standards. It was undertaken by Authorised Persons from the Authority, Sean Egan, Alice Doherty and Katrina Sugrue, on 5 March 2014 between 08:45hrs and 12:10hrs.

The areas assessed were:

- Medical 1
- Orthopaedic 2 (Trauma).

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

2. Waterford Regional Hospital profile[‡]

Waterford Regional Hospital is a large teaching hospital with academic links to University College Cork. The hospital is part of the Southern Hospital Group. The hospital is governed by its Executive Management Team and is representative of the organisation's clinical and corporate functions to support the delivery of safe, effective, high-quality patient care.

Waterford Regional Hospital is a designated centre for cancer care and is one of the national eight specialist Cancer Centres under the Health Service Executive's National Cancer Control Programme (NCCP).

Waterford Regional Hospital is a model 4 hospital, providing regional surgical and medical services to the HSE South East area, population 500,000 and covers the counties Waterford, South Tipperary, Wexford, Carlow and Kilkenny. Regional services include 24/7 Trauma Orthopaedics, ENT, Ophthalmology, Vascular Surgery, Cardiology (including Cardiac Cath. Laboratory), Radiology (including MRI, CT and Intervention Radiology), Nephrology, Haematology, Oncology, Dermatology, Rheumatology, Neurology, Palliative Care, Microbiology, Neonatology, Pain and Regional Pathology Laboratory, 24/7 emergency medicine, stroke care, general medicine, respiratory, gastroenterology, care of the elderly, endocrinology, acute medicine, paediatrics, obstetric, general surgery, urology and gynaecology services. A full range of inpatient care, day-case procedures, outpatient and consult services are provided in addition to consultant led out-reach out-patient clinics.

Waterford Regional Hospital has 431 in-patient beds (including acute psychiatry beds) and 85 day beds. The hospital is one of the largest employers in the south east, employing 1882 staff.

Since September 2013 a new Emergency Department and Neo Natal Unit have been opened and enabling works has now commenced for the development of a new 5 storey build to include Palliative Care and three acute wards.

2013 Activity Information:

Emergency Department Attendances	53,515
Out-Patient Attendances	134,146
Admissions	23,742
Inpatients	21,259
Day Cases	22,321

[‡] 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 Waterford Regional Hospital on 5 March 2014, there was evidence of both compliance and non-compliance with the criteria selected in the Infection Prevention and Control Standards.¹ In the findings outlined below, observed non-compliances 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.

Medical 1 Ward

Medical 1 Ward is a 22-bedded unit.

At the time of the inspection, seven patients were isolated on the ward. All 22 beds were occupied, and in addition one extra patient was accommodated in the corridor. The Authority found that Medical 1 Ward required varying levels of improvement to the environmental and facilities management.

Environment and equipment

- There was paint missing from walls, door frames, radiators and patient bedside tables, hindering effective cleaning.
- There was debris on the floor in the patient area assessed.
- Radiators and the walls behind radiators were unclean in the patient area assessed.

- A heavy layer of dust was visible under a bed and the wheels areas of the bed were unclean.
- There was sticky tape residue on a bed frame, hindering effective cleaning.
- The call bell attachment on the ceiling in a patient washroom was unclean.
- Dust was visible on the ceiling tiles in a patient washroom.
- The floor in a patient washroom was unclean.
- The outer covering on a wooden pedestal under a sink in a patient washroom was chipped, hindering effective cleaning.
- A small amount of brown staining was visible in the shower area in a patient washroom.
- The seal between the sink and the wall in a patient washroom was unclean. The taps were also unclean.
- Rust coloured staining was visible on the wheel areas of an intravenous stand. The wheel areas of a second intravenous drip-stand were unclean. Sticky tape residue was visible on the base of an intravenous drip-stand, hindering effective cleaning. Dust was visible on the bases of intravenous stands.
- Red/brown coloured staining was visible on a blood pressure cuff.
- At the time of the inspection, supplies were stored directly on the floor in the store room, hindering effective cleaning. The Authority was informed that the supplies had been delivered that morning but due to long-term absence of staffing, the supplies could not be unpacked immediately on delivery.
- The designated clean utility room is located behind the nurses' station and was unlocked at the time of the inspection. The Authority was informed that medications were stored in locked cupboards. However, needles and syringes were not secured, potentially allowing unauthorised access to these items.
- Cupboard doors in the clean utility area were chipped, hindering effective cleaning.
- There was only one sink available in the 'dirty' utility room. A dedicated hand hygiene sink was not available.
- Brown staining was visible at the base of the sluice hopper.
- The floor in the 'dirty' utility room was unclean at the base of the bed pan washer.

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

- Maintenance records for the bed pan washer could not be provided to the Authority at the time of the inspection. However, the Authority was informed that repairs to the door had been carried out earlier in the week.
- Cupboard doors in the 'dirty' utility room were chipped, hindering effective cleaning. The surface of shelving inside the cupboards was unclean.
- The grouting between tiles in the 'dirty' utility room was unclean.
- There was sticky residue on the worktop and on tiles in the 'dirty' utility room, hindering effective cleaning.
- Rust coloured staining was visible on the wheel areas of commodes and the wheel areas were unclean. The seat cover on a commode was damaged, hindering effective cleaning. White stains were visible on the covers of some commodes and a brown residue was visible on the seat of another commode.
- Rust coloured staining and chipped paint was visible on a non-clinical waste disposal bin on Medical Ward 1.
- The waste disposal bin on Medical Ward 1 was not positioned beside the hand wash sink in the clean utility area at the time of the inspection.
- Some wall mounted holders for soap dispensers and soap containers were unclean.
- Broken soap dispensers were observed on Medical Ward 1. Evidence was provided to the Authority that this was reported to maintenance, including the presence of a 'job number'. However, the work had not been carried out at the time of the inspection. The Authority was informed that outstanding maintenance issues had been highlighted by the ward manager to the maintenance department as recently as the 27 February 2014.
- Rust coloured staining was visible on wall mounted holders for soap dispensers. The Authority was informed that replacement holders were available on the ward but they had yet to be replaced.

Isolation Rooms

- A heavy layer of dust was visible under the bed in one of the isolation rooms. The base of a table stand located beside the bed was chipped, hindering effective cleaning. The call bell in the en-suite shower room was also unclean.

Orthopaedic 2 Ward (Trauma)

Orthopaedic 2 is a trauma unit. It has four six-bedded wards, one three bedded ward and four single rooms with en-suite facilities. At the time of the inspection, four patients were isolated on the ward. All 31 beds were occupied, and in addition one extra patient was accommodated in a screened area on the corridor in the ward.

The Authority found Orthopaedic 2 Ward to be generally clean with exceptions.

Environment and equipment

- Light dust was visible in patient areas such as behind a bed frame, wall tiles and floor edges in a patient washroom. Patient equipment such as cardiac monitors, a patient hoist and resuscitation trolley were also observed to have light levels of dust. Heavy dust was visible on shelving and storage areas in the designated clean utility.
- A nebuliser machine in the clean utility room was unclean.
- An oxygen saturation probe assessed in the equipment storage room was taped together, hindering effective cleaning.
- Debris was visible behind a radiator in a patient area assessed.
- The mattress base and cover of a mattress in use was found to be visibly stained. Ward staff were informed by the Authorised Person of this finding during the course of the inspection, and this mattress was changed at that time. The covers of three other mattresses which were observed in a store room were visibly torn. The Authority was informed that these mattresses were being temporarily stored whilst supplementary pressure relieving mattresses were in use for three patients. Assurances were given to the Authorised Person that these torn mattresses would be taken out of use.
- The vinyl covering of a chair inspected was ripped, hindering effective cleaning.
- The designated clean utility room was unlocked allowing unauthorised access to needles, syringes and medications such as intravenous antibiotics which were stored in unsecured drawers.
- Rust coloured staining was observed under the seat area of a commode inspected in the 'dirty' utility room.
- The wheel areas on equipment observed during the inspection such as commodes and intravenous drip-stands were unclean.
- The seal between the sink and the wall in the clean utility room was not intact, hindering effective cleaning.
- There was only one sink available in the 'dirty' utility room which was not designated for hand hygiene.

- A sink in a six-bedded room was not a designated hand hygiene sink. The Authority observed a staff member emptying the contents of a patient wash bowl into this sink, washing the bowl and refilling it with water. This is not in line with best practice.

Isolation Rooms

- The Authority observed soiled incontinence wear on the floor of the patient washroom beside a domestic waste bin.
- The door of one of the isolation rooms was held open with a waste bin during the inspection.
- A bed frame in one of the isolation rooms was visible dusty.

Cleaning equipment

- Grit was visible on the floor of the cleaning storage room.

3.2 Waste management in both areas inspected

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.

- At the time of the inspection, the Authorised Persons were surprised to find that clinical/healthcare risk waste bins were not observed in the isolation rooms of the two areas inspected. The Authority was informed that this is the practiced norm in the hospital, with clinical/healthcare waste bins only being placed into isolation rooms as the exception rather than routinely, on the basis of a risk assessment.
- On Orthopaedic 2 Ward, hospital staff explained to the Authorised persons that if it is anticipated that a procedure in the isolation room would generate clinical/healthcare risk waste, the healthcare professional involved would be expected to bring a small clinical/healthcare risk waste bag with them to the isolated patient to allow for bagging and transport to a central clinical waste disposal bin located in the 'dirty' utility room.
- On Medical 1 Ward, a staff member was observed exiting an isolation room and disposing of personal protective equipment (PPE) into a domestic waste bin outside of the room which is not in line with best practice.³ The Authority was informed that, in situations where PPE is worn when caring for patients who are isolated due to colonisation or infection with potentially transmissible alert pathogens; this PPE would be disposed of in the domestic waste bin if it was not visibly contaminated. However, it was explained to the Authorised Person that

contaminated or blood stained PPE would be disposed of in clinical waste disposal bins located centrally on the ward, and outside of the isolation room.

- One of the key principles of healthcare risk waste management is the requirement to understand the nature of the waste in order to allow the correct segregation, packaging, labelling, traceability and transportation of the waste from the point of generation to disposal in accordance with statutory requirements⁴. Waterford Regional Hospital has expressed confidence in its approach to the management of healthcare risk waste. However the additional process steps introduced through the transportation of waste from the point of generation in an isolation room to the clinical waste bin in the dirty utility is of concern to the Authority as it may increase the risk of transmission of potentially infectious materials.
- The Authority has observed that the operational norm in the majority of hospitals inspected is to have a clinical/healthcare risk waste bin in every isolation room to facilitate the correct segregation of waste at the point of generation, and to ensure that the risk of transmission of healthcare risk waste is mitigated. In the absence of clear national guidance on this issue, the Authority has written to the Royal College of Physicians of Ireland, Clinical Advisory Group on the Prevention and Control of Healthcare Associated Infection and Antimicrobial Resistance to seek clarification on this matter. The Authority recommends that Waterford Regional Hospital should also seek clarification from relevant national bodies with respect to the ongoing appropriateness of their practice.
- At the time of the inspection, two bags of tagged clinical waste were stored on the floor of the 'dirty' utility room on Medical 1 Ward and the 'dirty' utility room door was open. The Authority was informed that waste disposal bins are emptied at the start of the shift and it was not usual for waste to be stored in the 'dirty' utility room. This issue was of concern to the Authority who brought it to the attention of the ward manager. The waste was subsequently removed from the 'dirty' utility room shortly after the inspection commenced.
- In addition, three sharps boxes which were full (dated 01/03/2014, 03/03/2014 and 04/03/2014) were stored at the sink in the 'dirty' utility room on Medical 1 Ward. The Authority was informed that sharps boxes are usually stored in a locked cupboard under the sink. However, the key was unavailable to lock the cupboard. This issue was of concern to the Authority and was highlighted it to the ward manager. The sharps boxes were subsequently removed from the 'dirty' utility room shortly after the inspection commenced.

Summary of Environmental and Facilities Management

The disposal of potentially contaminated PPE observed by the Authority on the day of the inspection did not comply with best practice.³ The hospital should seek clarification on the provision of clinical waste bins in isolation rooms to assure itself that clinical waste is managed in line with evidence based best practice and to ensure that the risks of transmission of infectious microorganisms to patients, staff and visitors is mitigated.

The Authority observed maintenance requests which were not addressed in a timely manner. Four mattress covers and one mattress base on Orthopaedic 2 were observed by the Authority to be either compromised or torn, hindering effective cleaning and posing a risk of transmission of infection from one patient to another.

Medical Ward 1

The Authority was informed that monthly hygiene audits are carried out on Medical Ward 1. However, it was evident during the inspection that the findings generated from the audits had not all been addressed. A cleaning checklist for medical equipment is completed daily. Staff members are allocated to pieces of equipment and they are responsible for ensuring the equipment is cleaned.

Orthopaedic Ward 2 (Trauma)

The Authority was informed that staff who are allocated to a particular cohort of patients have the responsibility for cleaning the patient equipment used in that area during the working day. The Authority was informed by the ward manager that daily sign off sheets for patient equipment are not completed on Orthopaedic 2. Therefore there is no assurance mechanism in place to ensure that patient equipment is cleaned according to national guidelines.⁵

The clean utility room was unlocked at the time of the inspection. Intravenous antibiotics, needles and syringes were potentially accessible to unauthorised persons. The ward manager stated that secure storage was under review with regard to the provision of lockable cupboard for drugs, needles and syringes.

Conclusion

The authority found that Medical Ward 1 required varying levels of improvement to the environmental and facilities management. Orthopaedic Ward 2 was generally clean with exceptions, in particular with respect to the ongoing suitability of some mattresses.

3.3 Hand Hygiene

Assessment of performance in the promotion of hand hygiene best practice occurred using the Infection, Prevention and Control Standards¹ and the World Health Organization (WHO) multimodal improvement strategy.⁶ 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 change: *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

- There were sufficient hand hygiene facilities observed at the point of care at Waterford Regional Hospital. However, the design of clinical hand wash sinks on both the areas inspected did not conform to Health Building Note (HBN) 00-10 Part C: Sanitary assemblies.⁷
- Some of the sinks observed were not exclusively designated for hand hygiene, and were used for other purposes, which is not in line with best practice.

3.3.2. Training/education: *providing regular training on the importance of hand hygiene, based on '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 viewed hospital hand hygiene training records for staff groups and the overall percentage of staff trained at the time of the inspection. Only 40% of all hospital staff were up-to-date with hand hygiene training. Hand hygiene training is included in the quality improvement plan⁸ published by the hospital in response to the unannounced inspection by the Authority on 25 June 2013 with a target completion date for October 2013. The hospital had intended that all staff would be trained by the end of March 2014 but this has been extended to June 2014. A database has been set up by the hospital since the last inspection which allows for a readily available electronic record on current hand hygiene compliance by staff category.
- Monthly infection prevention and control study days are provided for hospital staff which focus on different subjects one of which is hand hygiene. The Authority viewed a training programme for all healthcare workers on hand hygiene and other infection prevention and control (IPC) topics which was run from January 2014 up to and on the day of the inspection. The Authority was informed that 70 nurses were expected to attend the hand hygiene training which was planned on the day of the inspection. Staff members who are identified by infection prevention and control link practitioners during hand hygiene competency assessments as potentially benefiting from additional training would attend hand hygiene training. New staff members would also attend hand hygiene training.
- The Authority was informed that 30 infection prevention control link practitioners have been trained since 2009. The link practitioners play an active role in the education of staff on a range of infection prevention and control related subjects, including hand hygiene. It was explained to the Authority that the hospital has

worked to encourage non-nursing staff to take up this role in addition to nurses, with some success.

- The Authority was informed that hand hygiene training was up-to-date for all nurses and healthcare assistants on Medical Ward 1. On Orthopaedic Ward 2, hand hygiene training records as well as audits were not available to view on the day of inspection by the Authority.

3.3.3 Evaluation and feedback: *monitoring hand hygiene practices and infrastructure, along with related perceptions and knowledge among health-care 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

- The Waterford Regional Hospital participates in national hand hygiene audits which are published twice a year.⁹ The results below are taken from publically available data from the Health Protection Surveillance Centre website.⁹ The average results from the two national hand hygiene audits for 2013 was 88% which is below the Health Service Executive (HSE) national target of 90%.¹⁰ Whilst the October 2013 results show improvement from the May/June period, they still remain just below the national target of 90%.

Period 1	Result
June 2011	86.1%
October 2011	82.9%
June/July 2012	77.6%
October 2012	91.4%
May/June 2013	87.1%
October 2013	89.0%

Source: The Health Protection Surveillance Centre – National Hand Hygiene Audit Results⁸

Hospital Hygiene Audits

- Assurances were given to the Authority that the results of hand hygiene audits from a national and local perspective are communicated to senior management by the Infection Prevention and Control Team (IPCT). The IPC link practitioners play a role in hand hygiene education and the dissemination of hand hygiene results at ward level. Spot check hand hygiene audits are carried out across all areas and regular audits are conducted at ward level.

Local Area Hand Hygiene Audit Results

- The Authority was informed that hand hygiene competency assessments are carried out by link nurses every two months on Medical Ward 1. These include assessment of the 'My 5 Moments for Hand Hygiene' and barriers to good hand hygiene practice. The most recent assessment was carried out on 20 February 2014.
- Records of hand hygiene audits were not available on Orthopaedic Ward 2 on the day of the inspection for the Authority to view. The Authority was informed that the IPC link nurse for the ward was updating the hand hygiene audit and training folder and was not on duty on the day of the inspection. Assurances were given by the ward manager that regular audits are carried out by the IPC link nurse, however due to the temporary absence of supporting information, Authorised Persons were unable to verify this on the day of inspection.

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 World Health Organization¹¹ and the Health Service Executive¹². 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

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

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 20 hand hygiene opportunities in total during the inspection. Hand hygiene opportunities observed comprised of the following:
 - four before touching a patient
 - one before clean/aseptic procedure
 - two after body fluid exposure
 - one after touching a patient
 - 12 after touching patient surroundings.

- Seventeen of the 20 hand hygiene opportunities were taken. The three opportunities which were not taken comprised of the following:
 - one before touching a patient
 - two after touching patient surroundings.

- Of the 17 opportunities which were taken, the hand hygiene technique was observed (uninterrupted and unobstructed) by the Authorised Person for six opportunities. Of these, the correct technique was observed in five hand hygiene actions.

- In addition the Authorised Persons observed:
 - nine hand hygiene actions that lasted \geq 15 seconds as recommended
 - three hand hygiene actions where there was a barrier to the correct technique (wearing a wrist watch).

3.3.4 Reminders in the workplace: *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 Waterford Regional Hospital.

3.3.5 Institutional safety climate: *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.*

- Waterford Regional Hospital has demonstrated a commitment to improving hand hygiene compliance at local and corporate level. The hospital's national hand hygiene audit results for 2013 indicates that improvement was seen in the second half of 2013, which the hospital needs to improve to attain the national target. In addition, it was explained to the Authority that the hospital had recently held two patient targeted hand hygiene awareness days with the hospital patient partnership forum to engage and encourage patients to ask staff if they have washed their hands. These patient/service user awareness days were held on 15 October 2013 and 14 February 2014; the minutes of both surveys were viewed by the Authority on the day of the inspection
- Waterford regional hospital has made progress since the last inspection in its ability to identify and track hand hygiene training needs by staff grade. Records of hand hygiene training viewed by the Authority on the day of the inspection indicated that 60% of staff still require hand hygiene training for 2014. A target for completion has been set for June 2014. The hospital needs to ensure this target is achieved to further drive improvement in hand hygiene performance.

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 planned, provided and maintained to maximise patient safety.

Since the last inspection by the Authority, there was evidence that a significant amount of time, effort and resources had been invested by the hospital to address the findings of the previous inspection by the Authority, through the execution of the hospital's QIP⁸. Moreover, the hospital was able to provide a detailed breakdown of actions completed and planned since the last inspection as part of an ongoing programme of works. Whilst progress had been made, The Authority found that some improvements are required in the cleanliness and maintenance of the environment and equipment. Requests for maintenance and repairs to equipment need to be addressed in a timely manner.

The Authority has concerns about the non-availability of clinical/healthcare risk waste bins in isolation rooms at Waterford Regional Hospital. The hospital has instituted an alternative system of clinical/healthcare risk waste disposal through the filling of bags at the point of generation, with disposal centrally. The Authority was not satisfied that this approach provides adequate provision for the disposal of clinical/healthcare risk waste in all scenarios. The Authority has sought clarification on this matter from the Royal College of Physicians of Ireland, Clinical Advisory Group on the Prevention of Healthcare Associated Infection and Antimicrobial Resistance, and it recommends that Waterford Regional Hospital also seeks clarification from relevant national bodies on this matter to ensure that their current approach is in line with best practice.

The Authority was informed at the inspection close out meeting that there are approximately 300 mattresses that need to be replaced across the hospital. Authorised persons were informed that additional funding had been requested by the hospital management team to facilitate a replacement programme. Mattresses which are not fit for purpose due to torn covers and damaged/stained mattress bases can pose a risk of acquiring a Healthcare Associated Infection to patients and should be replaced. The hospital needs to both replace these damaged mattresses, and be assured that there is a process in place to monitor and replace damaged mattresses to minimise the risk to patients on an ongoing basis.

On the day of the inspection, the Authority observed that in addition to the 100% bed occupancy rate on each ward inspected, there was an extra patient accommodated on each corridor of the wards inspected. Hospital staff explained that this was a temporary arrangement highlighting that the hospital's escalation policy

had been activated in response to the increased number of patients in the Emergency Department (ED) awaiting admission. Though this was a far from ideal in-patient environment, the facility was clean and well maintained and the patient's privacy and dignity was protected as much as possible within the constraints of the situation. Assurance was given at ward level that accommodating the patient to a more suitable area was a priority.

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 some recent improvements have been achieved in hand hygiene performance and practices. The hospital needs to build on this improvement to achieve and sustain national targets⁹.

Waterford Regional Hospital must now review and update their quality improvement plan (QIP), to ensure that it prioritises the improvements necessary to fully comply with the Infection, Prevention and Control Standards.¹This 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 Waterford Regional Hospital to formulate, resource and execute their QIP to completion. The Authority will continue to monitor the Hospital's progress in implementing their 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 Standards¹ and is making quality and safety improvements that safeguard patients.

5. References*

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