



Inspection methodology

Healthcare associated infection

Themed inspection: Invasive devices – urinary catheter care

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Introduction

The Healthcare Environment Inspectorate (HEI) was established in April 2009 to undertake announced and unannounced inspections to each acute hospital in NHS Scotland.

Our focus is to reduce the healthcare associated infection (HAI) risk to patients through a rigorous inspection framework. Our aims are to:

- provide public assurance and protection to restore public trust and confidence
- contribute to the prevention and control of HAI
- contribute to improvement in infection control and the broader quality improvement agenda across NHSScotland.

In keeping with our aims, we will use an open and transparent method for inspecting hospitals, using standardised processes and documentation.

Our philosophy

We will:

- work to ensure that patients are at the heart of everything we do
- measure things that are important to patients
- have members of the public on our inspection teams
- ensure our staff are trained properly
- tell people what we are doing and explain why we are doing it
- treat everyone fairly and equally, respecting their rights
- take action when there are serious risks to people using the hospitals we inspect
- if necessary, inspect hospitals again after we have reported the findings
- check to make sure our work is making hospitals cleaner and safer. If it is not, we will change it
- publish reports on our inspection findings which will be available to the public in a range of formats on request.

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Background

Healthcare Improvement Scotland's HAI standards published in 2015 brought together the essentials for the good management for the insertion and maintenance of invasive devices, primarily in Section 7. All NHS boards are required to implement the standards and HEI has a role in monitoring their implementation. The standards require that systems and processes are in place to ensure the safe and effective use of invasive devices which includes urinary catheters. Invasive devices can present a significant infection risk to patients. However, these risks can be minimised by:

- avoidance of devices use where possible
- following evidence-based procedures for the insertion and maintenance, and
- removing the device as soon as there is a clinical indication to do so.

The Scottish National HAI and Antimicrobial Prescribing Point Prevalence Survey 2017 indicates that the most common HAI occurring in acute adults is urinary tract infection. Within the acute and non acute settings in NHSScotland, urinary catheters are the most commonly used invasive device.

Urinary catheters are required at times to enable short or long term bladder drainage. However, their use is associated with an increased risk of infections by enabling micro organisms to gain entry to the bladder. Catheter associated urinary tract infections can primarily result from contamination from the patient's perineum, from the hands of healthcare workers or contaminated equipment during the procedure (Health Protection Scotland Targeted Literature Review, September 2014).

The key intervention to avoid these risks, as identified by Health Protection Scotland, is to avoid insertion unless clinically required, taking a patient's risk factors into account.

If a urinary catheter is required, the following precautions need to be considered:

- ensure that alternatives to indwelling catheter have been considered.
- ensure that hand hygiene is performed immediately before donning sterile gloves prior to insertion of the urinary catheter (WHO Moment 2).
- ensure that the aseptic technique is used for the insertion of the urinary catheter.
- ensure that the urinary catheter selected has the smallest gauge to allow adequate drainage and once inserted, the balloon is filled to the recommended level ie 10mls, unless otherwise clinically indicated. (Choosing the smallest gauge limits the trauma caused to the urethra on insertion, reduces the risk of pain, inflammation and bleeding).
- ensure that the urethral meatus is cleaned with sterile saline prior to insertion of the urinary catheter.
- ensure that single use sterile lubricant is used prior to insertion.
- ensure that aseptic technique is applied and maintained when connecting catheter to sterile closed drainage system.

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- ensure position of the catheter bag is below the bladder level on a clean stand that prevents any part of the catheter drainage system coming into contact with the floor.

The urinary catheter care bundle, checklist and associated tools were first published on Health Protection Scotland's website in 2008.

Catheter associated urinary tract infection is also highlighted as a point of care priority intervention as detailed in Chief Executive Letter (CEL) 19(2013).

NHS Quality Improvement Scotland published a urinary catheter best practice statement in 2004:

http://www.healthcareimprovementscotland.org/previous_resources/best_practice_statement/urinary_catheterisation_care.aspx

Since 2004, developments have taken place regarding urinary catheterisation and catheter care. However, the content of the best practice statements have remained the same as those published previously.

NHS Education for Scotland has developed education and training resources related to urinary tract infections. Resources include educational toolkits, workbooks and posters which are available to all NHS boards. NHS Education for Scotland can also deliver training in a variety of formats including e-learning modules which have been designed to meet the needs of all staff who deal with urinary tract infections. The modules have been developed by the multidisciplinary team and are reviewed every 2 years. The contents of the modules have informed the basis for the inspection methodology and inspection tools.

Urinary catheterisation: <http://www.nes.scot.nhs.uk/education-and-training/by-theme-initiative/healthcare-associated-infections/online-short-courses/urinary-catheterisation.aspx>

Aseptic technique: <http://www.nes.scot.nhs.uk/education-and-training/by-theme-initiative/healthcare-associated-infections/online-short-courses/aseptic-technique.aspx>

Institute for Healthcare Improvement. Getting started kit: How to Guide: Prevent catheter associated urinary tract infection (2009)

<http://www.ihl.org/resources/Pages/Tools/HowtoGuidePreventCatheterAssociatedUrinaryTractInfection.aspx>

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Purpose

The purpose of this paper is to detail the methodology to be used by HEI to carry out a system review of the management of invasive devices and culture of continuous improvement within an NHS board are in line with the Healthcare Improvement Scotland's HAI standards (2015).

Aims

- To undertake a review of the key areas of the patient journey and examine the policies, guidance, procedures and systems that are currently in place.
- To look at communication, documentation, practice knowledge, use of data, learning from adverse events and the implementation of infection control precautions.
- To review the organisation's leadership and culture of quality improvement.

Inspection methodology overview

The inspection process is made up of the following key stages:

1. **Self-assessment** - we will review the NHS board submission and examine quantitative and qualitative data in order to provide a risk-based proportionate approach to the programme of inspections.
2. **Inspections** - we will undertake inspections to verify compliance against the Healthcare Improvement Scotland HAI Standards 2015, together with Healthcare Improvement Scotland's quality of care framework following its implementation. Inspections will involve a combination of ward based visits and discussion with key staff.
3. **Reporting** - we will publish an NHS board wide report after each inspection based on the inspection findings.
4. **Improvement action plans** - we require NHS boards to develop and update an improvement action plan to address deficiencies. We monitor progress against the improvement action plan.
5. **HEI related documents:**

HEI process for the management of inspection reports
HEI escalation procedure
HEI inspection methodology
HEI prioritising requirements procedure
Healthcare Improvement Scotland HAI standards 2015
HEI ward closure procedure
HEI catheter care aide memoire

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Other related documents:

Scottish National HAI and Antimicrobial Prescribing Point Prevalence Survey 2017

Health Protection Scotland key recommendations: Preventing catheter associated urinary tract infections: acute settings (2008)

Institute for Healthcare improvement: How to Guide: Prevent catheter associated urinary tract infections (2011)

Development

We carried out a review of the available information and best practice documents, engaged with representatives from Healthcare Improvement Scotland, Scottish Patient Safety Programme, Health Protection Scotland and NHS Education for Scotland.

We carried out two pilot inspections to NHS Highland to support the development of the inspection methodology. This involved discussing the proposed methodology and inspections tools with health professionals. This included ward staff, Scottish Patient Safety Programme leads, practice education, senior managers, nurses, speciality nurses and doctors, a consultant urologist and members of the infection prevention and control team.

Primary pilot inspection - learning and development

- review of inspection aide memoire following input from clinical staff and patients during initial pilot visit in May 2017
- refinement of question sets for staff
- development of practical demonstration of aseptic technique aspect of the inspection
- discussion on the inspection methodology and delivery
- follow up pilot visit planned in June 2017
- test of inspection aide memoire and data collection
- discussion with senior inspector / senior management internally for review and discussion on the development of the aide memoire.

Secondary pilot inspection - learning and development

- internal review of evidence and discussion externally to support and validate tool
- development of question and answer session for HEI team
- emphasis on staff aspect of aide memoire. Inspectors assess trained staff's knowledge of aseptic technique through practical skill session and discussion of catheter care
- inspectors review patient notes with staff to capture insertion and maintenance documentation
- further review of inspection aide memoire addressing challenges regarding discussion with patients.

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Inspection key areas

- review of the systems and processes in place to ensure the safe and effective use of urinary catheters
- review of the documentation to support safe practice including key recommended elements of catheter care during insertion and maintenance
- discussion with staff who insert or maintain urinary catheters
- work with key staff from the organisation to determine how the organisation demonstrates a culture of learning from adverse events and promotes system changes to reduce risk in relation to HAI
- discussion with key staff on the organisational accountability, monitoring key performance indicators.

Inspection delivery

- inspections will be unannounced
- the lead inspector will announce the inspection at the primary location and announce the inspections and locations to be included
- the inspection will be NHS board wide in areas where it is anticipated invasive devices may be in use. Alternative locations can be chosen at the discretion of the lead inspector in discussion with the senior inspector
- inspectors will review patient records with a nurse or other representative
- inspectors will use a bespoke inspection aide memoire aligned to national guidance to identify key practice points to review
- inspectors will review staff knowledge and skills through discussion and asking staff to describe and demonstrate practical procedures such as the aseptic technique
- inspectors will talk to patients about their experience and views
- inspectors will review insertion and maintenance care bundles and patient notes where applicable
- when reviewing records, inspectors will consider the time and opportunity for NHS board staff to update records on the day of inspection
- if the information is not recorded in the designated location, inspectors will work with the NHS board and consider possible alternative locations where the information could have been recorded. Inspectors will consider if this is in line with the NHS board's own policies and procedures
- discussion sessions with key staff will be used to support the inspection process
- feedback will be delivered on each ward and final feedback to the NHS board at an agreed location and time
- the number of inspectors will be flexible to support delivery of the inspection, this is expected to be between 2-4 inspectors.

Inspection delivery time of 3–4 days

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Operational considerations

- inspection team may require separate accommodation to cover demographic of site
- inspection team may be required to debrief remotely to lead inspector ahead of discussions and feedback
- requirement for availability may differ, for example team A may require 2 days, team B may require 2 days and lead inspector may require 3-4 days, allowing for discussions and feedback.

Sharing the learning

HEI will:

- publicise the findings from inspections through external communications
- promote good practice through tweets, and
- explore opportunities to talk at events to publicise our findings.

Exclusion

We will not assess the clinical judgements made. However, we may ask that areas of concern are reviewed by representatives from the NHS board.

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References

Healthcare Improvement Scotland. Healthcare Associated Infection (HAI) standards (2015)

http://www.healthcareimprovementscotland.org/our_work/inspecting_and_regulating_care/healthcare_policies_and_procedures/hai_standards_2015.aspx

NHS Quality Improvement Scotland. Best practice statement: Urinary catheterisation and catheter care (2004)

http://www.healthcareimprovementscotland.org/previous_resources/best_practice_statement/urinary_catheterisation_care.aspx

NHS Education for Scotland online short courses (urinary catheterisation and aseptic technique)

<http://www.nes.scot.nhs.uk/education-and-training/by-theme-initiative/healthcare-associated-infections/online-short-courses/urinary-catheterisation.aspx>

<http://www.nes.scot.nhs.uk/education-and-training/by-theme-initiative/healthcare-associated-infections/online-short-courses/aseptic-technique.aspx>

Institute for Healthcare Improvement. Getting started kit: How to Guide: Prevent catheter associated urinary tract infection (2011)

<http://www.ihl.org/resources/Pages/Tools/HowtoGuidePreventCatheterAssociatedUrinaryTractInfection.aspx>

Epic. 2001 Guidelines for preventing infections associated with insertion and maintenance of short term indwelling urethral catheters in acute care. Journal of Hospital Infection 47 (supp):S239-246

Health Protection Scotland (2017) Healthcare associated infection annual report

<http://www.hps.scot.nhs.uk>

Health Protection Scotland. National Infection Prevention and Control Manual

<http://www.nipcm.hps.scot.nhs.uk/>

Scottish Patient Safety Programme 2017 Catheter associated urinary tract infections (CAUTI 2017)

<http://www.scottishpatientsafetyprogramme.scot.nhs.uk/programmes/acute-adult/cauti>

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Inspection programme (days 1–3)

NB - Teams B and C may be at alternative NHS board locations from lead inspector

Day 1 Time	Item	Location	Patient engagement
x.xxam	Arrival and wait for general manager/on-call manager to be paged. Announce inspectors on other sites.	Hospital main reception	
x.xxam	Introductions/ establishing base room		
x.xxam	Team A – ward inspection : base site Team B – ward inspection (other NHS board site) Team C – ward inspection (other NHS board site)		
x.xxam	Coffee break/ lunch and inspection team debrief – may be to be done remotely		
x.xxam	Team A – ward inspection: base site Team B – ward inspection (other NHS board site) Team C – ward inspection (other NHS board site)		
x.xxpm	Team A – discussion session with staff Team B – inspect other areas of the hospital Team C – inspect other areas of the hospital		
x.xxpm	Inspection team debrief		
x.xxpm	Feedback session to NHS board and hospital senior staff		
x.xxpm	Close		

Day 2 Time	Item	Location	Patient engagement
x.xxam	Arrival	Hospital main reception	
x.xxam	Team A – ward inspection Team B – ward inspection Team C – ward Inspection		
x.xxam	Coffee break and inspection team debrief		
x.xxpm	Team A – ward inspection Team B – ward inspection Team C – ward inspection		
x.xxpm	Coffee break/ Lunch and inspection team debrief (may be remotely)		
x.xxpm	Team A – ward inspection Team B – ward inspection Team C – ward inspection		
x.xxpm	Inspection team debrief (may be remotely)		
x.xxpm	Close		

Day 3 Time	Item	Location	Patient engagement
x.xxam	Arrival at hospital		
x.xxam	Pre-arranged interviews with individuals about HAI invasive device related issues (and follow-up by inspector back to wards if required)		
x.xxpm	Coffee break/lunch and inspection team debrief		
x.xxpm	Feedback session to accountable officers		
x.xxpm	Close		

Further information

You can contact us to find out more about our inspections or to raise any concerns you have about cleanliness, hygiene or infection prevention and control in an acute or community hospital or NHS board by letter, telephone or email.

Our contact details are:

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1 South Gyle Crescent
Edinburgh
EH12 9EB

Telephone: 0131 623 4300

Email: comments.his@nhs.net

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