Health Information and Quality Authority

An tÚdarás Um Fhaisnéis agus Cáilíocht Sláinte

Report of the announced monitoring assessment at Letterkenny General Hospital, Letterkenny

Monitoring Programme for the National Standards for the Prevention and Control of Healthcare Associated Infections

Date of announced on-site monitoring assessment: 5 June 2013

About the Health Information and Quality Authority

The Health Information and Quality Authority (HIQA) is the independent Authority established to drive continuous improvement in Ireland's health and personal social care services, monitor the safety and quality of these services 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.

- **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. Background

The Health Information and Quality Authority (the Authority) has the national statutory role for developing standards for the quality and safety of healthcare services. The *National Standards for the Prevention and Control Healthcare Associated Infections* (NSPCHCAI) were approved by the Minister for Health and Children on 26 May 2009. Under the Health Act 2007, the Authority has the statutory responsibility, amongst other functions, for monitoring compliance with National Standards and advising the Minister for Health as to the level of compliance.

The NSPCHCAI provide a framework for health and social care providers to prevent or minimise the occurrence of Healthcare Associated Infections (HCAIs) in order to maximise the safety and quality of care delivered to all health and social care service users in Ireland. The NSPCHCAI aim to drive a culture of responsibility and accountability among all staff involved in the management and delivery of health and social care services – all of whom must play their part in preventing and controlling HCAIs. While services may differ in terms of scale, service-user population, the nature of care provided, staffing levels, location and history, the principles for the prevention and control of HCAIs are applicable to all health and social care services.

The Authority commenced Phase 1 of the monitoring programme for the *National Standards for the Prevention and Control of Healthcare Associated Infections* (the National Standards) in the last quarter of 2012. This initially focused on announced and unannounced assessment of acute hospitals' compliance with the National Standards.

Phase 2 commenced in January 2013, and will continue throughout 2013 and into 2014 to include announced assessments at all acute hospitals in Ireland, and the National Ambulance Service.

This phase of monitoring is a contributory phase towards preparing service providers for the eventual monitoring of services against the *National Standards for Safer Better Healthcare*. In line with this aim, the Authority reviewed the NSPCHCAI and framed them within three themes of the *National Standards for Safer Better Healthcare*. These themes are:

- Theme 1: Leadership, Governance and Management
- Theme 2: Workforce
- Theme 3: Safe Care

1.1. Essential elements for safe, high quality care

To facilitate the overall NSPCHCAI monitoring programme, the NSPCHCAI and their respective criteria were reviewed and amalgamated in order to develop essential elements which would be representative of what an organisation must have in place as the foundation for the provision of safe, high quality care through the prevention and control of Healthcare Associated Infections (see Appendix 1). Accordingly, the monitoring methodology was developed to assess organisations for their compliance with these overarching essential elements. Therefore it is important to note that the Authority is not assessing against each of the individual standards and their criteria. It should also be noted that hygiene forms only one component of this announced assessment approach.

2. Overview

2.1. Letterkenny General Hospital Profile[1]

Number of beds	- 318
Catchment population	- circa 160,000 (within County Donegal)
Staffing (whole-time equivalent)	- 1360 WTE
Inpatient discharges 2012	- 21311
ED attendances 2012	- 33342
ED attendance 2013 (to date)	- 17,088 (Jan to May)
OPD attendances 2012	- 64379 (consultant-led)
OPD attendance 2013 (Jan to May)	- 31,723 (consultant-led)
Annual budget 2013	- €100.4 million

Introduction

Letterkenny General Hospital was established in 1960. The hospital is a 318-bed acute general hospital providing services to the catchment area of County Donegal, population of approximately 160,000. Letterkenny General Hospital provides a broad range of acute services on an inpatient, day case and outpatient basis including:

- Intensive care
- emergency department
- coronary care
- general medicine (including respiratory med/cardiology/gastrology/endocrinology)
- geriatric medicine (including a 19-bed rehabilitation unit)

[1] 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.

- general surgery (including breast and colorectal surgery)
- urology
- orthopaedics
- obstetrics and gynaecology
- paediatrics (including neo-natal service)
- renal services – Regional Centre (including renal dialysis)
- oncology
- haematology
- pathology
- radiology
- visiting: neurology, dermatology, oral maxillo-facial, paediatric cardiology, ENT, and ophthalmology.

Other services provided:

- Symptomatic breast cancer – satellite centre of GUH designated centre
- rectal cancer surgery – as per National Cancer Strategy
- interventional radiology
- interventional cardiology
- Sexual Assault Treatment Unit
- PCCC acute mental health service provided on site
- PCCC genito-urinary medicine service provided on site.

The hospital provides an undergraduate medical education programme as an academy of NUIG Medical School. Undergraduate nurse, midwifery, and allied health professional (AHP) training and clinical placements are also provided at LGH. Postgraduate medical and nursing education is also delivered within the hospital.

3. Findings

The findings of the announced monitoring assessment at Letterkenny General Hospital are described below.

Authorised Persons from the Authority, Breeda Desmond, Catherine Connolly Gargan and Naomi Combe carried out the onsite component of the monitoring assessment on 05 June 2013 between 08:30hrs and 16:00hrs. The Authorised Persons from HIQA commenced the monitoring assessment in the Emergency Department (ED).

The areas assessed were:

- Surgical 1 (medical ward: Respiratory Medicine, Cardiology and General Medicine)
- Maternity ward
- Surgical 2 (mixed surgical specialities)

3.2. Theme 1: Leadership, Governance and Management

Theme 1: Leadership, Governance and Management

Robust leadership, governance and management structures and processes underpin what hospitals should have in place to assure the public and themselves that the arrangements for the prevention and control of Healthcare Associated Infections (PCHCAI) are effective.

There are robust local, monitoring and reporting arrangements in place thereby ensuring infection control is managed at a consistently high level of quality with minimal variation in the delivery of that care. There are effective regional and national PCHCAI reporting arrangements in place, infection control activities provided are compliant with the relevant legislation, clinical care programmes and evidence-based practice, and the organisation is acting on national standards and recommendations from statutory bodies.

Essential Element 1(a) A comprehensive corporate and PCHCAI governance structure supported by an integrated organisational framework is in place. The governance arrangements will include PCHCAI specific strategies, aligned cost effective initiatives and defined responsibilities for externally contracted services.

Findings Essential Element 1 (a)

Letterkenny General Hospital is a stand-alone hospital within the Health Service Executive (HSE) West Region.

Corporate Governance arrangements to support compliance with the NSPCHCAI

Corporate Governance structure

The hospital is governed by the Hospital Executive Board (HEB). The Hospital Executive Board has responsibility for policy and strategy of the hospital and Terms of Reference were in place. Membership includes the General Manager, Assistant General Manager, Director of Nursing and Midwifery, Clinical Director, Chairperson of the Medical Board, Consultant Doctor, Head of Finance, and an Allied Health Professional representative, as documented in the terms of reference. The chair of the Hospital Executive Board is a Consultant Doctor. The Clinical Director, heads of departments and Director of Nursing report to the General Manager, who reports to the Area Manager. The Area Manager reports to the Regional Director of Operations (RDO) HSE West. The General Manager has overall executive accountability, responsibility and authority for the quality and safety of the service.

The Hospital Management Board and the Clinical Governance Steering Committee are responsible for the day-to-day operational management and governance functions of the hospital. There are 12 Speciality Management Teams to support the operational management services and these speciality teams report into the Hospital Management Board.

Agenda and minutes of the Hospital Executive Board meetings were reviewed by the Authority prior to the on-site component of the monitoring assessment. These demonstrated that prevention and control of Healthcare Associated Infections (to include aligned cost-effective initiatives) was not a standing item on the agenda. However, there was evidence of direct reporting of PCHCAI-related matters to the Hospital Executive Board through interim reports from the Infection Prevention and Control Team. While there is an annual hospital business plan, there is no budget allocated specifically for PCHCAI in Letterkenny General Hospital. Their PCHCAI-related Quality Improvement Plans (QIPS) were reviewed by the Authority and even though many were input in 2009 and were due for completion by December 2012, one third had not been completed. The Hospital Executive Board governance arrangements should include PCHCAI specific strategies with aligned cost effective initiatives, (as described in *the National Standards for the Prevention and Control of Healthcare Associated Infections*) to achieve better outcomes for patients.

PCHCAI Governance

Infection Prevention and Control Team

An Infection Prevention and Control Team (IPCT) was in place in Letterkenny General Hospital. The Infection Control and Prevention Team reports to the Infection Prevention and Control Committee (IPCC). Terms of reference (ToR) were in place and members of the IPCT included the consultant microbiologist, surveillance scientist, antimicrobial pharmacist, two infection prevention and control nurse specialists, and an infection prevention and control nurse Clinical Nurse Manager 3. Formal meetings are held weekly and this was evidenced by minutes reviewed. The role and function of the IPCT was both operational and advisory in that the team coordinated and facilitated the hospital PCHCAI education programme and provided guidance and advice in relation to the prevention and control of infection and antimicrobial prescribing in the hospital. The IPCT undertook selected PCHCAI surveillance, data collation, analysis and reporting of findings.

Infection Prevention and Control Committee

There is an Infection Prevention and Control Committee (IPCC) in Letterkenny General Hospital. Documentation submitted to the Authority confirmed that all members of the Infection Prevention and Control Team (IPCT) are members of the Infection Prevention and Control Committee. Other membership of the committee included clinical and corporate representation, with the General Manager as Chairperson. Terms of reference (ToR) in place outlined both medical and surgical consultant representation; however, there was no consultant surgeon member on the committee. ToR further outlined that meetings are to be held quarterly, or more frequently if required. However, from September 2011 to November 2012 the Infection Prevention and Control Committee did not convene. The minutes of meetings demonstrated that information, as well as several requests for the IPCC to meet, was forwarded from the IPCT to the hospital's Clinical Governance Steering Committee to enable discussion and decision making. This was discussed with the General Manager during the onsite monitoring assessment who outlined several reasons for the failure of the IPCC to meet during that period. The General Manager gave reassurances to the Authority that the IPCC would function in accordance with their terms of reference in future. This is to be welcomed.

Drugs and Therapeutic Committee

There is a Drugs and Therapeutic Committee (D&TC), incorporating antimicrobial stewardship, in Letterkenny General Hospital, which is chaired by a member of the Medical Board. Terms of reference (ToR) are in place with clinical and corporate involvement. Terms of reference indicate that meetings are held every two months; however, there was just one meeting held in 2012. This was discussed during the onsite monitoring assessment. It was reported to the Authority that regular meetings of the D&TC have commenced in 2013 and this is to be welcomed. Minutes from the last two meetings indicated that the ToR were discussed and deemed outdated. They suggested that reporting accountability be amended to reflect the D&TC reporting into the Clinical Governance Steering Committee rather than the Medical Board; this was not reflected in the ToR submitted to the Authority.

Initiatives undertaken by the D&TC include the development and delivery of the HSE Letterkenny General Hospital Guidelines for the Use of Antimicrobial Prescribing for all medical staff and associated education sessions including changing antibiotics from intravenous to oral administration, surgical prophylaxis and restricted antimicrobials.

Monitoring of antimicrobial usage by the pharmacist was reported as ongoing. The consultant microbiologist outlined that when usage is not in adherence with best practice guidelines, it is reported to the appropriate clinical lead. However, audit results submitted to the Authority demonstrated that the compliance rate with antimicrobial prescribing was 42.9% and audits to determine compliance with surgical prophylaxis had not been undertaken.

Antimicrobial resistance can be controlled with an effective antimicrobial prescription programme, and appropriate prescribing contributes significantly to the reduction of HCAI. Antimicrobial audit results circulated to clinicians and management should be used to improve the quality of the service provided to achieve better patient outcomes.

Essential Element 1(b) There is clear monitoring and reporting of defined PCHCAI performance metrics, with trend analysis, reciprocal quality improvement initiatives and reporting at a local, regional and national level.

Findings Essential Element 1(b)

Letterkenny General Hospital provided documentation and described the systems and structures in place for the monitoring and reporting of PCHCAI performance metrics with trend analysis and quality improvement initiatives in place within the Infection Prevention and Control Team (IPCT). Documentation provided to the Authority demonstrated that the hospital was undertaking regular surveillance and trending of Methicillin-resistant Staphylococcus aureus (MRSA) and Staph. aureus bacteraemia cases, Extended Spectrum Beta Lactamase (ESBL) and Vancomycin-resistant Enterococcus (VRE). Surveillance data submitted to the HSE's Health Protection Surveillance Centre (HPSC) is in compliance with national requirements. The hospital also contributed data to the national Point Prevalence Study Report for 2012 for HCAIs, antimicrobial use in Ireland, and mandatory infectious diseases notifications to the Director of Public Health and European Antimicrobial Resistance Surveillance Network (EARS Net). Evidence was demonstrated of quality improvement initiatives implemented in response to monitoring of performance metrics, for example, the implementation of care bundles and audits; patients with a history of MRSA readmitted to the hospital are now swabbed within 24 hours of readmission to determine risk status.

Essential Element 1(c) A clear PCHCAI communication strategy, supported by robust operational arrangements, to assure the effective communication of appropriate and timely information throughout the service, to service providers and appropriate agencies is in place.

Findings Essential Element 1(c)

There was no PCHCAI communication strategy/policy in place in Letterkenny General Hospital. While the Infection Prevention and Control Team gave a comprehensive description in discussions with the Authority of upward PCHCAI information communications, reflected in documentation submitted to the Authority, there was evidence of room for improvement in multi-directional communications evidenced by minutes of meetings reviewed by the Authority. It was reported to the Authority that information is relayed to patients through leaflets as well as communications from ward staff. However, there was no formal policy directing staff on how to inform

patients that they had acquired a HCAI. An effective PCHCAI communication strategy ensures that information relating to HCAIs is communicated and responded to in an efficient, timely, effective and accurate manner. The absence of a formal, written PCHCAI communication strategy is not compliant with the Standards.

Theme 1: Leadership, Governance and Management – Conclusion

The accountable person for the quality and safety of services for Letterkenny General Hospital is the General Manager. Prevention and control of healthcare associated infection is not a standing item on the hospital's Executive Board. Many of the hospital's QIPs were not completed within their allocated timeframe. There is an Infection Prevention and Control Committee in situ; the Authority was given assurances that the committee would function in accordance with their Terms of Reference to ensure a robust PCHCAI strategy and appropriate support for the IPCT. The Authority was also given assurances that the Drugs and Therapeutics Committee would operate within their Terms of Reference. There is clear monitoring and reporting of defined PCHCAI performance metrics, with trend analysis, reciprocal quality improvement initiatives and reporting at a local, regional and national level. A PCHCAI communication strategy as described in the National Standards is not in place.

3.3. Theme 2: Workforce

Theme 2: Workforce

The hospital should always be in a position to assure the service users, the public and themselves that everyone working in the service is contributing to the prevention and control of Healthcare Associated Infections. The individual members of the workforce must be skilled and competent, they must be supported to continuously update and maintain their knowledge and skills, whether they are directly employed or in contractual employment.

Essential Element 2(a) Members of the core PCHCAI team must have the appropriate qualifications, specific training, skills and competencies in infection control, antimicrobial stewardship and HCAI surveillance. They must undergo continuing professional education and development on a regular basis.

Findings Essential Element 2(a)

Documentation submitted to the Authority demonstrated that members of the Infection Prevention and Control Team (IPCT) are all appropriately qualified in infection control, antimicrobial stewardship and HCAI surveillance. In discussion, it was confirmed that members of the core team are undertaking continuing professional education and development as required.

Essential Element 2(b) All hospital staff receive mandatory theoretical and practical training in relation to the prevention and control of Healthcare Associated Infections.

Findings Essential Element 2(b)

Discussion with members of Letterkenny General Hospital IPCT outlined that theoretical and practical training in relation to the prevention and control of HCAIs was mandatory. However, they confirmed that attendance at hand hygiene training was problematic, with a low uptake from staff. Audits in 2011 and 2012 of hand hygiene training demonstrated very poor attendances. While attendances at mandatory hand hygiene training improved since the unannounced monitoring assessment on 27 February 2013 with some areas achieving 100% compliance, overall training rate on 5 June 2013 was just 66%.

The infection prevention and control team (IPCT) demonstrated their new Information Technology system to record and track staff training attendances, when training was due and highlighting overdue training. Members of the IPCT stated that this will allow easy identification of non-compliant staff who will now be

targeted regarding completion of their mandatory PCHCAI training in order to meet the National Standards and reduce the risks to patients. This is to be welcomed. The uniform policy was recently amended to include a 'bare below the elbow' strategy in order to comply with the World Health Organization hand hygiene protocols.

The aforementioned audit results were discussed along with the hospital's key performance indicators. It was reported to the Authority that reciprocal quality improvement initiatives were initiated including greater involvement of clinical leads, line managers with responsibilities assigned at ward level, to promote and ensure best practice hand hygiene.

Hand hygiene is recognised internationally as the most significant preventative measure to prevent HCAIs in healthcare services. Low attendances at hand hygiene training poses a significant risk to patients of HCAIs.

Essential Element 2(c) There are arrangements are in place to ensure visiting clinical, undergraduates and agency staff are competent in the core principles for the prevention and control of HCAIs.

Findings Essential Element 2(c)

It was confirmed in discussions with staff that there are arrangements in place to ensure that agency and contract staff are competent in the core principles for the prevention and control of HCAIs. It was reported to the Authority that the Human Resources Department and the infection prevention and control nurses ensure that students have either completed HCAI training before arrival at the hospital, or that they undertake the hospital HCAI education programme as part of their induction programme. There were no assurances available that visiting clinicians are competent in the core principles for the prevention and control of HCAIs.

Theme 2: Workforce – Conclusion

Members of the core PCHCAI team are appropriately qualified and undergo continuing professional education and development on a regular basis. Attendance at hand hygiene training has been problematic, with a low uptake from staff even though regular hand hygiene training sessions are facilitated. A new IT system was introduced to enable easier identification of non-attendees at hand hygiene training and thus target non-compliers. The uniform policy was amended to reflect 'a bare below elbow' procedure while in the clinical area. It is too early to assess adequately the impact of new controls introduced. However, results of hand hygiene observations by the Authority, referred to in detail later in the report, were similar to the Authority's previous monitoring assessment in Letterkenny General Hospital on 23 February 2013.

The extent of non-attendance at hand hygiene training and poor hand hygiene audit results pose a significant risk to patients of HCAIs at Letterkenny General Hospital.

3.4. Theme 3: Safe Care

Theme 3: Safe Care

The hospital recognises that the prevention and control of Healthcare Associated Infections is paramount. The cleanliness of the physical environment and equipment is effectively managed and maintained. The hospital learns from all information relevant to the provision of safe PCHCAI services, in addition to when things go wrong.

There is an embedded focus on quality and safety improvement, evidence-based decision making and active engagement in local, national and international initiatives to minimise the risk of HCAIs.

Essential Element 3(a) There is 24-hour seven-days-a-week access to specialist microbiological advice and services.

Findings Essential Element 3(a)

The consultant microbiologist is on call 24 hours, seven-days-a-week to offer specialist microbiological advice and services. When the microbiologist is on leave, cover is provided by the consultant microbiologist from The Ulster Hospital, Dundonald, Northern Ireland. It was reported to the Authority that there is formal documentation to support this arrangement.

Essential Element 3(b) There are specific care bundles and/or policies and procedures developed, communicated, implemented and their efficacy monitored with the use of:

- peripheral intravenous catheter

- urinary catheter

- central venous catheter

Findings Essential Element 3(b)

One-quarter of all HCAIs are related to the use of invasive medical devices (devices that are put into a patient's body or skin, for example, urinary catheters, peripheral intravenous catheters or central venous catheters). To increase patient safety, all services should have a specific set of processes to improve patient outcomes, for example, care bundles for the prevention and control of invasive medical device related infections.

The Authority was informed that urinary catheter (UC) and peripheral vascular catheter (PVC) care bundles were in use in the hospital. The Authority notes an audit in progress in the Intensive Care Unit in preparation for the introduction of Central Venous Catheter (CVC) care bundles there. Metrics referencing compliance with care bundle management were displayed together with hand hygiene audit and other clinical documentation audit results on notice boards erected outside the wards for public information.

Surgical 1 (medical ward)

Staff reported that they were supported by the nursing practice development department with use of PVC and UC care bundles. The hospital reported that PVC care bundles had been in use in the wards for approximately two years. UC bundles were implemented this year. Key components to be recorded were in line with best practice and included hand hygiene procedures. The intravenous device assessment form was being used as the daily record of PVC monitoring and included: PVC insertion details including time and date of insertion and signature of inserter, size of catheter and rationale for insertion. A phlebitis score (0 – 5) was part of the intravenous device assessment form, which described degrees of possible inflammation of the PVC site. The Authority found that monitoring of PVCs also assessed PVC insertion site, whether the dressing was intact, and assessment of need for the PVC. Key component monitoring of UCs included maintenance of asepsis, empting when two thirds full, and patency. Compliance was assessed by weekly audits, which were collated, reviewed and submitted for overall hospital metric evaluation. The Authority found that PVCs had not been removed within the recommended timescales. Review of need for PVC was not documented in all cases. A review of documentation for a UC care bundle revealed that management of the device as a closed unit was not monitored. UC documentation was otherwise found to be completed. While the use of PVC and UC care bundles was embedded in the Surgical 1 ward, audits completed to monitor the adherence to SARI guidelines for the effective management of the PVC did not result in formal documented action plans to address weaknesses in the process.

Maternity ward

PVC and UC care bundles were in use in the Maternity ward. Audits of compliance with PVC care bundles were carried out by the Infection Control and Prevention Nurse. Deficits are not recorded in a formal action plan but are discussed with relevant staff informally. This does not facilitate trending of deficits for informing staff professional education or continuous quality improvement initiatives. Audit of compliance with UC care bundles had not commenced at the time of assessment by the Authority. Midwives insert urinary catheters and most peripheral vascular catheters. Doctors also insert PVCs. The intravenous device assessment form (as described previously) was in place here also. Documentation of key component monitoring was recorded twice daily for each patient.

Surgical 2 (Surgical ward – mixed specialties)

Peripheral Vascular Catheter care bundles were in use on Surgical 2 ward. Urinary Catheter care bundle implementation is planned as reported by staff to the Authority. Staff reported that Central Venous Catheters (CVCs) are also in use on the ward but a care bundle was not in place to date. While a guideline was developed to inform best practice in caring for patients with Peripherally Inserted Central Catheters (PICC), no policy or guideline was available to inform practice in caring for patients with Central Venous Catheters. The hospital reported that the Infection Prevention and Control Team are leading out on addressing this deficit and are currently assembling a group to develop same. Staff reported that they sought guidance from colleagues in the Intensive Care Unit and a care plan was developed in each case which recorded best practice in caring for CVCs in the interim. Care plans have not been audited to date. Urinary catheter care was informed by an up to date policy and guideline. Care plans were developed in each case to manage care. A home pack of equipment and information is provided to patients discharged to home with urinary catheters.

The Authority was informed that PVCs were inserted by doctors and nurses. The intravenous device assessment form (as described previously) was in place. One PVC monitoring record was assessed by HIQA and documentation had been completed in full as required twice daily. One patient's PVC was inserted on the morning of the assessment. The PVC reviewed by the Authority had been in place for one day at the time of assessment. Weekly audits were undertaken in relation to PVC care bundles. Previously, these audits did not include invasive device assessment documentation completion and this resulted in inaccurately high compliance results. The handover meeting was utilised as a forum for audit feedback by the clinical nurse managers. While all deficits identified in audits were addressed, action plans were not formally documented and closed. Formal documentation of actions to be completed to address deficits in compliance would enable trending and analysis to inform and quantify progress, educational and quality improvement initiatives.

Conclusion

Overall the Authority found that although PVC care bundles were in use and embedded in practice, documentation was not completed in one area. Audits were in place to determine their effectiveness and staff compliance. However, in the absence of formal documentation of action plans, it was not possible to review recurrent issues or use to inform education initiatives. The Maternity and Surgical 2 wards were in the process of introducing UC care bundles. CVC care bundles were not in place but implementation was planned as reported to the Authority. Despite audit of best practice in Surgical 1, there was evidence of incomplete documentation and some non compliance with SARI key monitoring components for PVCs. Urinary Catheter care bundles were not audited in this area.

The implementation of a structured set of processes has been proven internationally to improve patient outcomes regarding PCHCAI and prevent or reduce medical device related infections. Care bundles documentation/chart reviewed by the Authority relating to peripheral vascular catheters would suggest that the relevance and value of such a chart in reducing or preventing a HCAI is not comprehensively understood in Surgical 1. This presents a direct risk to patients in Letterkenny General Hospital of HCAIs.

Essential Element 3(c) There are defined PCHCAI performance metrics and audit processes in place with a particular emphasis on:

- hand hygiene
- surgical-site infection rates
- environmental and equipment hygiene
- antimicrobial prescribing
- infection related to the use of invasive medical devices
- HCAI trend rates and analysis.

Findings Essential Element 3(c)

Hand hygiene

Hand hygiene is recognised internationally as the single most important preventative measure in the transmission of HCAIs in healthcare services. It is essential that a culture of hand hygiene practice is embedded in every service at all levels.

The unannounced monitoring assessment by HIQA on 27 February 2013 observed that 11 of 40 hand hygiene opportunities were taken. Of the 11 opportunities taken, eight complied with best practice hand hygiene technique. Non-compliance related to not following best practice hand-washing technique, wearing sleeves to the wrist, wearing a wristwatch and the length of time taken to complete the hand hygiene procedure.

Observation of hand hygiene opportunities

During the onsite component of the announced monitoring assessment on 05 June 2013, the Authority observed 40 hand hygiene opportunities.

Hand hygiene opportunities available comprised:

- 27 before touching a patient
- one after touching a patient
- two before clean/aseptic procedure.
- ten after touching patients' surroundings

The Authority observed that 23 out of 40 hand hygiene opportunities were taken, 17 of which were observed to comply with best practice hand hygiene technique. Non-compliance consisted of not following best practice technique for hand washing procedure and in three cases, wearing sleeves to wrist while performing the hand hygiene procedure.

While the Authority recognises that the Hospital had implemented a number of staff training and monitoring initiatives to improve hand hygiene since the previous HIQA assessment, the reported compliance rates for the Hospital would indicate that a culture of hand hygiene is not yet operationally embedded in the areas assessed. These findings are not in compliance with the National Standards for PCHCAI and should be addressed as a priority by the hospital.

Surgical site infections

Research has shown that surgical site infections (SSI) are the third highest risk to patients in acute hospitals. The rate of surgical site infections is recognised as an important indicator of patient care and quality. Consequently, hospitals who review surgical site infection rates and initiate reciprocal quality improvement initiatives demonstrate a positive impact on the prevention and control of HCAIs. However, surgical site infection surveillance is not undertaken in Letterkenny General Hospital.

Environment and equipment hygiene audits

Regular audit of the environment and equipment hygiene demonstrates compliance with evidence-based best practice regarding effective management, decontamination and maintenance. There was evidence that environmental and equipment hygiene audits are undertaken quarterly at Letterkenny General Hospital. Results of environmental audits are relayed immediately to areas assessed, as information is input to palm-held devices and the software package compiles instant results. Audit documentation reviewed by the Authority demonstrated date, time, ward, area within the ward, checklist of items assessed, and findings. However, there was no information regarding the remainder of the assessment form which included 'completed date, complete user and completed in time'. Audits did not outline actions to be taken with associated responsibilities assigned; others did not have actions or responsibilities assigned to individuals and no timelines were in place for completion of remedial action of issues identified. Thus, outcomes could not be determined.

Audit of the efficiency of the provision of maintenance services at the hospital had not been undertaken at the time of the monitoring assessment. Most of the maintenance forms reviewed were not comprehensively completed so there was no way of knowing if work was prioritised or completed within a reasonable timescale.

Antibiotic prescribing

Inappropriate use of antimicrobials is associated with the emergence and rising levels of antimicrobial resistance. Antimicrobial prescribing feedback is a significant strategy that has shown demonstrable benefits in the prevention and control of HCAIs. Documentation provided to the Authority regarding antimicrobial prescribing showed that data had been contributed to the Antimicrobial Point Prevalence Study and to the European Antimicrobial Resistant Surveillance System (EARSS). The microbiologist participates in 'grand rounds'[2] to facilitate ongoing education regarding appropriate antimicrobial prescribing. Documentation reviewed by the Authority confirmed that arrangements are in place for regular internal antimicrobial prescribing audit. While formal antimicrobial feedback is relayed by the antimicrobial pharmacist and microbiologist to the Infection Prevention and Control Team and to the Medical Board, audit results demonstrate that reciprocal quality improvements were not robust enough to mitigate risks, as evidenced by audit results submitted to the Authority. For example, compliance with antimicrobial prescribing was just 42.9% and compliance with surgical prophylaxis was undetermined. This poses a risk of HCAIs to patients in Letterkenny General Hospital.

[2] A teaching tool consisting of presenting medical problems and treatment of particular patients to an audience consisting of doctors and medical students for medical education.

Infections related to use of invasive medical devices

Catheter related bloodstream infection audits were in place at the time of the monitoring assessment. Documentation demonstrated that systems analyses were conducted by the Infection Prevention and Control Team (IPCT) on the catheter related bloodstream infections identified, to ascertain root cause. This was evidenced by documents reviewed by the Authority.

It was reported to the Authority that a review of the audit process was completed by the IPCT. This resulted in Infection Prevention and Control Nurse Specialists and the and Infection Prevention and Control Manager being assigned responsibility for designated clinical areas for audit and overseeing self-assessments in their areas for Peripheral Vascular Catheters (PVCs). Regular audits of PVC care bundles are undertaken and self-assessment is encouraged across all units. Documentation reviewed demonstrated that some wards are taking better ownership of the audit process than others. Urinary catheter (UC) care bundles are in place and it was reported to the Authority that audit of UC care bundle management has commenced. Ventilator associated pneumonia (VAP) audits commenced in November 2012 and surveillance is ongoing with quarterly reports submitted with no incident of a ventilator associated pneumonia recorded thus far.

HCAI trend rates and analysis

Letterkenny General Hospital is reporting Methicillin-resistant Staphylococcus aureus (MRSA) and Clostridium difficile (C. diff) rates nationally, as required. The hospital also submitted data for the HSE's Health Protection Surveillance Centre Point Prevalence Study report for 2012 and to the HSE's 2012 hand hygiene audit.

Essential Element 3(d) There is proactive reporting, identification, evaluation and management of information to include PCHCAI-related adverse events, risks, patients' complaints, audits and satisfaction surveys.

Findings Essential Element 3(d)

A systems analysis was undertaken in Letterkenny General Hospital following an outbreak of Norovirus in December 2012. The root cause was identified for the spread of the virus as well as areas for remedial action to improve patient outcomes in the future. These included:

- Inappropriate movement of patients within wards and between wards
- lack of appropriate hand-over of patients' infective status upon transfer
- inappropriate chairperson of Outbreak Committee with lack of corporate decision-making.

These issues have been addressed vis-a-vis the appointment of the General Manager as Chairperson of the Outbreak Committee to ensure efficient and effective corporate decision-making during an outbreak. There has also been further consultation with each ward and iteration of the related PCHCAI outbreak policies. A more integrated approach to the management of information and subsequent learning would be of benefit to Letterkenny General Hospital.

PCHCAI-related incidents and complaints are recorded in Letterkenny General Hospital and monitored by the Quality, Safety and Risk Committee. Issues are escalated to the Hospital Executive Board via the Clinical Governance Steering Committee where necessary. There is evidence of some reporting, identification, evaluation and management of information.

The risk register was reviewed during the on-site component of the monitoring assessment. Some risks identified in meeting minutes were present in the risk register, while others were not: for example, the transportation of patients with a HCAI, together with those without a HCAI, to off-site centres. The Authority is concerned that HCAI-related risks are not being adequately evaluated and managed.

Essential Element 3(e) The cleanliness of the physical environment and equipment is effectively managed and maintained.

Findings Essential Element 3(e)

The Authorised Persons followed a patient journey through the Emergency Department (ED). While the Authority did not complete an assessment in the ED on 05 June 2013, they observed a visible improvement in the cleanliness of the environment and patient equipment in the ED since the unannounced monitoring assessment of 27 February 2013. A fire extinguisher storage point obstructed by wheelchairs on the unannounced assessment on 27 February 2013 had been relocated to another location within the ED, which was freely accessible at the time of this assessment.

Overall, the Authority found that improvements had been made in the ED, Surgical 1 and the maternity areas since the unannounced assessment by the Authority on 27 February 2013. However, all areas assessed, including Surgical 1 and the maternity ward, require further improvement to ensure the cleanliness of the physical environment and equipment is effectively managed and maintained to comply with the National Standards.

Surgical 1 (medical ward)

Environment and equipment

The Authority observed improvement in the following areas since the unannounced assessment by HIQA on 27 February 2013:

- The workstation was clean and free of clutter, dust and sticky residues
- bed frames, pillows, mattresses, lockers, bed tables, cardiac monitors and electrical fixtures were clean, intact, and free of rust dust and stains
- all patient equipment assessed in the clinical areas was clean, intact and free of dust and stains. A green labelling system was in place and demonstrated to indicate when equipment was decontaminated
- high and low surfaces and floor area of the 'dirty'[3] utility were clean, free of dust, grit and staining
- the cleaners' room was secured, with cleaning solutions and chemicals in a locked cupboard within. There were no inappropriate items stored in the room
- appropriate precautionary signage was displayed on isolation room doors
- appropriate personal protective equipment (PPE) was available outside of the isolation rooms. A clinical waste bin was located in the isolation room for disposal of contaminated items. Hand wash facilities, solutions and towels were available.

The Authority observed no improvement in the following areas since the unannounced assessment on 27 February 2013:

- Authorised persons observed light dust on bedrails, curtain rails and on the surface of a shelf in a patient shower
- extensive areas of the floor surfaces throughout the patient areas assessed and including a shower unit were completely eroded, thus impeding effective cleaning. The Authority observed adhesive tape in place to secure the floor covering in many areas throughout the ward
- there was grit and dust visible between the floor edgings and walls in the patient areas, the edges of floor in a shower assessed had grit on its surface and were also in a poor state of repair at corners
- as previously found on the unannounced assessment on 22 February 2013, Authorised Persons again found that walls in the shower were stained and the

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

wall surface around the toilet cistern and sink outlet pipes were in a damaged condition impeding effective cleaning

- there was a sticky residue and mould-like substance visible on the wall tiles, around the lower edges of the shower, around the insertion point of sink taps and around the edges of the metal grid in the hand wash sink water outlet in the clean utility room
- the treatment room was not secured. This room was used to store intravenous (IV) antibiotics and other IV drugs and solutions (which were not in a locked trolley) as well as needles and syringes. The surface of the IV trolley was unclean. There was a separate clean utility room which was also unlocked. This finding continues to pose a health and safety risk to unauthorised persons entering the room and was brought to the attention of the ward clinical nurse manager and the hospital management. Three boxes of supplies were stored on the floor hindering effective cleaning.

The following was noted in the 'dirty' utility room:

- it was unlocked
- patient wash bowls and urinals observed were not inverted while stored.

Other findings on this announced assessment included the following non-compliances:

- Three jugs were inappropriately stored on top of a toilet cistern used by patients in a six-bedded multi-occupancy room
- doors and door frames in a number of clinical areas were heavily damaged with pieces missing, exposing the wood underneath. Paintwork was also required to repair chipped paint on some radiators in the ward
- an unsecure cupboard in the 'dirty' utility contained three boxes of powder disinfectant which poses a health and safety risk to unauthorised persons entering the room
- access to the sluice hopper and designated hand wash sink was obstructed due to a patient trolley, bags of soiled linen for collection, a linen trolley and unused large yellow clinical rigid waste bins. There was no sink available for cleaning patient equipment. Staff reported to the Authority that they used the designated hand wash sink in the patient areas or in the 'dirty' utility to cleanse patient equipment
- while hand-wash sinks were hands free as required, the water jet was directly over the water outlet aperture and there was a metal grid in situ, which is not compliant with HBN 95 standards[4].

[4] Health Building Note (HBN) 95 i.e. no plugs or overflows and the water jet must not flow directly into the plughole.

- **Waste segregation**

There was evidence of good practice, such as the following:

- Clinical waste information posters identifying waste segregation were observed in the 'dirty' utility room where waste was stored prior to collection
- clinical and nonclinical waste disposal bins were available throughout
- clinical sharps bins were labelled and the temporary closure mechanism was engaged when not in use.

Evidence of non-compliance with the *National Standards for the Prevention and Control of Healthcare Associated Infections* included the following:

- Waste was not segregated in a locked area and was therefore accessible to the public.

Cleaning equipment

There was evidence of good practice, such as the following:

- Cleaning staff spoken with by the Authority were knowledgeable regarding infection prevention and control protocols
- cleaning equipment was clean and a colour-coded system was in place and demonstrated
- appropriate advisory signage was observed for use of products used for cleaning and disinfection. Safety data sheets were accessible within the clinical areas.

Linen

There was evidence of good practice, such as the following:

- Used linen was segregated in line with best practice, evidenced by colour-coded linen bags and alginate bags used in the clinical areas
- the Authority was informed that curtain changing was the responsibility of the domestic staff and was undertaken six-monthly as standard, when necessary and on each patient discharge from the isolation rooms.

Evidence of non-compliance with the *National Standards for the Prevention and Control of Healthcare Associated Infections* included the following:

- A box and yellow clinical bins were stored on the floor in the linen room, hindering effective cleaning.

Maternity ward

Refurbishment of the maternity ward was in progress on the day of the announced monitoring assessment. The Authority was informed that refurbishment would continue for at least two months.

The Authority observed improvement in the following areas since the unannounced assessment by HIQA on 27 February 2013:

- Floors, including edges and corners were clean and free of dust and grit in patient areas and in the clean utility
- the surface of intravenous stands and dressing trolleys were clean, free of dust rust and stains. A tagging system was in place and demonstrated to identify clean patient equipment
- the system for cleaning baby baths had been revised and improved with designated points identified for storing clean baths separately from used baby baths. A tagging system was also in place to identify clean baby baths
- the storeroom was clutter free with no items directly on the floor. The floor was generally clean with some paper and tape discarded on its surface
- signage in the 'clean' utility here was laminated to ensure effective cleaning
- the floor, walls, high and low surfaces were clean, intact and free from dust and grit in the 'dirty' utility room
- the 'dirty' utility was clutter free and no items were stored directly on the floor which facilitated effective cleaning
- the linen storage room was clutter free, floors and high and low surfaces were clean, free of dust and grit. No inappropriate objects were observed in this room.

The Authority observed no improvement in the following areas since the unannounced assessment on 27 February 2013:

- A light layer of dust was observed on bed frames and on locker surfaces some of which were also chipped and a moderate layer of dust was found on overhead lights. A heavy layer of dust was found in cupboards behind patients' beds containing oxygen tubing. A sticky residue was found on several bed rails
- the Authority observed that the surfaces of hand-gel dispensers at the entrance to each room had visible dust on them
- there was thick dust and grime in corners of a storage drawer of a baby cot, the metal frame was rusted and part of the plastic cradle was coated with a sticky residue on its surface
- paintwork was chipped, cracked and peeling on parts of the walls in patient bathrooms. The side of the bath was damaged and held together with adhesive tape. Grouting between some tiles was stained and there was a residue from adhesive on the wall by the sink. These findings hindered effective cleaning taking place

- dust was apparent on the surface of the resuscitation trolley, a sticky residue and adhesive tape were also found on the surface of this piece of patient equipment
- the 'dirty' utility, clean utility and linen storage room were unlocked. This finding posed an ongoing risk to unauthorised persons. Entrance to such areas should be restricted in line with best health and safety practice. This finding was discussed with the clinical nurse manager in charge of the area and hospital management
- there was no bedpan washer or macerator in this area. Staff reported that they carried bedpans to another ward to avail of this equipment, which posed a risk of spread of HCAIs.

Other findings on this announced assessment included the following non-compliances:

- There was no sanitary waste disposal bin by the toilet in the patient bathroom. In addition, there were no clinical or non clinical waste disposal bins located in the patient bathroom. The base of a foot operated clinical waste bin was rusted, hindering effective cleaning taking place
- a heavy layer of dust was found on oxygen equipment and on the surface of suction equipment
- the sluice hopper in the 'dirty' utility was chipped, hindering effective cleaning
- paintwork on walls was chipped, scratched and cracked in the 'dirty' utility room, hindering effective cleaning
- while hand-wash sinks were hands free as required, the water jet was directly over the water outlet aperture and there was a metal grid in situ, which is not compliant with HBN 95 standards.[5]

Waste segregation

There was evidence of good practice, such as the following:

- Clinical waste information posters identifying waste segregation were displayed.

Evidence of non-compliance with the *National Standards for the Prevention and Control of Healthcare Associated Infections* included the following:

- Waste was segregated in a designated waste segregation room. The door to this room was not secured in line with health and safety best practice.

[5] Health Building Note (HBN) 95 i.e. no plugs or overflows and the water jet must not flow directly into the plughole.

Cleaning equipment

There was evidence of good practice, such as the following:

- Cleaning staff spoken with by the Authority were knowledgeable regarding infection prevention and control protocols
- cleaning equipment was clean and a colour-coded system was in place and demonstrated
- appropriate advisory signage was observed for use of products used for cleaning and disinfection. Safety data sheets were accessible within the clinical areas.

Surgical 2 (surgical ward)

Environment and equipment

There was evidence of some good practice which included the following:

- Bed frames, bed rails, pillows, mattresses and patient lockers were clean, intact and free of rust, dust and stains
- floors, including corners and edges in the ward were clean and free of dust, grit and stains
- all seating in patient areas was covered with a washable surface
- foot operated non clinical waste bins were available in the patient areas and were appropriately placed
- work station equipment, including telephones and keyboards, was observed to be clean and free of dust, dirt and debris in Surgical Gynaecology ward.
- dressing trolleys, commodes, intravenous pumps, oxygen and suction equipment were free of dust and stains. A labelling system was in place and demonstrated indicating that equipment was clean
- clinical storage in the treatment room was arranged in transparent drawer units which were accessible, clean and tidy
- a secure box was available for storing used instruments for autoclaving (a form of equipment sterilisation).

However, there was also evidence of practice that was not compliant with the *National Standards for the Prevention and Control of Healthcare Associated Infections* including:

- Paintwork was chipped and missing on some walls, door frames were heavily damaged with pieces missing, exposing the wood underneath in patient areas. These findings hindered effective cleaning. Doors to patient areas were damaged and scored, hindering effective cleaning
- slight dust was found on high surfaces and curtain rails in patient areas
- paint was missing from the surface of some radiators in the ward

- there was grime visible in the joints of patient call bells
- the sampling area of an electronic urine testing unit was unclean with solid matter lodged in crevasses
- paint was chipped on the surface of an intravenous stand
- while notices were displayed on doors advising closure at all times, the 'dirty' utility, clean utility and treatment room were unlocked. This finding posed a risk to unauthorised persons entering these areas, which should be restricted in line with best health and safety practice. Clinical equipment was stored in the treatment and clean utility rooms. A drug fridge in this room was locked. This finding of unsecure doors to high risk areas was discussed by the Authority with the clinical nurse manager in charge of the area and hospital management
- not all signage was laminated or covered with a cleanable surface and, in some cases, was not maintained. Notices were displayed in the 'dirty' utility dated 16 February and 7 August 2012
- a hairdryer, which was an inappropriate item, was stored in a box located on a worktop in the 'dirty' utility room. Three patient washbowls, urinals and some bedpans were not inverted while being stored.

Waste segregation

There was evidence of good practice which included the following:

- Clinical waste was tagged, which facilitated tracking to place of origin
- clinical waste information posters identifying waste segregation were observed in the 'dirty' utility room where waste was stored prior to collection.

However, there was also evidence of practice that was not compliant with the *National Standards for the Prevention and Control of Healthcare Associated Infections* including:

- Waste, including clinical waste, was not secured in a locked area and was therefore accessible to the public.

Cleaning equipment

There was evidence of good practice which included the following:

- The cleaners' room was lockable, with hazardous solutions and chemicals locked in a secure cupboard within
- all equipment used for cleaning was clean and appropriate
- products used for cleaning were used in the correct dilution and discarded appropriately. Instructions informing dilution of cleaning products were displayed.

There was evidence of practice that was not compliant with the *National Standards for the Prevention and Control of Healthcare Associated Infections* including:

- The Authority found that there were no hand-washing facilities available in the cleaners' rooms
- the floor of the cleaners' room was badly damaged and worn hindering effective cleaning.

Isolation rooms

There was evidence of good practice which included the following:

- Appropriate precautionary signage was displayed on doors to the isolation rooms
- a personal protective equipment dispensing unit was located in an anteroom to the isolation room; hand washing facilities were available outside and inside some isolation rooms assessed. Some isolation rooms had entrance and exit doors. Coat hooks were available to facilitate medical staff to remove coats before entering isolation rooms.

There was evidence of practice that was not compliant with the *National Standards for the Prevention and Control of Healthcare Associated Infections* including:

- Appropriate precautionary signage was displayed on doors to the isolation rooms; a system was in place where there was a designated entrance and exit door to an isolation room; personal protective equipment and hand washing facilities were available. However, evidence of non-compliance was observed among some members of staff. Three members of staff were observed to enter the room by the designated exit door; none of these donned personal protective attire and only one of the three performed hand hygiene procedures before entering the room.

Linen

There was evidence of good practice which included the following:

- Clean linen was stored appropriately. Used linen was segregated in line with best practice, evidenced by colour-coded linen bags used in the clinical areas. Alginate bags were also used for soiled and infected linen
- clean linen assessed was found to be free of stains and tears. Clean linen was stored in a lockable area.

However, there was also evidence of practice that was not compliant with the *National Standards for the Prevention and Control of Healthcare Associated Infections* including:

- The Authority found that there were two fold-up beds, two mattresses, four footstools, incontinence wear and Christmas decorations stored in the linen room. These items were inappropriately stored and posed a risk of contaminating clean linen
- it was reported to the Authority that curtain changing is the responsibility of housekeeping staff with records maintained locally and demonstrated at assessment. While the records recorded each time curtains were changed, they did not clearly indicate when standard curtain changing was due.

Water outlet flushing

- There was a water flushing schedule in place to reduce the risk of waterborne infection; this was undertaken by household staff and records of flushing were demonstrated.

Conclusion

The Authority found that while there was some evidence of improvement and good practice in the three areas assessed, overall, improvement is required to ensure the cleanliness of the physical environment and the effective management and maintenance of equipment to comply with the National Standards. The clean utility rooms, treatment rooms, waste segregation room and 'dirty' utility rooms were not secure, enabling free public access. This suggests that the physical environment was not effectively managed and maintained to protect patients and reduce the spread of Healthcare Associated Infections.

Theme 3: Safe care – conclusion

The Authority found that Letterkenny General Hospital has 24-hour, seven-days-a-week specialist microbiological advice and services, as required by the Standards. There were varying degrees of implementation of care bundles with associated audits in place. The Authority was informed that audits of Urinary Catheter care bundles will be initiated shortly. Comprehensive care plans with supportive documentation were in place where care bundles had not been introduced. However, there had been no PCHCAI related audits undertaken to inform care and improve outcomes for patients with care plans.

Letterkenny General Hospital did not adequately ensure that the cleanliness of the physical environment and equipment was effectively managed and maintained. These findings posed a moderate risk to patients of contracting HCAIs. Some hand hygiene sinks in the areas assessed did not comply with the Health Protection Surveillance Centre's Guidelines for Hand Hygiene (2005). Appropriate information was displayed outside isolation rooms, but some staff did not demonstrate knowledge of appropriate use of personal protective equipment. While linen was stored and segregated appropriately, inappropriate items were stored in some linen rooms. Clinical and non-clinical waste was not management in accordance with best practice as temporary holding areas were not secure.

There are many defined PCHCAI performance metrics and audit processes in place. There is proactive reporting, identification, evaluation and management of information to include PCHCAI-related adverse events, risks, patient complaints, and audits. However, some HCAI-related risks were not identified as such and consequently they could not be adequately evaluated and managed.

4. Overall Conclusion

4.1. Overview

The Authority concluded the following:

While corporate and PCHCAI governance structures were in place in Letterkenny General Hospital, the Infection Prevention and Control Committee and the Drugs and Therapeutics Committee had not been operating within their terms of reference. Hospital management gave reassurances that they would operate within their terms of reference in future, which was welcomed by the Authority. It was of concern to note that prevention and control of infection was not a standing item on the Hospital Executive Board. There is clear monitoring and reporting of defined PCHCAI performance metrics, with trend analysis, reciprocal quality improvement initiatives and reporting at a local, regional and national level. A PCHCAI communication strategy as described in the National Standards was not in place.

Attendance at hand hygiene training has been problematic, with a low uptake from staff. It was too early to assess adequately the impact of new controls introduced to mitigate this risk.

The Authority found that the use of peripheral vascular catheters care bundles was more embedded in some wards than others, with some wards self-auditing to achieve better outcomes for patients. However, there were no PCHCAI-related audits undertaken for urinary catherters or care plans to inform care and improve outcomes for patients. Consequently, Letterkenny General Hospital has limited means of assuring itself that infection is being effectively prevented and managed in relation to such devices.

There is proactive reporting, identification, evaluation and management of information to include PCHCAI-related adverse events, risks, patient complaints and audits. However, some HCAI related patient risks were not reported as such and therefore could not be managed effectively to mitigate risk to the patient.

Hand hygiene compliance

While the Authority recognises that the hospital had implemented a number of initiatives to improve hand hygiene, the reported compliance rates for the hospital indicate that a culture of hand hygiene is not yet operationally embedded.

Cleanliness of the environment

The Authority found that the cleanliness of Letterkenny General Hospital had improved since the initial unannounced monitoring assessment; however, improvement is required to ensure that the cleanliness of the physical environment and equipment is effectively managed and maintained.

Antimicrobial stewardship

There was an antimicrobial stewardship programme in situ, with quality initiatives to promote this programme. However, audit results demonstrate there is non-compliance with local antibiograms prescribing.

The prevention of HCAIs associated with invasive medical devices

Catheter related bloodstream infection audits were in place at the time of the monitoring assessment. Peripheral vascular catheters were regularly audited, audits of urinary catheters were due to commence and continual surveillance of ventilator associated pneumonia occured.

Workforce

Members of the core PCHCAI team were appropriately qualified and undergo continuing professional education and development on a regular basis. Poor attendance across all staff grades at hand hygiene training and poor hand hygiene audit results were significant. It is too early to assess adequately the impact of new controls introduced to ensure better compliance with mandatory hand hygiene training and uniform protocol.

Corporate and clinical governance of PCHCAI

In conclusion, the Authority found Letterkenny General Hospital to be partially compliant with the *National Standards for the Prevention and Control of Healthcare Associated Infections*.

Letterkenny General Hospital must now develop a quality improvement plan (QIP) that prioritises the improvements necessary to fully comply with the *National Standards for the Prevention and Control of Healthcare Associated Infections*. This QIP must be approved by the service provider's identified individual who has the 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 webpage on the Health Service Executive (HSE) website within six weeks of the date of publication of this report.

The Hospital should ensure the continued monitoring of the Hospital's QIP as well as relevant outcome measurements and key performance indicators, in order to provide assurances to the public that it is implementing and meeting the *National Standards*

for the Prevention and Control of Healthcare Associated Infections and is making quality and safety improvements that safeguard patients.

5. Recommendations

Recommendation 1. The Hospital Executive Board governance arrangements should include the PCHCAI as a standing item on their agenda, to achieve better outcomes for patients.

Recommendation 2. The policies, procedures and systems in place to reduce and control antimicrobial resistance should be fully implemented. The antimicrobial audit results circulated to clinicians and management should be used to improve the quality of service provided.

Recommendation 3. There should be clear and visible support from Letterkenny General Hospital Executive Board, including the Clinical Director and senior clinicians, to drive the hand hygiene campaign and ensure compliance from all disciplines and all levels of seniority.

Recommendation 4. All staff should attend mandatory theoretical and practical training in relation to the prevention and control of Healthcare Associated Infections.

Recommendation 5. Letterkenny General Hospital should undertake audits within the next three months to assess the success of the new controls recently implemented around hand hygiene.

Recommendation 6. A communication strategy should be put in place which ensures information relating to HCAIs is communicated and responded to in an efficient, timely, effective and accurate manner to all service users including patients, general practitioners and community services.

Recommendation 7. Letterkenny General Hospital should put in place arrangements to ensure that care bundles are implemented and managed in line with evidence-based best practice, and their efficacy monitored.

Recommendation 8. Processes and procedures should be in place to ensure the cleanliness of the physical environment and the effective management and maintenance of equipment.

Recommendation 9. Best practice policies and protocols regarding security should be implemented in clinical areas deemed of risk to non-authorised persons.

Recommendation 10. Invasive medical devices should be managed in line with evidence-based best practice and national and international guidelines, including regular audit, with quality improvement actions undertaken to enhance and improve patient outcomes.

Recommendation 11. Integrated risk management structures and processes should be in place, as part of the quality and safety framework for the service, to identify, analyse, prioritise and eliminate or minimise risk relating to HCAIs.

Appendix 1 – Themes and Essential Elements

NSPCHAI Standard	Theme	Essential Element
1,2,3, 4,5,6, 7,8,9, 10,11, 12.	**Leadership, Governance and Management** Robust leadership, governance and management structures and processes underpin what hospitals should have in place to assure the public and themselves that the arrangements for the prevention and control of Healthcare Associated Infections (PCHCAI) are effective. There are robust local monitoring and reporting arrangements in place thereby ensuring infection control is managed at a consistently high level of quality with minimal variation in the delivery of that care. There are effective regional and national PCHCAI reporting arrangements in place; infection control activities provided are compliant with the relevant legislation, clinical care programmes and evidence-based practice; and the organisation is acting on national standards and recommendations from statutory bodies.	**1(a)** A comprehensive corporate and PCHCAI governance structure supported by an integrated organisational framework is in place. The governance arrangements will include PCHCAI specific strategies, aligned cost-effective initiatives and defined responsibilities for externally contracted services. **1(b)** There is clear monitoring and reporting of defined PCHCAI performance metrics, with trend analysis, reciprocal quality improvement initiatives and reporting at a local, regional and national level. **1(c)** A clear PCHCAI communication strategy, supported by robust operational arrangements, to assure the effective communication of appropriate and timely information throughout the service, to service providers and appropriate agencies is in place.

NSPCHAI Standard	Theme	Essential Element
1, 4, 5, 6.	**Workforce** The hospital should always be in a position to assure the service users, the public and itself that everyone working in the service is contributing to the prevention and control of Healthcare Associated Infections. The individual members of the workforce must be skilled and competent, they must be supported to continuously update and maintain their knowledge and skills, whether they are directly employed or in contractual employment.	**2(a)** Members of the core PCHCAI team must have the appropriate qualifications, specific training, skills and competencies in infection control, antimicrobial stewardship and HCAI surveillance. They must undergo continuing professional education and development on a regular basis. **2(b)** All hospital staff receive mandatory theoretical and practical training in relation to the prevention and control of Healthcare Associated Infections. **2(c)** There are arrangements in place to ensure that visiting clinical, undergraduate and agency staff are competent in the core principles for the prevention and control of HCAIs.

NSPCHAI Standard	Theme	Essential Element
1,2,3, 6,7,8, 9,11,12.	**Safe Care** The hospital recognises that the prevention and control of Healthcare Associated Infections is paramount. The cleanliness of the physical environment and equipment is effectively managed and maintained. The hospital learns from all information relevant to the provision of safe PCHCAI services, in addition to learning from when things go wrong. There is an embedded focus on quality and safety improvement, evidence-based decision making and active engagement in local, national and international initiatives to minimise the risk of HCAIs.	**3(a)** There is access to specialist microbiological advice and services, 24 hours-a-day, seven-days-a-week. **3(b)** There are specific care bundles and/or policies and procedures developed, communicated, implemented and their efficacy monitored with the use of: ▪ peripheral intravenous catheter ▪ urinary catheter ▪ central venous catheter. **3(c)** There are defined PCHCAI performance metrics and audit processes in place with a particular emphasis on: surgical site infection rates, environmental and equipment hygiene, antimicrobial prescribing, hand hygiene, infection related to the use of invasive medical devises, HCAI trend rates and analysis. **3(d)** There is proactive reporting, identification, evaluation and management of information to include PCHCAI-related adverse events, risks, patients' complaints, audits and satisfaction surveys. **3(e)** The cleanliness of the physical environment and equipment is effectively managed and maintained.

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