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Galway University Hospitals, 10 May 2018

Item Type	report
Citation	Ireland. Health Information and Quality Authority, 'Galway University Hospitals, 10 May 2018', [report], Health Information and Quality Authority, 23/08/2018, Hygiene Report, Monitoring programme for unannounced inspections undertaken against the National Standards for the Prevention and Control of Healthcare Associated Infections
Publisher	Health Information and Quality Authority
Rights	Y
Download date	2026-04-11 08:03:20
Link to Item	https://hdl.handle.net/20.500.14765/87908



**Health
Information
and Quality
Authority**

An tÚdarás Um Fhaisnéis
agus Cáilíocht Sláinte

Report of the unannounced inspection at Galway University Hospitals.

Monitoring programme undertaken against the National Standards for the prevention and control of healthcare-associated infections in acute healthcare services

Date of on-site inspection: 10 May 2018

About the Health Information and Quality Authority

The Health Information and Quality Authority (HIQA) is an independent authority established to drive high-quality and safe care for people using our health and social care services in Ireland. HIQA's role is to develop standards, inspect and review health and social care services and support informed decisions on how services are delivered.

HIQA aims to safeguard people and improve the safety and quality of health and social care services across its full range of functions.

HIQA's mandate to date extends across a specified range of public, private and voluntary sector services. Reporting to the Minister for Health and engaging with the Minister for Children and Youth Affairs, HIQA has statutory responsibility for:

- **Setting Standards for Health and Social Services** — Developing person-centred standards, based on evidence and best international practice, for health and social care services in Ireland.
- **Regulation** — Registering and inspecting designated centres.
- **Monitoring Children's Services** — Monitoring and inspecting children's social services.
- **Monitoring Healthcare Safety and Quality** — Monitoring the safety and quality of health services and investigating as necessary serious concerns about the health and welfare of people who use these services.
- **Health Technology Assessment** — Providing advice that enables the best outcome for people who use our health service and the best use of resources by evaluating the clinical effectiveness and cost-effectiveness of drugs, equipment, diagnostic techniques and health promotion and protection activities.
- **Health Information** — Advising on the efficient and secure collection and sharing of health information, setting standards, evaluating information resources and publishing information about the delivery and performance of Ireland's health and social care services.

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1.0 Introduction

HIQA monitors the implementation of the *National Standards for the prevention and control of healthcare-associated infections in acute healthcare services*¹ in public acute Hospitals in Ireland to determine if Hospitals have effective arrangements in place to protect patients from acquiring healthcare-associated infection. The *National Standards for the prevention and control of healthcare-associated infections in acute healthcare services* will be referred to as the National Standards in this report.

In 2017, HIQA commenced a revised monitoring programme against the National Standards. The aim of this revised monitoring programme is to assess aspects of the governance, management and implementation of designated programmes to prevent and control healthcare-associated infections in Hospitals. This monitoring programme comprises Phases One, Two and Three which will be described next.

The National Standards were updated in 2017 and therefore supersede the previous version. Hospitals should work towards implementing these revised National Standards.

Phase one

All public acute Hospitals were requested to complete and return a self-assessment tool to HIQA during April and May 2017.

Phase two

Using the revised assessment methodology HIQA commenced a programme of unannounced inspections against the National Standards in public acute Hospitals in May 2017. The lines of enquiry which are aligned to the National Standards are included in this report in Appendix 1.

Further information can be found in the *Guide to the monitoring programme undertaken against the National Standards for the prevention and control of healthcare-associated infections*² which was published in May 2017 and is available on HIQA's website: www.hiqa.ie

In October 2017, the Minister for Health activated a Public Health Emergency Plan* and convened a National Public Health Emergency Team as a public health response

* A National Public Health Emergency Plan was activated on 25 October 2017 by the Minister for Health in response to the increase and spread of Carbapenemase Producing *Enterobacteriaceae* (CPE) in Ireland. As a result a National Public Health Emergency Team was convened and they have been meeting on a weekly basis since 02 November 2017. Please refer to the Department of Health webpage for further details: <http://health.gov.ie/national-patient-safety-office/patient-safety-surveillance/antimicrobial-resistance-amr-2/public-health-emergency-plan-to-tackle-cpe/nphet-press-releases-minutes-of-meetings/>

to the increase of Carbapenemase Producing *Enterobacteriales* (CPE)[†] in Ireland. In light of the on-going national public health emergency the focus of inspections in 2018 will be on systems to detect, prevent and respond to healthcare-associated infections and multidrug-resistant organisms in line with national guidelines.

Phase three

Phase Three of this monitoring programme will focus on the reprocessing of reusable medical devices and HIQA will commence onsite inspections in this regard in 2018.

Information about this inspection

This inspection report was completed following an unannounced inspection carried out at Galway University Hospitals by Authorised Persons from HIQA; Kathryn Hanly, Noreen Flannelly Kinsella and Kay Sugrue. The inspection was carried out on 10 May 2018 between 08:55hrs. and 16:45hrs.

The inspection team used designed monitoring tools during this inspection and focused specifically on aspects of the prevention and control of transmission of antimicrobial-resistant bacteria and healthcare-associated infections.

Inspectors spoke with Hospital managers and staff, and members of the Infection Prevention and Control Team. Inspectors requested and reviewed documentation and data and observed practice within the clinical environment in a small sample of clinical areas in University Hospital Galway which included:

- Shannon Ward (infection prevention and control cohort ward)
- St Pius Ward (urology ward)
- St Anne's Ward (medical ward).

All low level findings observed in the areas inspected were reported to the local ward managers to inform ongoing improvement measures.

HIQA would like to acknowledge the cooperation of the Hospital management team and all staff who facilitated and contributed to this unannounced inspection.

[†] Carbapenemase Producing *Enterobacteriales* (CPE), are Gram-negative bacteria that have acquired resistance to nearly all of the antibiotics that would have historically worked against them. They are therefore much more difficult to treat.

2.0 Findings at Galway University Hospitals

The following sections 2.1 to 2.8 present the general findings of this unannounced inspection which are aligned to monitoring lines of enquiry.

2.1 Governance and risk management

Galway University Hospitals, comprises University Hospital Galway and Merlin Park University Hospital, is a statutory public acute hospital owned and managed by the Health Service Executive (HSE). The hospital is a member of the Saolta University Health Care Group[‡] of hospitals.

HIQA found that there were clear lines of accountability and responsibility in Galway University Hospitals in relation to governance and management arrangements for the prevention and control of healthcare-associated infection.

The infection prevention and control service was delivered by a specialist infection prevention and control team who reported to a multidisciplinary Infection Prevention and Control Committee. This committee in turn reported into the Quality, Safety and Risk Committee. The Quality, Safety and Risk Committee reported into the Hospital Management Team.

Additionally, the Saolta University Health Care Group had formalised governance arrangements in place in relation to infection prevention and control across the group. The Infection Prevention and Control Committee (IPCC) at Galway University Hospitals along with other hospitals in the group, reported to the hospital group IPCC on a quarterly basis.

The Infection Prevention and Control Team had a remit for both Merlin Park University Hospital and University Hospital Galway. The Infection Prevention and Control Team led by a consultant microbiologist comprised five whole time equivalent[§] (WTE) infection prevention and control nurses, an assistant director of nursing with remit to Galway University Hospital, Portiuncula University Hospital and Roscommon University Hospital, one WTE surveillance scientist, one (0.87 WTE) antimicrobial pharmacist and an (0.85 WTE) administrative support.

An annual report and plan was produced by the Infection Prevention and Control Team. The 2017 annual report remained in draft format at the time of the May

[‡]Hospital groups: The hospitals in Ireland are organised into seven hospital groups: 1. Ireland East Hospital Group. 2. Dublin Midlands Hospital Group. 3. South/South West Hospital Group. 4. Saolta University Health Care Group. 5. University Limerick Hospitals Group. 6. RCSI Hospitals Group. 7. National Children's Hospital Group.

[§] Whole-time equivalent (WTE): allows part-time workers' working hours to be standardised against those working full-time. For example, the standardised figure is 1.0, which refers to a full-time worker. 0.5 refers to an employee that works half full-time hours.

inspection. The 2018 annual plan outlined individual roles, responsibilities and objectives for members of the infection prevention and control team. There were 11 defined objectives for 2018 outlined in the plan which included reducing the spread of CPE in Galway University Hospitals and reducing *Staphylococcus aureus* blood stream infections and devices related blood stream infections.

Infection prevention and control education

The Infection Prevention and Control Team provided a range of both formal and informal ongoing educational sessions to personnel on infection prevention and control programme, procedures and practices. Inspectors were informed that training and education provided was aligned to the national framework³ for such knowledge and skills. However a key limitation, highlighted in the annual report, was that staff work pressures in clinical areas did not always facilitate attendance at infection prevention and control training.

The Infection Prevention and Control Team provided a number of combined hand hygiene and CPE weekly education sessions in addition to face-to-face ward-based education sessions and targeted training. The team also held a hand hygiene awareness day. Documentation indicated that 78% of hospital staff had attended mandatory hand hygiene training in the previous two years. In order to improve compliance with hand hygiene training, a member of the Infection Prevention and Control Team attended grand rounds,^{**} medical case conference meetings, specialty specific Journal Club meetings, dedicated intern teaching and hospital management team meetings.

The hospital had adopted a multimodal strategy in improving hand hygiene practices. Hospital-wide local hand hygiene audits were carried out on a monthly basis by multidisciplinary hand hygiene audit teams. Overall, hand hygiene compliance scores in 2018 did not achieve the hospital's desirable target of 90% compliance or over. Variation in performance among disciplines was also noted.

Despite this multimodal approach to the provision of staff education, compliance with mandatory hand hygiene training remained consistently below desirable levels among medical staff. This was a concern when considered in the context of an ongoing CPE outbreak. To drive improvement, management must ensure continued oversight of targeted training and education in for example mandatory hand hygiene training particularly for medical staff.

^{**}Grand rounds are formal meetings where physicians and other clinical support and administrative staff discuss the clinical case of one or more patients. Grand rounds originated as part of medical training.

Risk management

The Infection Prevention and Control Team carried out infection prevention and control formal risk assessments for *Staphylococcus aureus* blood stream infections and other healthcare-associated infections. Documentation viewed by the inspection team indicated that there needs to be improved involvement by clinical teams in this process.

While the Infection Prevention and Control Team had developed an infection prevention and control risk register.^{††} There were 37 risks on the infection prevention and control risk register viewed by the inspection team. It was explained to inspectors that high rated risks were regularly reviewed and escalated for discussion at the Quality and Patient Safety Committee. Many of the high-rated risks viewed related to deficits identified in existing facilities and infrastructure which had the potential to impact on infection prevention and control practices.

An infection prevention and control risk in relation to the risk of a breakdown in infection control standards due to insufficient isolation standards had been added to the organisational wide risk register.

National guidelines recommend that the processes for reporting and investigating infections by systems analysis should be aligned with the governance arrangements that apply for other types of incidents in the hospital.⁴ Implementation of multidisciplinary root cause analyses for all healthcare associated *Staphylococcus aureus* bloodstream infections, cases of *Clostridium difficile* infection and catheter related bloodstream infections was listed as a hospital infection prevention and control objective for 2018.

^{††} A risk register is a database of assessed risks that face any organisation at any one time. Always changing to reflect the dynamic nature of risks and the organisation's management of them, its purpose is to help Hospital managers prioritise available resources to minimise risk and target improvements to best effect. The risk register provides management with a high level overview of the Hospital's risk status at a particular point in time and becomes an active tool for the monitoring of actions to be taken to mitigate risk.

2.2 Infection surveillance

The hospital performed extensive screening of patients for CPE and in the first quarter of 2018 had processed up to 3700 CPE patient screens. Management of the on-going CPE outbreak in the hospital will be presented in section 2.3 in this report.

In compliance with the National Standards,¹ the infection prevention and control programme outlined a broad infection surveillance programme which included surveillance of:

- 'alert' organisms and 'alert' conditions⁺⁺
- multidrug-resistant organisms
- catheter-related bloodstream infection^{§§} in the Intensive Care Unit
- surgical site infections in relation to elective orthopaedic implant and cardiothoracic surgeries
- bloodstream infections.

In 2017 hospital management monitored and regularly reviewed performance indicators in relation to the prevention and control of healthcare-associated infection in line with HSE national reporting requirements⁵ and the HSE's Business Information Unit.⁶

Invasive device surveillance

National guidelines recommend healthcare-associated infection surveillance in relation to central venous access device-related infection, urinary catheter-associated urinary tract infection and ventilator-associated pneumonia for high risk groups including patients admitted to intensive care.^{7,8,9} On-going surveillance of central venous access device and peripheral vascular device related bloodstream infections was evident in documentation viewed by inspectors. However, surveillance of ventilator-associated pneumonia rates and catheter-associated urinary tract related infection rate was not in place at the time of the inspection.

Inspectors were informed that the hospital planned to address the deficit in urinary tract related infection surveillance by introducing catheter related urinary tract infection surveillance on the urology ward and expanding this to a hospital-wide urinary catheter surveillance project. In addition, the hospital carried out a nine week study, from March to May 2018 across the hospital, to identify and reduce the number of patients with urinary catheters and reduce Catheter Associated Urinary Tract Infection (CAUTI).

⁺⁺ Alert conditions include physical symptoms such as skin rashes, vomiting, diarrhoea, respiratory illness that could be due to an infectious illness

^{§§} Catheter-related bloodstream infection (CRBSI) is defined as the presence of bacteraemia originating from an intravenous catheter.

Hospital key performance indicators for Galway University Hospitals acquired or healthcare associated *Staphylococcus aureus* blood stream infection rates in 2018 had been reduced by 10% since 2016. It was reported by management that the hospital had performed well in 2017 having achieved levels below this target. The key performance indicator for hospital acquired and healthcare associated *Staphylococcus aureus* blood stream infection had been lowered to 0.11 per 1000 bed days for 2018. The hospital needs to continue its focus on consistently achieving and maintaining key performance indicators in each quarter.

Peripheral and central vascular line infections had previously been identified as major causes of both meticillin-resistant *Staphylococcus aureus* (MRSA) and meticillin-sensitive *Staphylococcus aureus* (MSSA) blood stream infections at the hospital. Rates of peripheral vascular catheter related *Staphylococcus aureus* line infections had significantly decreased since 2013. There were no central vascular line infections identified in the first quarter of 2018.

Surveillance surgical site infection

Surgical site infection surveillance represents good practice, demonstrates a commitment to monitoring the quality of patient care and is an important patient safety and quality assurance initiative. The hospital had developed targeted surgical site infection surveillance programmes in relation to elective orthopaedic implant surgeries and cardiothoracic surgeries to monitor post-operative surgical infections.

Surveillance of orthopaedic implant surgeries had recommenced in 2017 which is a positive development. Inspectors were informed that Centres for Disease Control definitions for surgical site infection surveillance were used and electronic clinical information system to collect patient data. Infection rates were broadly comparable with published data from Public Health England.¹⁰

Care bundles^{***}

A review of documentation showed that all essential evidenced-based care bundle components were included in nursing care plans. Inspectors looked at documentation and spoke with staff relating to care plans for peripheral vascular catheters, urinary catheters and central venous access devices in the areas inspected.

The hospital had a programme of audit, feedback and quality improvement plans in relation to peripheral vascular access devices, urinary catheters and central venous

*** A care bundle is a small, straightforward set of evidence-based practices that, when performed collectively and reliably, have been proven to improve patient outcomes.

access device at the hospital. The inspection team was informed that elements of ventilator-associated pneumonia care bundles were incorporated into the electronic patient care plan.

Auditing of care bundles was undertaken on a weekly basis by clinical nurse managers and findings were forwarded to the Infection Prevention and Control Team for collation of data. Compliance with documentation of peripheral and urinary catheter care bundle audits was generally very good in the areas inspected. In working to build upon the general high compliance achieved in these audits, a consistent area of improvement identified by the audits related to the documentation of the clinical indication for use. This should be a focus for ongoing improvement following this inspection.

2.3 Prevention and control of healthcare-associated infections and multidrug-resistant organisms

As with the control of all potentially transmissible infectious diseases in healthcare settings, hospital adherence to best practice in relation to transmission-based precautions is critical to protect patients and staff from colonisation and infection from such organisms. The inspection team focused on measures to prevent the spread of antimicrobial-resistant organisms and implementation of aspects of transmission-based precautions.

Evidence of good practice

Antimicrobial stewardship

The hospital had a proactive antimicrobial stewardship team, programme and annual plan with good awareness demonstrated by staff relating to antimicrobial stewardship initiatives and resources. There was evidence that antimicrobial stewardship initiatives implemented to date had led to the reduction in spend and consumption in antimicrobial usage.

The hospital had implemented the *National Policy on Restricted Antimicrobial Agents in July 2017*.¹¹ Compliance with the hospitals pre-authorisation policy was audited monthly with 85% compliance achieved in February 2018. Meropenem de-escalation ward rounds were conducted twice a week. These initiatives had halved meropenem consumption back to 2008 levels. Multifaceted antimicrobial stewardship approaches had also halved the use of clindamycin from peak usage, reducing the risk of *Clostridium difficile* infection.

CPE outbreak management

The hospital had experienced an ongoing outbreak of CPE since June 2017. There was evidence that the number of new cases of CPE had decreased in the first quarter for 2018, indicating better control of the outbreak. Surveillance data reviewed showed that there were 17 cases in quarter 4 2017 and 10 cases of colonisation detected to date in 2018. Surveillance reports indicated that the prevalence of CPE related bloodstream infections remained very low throughout 2017.

There was clear evidence that the CPE issue at the hospital had been escalated and discussed at senior management level within the hospital and actively addressed since the onset of the outbreak.

A CPE multidisciplinary outbreak committee held meetings every two weeks. This committee oversaw actions to contain the outbreak and had implemented additional

measures to prevent, detect and contain the spread of CPE. Examples of measures included but were not limited to:

- Screening:
 - full compliance with national CPE screening guidelines¹²
 - in high risk wards and where transmission within a unit had been established, the hospital had implemented a programme of universal CPE screening on admission and weekly thereafter
 - hospital-wide point prevalence screen of CPE carriage was performed in December 2017 (571 patients were screened for CPE and one positive case was identified)
 - environmental screening in areas where there was evidence of cross transmission and remedial action taken
 - provision of rapid turnaround time for CPE screens.
- Patient placement:
 - in response to the ongoing CPE outbreak, in December 2016 a ward within the newly built ward block of 75 beds of which each ward had 25 single ensuite rooms was designated for isolation of patients with CPE and other multidrug-resistant organisms. This ward had been built to a modern specification with surfaces, finishes and fittings that readily facilitated cleaning, infection prevention and control practices and management of patients with transmissible infections¹⁵
 - having identified an increased prevalence⁺⁺⁺ on the haematology/oncology ward, the ward was relocated to the new ward block
 - better segregation of CPE positive patients in the emergency department had been introduced
 - pre-emptive isolation of patients transferred from hospital with known CPE outbreaks was in place.
- Equipment:
 - dedicated patient equipment was provided for CPE positive patients where possible for example, dedicated blood pressure cuffs, tourniquets and disposable patient wash bowls
- Cleaning:
 - additional household cleaning resources allocated to cohort isolation ward and affected areas
 - availability of a dedicated team for terminal cleaning post patient discharge

⁺⁺⁺ Prevalence in epidemiology is the proportion of a particular population found to be affected by a medical condition

- a specific CPE multidrug-resistant organism standard operating procedure was developed for cleaning staff
 - hydrogen peroxide vapour^{***} was implemented in areas where there was evidence of environmentally associated transmission of CPE.
- Communication:
- patients with positive CPE screens were provided with a durable wallet/purse-sized alert card identifying their CPE status to alert healthcare providers to their CPE status when they presented for future care
 - a standard letter was sent to the admitting consultant and GP of every patient once confirmed as carrying CPE
 - flagging of patients with known CPE on the electronic patient information system
 - flagging of CPE contacts on the electronic patient information system. The flag was removed once the patient was deemed negative as per the national guidelines
 - a CPE checklist was developed for staff
 - patient information leaflet developed for contacts of CPE patients
 - CPE education sessions and briefing updates for all staff. Information on CPE available to staff on desktop computers in each clinical area
 - education on the appropriate operation of bedpan washers
 - lessons learned from CPE control were shared with other hospitals within the Saolta University Healthcare Group.
- Resource allocation:
- approval of administrative support for infection prevention and control and an additional medical scientist to assist with additional CPE workload (to be implemented).

Inspectors found during the inspection that in addition to the interventions implemented to address the CPE outbreak already outlined above, the hospital had the following in place:

- screening for Vancomycin-resistant *Enterococci* (VRE), methicillin resistant *Staphylococcus Aureus* (MRSA), was in line with national guidelines^{13,14,12}
- in general, patients who required transmission-based precautions were appropriately isolated in single rooms
- the three areas inspected were generally clean with some exceptions

^{***} Hydrogen peroxide vapour is a substance that destroys or eliminates all forms of microbial life in the inanimate environment, including all forms of vegetative bacteria, bacterial spores, fungi, fungal spores, and viruses

- there was good oversight of hospital hygiene, comprehensive audit tools and audits conducted by a multidisciplinary hygiene audit team. There was also evidence that audits were reported upwards to the Quality and Safety Committee
- multidisciplinary outbreak committees with representation from senior management and relevant clinicians were established in response to reported outbreaks. Learning and recommendations from each outbreak were outlined in outbreak reports viewed
- a formal legionella hospital site risk assessment had been performed at the hospital in April 2017.

Opportunities for improvement

The hospital had identified a number of factors that likely contributed to the ongoing CPE outbreak. These included:

- insufficient numbers of single rooms with ensuite facilities
- inadequate isolation facilities in haematology/oncology day ward for CPE cases awaiting and receiving treatment
- inadequate isolation facilities in the emergency department
- shared toilet facilities (of particular relevance in large multi-occupancy rooms with one toilet shared between 14 occupants)
- lack of cleaning of chairs in the haematology oncology day ward between patients
- lack of dedicated patient equipment for patients with CPE.

In addition to the contributing factors identified by the hospital, opportunities for improvement were identified by inspectors in a number of areas. Examples included but were not limited to:

- Screening:
 - ESBL screening was not carried out in line with national guidelines.¹³ Inspectors were informed that ESBL screening was discontinued following a risk assessment to allow for full implementation of the national guidance on CPE screening as part of the GUH CPE outbreak control strategy.
- Infrastructure:
 - in two of the three wards inspected, minimal spatial separation between beds did not comply with best practice guidelines^{15,16}
 - insufficient numbers of hand hygiene sinks and toilet facilities in the six-bedded rooms
 - the design of clinical hand wash sinks in some clinical areas did not conform to Health Building Note 00-10 Part C: Sanitary assemblies¹⁷

- the facility for reprocessing cleaning textiles needs to be risk assessed as it was located adjacent and used as a thoroughfare for a clinical waste facility
- surface integrity of some of the shower outlets in ensuite facilities inspected in one ward were in poor repair and need to be reviewed.
- Cleaning and management of patient equipment:
 - reported staffing deficits leading to gaps in cleaning of some equipment shared between patients
 - daily cleaning checklists for patient equipment were not consistently completed
 - a lack of clarity amongst staff in some areas relating to responsible persons for equipment cleaning
 - poor awareness and ownership relating to equipment and environmental hygiene audits results at ward level
 - bedpans were not processed in line with best practice (contents of bedpans emptied into the sluice hopper prior to being placed in the washer disinfectant)
 - intravenous pumps were cleaned within a dirty utility room
 - scope for better consistency in the frequency of equipment audits and compliance with the management of patient equipment is required. Equipment hygiene audits results demonstrated less than optimal results. An average compliance score of 70.6 % was achieved in 12 hospital-wide audits conducted between February and May 2018 with limited evidence of re-audit when poor compliance achieved.
- Communication:
 - hospital audit of discharge letters of known CPE patients identified very poor compliance with completing electronic discharge summaries. However, of the patients that had a letter generated, CPE was communicated in the majority. Following this audit an action was put in place to improve standards in this area.
 - inconsistent use of signage on the infection control cohort ward to communicate isolation precautions on doors to isolation rooms which was not in line with hospital policy
 - there was scope for improvement in nursing care plan documentation relating to patient infection control status.

- Staff resources:
 - consistent segregation of staff to care for patients with CPE was described by staff on the cohort ward as not always happening.

- Policy procedure and guidelines:
 - many of the infection prevention and control policy procedure and guidelines viewed by inspectors required updating
 - there was potential to expand the sharing of information, policies procedures and guidelines through the forum of the Saolta University Healthcare Group infection prevention and control committee to maximise best use of resources and standardise practice in line with best practice among the seven hospitals within the Saolta University Healthcare Group.

3.0 Conclusion

Overall HIQA found that Galway University Hospitals was committed to improving infection prevention and control practices in the hospital and were endeavouring to fully implement the *National Standards for the prevention and control of healthcare-associated infections in acute healthcare services*.¹

The Hospital had put governance arrangements systems, processes and practices in place to support infection prevention and control in the hospital.

The hospital had experienced an ongoing outbreak of CPE since June 2017 and was screening in excess of the national HSE CPE screening guidelines. Although a number of mitigating measures¹⁸ had been implemented at the hospital, new cases of CPE continued to be identified. While the hospital has not seen a reversion to zero incidents of CPE, it's efforts to date has succeeded in containing the number of new CPE cases. Furthermore, inspectors were informed that there had been no CPE bloodstream infections reported in the hospital to date.

The cohort ward was located in the newly build hospital wing and was built to modern infection prevention and control specifications. Overall the patient environment inspected was generally clean with few exceptions. There was good ownership in relation to environmental cleaning in the areas inspected.

Notwithstanding the many good practices that HIQA identified during the inspection, areas for further improvement include:

- oversight of equipment hygiene
- discharge communication
- infrastructural deficits
- compliance with mandatory hand hygiene training among all staff groups
- consistent application of transmission based precautions where required
- review and update of infection prevention and control policies, procedures and guidelines.

Galway University Hospitals, as a member of the Saolta University Healthcare Group, needs to be supported within group and national structures to effectively address issues in relation to hospital infrastructure and resources in order to facilitate compliance with the National Standards for the Prevention and Control of Healthcare Associated Infections and other existing national healthcare standards.

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5.0 Appendices

Appendix 1: Lines of enquiry for the monitoring programme undertaken against the National Standards for the prevention and control of healthcare-associated infections in acute healthcare services

Number	Line of enquiry	Relevant National Standard
1.1	The Hospital has formalised governance arrangements with clear lines of accountability and responsibility around the prevention and control of healthcare-associated infections.	2.1, 2.2, 2.3, 2.4, 2.5, 2.6, 2.7, 2.8, 5.2, 5.3, 5.4, 6.1, 7.1
1.2	Risks in relation to the prevention and control of infection are identified and managed.	2.1, 2.3, 2.5, 3.1, 3.6, 3.7, 3.8
2	The Hospital has policies, procedures and guidelines in relation to the prevention and control of infection and Hospital hygiene.	2.1, 2.5, 3.1, 3.6, 3.8, 5.4, 7.2
3	Hospital personnel are trained and in relation to the prevention and control of healthcare-associated infection	2.1, 2.8, 3.1, 3.2, 3.3, 3.6, 6.1, 6.2
4.1	The Hospital has implemented evidence-based best practice to prevent intravascular device-related infection and urinary catheter-associated infection, ventilator-associated pneumonia and surgical site infection.	1.1, 2.1, 2.3, 3.5
4.2	The Hospital has systems in place to detect, prevent, and respond to healthcare-associated infections and multidrug-resistant organisms in line with national guidelines.	2.1, 2.3, 2.5, 3.1, 3.2, 3.3, 3.4, 3.5, 3.6, 3.8,

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