



**Health
Information
and Quality
Authority**

An tÚdarás Um Fhaisnéis
agus Cáilíocht Sláinte

Report of the unannounced inspection at Galway University Hospitals, Galway

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

Date of on-site inspection: **21 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 Galway University Hospitals' compliance with the Infection Prevention and Control Standards.¹ Inspections were carried out at University Hospital Galway and Merlin Park University Hospital, both located in Galway City. The hospitals operate together as Galway University Hospitals, and have therefore been collectively inspected and reported on by the Authority in one report. The inspection was undertaken by Authorised Persons from the Authority, Katrina Sugrue and Alice Doherty on 21 May 2014 between 08:30hrs and 18:00hrs.

The areas assessed were:

University Hospital Galway

- St Nicholas' Ward
- St Michael's Ward

Merlin Park University Hospital

- Hospital 1

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

2. The Galway University Hospitals (UHG & MPUH) Profile[‡]

Galway University Hospitals (GUH) is located on two sites: University Hospital Galway (UHG) and Merlin Park University Hospital (MPUH). The distance between both hospitals is approximately 6 kilometres. University Hospital Galway is a Level 4 hospital delivering Emergency / Theatre Services, Critical Care, Cancer and a wide range of Tertiary Referral Services. The hospital is a designated supra regional centre for Cancer and Cardiac Services. It provides secondary, regional and supra-regional services for the Health Services Executive West and is one of the major academic teaching hospitals in Ireland and has strong research, education and service delivery links with NUI Galway.

Merlin Park University Hospital is a Level 2 hospital with non-complex elective Medical, Surgical and Outpatient Services.

Inpatient Services

Galway University Hospitals has 609 inpatient beds across the following specialties

University Hospital Galway – Specialties Provided

Acute and Chronic Pain Management	Emergency Medicine	Infectious Diseases	Orthodontics	Urology
Anaesthesia	Emergency Surgical Admissions	Medical Assessment Unit	Orthopaedics	Vascular
Anatomic Pathology	Endocrinology and Diabetes Mellitus	Medical Microbiology	Palliative Care	Blood & Tissue Establishment
Cardiology	ENT	Neonatology	Paediatrics	
Cardiothoracic Surgery	G I Surgery (upper and lower)	Nephrology	Plastic Surgery	
Care of the Elderly Including Rehab	General Surgery	Neurology	Radiology	
Chemical Pathology	Gastroenterology	Obstetrics and Gynaecology (inc Gynae Oncology Surgery)	Respiratory Medicine	
Clinical Pharmacology	Haematology	Oncology	Stroke Care	
Dermatology	Hepatology	Ophthalmology	Radiotherapy	
Emergency Medical Admissions	Immunology	Oral Maxillofacial	Rheumatology	

[‡] 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.

Merlin Park University Hospital –Specialties Provided

Elective Medicine
Elective Surgery (Orthopaedics)
Rehabilitation Unit
Medical outpatients
Surgical outpatients
Bronchoscopy and Specialist respiratory clinics
Renal Dialysis
Diagnostics (Radiology)
Other support services
Orthodontic Unit

UHG Activity		
Category	2013	Activity
Births		3139
Day cases		81580
ED Presentations		63827
Inpatients		38482
Outpatient		232489

MPUH Activity	
Category	Category
Day cases	17636
Inpatients	3219
Outpatient	37786

Accreditation Achieved

1. INAB Accreditation – All Laboratory departments accredited to ISO 15189 Standard
2. Under EU Blood and Tissue Directives and under the authority of the Irish Medicines Board (IMB) the Blood Bank has Blood and Tissue Establishment Status. It is licensed by the IMB for Blood, Tissue and Good Manufacturing Practices (GMP).
3. JAG Accreditation - Galway University Hospital achieved JAG (Joint Advisory Group) Accreditation in GI Endoscopy Services in November, 2012. This was a prerequisite for GUH becoming a Colorectal Cancer Screening Centre and the National Cancer Screening Service, Bowel Screen programme commenced in UHG in May 2013.

3. Findings

On inspection at Galway University Hospitals on 21 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.

University Hospital Galway

St Nicholas' Ward

St Nicholas' Ward is a 30-bedded ward comprising multi-bedded wards and single rooms which are used for the isolation of patients colonised or infected with transmissible infective diseases or multidrug resistant organisms when required. At the time of the inspection, two patients were isolated in single rooms.

Overall, the environment and patient equipment, with the exception of glucometers, on St Nicholas' Ward were generally clean. The Authority found that improvements in the maintenance of the environment and patient equipment were required.

Environment and equipment

- Heavy dust and grease were observed on the bases of beds.
- Light dust was observed on the top of patient lockers.
- A mattress cover was observed to be stained and pinprick holes were visible on the cover of a second mattress.
- Cracks were observed in the floor covering in room 263, hindering effective cleaning.
- Bed urinals were observed to be sitting on the floor beside two patient beds.
- The following non-compliances were observed in patient toilets/washrooms:
 - At the start of the inspection, access to the patient toilet and washroom in the seven-bedded emergency surgical unit was restricted by a patient trolley and waste disposal bins positioned adjacent to the toilet and washroom. This matter was addressed by staff during the inspection.
 - Black staining was visible around the shower outlet in the patient washroom in the seven-bedded emergency surgical unit. Pink staining was visible on the grouting between shower tiles and at the bottom of the shower curtain. Some ceiling tiles in the toilet were not in place correctly.
 - The sealant around the shower outlet in the patient washroom in room 263 was damaged, hindering effective cleaning. There was a stain on a ceiling tile and some of the tiles were not correctly placed.
 - There was a stain on a ceiling tile in the patient bathroom.
- While the majority of intravenous stands were clean and well maintained, rust coloured staining was visible on the base of one intravenous stand and at the wheel areas of a second intravenous stand. Chipped paint was also observed on the base of this intravenous stand, hindering effective cleaning.
- The following non-compliances were observed in relation to cleaning of glucometers:
 - Red staining was visible on the front and back surfaces of a glucometer stored in a patient area. Later during the inspection, the Authority observed that the stained glucometer was in use at a patient bedside. When this matter was brought to the attention of ward staff, the Authority was informed that the glucometer had been cleaned. However, further examination showed that the red staining was still visible on the back surface of the glucometer. The Authority was informed that this would be cleaned.
 - A red stain was visible on the front surface of a glucometer and on the unit used to hold the glucometer in the clean utility room. The holder unit was also observed to be dusty. This matter was brought to the attention of ward staff and the Authority was informed that it would be cleaned. However, further examination later in the inspection showed that the holder had been cleaned but the red stain was still visible on the front surface of the glucometer. This

matter was brought to the attention of ward staff a second time and the Authority was informed that it would be cleaned.

- A stained plastic cover was in place on the underside of the top shelf of a dressing trolley, and a small amount of plastic was also visible on a support bar of the trolley, hindering effective cleaning. The wheel areas of the trolley were unclean and rust coloured staining was observed.
- Rust coloured staining was observed on the wheel areas of a wheelchair.
- The following non-compliances were observed in the clean utility room:
 - The floor was stained and unclean, and dust and debris were observed on the floor.
 - Some paper notices were not laminated, hindering effective cleaning.
 - Rust coloured staining was visible on the wheel areas of drug trolleys.
 - Access to the hand wash sink was restricted by a non-clinical waste disposal bin stored in front of the sink. The sealant behind the hand wash sink was stained.
- The following non-compliances were observed in the 'dirty'[±] utility room:
 - The door was unlocked potentially allowing unauthorised access to hazardous cleaning products.
 - White residue was visible on the floor around the bed pan washer. Light dust and brown staining was observed in some places along the edge of the floor covering adjacent to the wall panels.
 - Orange tape was fixed to the side of the bed pan washer, hindering effective cleaning.
 - Some laminated signage was observed to be curling at the edges, hindering effective cleaning.
 - Rust coloured staining was visible on the wheel areas of commodes. The vinyl covering was worn on the armrest of one commode and there was sticky tape residue on the legs of another commode, hindering effective cleaning.
- A cardboard box and bags were stored on the floor of a store room, hindering effective cleaning. A second store room was cluttered with items, such as mattresses, patient crutches and sharps bins stored on the floor, hindering effective cleaning.
- Pink staining was observed in a corner of the floor under a hand wash sink on the main corridor of the ward and beside the hand wash sink in the emergency surgical unit.
- Rust coloured staining was visible under some hand wash sinks. Splash marks were visible on walls around wall mounted alcohol hand gel dispensers.
- Paintwork on walls throughout the ward was scuffed and chipped, hindering effective cleaning.

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

- Chipped paint was observed on radiators and patient bedside tables, and the edges of the tables were chipped, hindering effective cleaning.

Isolation rooms

- Signage on the door of one of the isolation rooms was not laminated and was fixed to the door using sticky tape, hindering effective cleaning.
- A staff member was observed leaving an isolation room wearing personal protective equipment and re-entering the room wearing the same personal protective equipment, including the same gloves which were used to open and close the door of the isolation room when leaving and re-entering.

Linen

- The Authority observed a notice fixed to a receptacle with a white linen bag stating 'all soiled laundry must be put into an alginate bag'. The Authority was informed that linen was not segregated into appropriate colour coded bags, which is not in line with best practice.³
- A linen bag stored on the main corridor of the ward was observed to be more than two thirds full at the time of the inspection, which is not in line with best practice.³
- Inappropriate items including slings, toilet rolls and a trolley containing supplies were stored in the linen store room. This is not in line with best practice as such items attract and retain dust and therefore increase the risk of linen contamination.
- One of the ceiling tiles in the linen store room was not in place correctly.
- A footstool in the linen store room was unclean.
- Dust was observed on the floor of the linen store room.

Cleaning equipment

- The floor in the cleaners' store was stained and unclean.
- A ceiling tile (above electrical boxes) was not in place correctly.
- Hand towels were stored directly on the floor in a store room which was also used to store cleaning trolleys, hindering effective cleaning.
- While there was a wall mounted alcohol gel dispenser at the entrance to the ward on the wall opposite the cleaners' store, there were no other hand hygiene facilities at the point of care in the cleaners' store.

University Hospital Galway

St Michael's Ward

St Michael's Ward is a 22-bedded surgical unit comprising multi-bedded wards and nine single rooms which are used for the isolation of patients colonised or infected with transmissible infective diseases or multidrug resistant organisms when required. At the time of the inspection the ward was full, three patients were isolated in single rooms and in addition, one extra patient was accommodated in the seven-bedded unit on the ward due to the emergency department being overcrowded.

St Michael's Ward has been participating in the Productive Ward Programme since 2013.⁴ The productive ward programme is a national programme that aims to empower front line staff to drive changes and improvements in how healthcare is delivered. The programme also focuses on increasing the time front line staff spend with the patient and on patient safety issues by streamlining and redesigning how services are delivered.

Overall, St Michael's Ward was generally clean with some exceptions.

Environment and equipment

- Dust was observed in some of the areas and equipment inspected. For example,
 - A layer of moderate dust was observed on the floor edges in a patient area inspected in the seven-bedded ward. In addition, a used oral hygiene swab and paper wrap were observed on the floor behind the locker.
 - A light layer of dust was present on electrical fittings located behind the resuscitation trolley. Sticky residue was also noted on the wall.
 - A light layer of dust was present on the oxygen holder on the resuscitation trolley and on the surface of the trolley.
 - Oxygen tanks stored behind the resuscitation trolley were dusty and rust-coloured staining was also observed on the surface of the tanks. Rust-coloured staining was also observed on oxygen tanks stored in the main corridor of the ward, hindering effective cleaning.
 - Trolleys used for eye care, dressings and patient medical records were visibly dusty.
 - The computer keyboard in the work station was dusty.
- Staining was present on an end of a patient bedside table.
- The mattress on bed 3 in the seven-bedded ward was compromised.
- A plastic cover was present on the underside of a shelf on a dressing trolley, hindering effective cleaning.
- The undersides of two shelves on a trolley used for transporting patient notes were visibly stained.

- The vinyl covering on a chair in a patient isolation room was cracked which could hinder effective cleaning.
- Chipped paint was observed on an intravenous drip stand, hindering effective cleaning.
- The Authority observed that personal protective equipment such as gloves were used inappropriately during the course of the inspection. For example, two healthcare workers were observed to be wearing gloves when mobilising a patient when there was no indication to do so.
- A healthcare worker was observed emptying a basin of water used for washing a patient in the designated hand hygiene sink. Designated hand hygiene sinks should only be used for hand hygiene in line with best practice.
- The following were observed as part of the inspection of the sanitary facilities:
 - Used paper towels were visible on the floor of the sanitary facilities of the seven-bedded ward and the toilets near the ear, nose and throat room.
 - Patient consumables were observed in two of the shower rooms inspected. Empty packaging was also present on the window sill of one of the shower rooms.
 - There was paint missing and chipboard was exposed on a wall panel behind a waste bin, hindering effective cleaning.
- White-coloured staining was observed on a work surface in the clean utility room. In addition, an integrated sharps tray was visibly unclean. Sticky tape was present on a drug trolley, hindering effective cleaning.
- Three boxes were stacked on the floor in a store room on the ward, hindering effective cleaning. In addition, empty sharps waste disposal bins were stored on the floor leading into a toilet which is not in line with the clutter free objectives of the Productive Ward Programme.⁴
- Whilst most paper based signage was laminated, some was not laminated, hindering effective cleaning.
- Residue was observed on the underside of the seat area of a commode.
- There was no designated hand hygiene sink in a patient isolation room. A sink was located in the patient toilet but access was obstructed by a commode. This issue was raised with hospital management at the close out meeting.

Linen

- Inappropriate items including electrical equipment, a patient mattress and continence wear were stored in the linen store room. In addition, a newspaper dated 19 May and a magazine were observed to be placed on the top of clean linen. This is not in line with best practice as such items attract and retain dust and therefore increase the risk of linen contamination.³
- Light dust was present on shelving used for storing clean linen.

Cleaning equipment

- The edges and corners of the floor in the cleaning equipment room were dusty. The Authority was informed that the room was cleaned at the end of each day but this was not supported by the daily sign-off sheet which had not been signed off for a number of days prior to the inspection.
- Personal clothing was stored in the cleaning equipment room.
- Plastic debris was present in the equipment sink.
- There were no hand hygiene facilities in the cleaning equipment room.

Merlin Park University Hospital

Hospital 1

Hospital 1 has multi-bedded wards, day chairs in the infusion unit and single rooms which are used for isolation of patients colonised or infected with transmissible infective diseases or multidrug resistant organisms when required. At the time of the inspection, one patient was isolated in a single room.

Overall, Hospital 1 was generally clean and well maintained with some exceptions.

Environment and equipment

- Heavy dust and grease were observed on the bases of beds.
- Dust was observed on pads attached to the feet of chairs.
- A black residue was present around the shower outlets in patient washrooms.
- A rust-coloured stain was visible on a shower curtain in a patient washroom. This matter was brought to the attention of ward management during the inspection.
- While floors were observed to be clean and free of dust and debris, staining of floor coverings was visible in patient washrooms and in the 'dirty' utility room.
- While the majority of intravenous stands were observed to be clean and well maintained, rust coloured staining was visible on the bases of two intravenous stands.
- The following non-compliances were observed in the clean utility room:
 - Access to the hand wash sink was restricted by drug trolleys stored adjacent to the sink. The wheel areas of the drug trolleys were unclean.
 - Pink stains were visible under a container of chlorhexidine antiseptic which was sitting on the sink.
 - Sticky tape residue was visible on shelving, hindering effective cleaning.
 - The temporary safety locking mechanisms on a sharps waste disposal box was not engaged.
- A ceiling tile in one of the 'dirty' utility rooms was observed to be stained.
- Cardboard boxes were stored on the floors of the linen store room and the store room opposite this, hindering effective cleaning.

- Chipped paint was observed in patient areas and in the clean utility room, hindering effective cleaning. Paintwork on the ceiling of the store room opposite the linen store room was observed to be cracked.
- Chipped paint was observed on radiators, patient bedside tables and bed frames, hindering effective cleaning.
- The edges of patient bedside tables and lockers were chipped, hindering effective cleaning.

Cleaning

- At the time of the inspection, the Authorised Person noted that the cleaning on Hospital 1, Merlin Park University Hospital was carried out by attendants who perform a dual role of catering and cleaning within the ward each day. The Authority was informed that attendants have the responsibility for plating food and delivering it to the patients on the ward, collecting the dishes and cleaning up after each meal. In addition, the attendants clean the ward between each mealtime. It was explained to the Authorised Person that the provision of food takes precedence over cleaning which poses a significant challenge when the full complement of staff is not available. Different coloured personal protective equipment is available to distinguish the different roles. For example, a white apron and blue gloves are worn by the attendants when cleaning in the clinical area and a blue apron and blue gloves are worn for the catering role.
- The Authority has observed that the operational norm in the majority of hospitals inspected, including the University Hospital Galway, is to have designated cleaning staff for each area to ensure that the hygiene is appropriately managed and maintained and the risk of transmission of infection is mitigated. The Authority recommends that Galway University Hospitals review the dual role of catering and environmental hygiene practiced in Hospital 1 in Merlin Park University Hospital with respect to the potential risks associated with this practice and to ensure that the cleanliness of the physical environment is effectively managed and maintained in line with criteria 3.6 of the national Infection Control Standards.¹

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.

University Hospital Galway

St Nicholas' Ward

- The temporary closing mechanisms on sharps waste disposal boxes in the clean utility room were not engaged.
- A brown, wet stain was observed on the floor of the room used for the storage of clinical and non-clinical waste and dirty laundry (biohazardous waste room). The cover was missing from the light in the room. An extraction fan was hanging down from the ceiling and not connected to extraction ducting which was visible in an opening on the adjacent wall. Some of the ceiling tiles were stained and not in place correctly.
- The following non-compliances regarding waste disposal bins were observed:
 - Chipped paint was observed on the lids and foot levers of non-clinical waste disposal bins, hindering effective cleaning.
 - The lid on the non-clinical waste disposal bin in the patient toilet in room 253 was not operating correctly.
 - Rust coloured staining was visible at the base of the clinical waste disposal bin in room 263.
 - The lid on the non-clinical waste disposal bin in the patient toilet/washroom in room 263 was broken.
 - There was chipped paint on a frame used to hold a sharps waste disposal box in the clean utility room, hindering effective cleaning.

St Michael's Ward

- The door of the waste sub-collection area was ajar at the time of the inspection. The closing mechanism on the door did not allow it to close completely and there was no handle on the door to assist in closing it. The waste room was located on a main corridor outside the ward thereby allowing access to unauthorised persons which is not in line with best practice.⁵ This issue was brought to the attention of the hospital manager at the close out meeting for mitigation of the risk.
- Paint was missing on the door and door frame of the waste collection room.

- The temporary closing mechanisms on nine sharps waste disposal bins observed in integrated trays in the clean utility room were not activated at the time of the inspection.
- A domestic waste disposal bin was observed to be more than two thirds full in the seven-bedded ward, which is not in line with best practice.⁵
- A yellow clinical waste bag was observed in the general waste bin in the toilet of an isolation room inspected which is not in line with best practice.⁵ This issue was raised with hospital management at the close out meeting.

Summary

University Hospital Galway

St Nicholas' Ward

Patient equipment cleaning records which were viewed by the Authority on St Nicholas' Ward for the week ending 25 May 2014 showed that they had not been completed for some periods at the start of the week. The Authority was informed that the equipment was not cleaned during these periods due to lack of health care assistant resources. At the close out meeting with senior management, the Authority was informed that the hospital is in the process of completing a tendering process regarding the cleaning of patient equipment. As a result, it is intended that cleaning staff will be responsible for cleaning equipment that is currently cleaned by healthcare assistants.

The results of an environmental audit carried out on St Nicholas' Ward on 1 May 2014 were viewed by the Authority and showed an overall compliance of 94%.

St Michael's Ward

The Authority was informed that random environmental audits are carried out in St Michael's ward by a multidisciplinary hospital audit team. Audit reports for St Michael's Ward were provided to the Authority and showed compliances of 96% and 87% for audits carried out in April and June 2013 respectively. Corrective action reports were developed to address issues highlighted in the audits. Any element within an audit which achieves less than or equal to 85% is re-audited.

Daily cleaning schedules for patient equipment were viewed from 4 April to 18 May 2014 which showed that records for that period had not been fully completed. It was noted that explanations were documented which explained why the records had not been completed and demonstrated that the activity on the ward impacted on the ability of the healthcare assistant to complete the tasks listed on the cleaning schedule within a 24 hour period. The Authority was informed that it was the responsibility of the ward manager to monitor the daily cleaning schedule. However, evidence that

records for the above period had been reviewed by the ward manager was not observed as the records were not signed.

Merlin Park University Hospital

Hospital 1

The Authority was informed that environmental audits are carried out on Hospital 1 every two months. Authorised Persons viewed the results of a recent audit carried out on 17 March 2014 where a compliance of 87.5% was achieved. The Authority was informed that staff were informed of the results of audits.

The Authority was informed that patient equipment in the infusion unit is cleaned after patient use and at the end of the day. In other areas of Hospital 1, patient equipment is included in a weekly cleaning schedule and is also cleaned after patient use. Ward management is responsible for carrying out spot checks of the cleanliness of patient equipment. Records of equipment cleaning were viewed by the Authority.

Galway University Hospitals' overall summary of Environmental Hygiene, Facilities Management and Waste Management

The Authority observed evidence that environmental audits are conducted on a regular basis by multidisciplinary hygiene teams in Galway University Hospitals. Eight random hygiene/cleaning audits are carried out each month in University Hospital Galway. Audits are also undertaken in relation to catering services, waste management and external environment. The areas that are audited are randomly selected from areas deemed high risk and low to medium risk. The results of the audits form part of the hospital's quality monitoring system and are published in the monthly quality monitoring report. Cleaning is provided by an external company in University Hospital Galway. A penalty clause linked to financial payment is enacted where below 90% is achieved through environmental audits.

MPUH have an Audit Schedule and two units are audited every month. A multidisciplinary hygiene team meet on a monthly basis where the results of the audits are discussed. A representative from University Hospital Galway, who is also a member of the University Hospital Galway hygiene team, attends these meetings and information is shared across both sites. Issues identified during audits are discussed at ward meetings. A 'safety pause' system is used to identify any potential risks. The ward managers feed back at clinical nurse manager meetings.

The pass score for environmental audits is 85% in Galway University Hospitals. Areas achieving below 85% are re-audited until the required compliance is reached. Corrective action plans were viewed in both sites of Galway University Hospitals. In addition, results of audits in Galway University Hospitals are reported to the group Infection Prevention and Control committee which is chaired by the General Manager

of Galway University Hospitals. Documentation provided, supported by discussions with members of the management team, infection prevention and control team and hygiene team describes a standardised approach to the practices relating to environmental hygiene audits. However it was noted that there is a significant difference between the management of hygiene between both sites within the Galway University Hospitals.

The Authority is concerned that the dual role of catering/cleaning staff for Hospital 1 in Merlin Park University Hospital may hinder the effectiveness of cleaning practices. This may therefore result in a potential risk of transmission of infective pathogens due to suboptimal environmental hygiene. The Authority recommends that Galway University Hospitals should review this practice to ensure that the environment is effectively maintained and managed in line with criteria 3.6 of the Infection Control Standards.¹

In conclusion, the Authority found that the three areas inspected in Galway University Hospitals were generally clean with some exceptions. The findings of this report highlight that improvements in the maintenance of the environment and patient equipment were required. Daily cleaning records in both areas inspected in University Hospital Galway illustrated that the cleaning of patient equipment is dependent on the activity on the ward at any given time and were not fully completed in the records provided for viewing. The Authority was informed that the cleaning of patient equipment was under review at the time of the inspection.

Adherence to recommended standard precautions and fundamental infection-control principles such as the safe management of sharps and waste, effective cleaning of equipment, hand hygiene and education are essential in preventing transmission of blood borne pathogens such as hepatitis B virus and hepatitis C virus.⁷ The use of finger stick devices and blood monitoring equipment such as those used in the monitoring of blood sugars have been linked to outbreaks of hepatitis B and hepatitis C in healthcare settings.⁶⁻⁸ The findings in this report relating to the maintenance and management of glucometer holders and monitoring equipment raised a concern for the Authority. The Authority recommends that the hospital review the practices and current management system for glucometers and other blood monitoring equipment to provide assurances that the recommended standard precautions and infection prevention and control interventions are in place to prevent the transmission of blood borne pathogens in the healthcare setting.

The Authority observed practices in the management of clinical waste that did not fully comply with criteria 3.7 of the infection control standards.¹ A system of colour coding is recommended to assist in segregation and management of the waste.⁵ The practice observed in isolation rooms in UHG used a colour coded yellow bag where the risk assessment indicated it was required 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 practice⁵ and should be reviewed. In addition, the waste sub collection room on the corridor adjacent to St Michael's Ward was not secure and posed a potential risk of access to unauthorised persons. The Authority informed the manager of these findings at the close out meeting and assurances were given that these issues would be addressed immediately.

At the beginning of the inspection in University Hospital Galway, the Authority was informed by the General Manager that a total of eight patients were accommodated on trolleys on wards throughout the hospital. It was explained that this was a temporary arrangement and it was highlighted that the hospital's escalation policy had been activated in response to the increased number of patients in the emergency department awaiting admission. Authorised Persons observed that the patient accommodated on a trolley in the seven-bedded ward on St Michael's Ward was not managed in a way that protected their privacy and dignity. The position of the trolley not only hindered access to the toilet and shower facilities located on the ward but also was a potential obstruction for the movement of patients to and from theatre. Moreover, the issue of overcrowding posed a potential risk of transmission of infectious pathogens. This issue raised a concern for the Authority and it was discussed with the General Manager at the close out meeting. The General Manager stated that this issue would be reviewed to ensure that patients who are accommodated on trolleys will be managed in a manner that assures safe care and protects the dignity and privacy of the patient in line with the *National Standards for Safer and Better Healthcare*.⁹

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.¹⁰ 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 change¹⁰: *ensuring that the necessary infrastructure is in place to allow healthcare workers to practice hand hygiene.*

Standard 6. Hand Hygiene

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

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

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

- The design of clinical hand wash sinks in the three areas inspected did not conform to Health Building Note 00-10 Part C: Sanitary assemblies.¹¹
- While alcohol hand gel dispensers were available in clinical areas on St Nicholas' Ward, they were not available at the point of care at the end of all patient beds, which may hinder compliance with hand hygiene practices.
- On the Eye, Nose and Throat Unit in St Michael's Ward, hand hygiene facilities were located on the left hand side on entering the ward in line with best practice.

Alcohol hand rub was not available at each point of care which may hinder compliance with hand hygiene practices.

3.3.2 Training/education¹⁰: *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.

Galway University Hospitals Hand Hygiene Training

- The Authority viewed a hand hygiene report which stated that there was a commitment given by the Executive Management Council of Galway University Hospitals that there would be 100% compliance with hand hygiene training for all staff in both University Hospital Galway and Merlin Park University Hospital by 30 April 2014. The agreed time frame to achieve compliance was effective from 1 June 2012 to 31 May 2014. The report outlined a comprehensive breakdown of staff that have been trained in University Hospital Galway and Merlin Park University Hospital. Overall, 85% of all staff have been trained up to the 30 April 2014. However, only 59% of medical/dental staff have attended hand hygiene training which is low compared to all other staff groups where a minimum of 86% within each group have attended training. An action plan for staff that have not attended hand hygiene training was in place which includes the provision of 16 hand hygiene education sessions from 19 May to 29 May 2014. In addition, reminder emails were sent by human resources to line managers responsible for staff who have not yet attended hand hygiene training and to individual staff members.

University Hospital Galway

- Hand hygiene is mandatory for all staff every two years. The Authority was informed that 21 hand hygiene trainers across a range of disciplines have been trained since January 2014 and additional staff have requested training. Prior to this, hand hygiene training was carried out by the Infection Control Team.
- Hand hygiene training records viewed by the Authority for St Nicholas' Ward showed that 65% of staff had carried out training. However, it was explained to the Authority that this percentage included staff who were on extended leave and thus the actual compliance was higher amongst staff available to work.
- Hand hygiene training records viewed by the Authority for St Michael's Ward showed that 67% of staff have attended hand hygiene training since 1 June 2012. Similar to St Nicholas' Ward, the remainder of staff on St Michael's Ward who had not completed training in this period include staff on extended leave and student nurses, therefore the overall percentage of current staff that have been trained is higher than the figure presented.

Merlin Park University Hospital

- The Authority was informed that a total of 173 staff across all disciplines have attended hand hygiene training at 10 education sessions provided between 5 March 2014 and 20 May 2014 in Merlin Park University Hospital. Training consists of a face-to-face sessions which includes education on the five moments of hand hygiene, the products used, the correct hand hygiene technique and care of the hands. The hospital has two onsite consultant hand hygiene champions who help to promote hand hygiene best practices.
- Hand hygiene training records viewed by the Authority for Hospital 1 demonstrated that 73% of staff are up-to-date with hand hygiene training over a rolling two year period.

3.3.3 Evaluation and feedback¹⁰: *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

- Galway University Hospitals participate in the national hand hygiene audits which are published twice a year.¹² The results below taken from publically available data from the Health Protection Surveillance Centre’s website demonstrate a sustained improvement in hand hygiene compliance from June 2011 (period 1) to October 2013 (period 6). The overall compliance for 2013 is below the Health Service Executive’s (HSE’s) national target of 90%.¹³

Period 1-6	Result
Period 1 June 2011	54.8%
Period 2 October 2011	76.7%
Period 3 June/July 2012	83.3%
Period 4 October 2012	86.7%
Period 5 May/June 2013	89.5%
Period 6 October 2013	87.1%

Source: Health Protection Surveillance Centre – national hand hygiene audit results.¹²

University Hospital Galway hand hygiene audit results

- Nine hand hygiene audits were conducted in University Hospital Galway in March 2014. The overall compliance was 78% which is below the hospital’s target of 90%. It was noted that the compliance for one area was 33% and only one of the nine areas audited achieved 90%. Audit results for February 2014 showed an overall compliance of 82%.

St Nicholas' Ward

- The Authority viewed records of hand hygiene audits which were carried out on St Nicholas' Ward between 31 January and 17 February 2014. A total of 30 hand hygiene observations were viewed in this period and the overall compliance was 83%. The Authority was informed that the results of audits, which are emailed to the ward manager, are discussed with staff.
- The Authority was informed that the hospital aims to do four and five hand hygiene audits per month.

St Michael's Ward

- Hand hygiene audits are conducted every two weeks on St Michael's Ward. Feedback is given at the time of the audit to the ward manager and to individual staff members. Audit results are also communicated by email to the staff on wards. The Authority viewed a hand hygiene audit that was ongoing for May 2014. Compliance was not determined as only 14 out of 30 opportunities had been observed at the time of inspection.

Merlin Park University Hospital hand hygiene audit results

Hospital 1

- A hand hygiene action plan for 2013 was viewed by the Authority. Wards that achieved less than 75% compliance in hand hygiene were subject to monthly audits and mandatory hand hygiene education. Areas that achieved 90% or greater in hand hygiene compliance were audited on a three monthly basis.
- The Authority was informed that a hand hygiene audit schedule runs from January to January per calendar year in which 18 hand hygiene audits are carried out. On the day of the inspection, 12 hand hygiene audits had been completed for 2014.
- Hospital 1 achieved 80% compliance in a hand hygiene audit completed in January 2014 which is below the pass rate of 90% compliance. Areas which do not attain a minimum of 90% are re-audited within two months. The Authority did not view evidence of a re-audit for Hospital 1.
- In addition, there are three lead auditors and four local hand hygiene auditors that participate in cross site hand hygiene audits.

Observation of hand hygiene opportunities

Authorised Persons observed hand hygiene opportunities using a small sample of staff in the inspected areas. This is intended to replicate the experience at the individual patient level over a short period of time. It is important to note that the results of the small sample observed is not statistically significant and therefore results on hand hygiene compliance do not represent all groups of staff across the hospital as a whole. In addition results derived should not be used for the purpose of external benchmarking.

The underlying principles of observation during inspections are based on guidelines promoted by the WHO¹⁴ and the HSE.¹⁵ 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 35 hand hygiene opportunities in total during the inspection of both hospitals in the Galway University Hospitals. Hand hygiene opportunities observed comprised of the following:
 - six before touching a patient
 - two before clean/aseptic procedure
 - four after body fluid exposure risk
 - six after touching a patient
 - 17 after touching patient surroundings.
- Twenty-one of the 35 hand hygiene opportunities were taken. The 14 opportunities which were not taken comprised of the following:
 - four before touching a patient
 - two before clean/aseptic procedure
 - three after touching a patient
 - five after touching patient surroundings.
- Of the 21 opportunities which were taken, the hand hygiene technique was observed (uninterrupted and unobstructed) by the Authorised Persons for eight

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

opportunities. Of these, the correct technique was observed in eight hand hygiene actions.

In addition the Authorised Persons observed:

- eight hand hygiene actions that lasted greater than or equal to (\geq) 15 seconds as recommended.
- three hand hygiene actions where there were barriers to the correct technique, such as sleeves to the wrist and wearing nail varnish.
- The Authority observed that the wearing of gloves contributed to some of the missed opportunities where gloves were worn attending to patient care or touching the patient surroundings and then opening the curtains surrounding the patient zone with the same gloves thereby missing a hand hygiene opportunity. The practice observed may indicate a lack of awareness of the defined healthcare zone and patient zone.

3.3.4 Reminders in the workplace¹⁰: *prompting and reminding healthcare workers about the importance of hand hygiene and about the appropriate indications and procedures for performing it.*

- Hand hygiene advisory posters were available, up-to-date, clean and appropriately displayed in the areas inspected at Galway University Hospital. These were supplemented by large posters of the senior management team washing their hands which were observed at the hospital reception and around the hospital. The posters were a visible demonstration of senior management support for hand hygiene practice.
- A large painting was observed on the wall of an exit corridor in Hospital 1 in Merlin Park University Hospital which was a 'hands on' visual display of different coloured hand prints.

3.3.5 Institutional safety climate¹⁰: *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.*

- Galway University Hospitals achieved 88.3% compliance in 2013 in the national hand hygiene audits which is just below with the HSE's national target. However, recent hand hygiene audits viewed by the Authority suggest that hand hygiene compliance remains well below the national target. The Authority noted that the hospital is working towards improving hand hygiene compliance by increasing the number of lead and local auditors to facilitate hand hygiene audits across both sites within the hospital.

- Adherence to a 'bare below the elbow' approach was adopted by the executive management team six months ago which is applied by staff when performing hand hygiene.
- The Authority notes a high priority is given to hand hygiene at all levels within the hospital. The hospital needs to continue to build on the awareness and best practices relating to hand hygiene to ensure that its performance is improved particularly in reaching the national target of 90% hand hygiene in both the national and local audits.

3.3 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 Control of Legionellosis in Ireland, 2009.*

- The national guidelines on the control of Legionellosis in Ireland recommends that in the absence of a quality controlled standardised system for cleaning 'single patient only' nebuliser equipment after each use, where possible, single use disposable nebulisers should be used.¹⁶ The Authority observed that nebuliser equipment used on St Michael's Ward was for 'single use' but was not disposed after each use as per hospital policy. Staff demonstrated an uncertainty regarding the correct procedure around when to dispose of the nebuliser equipment. The Authority recommends that Galway University Hospitals should review the practices around the management of nebuliser equipment to assure itself that is compliant with criterion 7.6 of the Infection Control Standards¹ and best practice.¹⁶

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 the patient environment in the three areas inspected was generally clean with some exceptions. Improvements were required in the management of patient equipment such as blood sugar monitoring equipment (glucometers) which were unclean at the time of inspection on St Nicholas' Ward. The Authority recommends that a more robust system of managing and maintaining such equipment is put in place to mitigate the risks to patients and staff of acquiring a Healthcare Associated Infection.

The Authority found a disparity between the practices observed relating to the management of patient nebuliser equipment on St Michael's Ward and the hospital's policy. Nebuliser equipment was not disposed of after each use in line with best practice. This practice should be reviewed to ensure that the risk to the patient of acquiring Legionellosis is fully mitigated.

The findings of this report on the management of waste should be reviewed to ensure that waste management in all areas complies with best practice.⁵

On the day of the inspection, the Authority was informed that eight patients were accommodated on trolleys in wards in University Hospital Galway. 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 awaiting admission. The Authority acknowledges that this practice is far from an ideal in-patient environment, however the patient's privacy and dignity should be protected as much as possible within the constraints of the situation. Therefore, the Authority recommends that the accommodation of extra patients on a trolley in the seven-bedded ward be reviewed.

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 Galway University Hospitals have demonstrated commitment to best practice in hand hygiene. The hospital needs to continue to build on the awareness and best practices relating to hand hygiene to ensure that its performance is sustained and improved.

Galway University Hospitals must now revise and amend their quality improvement plan (QIP) that prioritises the improvements necessary to fully comply with the Infection, Prevention and Control Standards. This QIP must be approved by the service provider's identified individual who has overall executive accountability, responsibility and authority for the delivery of high quality, safe and reliable services. The QIP must be published by the Hospital on its website within six weeks of the date of publication of this report and at that time, provide the Authority with details of the web link to the QIP.

It is the responsibility of Galway University Hospitals 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 Standards¹ and is making quality and safety improvements that safeguard patients.

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