



**Health
Information
and Quality
Authority**

An tÚdarás Um Fhaisnéis
agus Cáilíocht Sláinte

Report of the unannounced inspection at Cavan and Monaghan Hospital

Date of on-site inspection: 14 August 2019

**HIQA's consolidated programme of monitoring against the
*National Standards for the prevention and control of
healthcare-associated infections in acute healthcare services***

About the Health Information and Quality Authority (HIQA)

The Health Information and Quality Authority (HIQA) is an independent statutory authority established to promote safety and quality in the provision of health and social care services for the benefit of the health and welfare of the public.

HIQA's mandate to date extends across a wide 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 responsibility for the following:

- **Setting standards for health and social care services** — Developing person-centred standards and guidance, based on evidence and international best practice, for health and social care services in Ireland.
- **Regulating social care services** — The Chief Inspector within HIQA is responsible for registering and inspecting residential services for older people and people with a disability, and children's special care units.
- **Regulating health services** — Regulating medical exposure to ionising radiation.
- **Monitoring services** — Monitoring the safety and quality of health services and children's social services, and investigating as necessary serious concerns about the health and welfare of people who use these services.
- **Health technology assessment** — Evaluating the clinical and cost-effectiveness of health programmes, policies, medicines, medical equipment, diagnostic and surgical techniques, health promotion and protection activities, and providing advice to enable the best use of resources and the best outcomes for people who use our health service.
- **Health information** — Advising on the efficient and secure collection and sharing of health information, setting standards, evaluating information resources and publishing information on the delivery and performance of Ireland's health and social care services.
- **National Care Experience Programme** — Carrying out national service-user experience surveys across a range of health services, in conjunction with the Department of Health and the HSE.

Table of Contents

1.0 Introduction.....	2
2.0 Information about this inspection.....	2
3.0 Hospital profile	3
4.0 Inspection findings.....	4
4.1 Governance and management structures	4
4.2 Monitoring, audit and evaluation systems including risk management	6
4.3: Implementation of evidence based best practice	9
5.0 Conclusion.....	14
6.0 References	16
7.0 Appendices.....	21
Appendix 1: Lines of enquiry.....	21
Appendix 2: Infection prevention and control governance organogram.....	22

1.0 Introduction

Under section 8(1)(c) of the Health Act 2007, Authorised Persons of the Health Information and Quality Authority (HIQA) monitor the implementation of the *National Standards for the prevention and control of healthcare-associated infections in acute healthcare services*.¹

HIQA's focus in 2019 has included a detailed evaluation of how hospitals organise themselves to minimise the spread of healthcare-associated infections; with a particular focus on systems to detect, prevent, and manage multidrug-resistant micro-organisms, and the approach taken to reduce the risk of reusable device-related infection. These two areas are internationally recognised as being major contributors to potentially preventable patient harm as a consequence of healthcare provision.

HIQA has published a guide² to this monitoring programme which is available to view on HIQA's website www.hiqa.ie.

2.0 Information about this inspection

This inspection report was completed following an unannounced inspection carried out at Cavan and Monaghan Hospital by Authorised Persons, HIQA Kathryn Hanly, Bairbre Moynihan and Lee O'Hora on 14 August 2019 between 09:00 hrs and 15:30 hrs.

Specific lines of enquiry were developed to facilitate this monitoring programme and are included in this report in Appendix 1.

Inspectors used specifically designed monitoring tools during this inspection and focused on:

- aspects of the prevention and control of transmission of antimicrobial-resistant bacteria and healthcare-associated infections
- decontamination facilities* outside of designated controlled decontamination units.[†]

During this inspection inspectors spoke with hospital managers, staff and representatives from the Infection Prevention and Control Committee and

* Decontamination facilities refers to the physical infrastructure where decontamination of reusable medical devices is provided.

[†] A controlled decontamination unit, such as a Central Decontamination Unit or Endoscope Reprocessing Unit, is a designated unit which has defined governance arrangements and is designed, constructed, maintained and controlled with structures, systems, processes and outcomes that are continuously monitored, measured and validated to provide assurances that reusable medical devices are safely and effectively reprocessed consistently in accordance with legislation, manufacturer's instructions, national decontamination standards and guidelines, National Standards and best practice guidance.

Decontamination Committee. Inspectors requested and reviewed documentation, data and observed practice within the clinical environment in a small sample of clinical areas which included:

- Medical 1 Ward
- Radiology Department.

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

3.0 Hospital profile

Cavan and Monaghan Hospital is located across two sites in the towns of Cavan and Monaghan. It is a statutory hospital owned and managed by the Health Service Executive (HSE) and is part of the Royal College of Surgeons in Ireland (RCSI) Hospital Group. All acute inpatient services are based in Cavan General Hospital. Monaghan Hospital's primary role includes the continuing care for medically discharged patients requiring inpatient stepdown and rehabilitation care. Both hospital sites provided outpatient, theatre and day services with a Minor Injuries Unit located on the Monaghan Hospital site.

Decontamination and reprocessing of critical and semi-critical devices[‡], such as surgical instruments and gastro-intestinal endoscopes, was performed in centralised decontamination facilities in the:

- Central Sterile Services Department (CSSD)
- Endoscopy Departments in both Cavan and Monaghan Hospitals.

Additionally decontamination and reprocessing of semi-invasive ultrasound probes[§] using high level disinfectant manual multi-wipe systems was performed in satellite decontamination facilities located in the:

- Radiology Department
- Early Pregnancy Unit
- Emergency Department.

Transoesophageal echocardiography ultrasound probes were decontaminated in the Endoscopy Department using high level disinfectant manual multi-wipe system.

[‡] "Semi-critical" the device is a reusable medical device which comes into contact with a mucous membrane or broken skin under the Spaulding Classification. The Spaulding Classification system is used to determine the infection risk associated with used medical devices and the associated decontamination method required. Semi-invasive Ultrasound Probes and Non-invasive Probes in contact with broken skin are categorised as Semi-critical devices.

[§] "Semi-invasive Ultrasound Probe" is an Ultrasound Probe which is used to ultrasound scan internal organs via non-sterile natural orifices.

4.0 Inspection findings

The following sections present the general findings of this unannounced inspection.

4.1 Governance and management structures

Inspectors found that there were clear lines of accountability and responsibility in relation to governance and management arrangements for the prevention and control of healthcare-associated infection and the decontamination of reusable medical devices at the hospital.

Inspectors noted that a large number of hospital committees were in place and a number of these committees involved the same hospital staff. Hospital management had identified the complexity of existing committee structures and was addressing the challenges inherent in such an arrangement, through the rationalisation of the number of hospital committees reporting into an oversight committee in order to strengthen governance arrangements.

The Infection Prevention and Control Steering Committee reported to the Quality and Safety Executive Committee. A number of subcommittees including the Decontamination Committee, the Hygiene Committee and the Environmental Monitoring Committee formally reported to the Infection Prevention and Control Steering Committee. The Decontamination Committee met quarterly and recently updated the membership to include managers from central and satellite decontamination facilities. However, Infection Prevention and Control Steering Committee minutes reviewed by inspectors from July 2019 described the Environmental Monitoring Committee as “not functioning”. It is recommended that this committee is re-established in line with its terms of reference.

The hospital had also established a Multi-Drug Resistant Organism (MDRO) Taskforce which was tasked with identifying and communicating gaps in compliance with national guidance on the prevention and control of MDROs. There was a specific, though not exclusive, focus on the management of Carbapenemase Producing *Enterobacteriales* (CPE).** The taskforce was directly accountable to the Executive Management Team.

While some antimicrobial stewardship interventions were in place, it was reported that the antimicrobial stewardship programme had been restricted since May 2019 due to the absence of an antimicrobial pharmacist. The hospital had recently appointed an antimicrobial pharmacist, however the hospital had not established an Antimicrobial Stewardship Committee. It was also reported that there was a limited

** 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.

Clinical Pharmacy Service provided at ward level. Consequently, the additional prescribing quality assurance function provided by generalist ward based clinical pharmacists commonplace in the majority of Irish hospitals was absent. It is important that the antimicrobial stewardship programme is enhanced as it is re-established. These findings will be further discussed in section 4.2 and 4.3 of this report.

The CSSD manager was the designated decontamination lead at the hospital. In addition each satellite decontamination facilities had a person appointed with responsibility for operational management of the unit. However, there was no group decontamination lead position in the Royal College of Surgeons in Ireland (RCSI) Hospital Group.³

Inspectors reviewed the quality improvement plan developed following the 2017 unannounced inspection. Overall, it was apparent that significant progress had been made in addressing the findings of the 2017 inspection. Twenty four of the 33 actions identified in the plan had been completed and work was in progress to complete six actions. The remaining three actions had been escalated to the hospital risk register and closed on the quality improvement plan. These included insufficient isolation facilities, infrastructural deficiencies in the CSSD and endoscopy units, absence of a surgical site surveillance policy and programme.

The 2017 HIQA inspection highlighted concerns relating to infection prevention and control nursing resources at the hospital.⁴ Inspectors were informed that the full complement of infection prevention and control nursing was restored in quarter four 2018. There was one consultant microbiologist in a substantive post in Cavan and Monaghan Hospital since 2014. On-call duties were routinely shared with a locum consultant microbiologist, based in Northern Ireland. Leave periods during the year were covered on a locum basis on-site.

Governance arrangements and organisational structures were outlined in an organogram provided to HIQA showing lines of communication for infection prevention and control at the hospital (Appendix 2).

4.2 Monitoring, audit and evaluation systems including risk management

4.2.1 Monitoring, audit and evaluation systems

The infection prevention and control surveillance programme included surveillance of:

- 'alert' organism^{††} and 'alert' conditions
- multidrug-resistant organisms
- data reported to the European Antimicrobial Resistant Surveillance Network (EARS-Net)^{‡‡}

Infection surveillance in relation to central venous access device-related infection, urinary catheter-associated urinary tract infection, ventilator-associated pneumonia (VAP) and surgical site infections was not carried out as recommended in national guidelines.^{15,6,7}

Clostridioides^{§§} *difficile* infection

The incidence of *Clostridioides difficile* infection at the hospital had fluctuated above both the national average and the desirable Health Service Executive (HSE) key performance indicator target rate since reporting began.⁸

Inspectors were informed that overall antimicrobial usage volume at the hospital was the highest nationally in 2018. HIQA has identified this in previous inspections of this hospital.^{4,9} Antimicrobial consumption contributes to the incidence of *Clostridioides difficile* infection rates and therefore antimicrobial stewardship should be an important focus of the hospital's quality improvement plan following this inspection.

Environmental and equipment audits

The hospital had recently revised their environmental hygiene audit methodology. This new methodology commenced in April 2019 and weekly audits were conducted by senior management. The actions from the quality improvement plan for each audit was followed up by the local ward manager ensuring ownership of the actions at local level. An environmental audit undertaken on Medical 1 ward in June 2019 was viewed by inspectors. Compliance of 88.5% was achieved with an accompanying action plan. These findings will be further discussed in section 4.3 of this report.

^{††} Alert organisms are micro-organisms that pose a significant risk of transmission to non-infected patients or staff, resulting in colonisation or healthcare-associated infection, or that pose a significant risk of transmission to non-infected people in the wider population or community.

^{‡‡} EARS-Net performs surveillance of antimicrobial susceptibility of bacteria causing infections in humans including; *Escherichia coli*, *Klebsiella pneumoniae*, *Pseudomonas aeruginosa*, *Acinetobacter species*, *Streptococcus pneumoniae*, *Staphylococcus aureus*, *Enterococcus faecalis* and *Enterococcus faecium*.

^{§§} formerly *Clostridium*.

Decontamination and reprocessing of reusable medical devices

Inspectors were informed that periodic maintenance, testing and validation was performed on all decontamination-related equipment in line with national standards and recommended practices.^{10,11} Regular audit of adherence to reprocessing procedures was carried out in the CSSD.

An Authorised Engineer for Decontamination (AED)^{***} was appointed by the hospital to oversee and audit technical aspects of the decontamination programme. The AED carried out an audit using the HSE Code of Practice for Decontamination of RIMD Version 1.0 (2007) audit template in October 2018.¹²

Inspectors viewed an inventory of reusable medical device and decontamination equipment used at the hospital. Inspectors were informed that all decontamination equipment had been recently replaced in both Cavan and Monaghan CSSDs.

The global asset identifier coding and national track and trace programme to support quality assurance of decontamination practices had been rolled-out in the Endoscopy Departments of Cavan and Monaghan Hospitals and also in the CSSD Department in Cavan General Hospital. A system was also in place to ensure semi- invasive ultrasound probes were tracked through the decontamination process and linked to the patient on whom the devices had been used. Three-monthly audits of this process were undertaken.

It was explained that the CSSD was non-compliant with HSE standards and recommended practices in regard to ventilation systems. This deficiency was reflected on the corporate risk register. Inspectors were informed that environmental monitoring of air and surfaces of clean areas in central and endoscope decontamination facilities was not performed in line with national guidance.^{10,11} In the absence of microbiological monitoring and a surgical site infection surveillance programme the hospital did not have appropriate mechanisms in place to assure itself that identified infrastructural deficits in the CSSD did not negatively impact on patients from an infection prevention and control perspective.

^{***} A suitably qualified person designated by management to provide testing, advice and review validation records and is suitable qualified to graduate level.

4.2.2 Risk management

The hospital had systems in place to identify and manage risk in relation to the prevention and control of healthcare-associated infections.

Inspectors were informed a draft infection prevention and control risk register which contained both the infection prevention and control risks and decontamination risks was in place but under review. The hospital was in the process of transferring the infection prevention and control and decontamination risks to the corporate risk register with a view to disbanding the draft infection prevention and control risk register. The infection prevention and control and decontamination risks on the corporate risk register were comprehensive and included controls, additional controls, a risk rating and had been recently reviewed. However, multiple action owners were identified for a number of risks. It is important that one person has lead responsibility for the risks identified on the risk registers in line with national guidance.¹³

Incidents were reported on the National Incident Management System.⁺⁺⁺ Documentation reviewed showed that a number of infection prevention and control and decontamination incidents were reported from Cavan General Hospital including newly-acquired health-care associated infections and breaches in compliance with the restricted antimicrobial pre-authorisation policy.¹⁴ Incidents were trended monthly. Inspectors noted a reduction in the number of infection prevention and control and decontamination incidents reported up to May 2019 compared with the same period in 2018. Inspectors also noted that no infection prevention and control and decontamination incidents had been reported from Monaghan Hospital this year.

The national medical devices eAlert⁺⁺⁺ system had been implemented at the hospital. Inspectors were told by management that the hospital had formalised contingency planning in the event of decontamination equipment failure.

Management informed inspectors that the hospital was developing a hospital guideline for the management of transmissible spongiform encephalopathies^{§§§} in CSSD and Endoscopy Decontamination Unit. Hospital management need to finalise this document and be assured that the hospital is in line with national guidance¹⁵ in this regard.

⁺⁺⁺ The State Claims Agency National Incident Management System is a risk management system that enables hospitals to report incidents in accordance with their statutory reporting obligation

⁺⁺⁺ The national eAlert system receives notification directly from the HPRA of all medical device safety / hazard notifications or any internally generated HSE safety notifications for distribution.

^{§§§} Transmissible spongiform encephalopathies (TSEs) are a group of progressive, invariably fatal, conditions that affect the brain (encephalopathies) and nervous system of many animals, including humans, cattle, and sheep. Critical and semi-critical medical devices contaminated with high-risk tissue (i.e., brain, spinal cord, and eye tissue) from high-risk patients—those with known or suspected infection with Transmissible Spongiform Encephalopathies require special treatment.

Overall, the infection prevention and control team had good oversight of the infection prevention and control risks on the corporate risk register and were aware and had trended the incidents being reported in relation to infection prevention and control and decontamination.

4.3: Implementation of evidence based best practice

4.3.1 Systems to detect, prevent and manage multi-drug organisms

The inspection team reviewed measures to prevent the spread of antimicrobial-resistant organisms. Inspectors focused hospital-wide systems and processes in place at the hospital to prevent and control CPE.

Evidence of good practice

CPE outbreak management

The hospital experienced a CPE outbreak in November 2018. An outbreak control team was convened to oversee the management of the outbreak.¹⁶ Multimodal infection prevention and control strategies were implemented to effectively manage the outbreak. The CPE outbreak was successfully confined to Surgical ward 2 and was declared over in February 2019. ****

The infection prevention and control team prepared a comprehensive outbreak report¹⁶ at the conclusion of the CPE outbreak. The report summarised how the outbreak was detected, the investigations conducted and interventions carried out to control it. Learning and recommendations were detailed in the outbreak report viewed.

A number of patients acquired a CPE bloodstream infection in the November 2018 outbreak. These infections were identified and managed. A review of the effectiveness of the management of these infections was being undertaken in line with the HSE Incident Management Framework.

Screening

The hospital was screening in excess of the national CPE screening guidelines.¹⁷ CPE screening was offered to all patients on admission. In addition monthly screening was undertaken in selective wards as recommended by the infection prevention and control team.

In line with national guidelines¹⁶ periodic audits were completed to assess performance of the CPE screening programme. Documentation reviewed by inspectors showed varying levels of compliance.

**** A period of 90 consecutive days without a newly detected CPE patient assessed as a "probable" hospital associated case should be considered as reasonable evidence that transmission has ceased.

Patient Placement

The infection prevention and control team had devised a hierarchy of isolation prioritisation policy for management of patients with transmissible infection.

All patients colonised with CPE in the hospital were accommodated in single rooms on the day of inspection, as appropriate.

Equipment

The equipment on Medical 1 ward was generally clean with few exceptions.

Dedicated patient equipment was provided where possible for CPE positive patients.

As part of a review of CPE management in the hospital nurse call bells and shaving light switches in patient toilets had recently been replaced with washable versions.

Environment

Environmental screening had been performed throughout the hospital during the November 2018 outbreak to trace possible environmental reservoirs for CPE. Results of environmental screening identified the presence of the CPE in samples taken from a sink drain, a shower drain and a toilet brush.

An external review of water systems in the hospital had been commissioned. Remedial actions taken to address environmental contamination included: the disinfection of all drains using electro chemically activated (ECA)⁺⁺⁺ water solution, removal and replacement of all sink traps and fitting of non-return valves to sinks to reduce risk of back flow or pooling of water.

Appropriate use of hand hygiene sinks and correct disposal of waste water was monitored and was emphasised during education.

A deep clean and decontamination with hydrogen peroxide vapour^{****} was carried out in areas where there was evidence of transmission of CPE.

Communication

The hospital had a process for writing to patients that had been discharged prior to being identified as CPE contacts, advising them of their CPE contact status and offering testing for colonisation.¹⁸

The infection prevention and control section in the nursing admission had been reviewed to include a comprehensive multi-drug resistant organism risk assessment.

⁺⁺⁺ electro-chemically activated water solution is produced by the electrolysis of ordinary tap water containing dissolved sodium chloride. The electrolysis of such salt solutions produces a solution of hypochlorous acid and sodium hydroxide. The resulting water is a known cleanser and disinfectant / sanitizer.

^{****} 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

Staff Education

Inspectors were informed that training for nursing staff was aligned to infection prevention and control education for staff to the national framework for such knowledge and skills.¹⁹ Five, day long education sessions had been scheduled for nursing staff in 2019.

Hand hygiene training was mandatory for staff at induction and every two years thereafter in line with national hand hygiene guidelines.²⁰ Records submitted subsequent to the inspection showed that 93.7% of nursing staff had attended hand hygiene training within the previous two years.

Opportunities for improvement

Screening

Management informed inspectors that screening for meticillin-resistant *Staphylococcus aureus* (MRSA) and Extended Spectrum Beta Lactamases (ESBL) did not occur in line with national guidelines.^{21, 22}

Patient placement

Inspectors were informed that the outbreak ward was initially closed to admissions on the advice of the infection prevention and control team, however due to capacity issues in the emergency department patients continued to be admitted to the ward intermittently while the outbreak continued; prior to the ward fully closing to admissions.

Antimicrobial stewardship

The overall antimicrobial stewardship programme needs to be considerably developed, strengthened, resourced and supported in order to progress

The hospital had introduced national guidelines²³ for restricted antimicrobial prescribing rights for the broad-spectrum carbapenem antibiotic; meropenem^{§§§§}. However 22% non-compliance with these guidelines was reported in 2018, this was above the average figure reported nationally. In the absence of an antimicrobial pharmacist, auditing of this compliance with this guideline was not routinely undertaken in 2019.

Equipment

During the November 2018 CPE outbreak it was noted that the design of electric patient beds prohibited effective cleaning. Infection prevention and control must be

§§§§ Meropenem is a carbapenem antibiotic reserved for treatment of infections due to antimicrobial resistant bacteria and infections in seriously ill patients, with input from an infection specialist (clinical microbiologist or infectious diseases physician). Because antimicrobial consumption is a driver of antimicrobial resistance, excessive consumption of meropenem is undesirable, as it may contribute to the spread of CPE in hospitals.

involved in the procurement decisions to ensure the service only invests in equipment that can be effectively decontaminated.¹

Environment and Infrastructure

Low level dust was observed in Medical 1 ward. For example, in air vents in bathrooms, on trunking, at the base of storage in the clean utility.

Some fixtures on the ward were in a state of disrepair, for example, woodwork on a number of doors and skirting boards.

Inspectors were informed that current number of single rooms was insufficient to manage the ever-increasing number of patients requiring isolation for infection prevention and control reasons including CPE. The lack of isolation rooms had been escalated to the corporate risk register.

Minimal spatial separation^{*****} between beds in multi-occupancy rooms on the ward inspected did not comply with best practice guidelines.²⁴

A number of clinical hand wash sinks did not comply with HBN 00-10 Part C: Sanitary assemblies.²⁵

Hand hygiene

The overall compliance of 80% achieved in the national hand hygiene audits in May 2019 was below the HSE's national target of 90%.

Communication

An electronic flag system was used to identify patients with known to be colonised with multi-drug resistant organisms including CPE. However an audit of staff awareness of patients with a history of multi-drug resistant organisms found that only 50% were aware of alerts on the information technology system and only 35% of relevant staff had access to the system. Management need to ensure that staff can easily access the system so staff can identify patients with multi-drug resistant organisms.

4.3.2 Decontamination and reprocessing of reusable medical devices

The focus of inspection was on decontamination facilities outside of a designated controlled decontamination unit. Inspectors visited a satellite decontamination facility in the Radiology Department to ensure that structures, systems, processes in relation to the decontamination of semi-invasive ultrasound probes were aligned to national guidelines.

***** Patients should be separated by at least 2.4 metres between bed centres in multi-bed areas.

Evidence of good practice

Standard operating procedures (SOP) in relation to decontamination processes were available and up-to-date and available at point-of-use.

The hospital had recently trialled automated validated systems for decontamination of semi-invasive ultrasound probes in the Interventional Radiology Department.²⁶ A funding submission in relation to changing to automated validated decontamination systems for semi-invasive ultrasound probes had been submitted.

Single use sterile endosheaths were used on semi-invasive ultrasound probes for each procedure.

Required areas for improvement

Semi-invasive ultrasound probes were not reprocessed using automated validated systems for decontamination. A high level disinfection manual multi-wipe system was used. A local risk assessment had been performed in line with national guidance²⁶ as this is the least preferred method of high level disinfection.

There was no designated separate area for decontamination of semi-invasive ultrasound probes in the department. Decontamination was performed at point of patient care.

The frequencies of environmental hygiene audits in the Radiology Department was not carried out in line with national guidance²⁷ for higher risk functional area. Inspectors were informed that the Radiology Department had not yet been audited using the revised hygiene audit methodology.

Staff training, education and competency in relation to decontamination practices

Dedicated staff operatives were assigned to central decontamination facilities. Inspectors were informed that approximately 50% of members from central decontamination facilities had completed an academic qualification in decontamination practices and sterile services. In addition two additional staff were due to commence the same course in the next academic year.

Regular operator training was also provided by the manufacturers/suppliers of endoscopes and decontamination-related equipment.

Inspectors were informed that the HSELand online²⁸ training programme in relation to decontamination and chemical agent hazards training programme had been completed by all relevant staff assigned to central decontamination facilities at the hospital.

A train-the-trainer initiative in relation to manual multi-wipe decontamination methods was also in place.

Review of competency assessments for staff working in the endoscopy decontamination unit and satellite decontamination facilities should also be undertaken to concur with best practice guidance.²⁹

5.0 Conclusion

Inspectors found that the hospital had defined governance and management structures in relation to infection prevention and control and decontamination and reprocessing of critical and semi-critical reusable medical devices used at the hospital. However a review of wider hospital governance structures was underway which aimed to keep the number of committees limited and focused on critical issues. Overall, it was apparent that progress had been made in addressing the findings of the 2017 HIQA inspection.

5.1 Systems to detect, prevent and manage multidrug-resistant organisms

HIQA found that the infection prevention and control team had made significant progress in improving infection prevention and control practices in the hospital and implementing the *National Standards for the prevention and control of healthcare-associated infections in acute healthcare services*.¹ HIQA acknowledges the hospital's positive progress and compliance levels in relation to:

- Improved infection prevention and control team resources.
- Concerted infection prevention and control interventions which succeeded in promptly halting a CPE outbreak in November 2018.
- Implementation of national CPE screening guidelines.¹⁷
- Reviewing and standardising environmental hygiene audit practices, frequencies and processes throughout the hospital.

However management must ensure measures are in place to address the deficiencies identified in this report with particular emphasis on the following:

- Re-establish the Environmental Monitoring Committee and Antimicrobial Stewardship Committee. In re-establishing same, it is important that the programmes are effectively structured, resourced and governed.
- Ensuring full closure of relevant wards to admissions during outbreaks until such time as the outbreak is fully managed, as recommended by the infection prevention and control team.
- 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 continuing to reach the national target of 90% hand hygiene in the national audits.

5.2 Decontamination and reprocessing of reusable medical devices in a satellite decontamination facility

Overall HIQA found that the hospital was endeavouring to implement national standards and recommended best practice guidance in relation to decontamination service provision in a satellite decontamination facility inspected. Evidence of good practice observed by HIQA during this inspection included some of the following:

- Individual responsibility and accountability for decontamination of reusable medical devices was clearly defined throughout the service.
- Standard operating procedures in relation to decontamination of semi-invasive ultrasound probes were available at point-of-use.
- Training and education including academic training of staff was progressing.
- The hospital had recently trialling validated automated systems for disinfection of semi-invasive ultrasound probes.
- A good standard of environmental and equipment hygiene was evident on the day of inspection.

However, hospital management need to ensure that:

- A leadership role in decontamination to drive and support the implementation of national and international best practice guidance across the group in line with HSE's own recommendations is advanced.
- Use of validated automated systems for decontamination are introduced in line with national recommendations.
- Decontamination is performed in a suitable location external to the clinical treatment area where possible.
- Ongoing competency-assessment and/or training-needs assessment of designated staff working in all decontamination facilities is undertaken.

6.0 References

1. Health Information and Quality Authority. National Standards for the prevention and control of healthcare-associated infections in acute healthcare services. Dublin: Health Information and Quality Authority; 2017. Available online from: <https://www.hiqa.ie/sites/default/files/2017-05/2017-HIQA-National-Standards-Healthcare-Association-Infections.pdf>
2. Health Information and Quality Authority. Guide to HIQA's consolidated programme of monitoring against the *National Standards for the prevention and control of healthcare-associated infections in acute healthcare services* in 2019. Dublin: Health Information and Quality Authority; 2019. Available online from: <https://www.hiqa.ie/reports-and-publications/guide/guide-monitoring-against-national-standards-prevention-and-control>
3. Health Service Executive. Quality Improvement Division. Review of Endoscope Decontamination in Acute Hospitals. Dublin: Health Service Executive; 2015.
4. Health Information and Quality Authority. Report of the Unannounced Inspection at Cavan and Monaghan Hospital 2017. Monitoring programme against the National Standards for the prevention and control of healthcare-associated infections in acute healthcare services. Dublin: Health Information and Quality Authority; 2017. Available online from: <https://www.hiqa.ie/system/files?file=inspectionreports/cavan-monaghan-hospital-15-november-2017.pdf>
5. SARI Working Group, Health Protection Surveillance Centre. Guidelines for the Prevention of Ventilator-associated Pneumonia in adults in Ireland. Dublin: Health Service Executive, Health Protection Surveillance Centre; 2011. Available online from: <https://www.hpsc.ie/A-Z/MicrobiologyAntimicrobialResistance/InfectionControlandHAI/Guidelines/File,12530,en.pdf>
6. Strategy for the Control of Antimicrobial Resistance in Ireland (SARI) Subgroup. Guidelines for the prevention of catheter-associated urinary tract infection. Dublin: Health Protection Surveillance Centre; 2011. Available online from: <https://www.hpsc.ie/AZ/MicrobiologyAntimicrobialResistance/InfectionControlandHAI/Guidelines/File,12913,en.pdf>
7. Royal College of Physicians of Ireland. Prevention of Intravascular Catheter-related Infection in Ireland. Partial update of 2009 National Guidelines. 2014. Available online from: <http://www.hpsc.ie/A-Z/Hepatitis/GuidanceforRenalUnits/File,4115,en.pdf>

8. Health Service Executive. *National Service Plan 2019*. Dublin: Health Service Executive; 2019. Available online from: <https://www.hse.ie/eng/services/publications/serviceplans/national-service-plan-2019.pdf>
9. Health Information and Quality Authority. Report of the Unannounced Inspection at Cavan General Hospital. Monitoring programme for unannounced inspections undertaken against National Standards for the prevention and control of healthcare-associated infections. Health Information and Quality Authority; 2015.
10. Health Service Executive Standards and Recommended Practices for Commissioning, Validation and Testing in Endoscope Decontamination Facilities. Dublin: Health Service Executive; 2018. Available online from: <https://www.hse.ie/eng/about/who/qid/nationalsafetyprogrammes/decontamination/standard-and-recommended-practices-for-commissioning-validation-and-testing-in-endoscope-decontamination-facilities.pdf>
- 11 Health Service Executive. Standards and Recommended Practices for Central Decontamination Units. Dublin: Health Service Executive; 2011. Available from: <https://www.hse.ie/eng/about/who/qid/nationalsafetyprogrammes/decontamination/standards%20for%20cdu's.pdf>
12. Health Service Executive. Code of Practice for Decontamination of Reusable Invasive Medical Devices. AUDIT TOOL. Dublin: Health Service Executive; 2007. Available online from: <https://www.hse.ie/eng/services/publications/hospitals/hse-publications/code-of-practice-for-decontamination-of-reuable-invasive-medical-devices-6.pdf>
13. Health Service Executive. Integrated Risk Management Policy. Risk Assessment and Treatment. 2017. Part 2. Available online from: <https://www.hse.ie/eng/about/qavd/riskmanagement/risk-management-documentation/hse-integrated-risk-management-policy-part-2-risk-assessment-and-treatment.pdf>
14. Health Service Executive. National Policy on Restricted Antimicrobial Agents. Dublin: Health Service Executive; 2016. Available online from: <https://www.hse.ie/eng/about/who/qid/nationalsafetyprogrammes/hcaiamr/hse-policy-on-restricted-antimicrobials-july-2016.pdf>
15. Health Protection Surveillance Centre (HPSC). Protocol for Reporting and Management of cases of Creutzfeldt Jakob Disease (CJD) and other Transmissible Spongiform Encephalopathies (TSEs) or of a person at increased risk of a TSE. Dublin: Health Protection Surveillance Centre; 2019. Available online from:

<https://www.hpsc.ie/az/other/cjd/guidance/Reporting%20and%20Management%20CJD%20TSEs%202019.pdf>

16. Health Service Executive. Acute Hospital Carbapenemase Producing Enterobacteriales (CPE) Outbreak Control Checklist. Version 1. Dublin: Health Service Executive; 2018. Available online from: https://www.hpsc.ie/az/microbiologyantimicrobialresistance/strategyforthecontrolofantimicrobialresistanceinirelandsari/carbapenemresistantenterobacteriaceae/guidanceandpublications/Acute%20Hospital%20CPE%20Outbreak%20Control%20Checklist_final.pdf

17. Health Service Executive. Requirements for screening of Patients for Carbapenemase Producing *Enterobacteriaceae* (CPE) in the Acute Hospital Sector. Dublin: Health Service Executive; April 2019. Available online from: <https://www.hse.ie/eng/about/who/healthwellbeing/our-priority-programmes/hcai/resources/cpe/requirements-for-screening-for-carbapenemase-producing-enterobacteriales-cpe-april-2019.pdf>

18. Health Service Executive. CPE Contact Communications Programme. Available online from: <https://www.hse.ie/eng/about/who/healthwellbeing/our-priority-programmes/hcai/resources/cpe-contact-communications-programme/>

19. Health Service Executive. Core infection prevention and control knowledge and skills. A framework document. Dublin: Health Service Executive; 2015. [Online]. Available online from: <https://www.hse.ie/eng/about/Who/QID/nationalsafetyprogrammes/HCAIAMR/CoreInfectionPreventionandControl.pdf>

20. Royal College of Physicians of Ireland Clinical Advisory Group on Healthcare Associated Infections. Guidelines for Hand Hygiene in Irish Healthcare Settings Update of 2005 Guidelines. Dublin: Royal College of Physicians of Ireland/Health Service Executive; 2015. Available online from: <https://www.hpsc.ie/AZ/MicrobiologyAntimicrobialResistance/InfectionControlandHAI/Guidelines/File,15060,en.pdf>

21. Department of Health. Prevention and Control Methicillin-Resistant Staphylococcus Aureus (MRSA). National Clinical Guideline No. 2. Department of Health; 2013. Available online from: <https://www.hpsc.ie/az/microbiologyantimicrobialresistance/infectioncontrolandhai/guidelines/File,14478,en.pdf>

22. Royal College of Physicians of Ireland Clinical Advisory Group on Healthcare Associated Infections. Guidelines for the prevention and control of multidrug

resistant organisms (MDRO) excluding MRSA in the healthcare setting. Dublin: Royal College of Physicians of Ireland/Health Service Executive; 2014. Available online from:

<http://www.hpsc.ie/az/microbiologyantimicrobialresistance/infectioncontrolandhai/guidelines/File,12922,en.pdf>

23. Health Service Executive. National Policy on Restricted Antimicrobial Agents. Health Service Executive; 2016. Available online from:

<https://www.hse.ie/eng/about/who/qid/nationalsafetyprogrammes/hcaiamr/hse-policy-on-restricted-antimicrobials-july-2016.pdf>

24. Health Service Executive. Guidance Relating to Carbapenemase Producing Enterobacterales (CPE): Interventions for Control of Transmission of CPE in the Acute Hospital Sector. Dublin: Health Service Executive; 2018. Available online from:

http://www.hpsc.ie/az/microbiologyantimicrobialresistance/strategyforthecontrolofanantimicrobialresistanceinirelandsari/carbapenemresistantenterobacteriaceae/guidanceandpublications/Interventions%20for%20Control%20of%20Transmission%20of%20CPE%20in%20Acute%20Hospitals_final.pdf

25. Department of Health, United Kingdom. Health Building Note 00-10 Part C: Sanitary Assemblies. Available online from:

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/148497/HBN_00-10_Part_C_Final.pdf

26. Health Service Executive Guidance for Decontamination of Semi-critical Ultrasound Probes; Semi-invasive and Non-invasive Ultrasound Probes. November 2016. Available from:

<https://www.hse.ie/eng/about/Who/qualityandpatientsafety/Medical-Devices/decontamination/Ultrasound-Probe-Decontamination-Guidance-Feb-17.pdf>

27. National Hospitals Office, Quality, Risk and Customer Care. HSE Cleaning Manual Acute Hospitals. Dublin: Health Service Executive; 2006. Available online from:

http://hse.ie/eng/services/publications/Hospitals/HSE_National_Cleaning_Standards_Manual.pdf

28. Health Service Executive. HSELand. Available online from:

<http://www.hseland.ie/dash/Account/Login>

29. Health Service Executive. Standards and Recommended Practices for the Operational Management of Endoscope Decontamination Facilities. Dublin: Health Service Executive; 2019. Available online from:

<https://www.hse.ie/eng/about/who/qid/nationalsafetyprogrammes/decontamination/>

[health-service-executive-standards-and-recommended-practices-for-operational-management-of-endoscope-decontamination-facilities-2019.pdf](#)

7.0 Appendices

Appendix 1: Lines of enquiry

1. Governance and management structures

The hospital has formalised governance arrangements with clear lines of accountability and responsibility around the prevention and control of healthcare-associated infections and the decontamination and reprocessing of reusable medical devices.

2. Monitoring and evaluation systems including risk management

The hospital has effective arrangements in place to respond to the ongoing monitoring, evaluation, audit and outcome measurement in relation to the prevention and control of healthcare-associated infection programme and the decontamination and reprocessing of reusable medical devices.

The hospital has a risk management system in place to identify, manage and report all hazards, adverse events, near misses and risks in relation to the prevention and control of healthcare-associated infections and the decontamination and reprocessing of reusable medical devices.

3. Implementation of evidence-based best practice

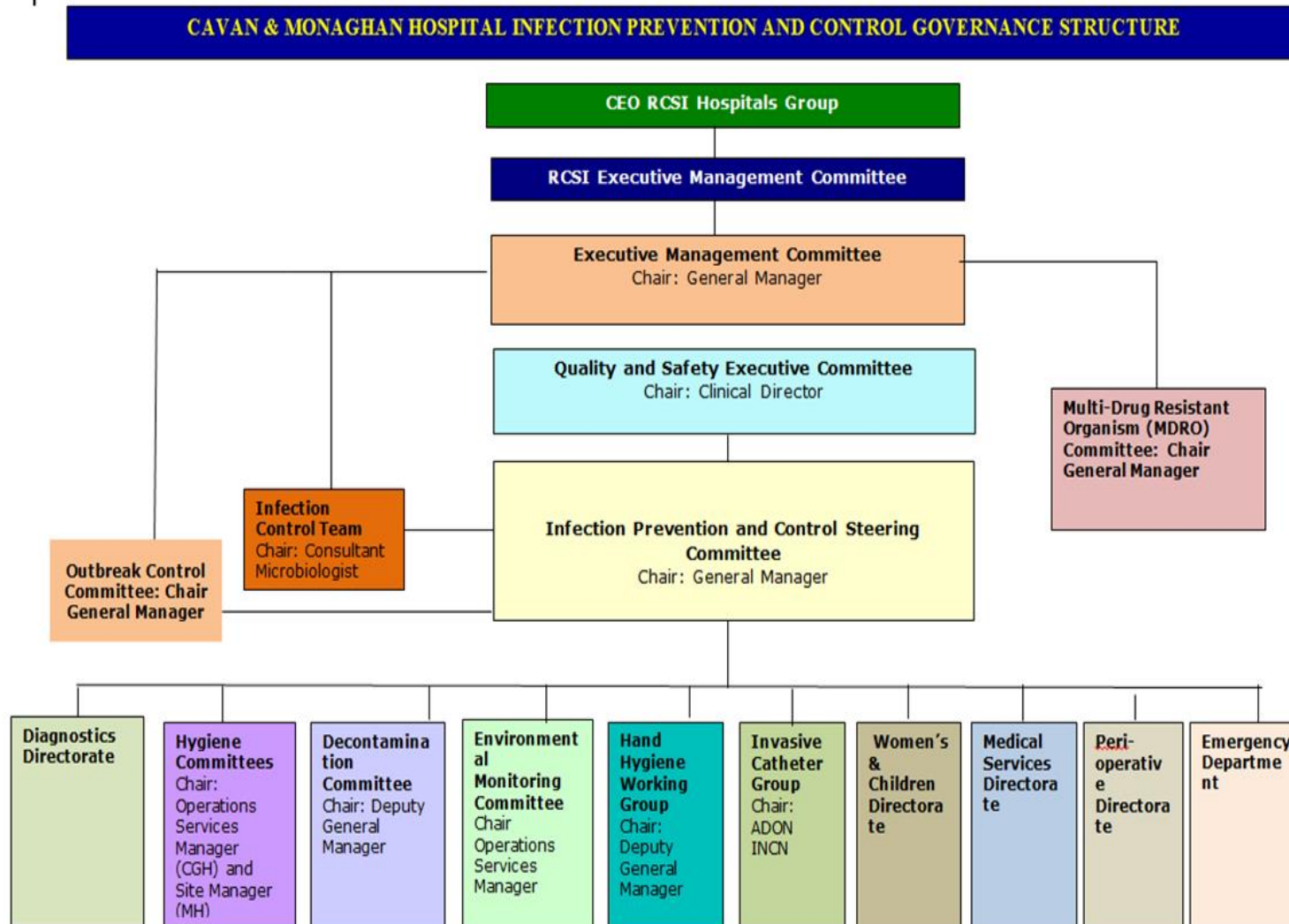
The hospital has the structures, systems and processes to detect, prevent, and manage multidrug-resistant organisms.

The hospital has the structures, systems and processes in relation to decontamination and reprocessing of reusable medical devices in satellite decontamination facilities.

The hospital ensures that key personnel have been appropriately trained to the necessary standard of competence and are supported with ongoing education and training reflecting national and international evidence.

The hospital ensures that key personnel are implementing evidenced-based best practice with up to date policies, procedures, protocols and guidelines in line with relevant legislation and national guidelines.

Appendix 2: Infection prevention and control governance organogram



For further information please contact:

**Health Information and Quality Authority
Dublin Regional Office
George's Court
George's Lane
Smithfield
Dublin 7**

Phone: +353 (0) 1 814 7400

Email: qualityandsafety@hiqa.ie

URL: www.hiqa.ie

© Health Information and Quality Authority 2019