Health Information and Quality Authority

An tÚdarás Um Fhaisnéis agus Cáilíocht Sláinte

Report of the unannounced inspection at Cavan General Hospital, part of the Cavan Monaghan Hospital Group

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

Date of on-site inspection: 9 October 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 Standards[1] 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 Cavan General Hospital's compliance with the Infection Prevention and Control Standards.[1] It was undertaken by Authorised Persons from the Authority, Alice Doherty and Katrina Sugrue, on 9 October 2014 between 08:25hrs and 14:30hrs.

The areas assessed were:

- Surgical 1 Ward
- Surgical 2 Ward.

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

2. Cavan General Hospital Profile*

Cavan General Hospital and Monaghan Hospital are 45km apart and they operate as a single hospital, with an integrated managerial and clinical governance system, care pathways and support functions. Cavan General Hospital opened in 1989 and with Monaghan Hospital formed Cavan Monaghan Hospital Group in 1998.

Cavan General Hospital (CGH) has 233 beds (181 public, 33 private/semi-private and 19 non-designated beds (Coronary Care Unit (CCU), Intensive Care Unit (ICU), High Dependency Unit (HDU)). The total number of attendances to the Emergency Department (ED), including the Medical Assessment Unit, in 2011 was 31,547. The number of attendances to Outpatients Department was 38,960.

Under the national emergency clinical care programme, the CGH ED forms part of the North East Emergency Clinical Care Network. The Medical Assessment Unit, opened in March 2009, operates from 9am to 9pm from Monday to Sunday. CGH provides a range of services, including:

- emergency medicine
- general medicine
- short-stay unit
- general surgery
- obstetrics / gynaecology including midwifery-led unit
- paediatrics
- acute psychiatry
- day services
- outpatient services
- renal dialysis services
- pathology services
- radiology services
- physical medicine services
- ICU/CCU
- anaesthesia
- oncology – outreach service from Mater Hospital, Dublin
- dermatology (sessional one day per week – visiting consultant)
- orthopaedics (sessional one day a week – visiting consultant)
- palliative care.

* The hospital profile information contained in this section has been provided to the Authority by the hospital, and has not been verified by the Authority.

3. Findings

Overview

This section of the report outlines the findings of the unannounced inspection at Cavan General Hospital on 9 October 2014. The clinical areas which were inspected were Surgical 1 Ward and Surgical 2 Ward.

Surgical 1 Ward is a 31-bedded ward and consists of four six-bedded wards, one three-bedded ward and four single ensuite rooms which are used for isolation of patients colonised or infected with transmissible infective diseases or multidrug resistant organisms when required. Two patients were isolated at the time of the inspection.

Surgical 2 Ward is also known as Medical 4 Ward as the ward mainly accommodates medical patients. It is a 32-bedded ward comprising four six-bedded wards, one four-bedded ward and four single ensuite rooms which are used for isolation of patients when required. Four patients were isolated at the time of the inspection. Surgical 2 has been participating in the Productive Ward Programme for the last two years.[3] 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.

A high risk, which was deemed to require immediate mitigation by the hospital, was identified by the Authority during the course of the inspection. Details of this risk are presented in **Section 3.1.1** of the report.

The remainder of the report is structured as follows:

- **Section 3.1.2** of the report outlines the key findings relating to non-compliance with the Standards which include environment and facilities management at Cavan General Hospital. In addition, a detailed description of the findings of the unannounced inspection undertaken by the Authority is shown in Appendix 1.
- **Section 3.2** presents the findings relating to hand hygiene at Cavan General Hospital under the headings of the five key elements of a multimodal hand hygiene improvement strategy.
- **Section 4** provides an overall summary of findings.

3.1.1 Immediate high risk finding

During the course of the inspection at Cavan General Hospital on 9 October 2014, issues were identified by the Authority which were deemed to present a high risk to

the health and welfare of patients, staff and visitors, and which required immediate mitigation. In line with the Authority's risk escalation process, the issues were brought to the attention the Chief Executive Officer (CEO) at the time of the inspection. The issues that were identified were as follows:

- *Documentation viewed by the Authority with respect to hand hygiene, demonstrated that the performance of the hospital in national and local hand hygiene audits is considerably lower than the targets set by the Health Service Executive each year. The Authority observed poor hand hygiene compliance at the time of the inspection where 59% (17/29) of opportunities were taken. These results were similar to the results of local hand hygiene audits undertaken across six clinical areas in September 2014.*

- *Documentation and discussion also indicated that there has been a recent increase in the incidence of Clostridium difficile associated disease due to a possible multitude of contributory factors; one of which was poor hand hygiene.*

Following the inspection, formal written notification of the identified risks was issued to the CEO on 13 October 2014. This notification also included a request for the hospital to futher explain the nature of the *Clostridium difficile* problem at the hospital, including any identified root causes. It also included a request for the hospital to outline a detailed action plan to fully mitigate both the *Clostridium difficile* problem and poor hand hygiene compliance.

The Authority received a prompt response from Cavan General Hospital outlining the corrective actions that have been initiated to address the identified immediate high risks. The data provided by the hospital confirmed that the rate of *Clostridium difficile* infection has been significantly above both the national average and HSE target rates for both 2013 and 2014. On the basis of the comprehensive information provided, the Authority was assured that this represented the persistent incidence of isolated unrelated cases rather than an outbreak of a predominant strain and there were no severe cases identified. The documentation viewed indicated that the pattern and volume of antimicrobial consumption at Cavan General Hospital is a suggested major contributing factor to the *C. difficile* Infection (CDI) rates within the hospital. A failure of good hand hygiene practice cannot be ruled-out as a contributory factor to the potential cross-transmission between two cases with similarly rare strains or between asymptomatic carriers and more vulnerable patients who subsequently go on to develop *C. difficile* infection.

The quality improvement plans submitted by the hospital focus on antimicrobial consumption and hand hygiene as contributory factors for the reported high incidence of *C. difficile*. The Authority notes that the interventions proposed in the

quality improvement plans are important mitigating measures, which will be further aided by the recent recruitment of a Clinical Microbiologist. In addition, the hospital management has actively addressed the deficits in resourcing the Infection and Prevention and Control Team through the internal interim appointment of an additional one whole time equivalent Infection Prevention and Control Nurse and is in the process of recruiting a Clinical Nurse Specialist / Clinical Nurse Manager 2 post (currently vacant) through the National Recruitment Service. The hospital is also in the process of recruiting an Antimicrobial Pharmacist through the National Recruitment Service to replace the current 0.5 whole time equivalent locum position.

However, lessons learnt from previous outbreaks[4-5] and national guidelines[6] recommend that multifaceted interventions are required to mitigate the risks posed by *C. difficile* in a hospital environment. The Authority recommends that Cavan General Hospital reviews the deficits identified during the unannounced inspection regarding the management of patient equipment and hospital environment in the context of controlling the spread of *C. difficile* and other Healthcare Associated Infections to ensure that the risks to patients, visitors and staff are reduced.

3.1.2 Key findings relating to non-compliance with Standards 3 and 7

The Authority found evidence during the inspection of both compliance and non-compliance with Standards 3 and 7 of the Infection Prevention and Control Standards.[1] An overview of the most significant non-compliances relating to these Standards is discussed below. Please see Appendix 1 for further details of findings.

Patient equipment

There were some opportunities for improvements in the cleanliness of patient equipment on Surgical 1 Ward. For example, a commode, an oxygen saturation probe and the wheels areas of an intravenous stand at a patient bedside were observed to be unclean.

The cleanliness of some patient equipment on Surgical 2 Ward was of concern to the Authority. For example, frequently used patient equipment such as two commodes, an intravenous pump and a temperature probe were unclean, which posed a potential risk of inter-patient transmission of infective material. Varying levels of dust were observed on some items of patient equipment including a cannulation trolley, wall mounted suction apparatus, a cardiac monitor, the top shelf of a resuscitation trolley and a glucometer holder. Patient wash basins were observed to be stacked on top of the bed pan washer. The Authority was informed that these are either cleaned with disinfectant or put in the bed pan washer. The cleaning of patient wash basins in the bed pan washer is not in line with best practice. In addition, deficits were observed in the documentation of the cleaning of patient equipment where the

labelling system in place was not observed to be activated on the day of the inspection.

In accordance with national and evidence-based guidelines, direct contact patient equipment should be clean[7], and equipment which is shared by patients should be cleaned and decontaminated between each use.[8] The Authority recommends that the hospital review the systems and processes in place to assure itself that patient equipment is maintained, cleaned and decontaminated between each use. The ongoing cleanliness of commodes in particular is of significant importance in the context of reducing the potential for transmission of *Clostridium difficile*, and should be a particular focus for improvement.

Environment and facilities management

Opportunities for improvements in the cleanliness of patient areas were observed on Surgical 1 Ward. Dust was visible on the undercarriages of two beds, on the edges of floors and on a window ledge in the patient areas assessed. It was also noted that the gridded base on a bed was unclean. However, the Authority was informed that 'deep cleaning' of beds is currently being carried out in the hospital and beds on Surgical 1 Ward will be 'deep cleaned' in due course.

Environmental hygiene on Surgical 2 Ward was sub-optimal with unacceptable levels of dust observed in some areas. For example, varying levels of dust were present on floor edges, floor corners and the undercarriages of beds in all areas inspected. Blood stains were observed on the floor beside a patient's bed. The Authority was informed by the patient that the stains resulted from a dislodged intravenous cannula which had occurred on the the night before the inspection. One mattress and the inside of three mattress covers were visibly stained. Computer keyboards located in the ward work station were also dusty. A fan which was dusty was in use in a clinical area, which is not in line with best practice. The Authority was informed that staff were aware that the use of fans in the clinical area are not recommended, as they can aid in the spread of potentially infectious material. However, they had been used to cool the ward environment when it became too hot.

Opportunities for improvement were also noted in the sanitary facilities on Surgical 2 Ward. Dust was evident on the floor edges and corners in three out of the four areas inspected.The underside of a toilet seat was unclean, the surface of a shower tray was cracked, chipped tiles were noted in a bathroom and black stains were observed on the floor and wall tiles of another shower room. The Authority was informed by a patient that the toilet flush in one of toilets of a six-bedded ward was not working effectively during the days prior to the inspection. The Authority was informed that a maintenance request had been issued by the Ward Manager on 6 October 2014 and the matter had been reviewed by the maintenance department. However, it was

unresolved at the time of the inspection and remained an issue for the patients in the six-bedded ward.

The daily check list for the cleaning of Surgical 2 did not indicate which areas had been cleaned on any given day and therefore did not provide assurances that all areas within the ward were cleaned in line with best practice.

A hospital environment should be visibly clean and free from dust and dirt and acceptable to patients, visitors and staff.[7] The Authority recommends that the hospital reviews the mechanisms in place to assure itself that 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.

Water flushing

The flushing of water outlets on both Surgical 1 and Surgical 2 Wards were observed to be inconsistent with the hospital's policy of weekly flushing. On Surgical 1 Ward, it was noted that some weekly water flushing records were not completed for the week beginning 29 September 2014. On Surgical 2, the check list for flushing water outlets in a patient bathroom was signed on 8 September 2014 for the hand wash sink only. The Authority was informed that the bath was rarely used but the taps on the bath had not been recorded as being flushed in accordance with local and national guidance. These inconsistencies have the potential to increase the risk of *Legionella* in the water system.

The Authority recommends that the hospital should review the management of *Legionella* to assure itself that the risk to the patient of acquiring Legionellosis is fully mitigated and ensure compliance with national guidelines[9] and the Infection Prevention and Control Standards.[1]

Isolation Room

The doors of an isolation room where a patient requiring contact precautions was accommodated was not closed at the time of the inspection which is not in line with best practice. In addition, environmental hygiene in the room was unacceptable. For example, the floor edges and corners were dusty and stains were evident on the floor beside the patient bed and on the intravenous pump and stand. Heavy dust was present on the undercarriage of the bed. The shower area and the hand hygiene sink were unclean. Suction equipment was hanging over suction apparatus, uncovered and therefore unprotected from the risk of contamination; the suction canister also needed to be replaced. These non-compliances are not in line with Criteria 7.4 and 7.5 of Standard 7 of the Infection Prevention and Control Standards.[1]

3.2 Hand Hygiene

Assessment of performance in the promotion of hand hygiene best practice occurred using the Infection, Prevention and Control Standards[1] 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

3.2.1 System change[10]: *ensuring that the necessary infrastructure is in place to allow healthcare workers to practice hand hygiene*.

Standard 6. Hand Hygiene

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

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

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

- There were no issues identified which needed to be addressed on either ward during the inspection regarding system change.

3.2.2 Training/education[10]: *providing regular training on the importance of hand hygiene, based on the 'My 5 Moments for Hand Hygiene' approach, and the correct procedures for handrubbing and handwashing, to all healthcare workers*.

Standard 4. Human Resource Management

Human resources are effectively and efficiently managed in order to prevent and control the spread of Healthcare Associated Infections.

Criterion 4.5. All staff receive mandatory theoretical and practical training in the prevention and control of Healthcare Associated Infections. This training is delivered during orientation/induction, with regular updates, is job/role specific and attendance is audited. There is a system in place to flag non-attendees.

Hospital training

- The Authority was informed that approximately 85% of staff who interact with patients had completed hand hygiene training in the previous year.

Local area training

- On Surgical 1, 70% of staff had attended hand hygiene training since January 2014 and on Surgical 2, 97% of staff had completed hand hygiene training in this period.

3.2.3 Evaluation and feedback[10]: *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

- Cavan General Hospital participates in the national hand hygiene audits which are published twice a year.[11] The results below taken from publically available data from the Health Protection Surveillance Centre's website demonstrate that Cavan General Hospital failed to submit national hand hygiene audit data for Period 4

(Oct/Nov 2012) and has only achieved compliance with the Health Service Executive's (HSE's) national target in October/November 2011.[11] Of note, there was a significant decrease in compliance in Period 5 (May/June 2013), however, compliance increased slightly from Period 6 (October/November 2013) to Period 7 (May/June 2014) but still remains below the HSE's national target of 90%.[12]

Period 1-7	**Result**
Period 1 March/April 2011	69.5%
Period 2 October/November 2011	80.0%
Period 3 May/June 2012	74.3%
Period 4 October/November 2012	No data available
Period 5 May/June 2013	63.8%
Period 6 October/November 2013	80.5%
Period 7 May/June 2014	81.9%

Source: Health Protection Surveillance Centre – national hand hygiene audit results.[11]

Hospital hand hygiene audit results

- The results of local hand hygiene audits carried out in September 2014 were viewed by the Authority and showed an average compliance across six clinical areas of 56% (97 out of 172 opportunities).

Local hand hygiene audit results

- The results of hand hygiene audits carried out by the hospital in September 2014 for Surgical 1 and Surgical 2 showed compliances of 47% (28 out of 60 opportunities) and 67% (14 out of 21 opportunities) respectively. The Authority notes that there is a significant difference in the number of opportunities observed on each ward.

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 WHO[13] and the HSE.[14] 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[ϒ] 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 29 hand hygiene opportunities in total during the inspection. Hand hygiene opportunities observed comprised of the following:
  - three before touching a patient
  - one before a clean/aseptic procedure
  - two after body fluid exposure risk
  - five after touching a patient
  - seventeen after touching patient surroundings
  - one hand hygiene opportunity was observed where there were two indications for one hand hygiene action (after touching a patient and before touching the next patient).
- Seventeen of the hand hygiene opportunities were taken. The 12 opportunities which were not taken comprised of the following:
  - two before touching a patient
  - one before a clean/aseptic procedure
  - one after body fluid exposure risk
  - three after touching a patient
  - five after touching patient surroundings.
- Of the opportunities which were taken, the hand hygiene technique was observed (uninterrupted and unobstructed) by the Authorised Persons for 17 opportunities. Of these, the correct technique was observed in 10 hand hygiene actions.

In addition the Authorised Persons observed:

[ϒ] The inspectors observe if all areas of hands are washed or alcohol hand rub applied to cover all areas of hands.

- thirteen hand hygiene actions that lasted greater than or equal to (≥) 15 seconds as recommended.

3.2.4 Reminders in the workplace[10]: *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 Cavan General Hospital. Large hand hygiene posters were also displayed at reception and on floors in the hospital.
- Some improvements were required in the hand hygiene signage at some of the hand wash sinks on Surgical 2.

3.2.5 Institutional safety climate[10]: *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*.

- Cavan General Hospital achieved 81.9% compliance in the national hand hygiene audit carried out in May/June 2014. While this is below the HSE national target of 90%, it is considerably higher than an average compliance of 56% which was achieved in local hand hygiene audits carried out in six clinical areas in September 2014. Similarly, a 'snap shot' observation of hand hygiene practices by the Authority during the inspection showed that 59% of hand hygiene opportunities were taken.
- The hospital has indicated in its quality improvement plan to increase hand hygiene compliance that a hand hygiene sub-group will be established and hand hygiene champions, which will include members of the senior management team, will also be identified and trained. In addition, the hospital plans to establish a hospital league table for hand hygiene, increase internal hand hygiene audits to weekly until 90% compliance is achieved, and introduce an award system for department and wards who attain the highest level of compliance. Areas for improvement were also identified at corporate and governance level. Hand hygiene is to become a standing agenda on the Quality and Safety Executive Committee and Senior Operational Team meetings. Hand Hygiene audit results wil be reviewed at all levels in the corporate organisational structure in the future and each clinical governance committee will develop their own quality improvement plan for hand hygiene in conjunction with the Hand Hygiene Compliance sub-group.
- Cavan General Hospital needs to continue to build on compliances achieved to date, to ensure that good hand hygiene practice is improved and national targets are attained.

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.

High risks, which required immediate mitigation, were identified by the Authority during the inspection. These risks were brought to the attention of the CEO on the day of inspection. Subequently, the Authority formally communicated with the Hospital requesting the aligned action plans and controls in place to safely manage the identified risks.

The hospital provided a prompt and comprehensive response outlining the corrective actions that had been taken to address the immediate high risks and the measures that would be implemented to ensure hand hygiene compliance would be improved and *Clostridium difficile* infection rates would be reduced within Cavan General Hospital. The Authority reviewed this and is assured that the hospital has demonstrated a commitment to addressing the immediate high risks identified at the time of the unannounced inspection.

In the context of environmental hygiene, Surgical 1 Ward was generally clean with some exceptions at the time of the inspection. On Surgical 2 Ward, various levels of improvement in the maintenance and management of the patient environment were identified as being required. It was also identified that the cleaning of patient equipment needs to be managed more effectively in both areas inspected in order to mitigate the risk associated with the transmission of Healthcare Associated Infections. The Authority recommends that Cavan General Hospital reviews the deficits identified during the unannounced inspection in the management of patient equipment and hospital environment in the context of controlling the spread of *C. difficile* and other Healthcare Associated Infections to ensure that the risks to patients, visitors and staff are reduced.

Opportunities for improvement were also highlighted in the flushing of water outlets which is one of the controls used to mitigate the risk of *Legionella.* The Authority recommends that the hospital should review the management of the water system to prevent *Legionella*, to assure itself that the risk to the patient of acquiring Legionellosis is fully mitigated and ensure compliance with national guidelines[11] and the Infection Prevention and Control Standards.[1]

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 improvements in hand hygiene compliance are required in Cavan General Hospital. The hospital has failed to meet the national targets in hand hygiene compliance set by the HSE in 2012, 2013 and Period 7 of 2014. In addition, internal hand hygiene audits carried out in September 2014 remain well below the national target set by the HSE and are considerably lower than the overall compliance across all hospitals who participate in the national audits. The hospital needs to continue to build on compliances achieved to date, to ensure that good hand hygiene practice is improved and national targets are achieved.

Cavan General Hospital must now revise and amend its 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 Cavan General Hospital to formulate, resource and execute its QIP to completion. The Authority will continue to monitor the hospital's progress in implementing its QIP, as well as relevant outcome measurements and key performance indicators. Such an approach intends to assure the public that the Hospital is implementing and meeting the Infection Prevention and Control Standards and is making quality and safety improvements that safeguard patients.

5. References[¥]

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6. Appendix 1 - Detailed description of findings from the unannounced inspection at Cavan General Hospital on 9 October 2014

In this section, non-compliances with Criteria 3.5, 3.6 and 3.7 of Standard 3 and Criteria 7.4 and 7.5 of Standard 7 of the Infection Prevention and Control Standards[1] which were observed during the inspection are listed below.

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 3.5. All systems including water and ventilation systems are designed, maintained and audited in line with national and international guidelines to minimise the possible spread of Healthcare Associated Infections, for example *Aspergillus* species and *Legionella* species.

- It was noted that some weekly water flushing records were not completed for the week beginning 29 September 2014.

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.

Surgical 1 Ward

Surgical 1 Ward was generally clean and well maintained with some exceptions. Opportunities for improvement were noted in the maintenance and management of some patient equipment and the patient environment.

Patient equipment

- On a commode which was labelled as 'ready for use', staining was visible under the seat and the basin in the commode was unclean. Raised toilet seats and bowls were stored on top of a second commode also labelled as 'ready for use'. Rust-coloured staining was visible on the frames and wheel areas of some commodes and the vinyl cover on one commode was torn. The Authority was informed that the hospital has a maintenance and replacement programme for commodes which has still to be implemented on Surgical 1.
- The interior edges of an oxygen saturation probe were unclean.
- The wheel areas of an intravenous stand at a patient bedside were unclean.
- Dust was visible in a glucometer holder and on a keyboard at the nurses' station. Light dust and sticky residue were also visible on the surface of a cardiac monitor.
- Hair was entangled in a wheel on a dressing trolley and a plastic strap used for patient identification was attached to the leg of a second dressing trolley.
- Rust-coloured staining was visible on the frame of a wheelchair.

General cleanliness and maintenance

- Sticky residue was visible on the frame of a patient bed and the gridded base on the bed was unclean. The Authority was informed that 'deep cleaning' of beds is currently being carried out in the hospital, and beds on Surgical 1 are due to be 'deep cleaned' in due course.
- Dust was visible on the undercarriages of two beds, on the edges of floors and on a window ledge in the patient areas assessed.
- Chipped paint was visible on bedside tables, and the edges of tables and bedside lockers were chipped.
- In one of the patient areas assessed, a soap container at a hand wash sink was unclean and a container of shower gel was sitting on the sink. In a second patient area, staining was visible on a clear panel fixed to a wall adjacent to the hand wash sink.
- Staining was visible on two ceiling tiles in one of the patient areas assessed.

Ward facilities

- The following non-compliances were observed in the clean utility room:
  - While there is a keypad lock on the door, it was not working at the time of the inspection potentially allowing unauthorised access to (i) the drug fridge and a cupboard containing antibiotics which were unlocked with the keys in the doors and (ii) needles.

  - A container of soap was sitting on the hand wash sink and a container of barrier cream was sitting on wet tissue on the sink. Staining was visible on the sealant behind the sink.
  - Boxes were stored on the floor.
  - Residue was visible at the bottom of one of the shelving units.
  - The interior of a cupboard was dusty and there was a splash stain on the exterior of the door.
  - Some paper notices were not laminated.
- There is a 'sluice' and 'dirty'[±] utility room on the ward. The following non-compliances were observed in the 'sluice':
  - The door to this room was not locked. At the time of the inspection, chemical agents were stored in an unlocked cupboard in the room with the key in the door of the cupboard. Rust-coloured staining was visible on metal attachments on the door of the cupboard and the edge of a shelf in the cupboard was chipped.
  - There was some staining between wall tiles at the hand wash sink. Black scuff marks were visible on some wall tiles adjacent to the floor and some wall tiles behind the bed pan washer were coming away from the wall.
  - Dust was visible on the floor and plastic boxes were stored on the floor.
  - The soap container was empty and the top of the dispenser was unclean.
- The equipment store was cluttered. Bags and boxes were stored on the floor and pillows were stored on top of a fridge/freezer. Light dust and label residue were visible on the floor and a wall tile was missing. The Authority was informed that a second equipment store was to be installed on the ward at the end of 2013 but due to a lack of resources, this was not installed. However, the Ward Manager still expected that it would be installed when funding was made available.
- The following non-compliances were observed in the treatment room:
  - The treatment room was not secured, potentially allowing unauthorised access to hypodermic needles.
  - Access to the hand wash sink was obstructed by dressing trolleys stored in front of the sink.
  - Plastic shelving units containing miscellaneous items and cardboard boxes were stored on the floor under the window. Additional cardboard boxes containing patient supplies were stored on the floor. The Authority was informed that these supplies had been delivered on the morning of the inspection.
  - Light dust was visible on the undercarriage of the treatment bed.
- There was debris on the floor inside the door of the store containing patient supplies and other items.

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

Sanitary facilities

- A puddle of urine was observed on the floor in a patient toilet. This matter was brought to the attention of the Ward Manager and remedied immediately. Staining was visible on the sealant around the toilet bowl. A plastic jug and a wet tissue were sitting on the hand wash sink.
- Light dust was observed on the floor in a patient shower room and some staining was visible between shower tiles. A shower seat was cracked in two places. Hair was entangled in the shower outlet.
- In a second patient shower room, a small amount of staining was observed between wall tiles in the corner of the shower. Dust was observed above the grid in the ceiling. The fabric on a stool in the shower room was torn.

Cleaning facilities

- A flat head mop was stored beside the bed pan washer in the 'sluice'. Sticky tape was visible on the handle of the mop at the point where the handle attaches to the base.
- Dust was visible in the corners of a cleaning trolley.
- Dust and debris were visible on the floor in the cleaning room and supplies were stored on the floor. Dust was also visible at the skylight in the room.
- Residue was visible on some shelves in the cleaning room and the edges of some shelves were chipped. Residue was also visible on some wall tiles.

Linen

- The floor covering at the entrance to the linen store room was unclean and linen bags were stored on the floor.
- Dust was observed to be hanging from the ceiling and on pipe work above the shelving in the linen store room.

Surgical 2 Ward

Patient equipment

- A used accucheck strip was present at the end of a bed frame.
- Frequently used patient equipment such as a temperature probe and two commodes were observed to be unclean. The legs on the frame of a trolley used to hold equipment for monitoring patient observations were dusty. In addition, the labelling system used to alert staff that equipment had been cleaned was not evidenced at the time of the inspection.
- Varying levels of dust were observed on several items including a cardiac monitor, the top shelf of a resuscitation trolley, a glucometer holder, suction apparatus, computer keyboards, and an intravenous pump.

- A wheelchair seat cover was torn, hindering effective cleaning.

General cleanliness and maintenance

- Blood stains were visible on the floor beside a bed. The Authority was informed by the patient occupying the bed that the stains had been there since the night before when their intravenous access became dislodged. This matter was brought to the attention of the Ward Manager for immediate mitigation of the risk.
- Staining was observed on a mattress base and on the inside of three mattress covers.
- Staining was observed on the sealant of a hand wash sink.
- Fans were in use in the clinical area which is not in line with best practice.
- Chipped paint was observed on some walls and bedside tables.
- Varying levels of dust were observed in several areas including the undercarriages of beds, the edges of floors and on the bottom ledge of a cannulation trolley.

Ward facilities

- Dust was visible on the bottom shelves of cupboards in the clean utility room. The cleaning check list indicated that the cupboards had been cleaned the day prior to the inspection.
- The following non-compliances were observed in the 'sluice' room:
  - The macerator did not have a service date displayed on it.
  - Patient wash basins were observed to be stacked on top of the bed pan washer. The Authority was informed that these are either cleaned with disinfectant or put in the bed pan washer. The cleaning of patient wash basins in the bed pan washer is not in line with best practice.

Sanitary facilities

- Black staining was visible in a shower area, on some wall tiles and the shower tray was cracked.
- Dust was observed on the floors and edges in three of the washrooms that were inspected.
- A toilet was not flushing at the time of the inspection.The Authority was informed that this matter was referred to the Technical Services Department at the beginning of the week, prior to the inspection. However, the issue was unresolved at the time of the inspection and remained an issue for the patients in the six-bedded ward.
- The underside of a toilet seat was stained.
- There was rust on a domestic waste bin.

- There were paper towels on the floor.
- A wall tile was chipped.

Isolation room

- The following non-compliances were observed in an isolation room:
  - The doors of the room and the ante room were open at the time of the inspection.
  - Varying levels of dust were present on floor corners and edges in the patient area and ensuite facilities and on the undercarriage of the bed.
  - Stains were observed on the floor beside the patient bed and on a pump and intravenous stand.
  - The shower area was unclean.
  - The hand hygiene sink was unclean.
  - The vinyl cover on an armchair was torn.
  - Suction equipment was hanging over wall mounted suction apparatus and was unprotected from contamination; the suction container needed to be replaced.

Cleaning facilities

- The cleaning room was not secure.
- A knife was observed in the domestic sink.
- Rust-staining was observed on the floor covering near a domestic waste bin.
- Rust-staining was observed on the floor.
- A bag of non-clincial waste was stored on the floor.

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.

Surgical 1 Ward

- A roll of toilet paper and an incontinence pad were sitting on the lid of the non-clinical waste disposal bin in a patient toilet.
- A clinical waste disposal bin was used to hold open the door of the ante room of an isolation room.
- The temporary closing mechanisms on two sharps waste disposal boxes in the clean utility room were not activated.
- The lid on a non-clinical waste disposal bin was not opening fully on one side.

Surgical 2 Ward

- Assembly details on a sharps bin viewed in the ante room of an isolation room were not completed.
- Clinical waste posters identifying waste segregation were not available in the 'sluice' room.

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