



**Health
Information
and Quality
Authority**

An tÚdarás Um Fhaisnéis
agus Cáilíocht Sláinte

Report of the unannounced inspection at St James's Hospital, Dublin 8

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 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, 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 James's Hospital's compliance with the Infection Prevention and Control Standards. It was undertaken by Authorised Persons from the Authority, Katrina Sugrue, Alice Doherty, Judy Gannon and Aileen O'Brien, on 6 May 2014 between 09:50hrs and 14:35hrs.

The areas assessed were:

- Victor Synge Ward (Endocrinology, Rheumatology, Dermatology and Neurology)
- Edward Hallaran Bennett Ward (General Surgical Ward)
- General Intensive Care Unit.

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

2. St James's Hospital Profile[‡]

St James's Hospital (SJH) is the largest academic teaching hospital in the Republic of Ireland. The hospital has 1,020 beds with 4,150 staff and places high emphasis on innovation and excellence of delivery.

St James's is a voluntary hospital established in 1971 under the Health (Corporate Bodies) Act 1960 and amended in 1984 and 1996. The hospital is governed by a Board that reports directly to the Minister for Health and Children. The Executive Management Team represents the organisation's corporate and clinical functions and is designed to support delivery of safe, effective, high-quality patient care. Clinical services are planned and delivered through a number of Clinical Directorates aligned to specific patient needs.

The Hospital's fundamental purpose is the diagnosis of illness, the provision of person-centred health treatment and care, as well as health promotion and preventative services to patients at all stages of life. This is provided by a comprehensive range of advanced clinical, diagnostic, treatment and therapeutic facilities at catchment, regional and national levels. The hospital is one of the designated national cancer treatment centres (National Cancer Control Programme) and has on-site St Luke's Radiation Oncology Centre, which is part of the Radiation Oncology Network.

St James's has strong links with Trinity College Dublin (TCD), the oldest university and medical school in Ireland. The hospital is a major teaching hospital for TCD and houses the Trinity Health Sciences Centre on the campus which incorporates the Medical School, a Postgraduate Medical Centre, School of Nursing, School of Physiotherapy, Occupational Therapy, Nutrition, Speech and Language Therapy, the only School of Radiation Therapy in the country and the first Academic Unit of Oncology in the Republic of Ireland.

In all its endeavours, the hospital aspires to meet the highest possible standards and levels of efficiency, effectiveness and quality and is driven by the principles of excellence, continuous improvement, innovation and accountability to patients and service users.

[‡] 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 James's Hospital on 6 May 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.

Victor Synge Ward (Endocrinology, Rheumatology, Dermatology and Neurology)

Victor Synge Ward has capacity for 32 patients and comprises four six-bedded units, seven isolation rooms, one of which is a negative pressure isolation room, and another is a radiation protected room.

Overall, patient areas and equipment were generally clean and well maintained with some exceptions. The Authority found that improvements were required in the maintenance of the general ward environment.

Environment and equipment

- The alcohol hand gel dispenser at the entrance to the ward was empty at the start of the inspection. This was subsequently replaced before the end of the inspection.
- A large number of non-clinical waste disposal bags awaiting collection were stored on the corridor at the entrance to the ward at the start of the inspection, hindering effective cleaning. The bags were subsequently removed before the end of the inspection.
- Dust was observed under beds.
- The outer surfaces of bedside lockers were chipped, hindering effective cleaning.
- The material on the back of two chairs was torn, hindering effective cleaning. The backrest on one chair was not attached on one side and there were splash stains and chipped paint on the bar underneath the seat.
- The Authority was informed that patient bathrooms are due to be refurbished so that they will be more accessible for patients. The following non-compliances were observed in patient toilets and washrooms:
 - There was a brown stain on the shower curtain in ward C. This was brought to the attention of ward management at the time of the inspection.
 - There was chipped paint in the shower room on ward C and in the bathroom on ward D.
 - The floor covering was not fully attached to the wall beside the shower in ward C, in the toilet on ward D and at the entrance to the dermatology bathroom, hindering effective cleaning.
 - Black debris was observed around the edges of some ceiling tiles in the bathroom on ward D and there were loose and/or missing ceiling tiles in the dermatology bathroom.
 - One of the side panels on a bath in an isolation room en-suite shower room was loose.
- The wheel areas of intravenous stands were unclean and rust-coloured staining was observed on the wheel areas.
- Dust was observed on the resuscitation trolley on the bottom ledge, behind the oxygen cylinder and on the top surface which was also cracked, hindering effective cleaning.
- The suction apparatus at a bed in ward B was unclean.
- There was chipped paint on the legs of patient hoists.
- The following non-compliances were observed in the treatment room:
 - There was no sealant behind the hand wash sink and the splash board under the sink was not fully attached, hindering effective cleaning. The container of antiseptic soap solution in the dispenser at the hand wash sink was empty.
 - Electrical items and cardboard boxes containing supplies were stored on the floor beside the sink, hindering effective cleaning. There was a red splash

stain on one of the electrical items stored beside the sink. This matter was brought to the attention of ward management during the inspection. There was debris under the cardboard boxes at the sink. A bed cradle was also stored on the floor behind a cupboard.

- Three containers of chlorhexidine antiseptic and one container of iodine antiseptic were not labelled with the date of opening.
- The cover on a ceiling light was cracked and a piece of the ceiling light was missing, hindering effective cleaning.
- The vent inside the door was dusty and the ceiling tile around the vent was damaged.
- There was dust and debris under the oxygen cylinders and dust in the corners of the floor.
- Dust was observed on a number of 'not-in-use' oscillating fans stored in the room. The Authority was informed that the fans are no longer used in clinical areas and were due to be removed.
- The following non-compliances were observed in the clean utility room:
 - There was no sealant at the joint behind the hand wash sink. There were splash stains on the board under the sink and it was not intact, hindering effective cleaning. The floor covering under the sink was not intact and dusty.
 - A piece of wood fixed to one of the window sills was not painted, hindering effective cleaning.
 - Rust-coloured staining was visible at the bottom of a shelving unit. The space between the wall and the shelving unit was cluttered with plastic bags and blue trays.
 - The surface of the worktop under the controlled drug cupboard was damaged and the outer surfaces of cupboard doors were scratched, hindering effective cleaning.
 - The outer edges of the steps on a foot stool were chipped and the foot stool was unclean.
 - Cardboard boxes were stored on the floor, hindering effective cleaning.
 - There was sticky tape residue on shelves and the edges were chipped, hindering effective cleaning.
 - Opening the lid of the clinical waste disposal bin, stored beside the hand wash sink, was restricted due to its proximity to the sink.
- The following non-compliances were observed in the 'dirty'[±] utility room:
 - The door of the 'dirty' utility room was unlocked potentially allowing unauthorised access to the clinical waste sub-collection storage area and hazardous cleaning products. However, there is access control on entry to the

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

ward and the 'dirty' utility room is located in a separate area off the main corridor with a sign posted at the entrance stating that access is restricted.

- The hot tap on the hand wash sink was not aligned correctly. The splash board under the sink was damaged. The door frame adjacent to the sink was also damaged. There was chipped paint on the wall adjacent to the sink. There were cracks in the floor covering under the sink, hindering effective cleaning.
- The edges of shelving, the worktop and the interior surfaces of a cupboard were chipped and/or missing, hindering effective cleaning. The door of a cupboard used for storing hazardous chemicals was missing and the interior surfaces of the cupboard were dusty.
- A section of the wall panel under the sluice hopper was missing and covered with green plastic material, hindering effective cleaning. Cardboard boxes containing waste materials were stored on the floor under the sluice hopper, also hindering effective cleaning.
- A plastic bag containing a sharps box was stuck to the floor and a sticky residue was observed on the base of the bag and on the floor under the bag.
- Rust-coloured staining was visible on the bed-pan holder on a commode. The vinyl covering on a commode was damaged, exposing the foam underneath and hindering effective cleaning. There was residue on the backrest of this commode and it was unclean under the seat. This matter was brought to the attention of ward management during the inspection.
- Brown stains were observed on a ceiling tile.
- The following non-compliances were observed in the store room beside the cleaning equipment room:
 - The overhead light was not working.
 - Boxes were stored on the floor hindering effective cleaning.
 - Some of the ceiling tiles were missing and/or stained.
- The following non-compliances regarding waste disposal bins were observed:
 - The foot lever on the non-clinical waste disposal bin in the clean utility room was broken.
 - The lid on the non-clinical waste disposal bin in the 'dirty' utility room did not open fully when the foot lever was depressed and there was a sticky substance stuck to the lever.
 - The lid on the non-clinical waste disposal bin in room 31 did not close correctly when the foot lever was un-depressed.

Linen

- Alginate bags which are used for contaminated linen were observed in two white linen bags, which is not in line with best practice.

Edward Hallaran Bennett Ward

Edward Hallaran Bennett Ward is a 25-bedded general surgical ward. There are three six-bedded bays and seven isolation rooms one of which is a negative pressure isolation room.

In general the environment and patient equipment on Edward Hallaran Bennett Ward was found to be clean on the day of the inspection with some exceptions.

Environment and equipment

- In patient ward areas there was chipped paint on bed frames, the legs of patient tables and on the wall areas behind patient lockers.
- A light layer of dust was observed at floor edges of patient ward areas.
- The integrity of a mattress protector on a bed which was made up for use was damaged. There was staining on the under surface of the mattress protector and corresponding staining on the mattress itself. This issue was brought to the Ward Manager and a replacement mattress ordered.
- The vinyl covering on the seat cushions of two patient chairs was torn and a piece of sticky matter was stuck to the under surface of one of the chairs. The wooden arms of two chairs were chipped, hindering effective cleaning.
- The laminate covering on a patient table was also chipped and there was a sticky residue on its surface.
- Black staining was observed in the sealant joining a hand wash sink to the wall in a patient ward. The sink itself was unclean with pieces of brown grit in the sink basin. The integrity of the splash back of the sink was damaged with a number of holes observed hindering effective cleaning.
- The sink in a patient bathroom was unclean with brown residue in the plug grid and unclean taps. The silver coating of the plug hole was also damaged with the coating peeling off, hindering effective cleaning. The floor in the bathroom was unclean with white residue at the floor edges.
- The shower seat in another patient bathroom was unclean. The foot operated non-clinical waste bin in the same bathroom was broken. This meant that while the pedal could be used to open the bin lid it did not function to close it requiring it to be closed by hand which is not in line with best practice.
- The toilet seat in another patient bathroom was cracked, hindering effective cleaning.
- The plastic top covering of the resuscitation trolley was cracked at the corner, hindering effective cleaning. The Ward Manager informed the Authority that this had been highlighted by an environmental audit in April 2013 and a request had been made for a replacement cover but this request had not yet been granted.
- The wheel areas of a medication trolley stored in the clean utility were unclean and the wheel areas of an IV stand were also unclean and rust stained.

- There was light dust on the floor edges in the clean utility and there was some debris on the floor including pieces of plastic and tissue. Two boxes of gloves were stored directly on the floor in the clean utility, hindering effective cleaning.
- The following non-compliances were observed in the 'dirty' utility room:
 - A number of commodes stored in the 'dirty' utility were unclean. One commode had brown residue underneath the seat, in another the bedpan carrier was significantly rusted. The vinyl was torn on the back rest and seat of another commode, hindering effective cleaning. The wheel areas of two commodes were visibly unclean.
 - There was a light layer of dust on the floor of the 'dirty' utility and the shelving was chipped exposing the chipboard.
 - Disposable bed protector pads were placed on the shelves underneath measuring jugs. These bed protectors were unclean and stained with brown markings in places.
 - The 'dirty' utility was not secure but a risk assessment had been completed and measures to reduce the risk were implemented. These measures included: general access to the ward was controlled by a swipe system, signage on the 'dirty' utility door to indicate it was a restricted area, the door to the 'dirty' utility was kept closed at all times and all chemical products were kept in a locked cupboard.
- A box of sealed mouth care packs was stored directly on the floor in the store room. Grit and dust were also observed on the inside of plastic boxes in a shelving unit in the store room which contained packaged supplies such as mouth care packs, dressing packs and sterile drapes.
- Three oxygen cylinders were stored loose beside a sink in the store room hindering effective cleaning. A set of towels wrapped in plastic were also inappropriately stored directly on the floor of the store room.

Cleaning equipment

- Some cleaning equipment, including a vacuum cleaning hose and brush, were inappropriately stored behind a radiator.
- The cleaning equipment room was not secure but a risk assessment had been carried out and cleaning products were kept in locked cupboards.

General Intensive Care Unit

St James's General Intensive Care Unit had 17 beds opened at the time of the inspection, 15 of which were occupied. There are nine single rooms with ante rooms which are used primarily for isolation purposes; eight of which were opened. The remaining beds were located in the main intensive care room.

In general the environment and patient equipment on the General Intensive Care Unit was found to be clean on the day of the inspection. However some issues were identified relating to the cleanliness of patient equipment which needed to be addressed on the day.

Environment and equipment

- The ceiling tiles on the main corridor leading into the unit were visibly stained.
- Green masking tape was observed on the floor leading into the unit which covered a small hole. This issue was discussed with the unit manager who indicated that the issue had been reported for maintenance but had not been addressed.
- The Authority viewed the investigation room. Equipment used for monitoring arterial blood gases was visibly stained with fresh blood. Blood stains were also present on the outside of a clinical waste bin positioned near the equipment. This was brought to the attention of the ward manager and was addressed immediately. It was explained to the Authorised Person that many different areas use this equipment which poses a difficulty in ensuring that each staff member cleans the equipment after use. Towards the end of the inspection, the Authorised Person reviewed the arterial blood gas equipment and found it to be stained with blood once again. This was again highlighted to the ward manager and to members of the management team at the close out meeting.
- Sticky residue and tape residue was present on the worktop in the investigation room, hindering effective cleaning.
- The outer surfaces of cupboard doors were scratched in the investigation room and radiology room, hindering effective cleaning.
- Two mattresses were viewed during the inspection. Both mattress covers and bases were found to be compromised. One mattress cover was visibly torn and staining was observed on the inside of both mattress covers. Corresponding staining was visible on one of the mattress bases. This issue was a concern to the Authorised Person who brought it to the attention of the ward manager at the time of the inspection for immediate follow up.
- Grit was present on the inside of a drawer in a trolley at the end of a patient bed.
- The impermeable material covering three of the chairs used by staff for monitoring the patient at the bed side were torn. Another chair was upholstered in fabric, all of which hindered effective cleaning. In addition, the vinyl cover on a

patient's reclining armchair was torn. The Authority was informed that this chair was recently acquired by the unit.

- Slight staining was visible on a bed rail in the main unit.
- There was grit present on a computer keyboard in the haemoscope room.
- Brown/red staining was noted on signage on a fridge door.
- There was rust-coloured staining observed on a urinal holder in a patient's isolation, hindering effective cleaning.
- Blinds viewed in the isolation rooms 13, 14 and 15 were kept rolled up through the use of sticky tape and tags. There was visible sticky tape residue on the blinds. The Authority was informed that this issue was reported and remained ongoing without being addressed.
- The following non-compliances were observed in the 'dirty' utility room:
 - The 'dirty' utility was not secure but the Authority was informed that a risk assessment had been completed and measures to reduce the risk were implemented. These measures included general access to the ward was controlled by a swipe system, signage on the 'dirty' utility door to indicate it was a restricted area, the door to the 'dirty' utility was kept closed at all times and a locked cupboard was provided for all chemical products. However, at the time of the inspection, a container labelled as containing hydrochloric acid was observed on open shelving.
 - There was chipped paint on the walls and three out of four linen skips viewed.
 - A board used for covering pipes underneath the sluice hopper was not in place, therefore exposing piping and hindering effective cleaning.
 - The outlet of the sluice hopper had build up present and was visibly unclean.
 - Residue was noted on the end of a tap of a hand hygiene sink which was not HBN compliant.³
 - The wheel areas of a storage trolley were unclean. The floor covering underneath this trolley was missing. The wall covering behind the trolley was not adhered to the wall, hindering effective cleaning.
 - The cover of an overhead light fitting was missing, hindering effective cleaning.
 - Brown-coloured staining was observed underneath the seat area of a commode; the wheel areas were also unclean. This matter was brought to the attention of ward management during the inspection and was addressed immediately.
 - The surface of a shelf was chipped and the chip board underneath was exposed, hindering effective cleaning.
 - Rust-coloured staining was present on the lid of a clinical waste bin; paint was also chipped on the foot pedal which may hinder effective cleaning.

- Light dust was observed on the surface of the resuscitation trolley in the main unit.
- Rust-coloured staining was visible on the base of a ventilator which was stored in the equipment and oscillation room. Blue gel residue was present on another ventilator also stored there. Light dust was observed on the surface of suction apparatus. Some of the equipment stored in the room had green labels indicating the date in which it had been cleaned, however some were not labelled. The unit manager informed the Authorised Person that all equipment is cleaned before being stored away.

Cleaning equipment

- The door of the cleaning storage room was unlocked potentially allowing unauthorised access to hazardous cleaning products, one of which was observed on an open shelf. A cupboard used for storing cleaning products was unlocked at the time of the inspection.

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.

- On Victor Synge Ward, a clear plastic bag used for non-clinical waste was observed in the waste disposal bin in an isolation room. The Authority was informed that clinical waste disposal bins are only placed in isolation rooms if required following a risk assessment.
- The Authority observed that non-clinical risk waste bins were available in the isolation rooms of Edward Hallaran Bennett Ward where contact precautions were required. It was explained to the Authority that should a patient be isolated and require enteric precautions to be practised, the same waste bin receptacle would be used but a yellow rather than white bag would be placed into it. The Authority was informed that the labelling on the bin lid reading 'non-clinical waste' would not be changed. This issue was discussed with the hospital management and a member of the infection control team at the close out meeting.
- A large number of non-clinical waste disposal bags awaiting collection were stored on the corridor at the entrance to Edward Hallaran Bennett Ward at the start of the inspection which is not in line with best practice. The bags were subsequently removed before the end of the inspection.
- The waste sub collection room in the General Intensive Care Unit was inspected. Dirt, grime and remnants of used surgical gloves were visible inside of a green

wheelie bin which was inspected. This issue was brought to the attention of hospital management at the time of inspection. The clinical waste wheelie bin was locked, however a sealed clinical waste bag was on top of the bin and not stored in the bin in line with best practice.⁴ The door to the sub collection room was also unlocked at the time of the inspection potentially allowing unauthorised access to the clinical waste sub-collection storage area.⁴

Summary

Victor Synge Ward

The Authority was informed that monthly environmental audits are carried out by staff from the environmental department. The most recent environmental audit carried out on Victor Synge Ward was in March 2014. Ten areas are included in the environmental audit tool. If the score for any one of the 10 areas is <86%, the Authority was informed that the area is re-audited. Management on the ward is responsible for ensuring issues identified from audits are corrected, and are escalated to the technical services department if required. In addition to the above audits, monthly environmental audits are also carried out by staff from other wards. In these audits, one of the ten areas in the audit tool is selected for audit.

Edward Hallaran Bennett Ward

The most recent environmental audit for Edward Hallaran Bennett Ward was conducted in April 2013 and the results and follow up plan were viewed by the Authority. This audit had included review of the environment, equipment, kitchen areas, linen, waste and sharps management and hand hygiene and isolation facilities. An overall score of 93% was achieved. Follow up actions were assigned to the ward manager, cleaning and linen contractors and the maintenance department.

Overall, the environment and patient equipment on Edward Hallaran Bennett Ward were generally clean and well maintained with some exceptions.

The Authority was informed that all patient equipment on Edward Hallaran Bennett Ward is cleaned following each use and on a daily basis by Healthcare Assistants and recorded on a daily checklist. These records are checked at the end of each week by the ward manager.

General Intensive Care Unit

The Authority was informed that an external cleaning company has responsibility for cleaning the General Intensive Unit and equipment on a daily basis. Daily sign off sheets for the week commencing 28 April 2014 were viewed. Saturday and Sunday were not signed off for that week.

A recent environmental hygiene audit carried out on 28 April was provided to the Authority for viewing. An overall score of 96% was achieved. An action plan with a breakdown of the issues identified through audit was developed. The Authority was informed that there was no time frame for the close out of issues. Some issues identified were ongoing due to limited resources, for example, the repair/replacement of the blinds in the isolation rooms.

Overall, the environmental hygiene in the General Intensive Care Unit was generally clean. However some issues were identified relating to the management and maintenance of patient and medical equipment which require attention. In particular, it is imperative that the systems in place to ensure that blood monitoring equipment such as the arterial blood gas machine is adequately decontaminated after use are robust enough to ensure reliability.

A comprehensive audit schedule was viewed by the Authority. It was explained to the Authorised Persons that self assessment environmental audits are carried out on a monthly basis by ward managers who audit either their own ward or another ward. Unannounced weekly walkabouts are also carried out by a multidisciplinary team in which the executive team is represented. One area is audited every week. Action plans are developed to address issues or actionable items identified by the audits which are prioritised and referred to the individual responsible for addressing such issues. Ongoing issues are addressed at the hygiene operations group meetings.

Records of hygiene assessment scores for January and February 2014 were observed by Authorised Persons on the day of inspection. The records showed the categories which were audited as part of the hygiene assessment and included the environment/cleaning equipment, patient equipment catering, waste/sharps, linen and hand hygiene facilities. Individual scores for each category and overall scores for the hygiene assessment were outlined. Trending of scores for each category and area audited were also demonstrated. For example, the hospital achieved 94% in environment and cleaning equipment and 95% in patient equipment for both January and February 2014. The hospital achieved an overall score of 95% in audits carried out in January and February 2014.

In conclusion, the three areas inspected were found to be generally clean. The Authority found that while many processes were in place for the continuous monitoring and quality assurance of hygiene within the hospital, the findings in this report highlight that improvements are required in the management and maintenance of the environment and patient equipment in the three areas assessed. For example, patient equipment such as commodes and the arterial blood gas equipment were not cleaned after each use; mattresses in two areas inspected were also found to be compromised. The findings demonstrate that issues relating to the

general maintenance of the environment were common in the three areas inspected such as chipped and scuffed paint, and damaged surfaces of shelving and cupboard doors which can hinder effective cleaning. The Authority recommends that St James's Hospital should review the monitoring and quality assurance processes in place to assure itself that the environment and patient equipment is effectively maintained and managed in line with criteria 3.6 of the Infection Control Standards.¹

Best practice indicates that a system of colour coding is recommended to assist in segregation and management of the waste.⁴ In isolation rooms in St James's Hospital a colour coded yellow bag, where the risk assessment indicated it was required, was used but it was placed in a domestic waste bin. The bin was not labelled as healthcare risk waste which may lead to lack of understanding or awareness as to the nature of the waste generated and failure to segregate risk waste from non-risk waste. This approach is not in line with best practice⁴ and should be reviewed.

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.⁵ 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 change⁵: *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.

- On Victor Synge Ward, the Authority was informed that the splash board behind the clinical hand wash sink on ward D was replaced and it is planned that splash boards on other wards will also be replaced.
- Alcohol gel dispensers were available immediately inside the isolation rooms on Edward Halloran Bennett Ward. However, there were no alcohol gel facilities available directly outside the rooms beside personal protective equipment. This meant that the ability of staff to carry out hand hygiene prior to donning personal protective equipment was not easily facilitated.

3.3.2 Training/education⁵: *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.*

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.

- Hospital training and education records for the previous two years from 1 May 2012 to 30 April 2014 were provided for viewing to the Authority. The staff compliance with hand hygiene training data only reflects data collected since hand hygiene training was incorporated in the hospital's mandatory training programme which was initiated in July 2013. Since July 2013 all staff (clinical and non-clinical) have been required to complete the HSELand e-learning hand hygiene programme (the Health Service Executive's (HSE's) online resource for learning and development).⁶ The records show that 66% of all staff have completed hand hygiene training since July 2013. A breakdown of each staff group training record was also viewed which outline that 46% of clerical staff, 45% of medical staff, 76% of nursing staff, 64% of paramedical staff, 77% of support services and 73% of healthcare assistants have been trained.
- The Authority was informed on Victor Synge Ward on the day of inspection that 17 staff members had attended hand hygiene training in February 2014. Records of hand hygiene training are kept centrally by the Infection Prevention and Control team. The HSELand e-learning training programme on hand hygiene training is mandatory for all staff every two years.
- Authorised persons viewed training records on Edward Halloran Bennett Ward confirmed that 86% (18/21) of nurses and 60% (3/5) of healthcare assistants on the ward had completed the HSELand clinical hand hygiene training module within the last two years. The Authority was informed that the infection prevention and control team also provide additional skill based hand hygiene training for staff but records for this training were not available on the ward.
- The Authority was informed that an estimated 40% of staff were up-to-date with hand hygiene training for 2014 in the General Intensive Care Unit, however the

exact up-to-date compliance was not available due to difficulties in correlating available data at the time of the inspection. The HSE LanD electronic learning training programme is mandatory for all staff every two years. Hospital staff who fail to complete hand hygiene training are not permitted to apply for further study until they comply with the mandatory hand hygiene training.

3.3.3 Evaluation and feedback⁵: *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

- St James's Hospital participates in the national hand hygiene audits which are published twice a year. The results below taken from publically available data from the Health Protection Surveillance Centre's⁷ website demonstrate a variance in compliance from June 2011 to May/June 2013 however, there was a significant increase in compliance from June 2013 to October 2013. The overall average compliance for 2013 was 86.9% which is below with the HSE's national target of 90%⁸ although the result for period six was just above the target.

Period 1-6	Result
Period 1 June 2011	85.7%
Period 2 October 2011	87.6%
Period 3 June/July 2012	90.0%
Period 4 October 2012	85.3%
Period 5 May/June 2013	83.3%
Period 6 October 2013	90.5%

Source: Health Protection Surveillance Centre – national hand hygiene audit results.⁷

Hospital hand hygiene audit results

- The Authority was informed that weekly hand hygiene audits are carried out by the infection prevention and control team across all directorates within the hospital. One area per week is audited. Feedback of audit findings are communicated to the Area Manager and relevant Directorate Manager on completion of the audit. In the event an area achieves less than 90% in their audit, the Infection Prevention and Control Team in collaboration with the Ward/ Unit Manager initiates a responsive action/ improvement plan which includes re-audit at four weeks. Records of weekly ward assessments of hand hygiene compliance for quarter one were viewed by the Authority. Action plans were also viewed for areas who achieved less than 90% compliance. A copy of audit results are given to the area audited to be displayed for staff to see.
- The hospital has introduced hand hygiene champions in 2013 that are responsible for promoting hand hygiene practice and assisting with hand hygiene education and undertaking additional local hand hygiene audits. The Authority was informed that there were hand hygiene champions in 75% of all areas at the time of the inspection and workshops have been scheduled to train champions for the remaining clinical areas.

Local area hand hygiene audit results

Victor Synge Ward

- The Authority was informed on Victor Synge Ward that hand hygiene audits are carried out every three months by link nurses. Documentation viewed showed the results of the most recent hand hygiene audit carried out in February 2014. The overall compliance for the ward was 80% with individual staff groups achieving 84.6% for nurses, 88.9% for auxiliary staff, 57.1% for medical doctors and 100% for other healthcare workers. The Authority also viewed an action sheet, which is prepared when hand hygiene compliance is below 90%, outlining the recommendations made to improve compliance on the ward.

Edward Halloran Bennett Ward

- The most recent hand hygiene audit conducted on Edward Halloran Bennett Ward showed an overall compliance rate for all staff of 92.3%. This equated to 94.4% for nursing staff and 83.3% for auxiliary staff. Medical doctors had not been included in the observations of this audit.
- Hand hygiene results are fed back directly to staff at the time of the audit. Results are documented in the ward's communication book and verbally communicated to staff at handovers. If there is below target compliance additional education and training is provided.

- Two nurses on the ward had been trained as hand hygiene champions on Edward Halloran Bennett Ward in February 2014.

General Intensive Care Unit

- The most recent hand hygiene audits carried out in General Intensive Care Unit were viewed and demonstrated that 97% compliance was achieved.
- Feedback of non-compliances are given to staff at the time of hand hygiene audits. Results of hand hygiene audits are disseminated to all staff on the unit through the ward communication book, the notice board and an 'up-to-date' email that is sent to each staff member on a regular basis.

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

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

- Thirty three opportunities were taken. The 10 opportunities which were not taken comprised the following:
 - two before touching a patient
 - two before clean/aseptic procedure
 - two after touching a patient
 - four after touching patient surroundings.
- Of the 33 opportunities which were taken, the hand hygiene technique was observed (uninterrupted and unobstructed) by the Authorised Persons for 26 opportunities. Of these, the correct technique was observed in 17 hand hygiene actions.

In addition the Authorised Persons observed:

- Twenty three hand hygiene actions that lasted greater than or equal to (\geq) 15 seconds as recommended
- A member of medical staff wore a shoulder bag while in the clinical area which is not in line with the hospital's uniform dress code/uniform policy.

3.3.4 Reminders in the workplace⁵: *prompting and reminding healthcare workers about the importance of hand hygiene and about the appropriate indications and procedures for performing it.*

- Some hand hygiene posters on the Victor Synge Ward were faded and difficult to read. In addition, the lamination on the hand hygiene poster in the treatment room was damaged, hindering effective cleaning.

3.3.5 Institutional safety climate⁵: *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 James' Hospital achieved 90.5% compliance in October 2013 in the national hand hygiene audit which marginally exceeds the HSE's national target of 90%. The overall combined compliance for the two national audits carried out in 2013 was below the national target of 90% however a significant improvement was demonstrated between the June 2013 audit and the October 2013 audit.
- The hospital has a hand hygiene steering committee which aims to achieve a sustained improvement in environmental and hand hygiene performance using a multi-modal approach. The committee meets every two weeks on a two weekly schedule, is chaired by the Chief Executive (CEO) and has a multidisciplinary membership. Minutes of a meeting held on the 14 April were viewed which demonstrated that hand hygiene training and hand hygiene audit

results were discussed; follow up actions for poor performances were also addressed.

- Hand hygiene technique videos are available for all staff to view on the hospital intranet system. The quantity of hand hygiene website hits is monitored. A total of 5700 hits in one month was reported and documented in the minutes of hand hygiene steering committee held on 14 April 2014.
- The Authority was informed that regular hand hygiene reminders are emailed from the office of the CEO to all areas which focus on the five moments of hand hygiene.
- Hand hygiene awareness campaigns are run twice a year. Clinical staff are encouraged to participate and to attend targeted infection prevention and control sessions.
- Hand hygiene education is mandatory for all healthcare workers every two years. Compliance with the mandatory hand hygiene education programme is monitored as one of the hospital's key performance indicators. Levels of compliance are submitted on a monthly basis to the Director of Acute Care in the HSE.
- Adherence to a 'bare below the elbow' approach is required when performing hand hygiene and is included in the hand hygiene policy reviewed by the Authority.

Overall, the hospital has demonstrated a commitment to the promotion of good hand hygiene practice which was evident on the day of the inspection. Hand hygiene improvement is a high priority at all levels. The hospital needs to continue to build on the promotion of awareness and best practices relating to hand hygiene to ensure that performance is sustained and improved.

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.*

Construction was evident in the hospital on the day of the inspection. There is an increased risk to some patients of acquiring invasive Aspergillosis while in hospital when construction or renovation activities are taking place.¹¹ Certain controls need to be put in place to prevent this from happening. Assurances were given to the Authority by a member of the infection prevent and control team that they were involved in the work planning process to reduce the potential risk of Aspergillus infection. All recommended environmental controls were in place. Method statements and risk assessments were viewed. The Authority was informed that there was no formal education or training on invasive Aspergillosis however, an 'awareness' campaign on invasive Aspergillosis had been conducted on the wards. This campaign included the dissemination of Aspergillosis risk assessments, guidelines on recommended environmental controls and Aspergillosis risk reduction to Ward/Directorate Managers in the affected areas

Education is recognised as important infection control measure in preventing the occurrence of invasive Aspergillosis during construction in a healthcare setting.¹¹ Therefore the hospital should ensure that preventative measures include the education of relevant controls of invasive Aspergillosis, in accordance with the national guidelines¹¹ and best practice, alongside the other measures already instituted.

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.

The Authority found that whilst the three areas inspected were generally clean on the day of the inspection, some required improvements were identified with respect to the maintenance and management of the environment and patient equipment. The Authority recommends that St James's Hospital should review the monitoring and quality assurance processes in place to assure itself that the environment and patient equipment is effectively maintained and managed in line with criteria 3.6 of the Infection Control Standards.¹

Construction was ongoing in St James's hospital. Whilst it is acknowledged that an accompanying awareness campaign to highlight the risk of invasive aspergillosis associated with construction had been conducted, a more comprehensive programme of education of all relevant personnel on the prevention and control of invasive aspergillosis had not been implemented in the hospital at the time of the inspection which is not in line with best practice.¹¹ The Authority recommends that the hospital should ensure that preventative measures include the comprehensive education of relevant personnel on the control of invasive aspergillosis, in accordance with the national guidelines¹¹ and best practice, alongside the other measures already instituted.

The practice observed with respect to the use of yellow clinical waste bags placed in bins labelled non-healthcare risk waste is not in line with waste management guidelines and should be reviewed to ensure that waste management in all areas complies with best practice.⁴

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 St James's Hospital has demonstrated commitment to best practice in hand hygiene. The hospital needs to continue to build the approach taken to promoting awareness and best practices relating to hand hygiene to ensure that high performance is sustained and improved.

The St James's Hospital must now revise and amend its quality improvement plan (QIP)¹² that prioritises the improvements necessary to fully comply with the

Infection, Prevention and Control Standards.¹ 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 James's 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 Infection Prevention and Control Standards and is making quality and safety improvements that safeguard patients.

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