

Unannounced Inspection Report

Royal Infirmary of Edinburgh | NHS Lothian

18 August 2011

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First published September 2011

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1 Background

The Healthcare Environment Inspectorate (HEI) was established in April 2009 to undertake at least one announced and one unannounced inspection to all acute hospitals across NHSScotland every 3 years.

Our focus is to reduce the healthcare associated infection (HAI) risk to patients through a rigorous inspection framework. Specifically we will focus on:

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

In keeping with our philosophy, 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
- be firm, but fair
- 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, and
- listen to your concerns and use them to inform our inspections.

We will not:

- assess the fitness to practise or performance of staff
- investigate complaints, and
- investigate the cause of outbreaks of infection.

More information about our inspection process can be found in Appendix 2.

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 hospital or NHS board by letter, telephone or email.

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2 Summary of inspection

The Royal Infirmary of Edinburgh serves the Lothian region. It contains 911 staffed beds and has a full range of medical and surgical services. Some services, including cleaning, maintenance and catering, are provided under a separate arrangement with a private contractor, referred to in this report as the 'hospital service provider'.

We previously inspected the Royal Infirmary of Edinburgh in January 2010 and February 2010. These inspections resulted in four requirements and six recommendations. The inspection report is available on the Healthcare Improvement Scotland website <http://www.healthcareimprovementscotland.org/HEI.aspx>.

We carried out an unannounced inspection to the Royal Infirmary of Edinburgh on Thursday 18 August 2011.

We assessed the hospital against the NHS Quality Improvement Scotland (NHS QIS) HAI standards and inspected the following areas:

- accident and emergency
- combined assessment area
- ward 107 (general/vascular surgery)
- ward 109 (orthopaedics – trauma)
- ward 110 (neonatal)
- ward 202 (medicine of the elderly)
- ward 203 (medicine of the elderly)
- ward 205 (gastrointestinal/liver), and
- ward 208 (orthopaedics – elective).

The inspection team was made up of five inspectors, with support from a project officer. One inspector led the team and was responsible for guiding them and ensuring the team members were in agreement about the findings reached. One inspector was an associate inspector (patient focus), and a key part of their role is to talk to patients and listen to what is important to them. Membership of the inspection team visiting the **Royal Infirmary of Edinburgh** can be found in Appendix 4.

Overall, we found evidence that NHS Lothian is working to comply with the NHS QIS HAI standards to protect patients, staff and visitors from the risk of acquiring an infection. In particular:

- five out of the nine wards and departments inspected were clean, and
- ward staff reported good communication links with the infection control team.

However, we did find that further improvement is required in the following areas:

- cleaning schedules agreed between the Royal Infirmary of Edinburgh and the hospital service provider should meet the specific needs of different patient and ward environments
- senior charge nurses must be empowered in their role in order to influence and direct prevention and control of infection activities within their ward environment, and

- the existing relationship between staff contracted through the hospital service provider (domestic and facilities staff), senior charge nurses and the infection control team should be improved to ensure effective communication with regard to the prevention and control of infection.

This inspection resulted in nine requirements and two recommendations. The requirements are linked to compliance with the NHS QIS HAI standards. A full list of the requirements and recommendations can be found in Appendix 1.

NHS Lothian must address the requirements and the necessary improvements made, as a matter of priority.

An action plan for areas of improvement has been developed by the NHS board and is available to view on the Healthcare Improvement Scotland website <http://www.healthcareimprovementscotland.org/HEI.aspx>.

We would like to thank NHS Lothian and in particular all staff at the Royal Infirmary of Edinburgh for their assistance during the inspection.

3 Key findings

3.1 Governance and compliance

Roles and responsibilities

Senior charge nurses were able to demonstrate a good understanding of their role in relation to prevention and control of infection activities. They reported that they felt well supported by hospital management. The inspection team recognises that NHS Lothian is working to implement reliable systems of care with supporting processes and documentation. However, the inspection team had some concerns about the lack of influence or authority a number of the senior charge nurses have in order to affect real change in their ward environment and beyond. As a result, examples were found where implementation of these systems of care was not always effective. This included:

- medical staff compliance with antimicrobial prescribing policy and practice
- the use of peripheral vascular catheter (PVC) care bundles, particularly when these are commenced outwith the ward environment, for example in the accident and emergency department or the combined assessment area
- domestic staff and the standards of cleanliness appropriate to each ward environment, and
- poor hand hygiene compliance or lack of compliance with the NHSScotland dress code by medical and surgical staff, particularly when those staff are visiting a patient in a ward.

- **Requirement 1:** NHS Lothian must ensure that senior charge nurses are empowered in their role in order to influence and direct prevention and control of infection activities within their ward environment.

Audit and surveillance

NHS Lothian continues to comply with the requirements of mandatory surveillance for *Clostridium difficile* infection (CDI), surgical site infections and *Staphylococcus aureus* bacteraemias (SABs) as described within Health Department Letter (HDL) (2006)38.

There was evidence of audit activity, with charts detailing audit and surveillance information such as infection rates and hand hygiene results displayed in ward areas.

Ward environmental audits are undertaken by senior charge nurses on an annual basis. In addition, the infection control team undertakes environmental audits every 2 years, or sooner as required. Ward staff reported that they found the system for environmental audits confusing and were not clear how the two audit processes linked together. The inspection team identified a recurrence of issues previously identified in environmental audits. For example, in ward 203 the most recent environmental audit (May 2011) identified that dust was found throughout the ward environment and on patient equipment. During the inspection, the inspection team found issues with dust in floor corners, on lighting panels behind beds and on Patientline equipment (bedside TV and telephone). This raises questions about the reliable implementation and sustainability of previous improvement actions undertaken as a result of audit. The inspection team was not assured that the environmental audit process is resulting in sustainable change.

- **Requirement 2:** NHS Lothian must improve the existing environmental audit process to ensure that recurring themes are identified, appropriate quality improvement actions are taken and these are reliably implemented.

Policies and procedures

Staff were aware of the new NHS Lothian policy for the care and management of mattresses, and knew how to access the policy through the staff intranet. However, there was no evidence of implementation of this policy, although staff spoken to reported that mattresses were checked on patient discharge. The inspection team examined six mattresses and found that all were clean and fit for use. However, there was little evidence of bed space cleaning checklists or similar documentation to verify that bed spaces, including mattresses, had been cleaned and were ready for patient use.

- **Recommendation a:** NHS Lothian should ensure that its policy for care and management of mattresses is fully implemented, and monitor compliance. This will provide assurance that mattresses are clean and fit for purpose at all times.

Some staff were also observed not adhering to the NHSScotland dress code in accordance with Chief Executive Letter (CEL) 53(2008) and CEL 42(2010). This included:

- two medical staff wearing watches
- two medical staff with long sleeves
- one nurse wearing inappropriate jewellery
- one nurse with long hair not tied back, and
- three members of staff with stained uniforms.

- **Requirement 3:** NHS Lothian must ensure that all staff comply at all times with national guidance relating to dress code. This will minimise the risk of infections and cross contamination for patients and the public.

Some medical and nursing staff in ward 205 were observed by the inspection team not washing or decontaminating their hands. This included when entering the ward and when having contact with the patient and their environment. When this was drawn to the attention of the senior charge nurse, it was reported that the staff in question were from another surgical team and were visiting a patient in the ward. However, senior charge nurses are responsible for infection control issues within their ward environment. As a result, they and their staff should be empowered to challenge other staff members about non-compliance with hand hygiene or dress code.

Across the wards inspected, the inspection team found issues with sharps management, inappropriate segregation of waste and poor linen management. This included:

- temporary closure mechanisms not used on sharps bins (wards 107, 205, combined assessment unit)
- sharps bins stained with blood spillage and with a protruding syringe (ward 205)
- sharps bins not signed and/or dated (ward 107)
- sharps bins on the floor and on the edge of the desk at the nurses' station (combined assessment unit)
- domestic waste in clinical bins (wards 107, 205)
- overflowing dirty linen skips (ward 205)
- dirty linen skips in ward corridors (wards 107, 205), and

- dirty bed linen carried through the ward by a staff member not wearing appropriate personal protective equipment (apron, gloves) (ward 205).

- **Requirement 4:** NHS Lothian must ensure that all staff follow Health Protection Scotland standard infection control precautions at all times, and monitor compliance.

We surveyed 74 patients across the wards and departments inspected about hand washing practice. 72% stated that ward staff always wash their hands and 56% said that patients were always offered the opportunity to clean their hands.

It was noted that many clinical hand wash sinks in the wards had alcohol hand gel available above the sinks as well as unlabelled hand soap. This may make it difficult to ensure that patients, staff and visitors always decontaminate their hands correctly.

Antimicrobial prescribing

NHS Lothian has recently updated its antibiotic empirical prescribing formulary. However, the inspection team found a variable approach to antimicrobial prescribing policy and practice. For example:

- there was no cross-referencing between the patient case notes and the prescription record
- the intended duration of antibiotics was not recorded on the prescription record, and
- the reason why an antibiotic had been prescribed was not documented in patient case notes.

- **Requirement 5:** NHS Lothian must ensure that antimicrobial prescribing complies with local policy and national guidelines to ensure effective prevention and control of infection.

Risk assessment and patient management

Staff demonstrated to the inspection team good awareness of isolation practice to ensure appropriate infection control measures were in place. This included awareness of which patients had known infections on their wards and how these patients were managed.

Varying practice was found in the use of PVC care bundles. These are used to reduce the risk of device-related blood stream infections. In particular, the inspection team found different approaches to completing the PVC checklist documentation across the accident and emergency department, the combined assessment area and the wards. In some areas, the documentation was not being started or was not completed. Additionally, there were various types of documentation in use as well as differences in the process undertaken. Due to these differences in approach, the information was not always being shared when patients were transferred to other wards and departments in the hospital. For example, in the combined assessment area, a poster on display described what action should be taken each time a cannula was inserted. This includes completing an insertion label detailing the date and time of insertion. This information should also be detailed in the patient case notes. However, the inspection team found that information was not being written on the insertion label or detailed in the patient case notes.

- **Requirement 6:** NHS Lothian must implement a consistent approach to PVC insertion and maintenance to ensure appropriate communication and transfer

of patient information across wards and departments. This will ensure a single system approach to PVC care and reduce the risk of device-related blood stream infections.

The inspection team noted that a bathroom in ward 202 is also being used as a storeroom for mattresses and patient equipment. It was reported that this room is not frequently used by patients. Therefore, the bath and sink taps are not subject to regular running of the water. This should be included in the NHS board's regular flushing programme to reduce the risk of legionella.

- **Recommendation b:** NHS Lothian should ensure that all infrequently used outlets are included in the NHS board's regular flushing programme to reduce the risk of legionella.

Cleaning

During the unannounced inspection, nine wards and departments were inspected. There was poor cleanliness of some patient equipment such as intravenous (IV) stands, emergency crash trolleys and suction units. Some walls were also badly stained. Four wards in particular were found to have issues with high level dust and dirt, eg curtain rails, overhead lights and cable trunking.

We spoke to nine patients during the inspection. The majority of these patients spoke positively of the level of cleanliness on the wards. However, one patient approached the inspection team to complain about the level of ward cleanliness. This included issues with the general environment, staff not complying with hand hygiene practice and poor provision of hand hygiene facilities for patients, poor standards for cleaning and checking toilets, and poor staff cleanliness.

Ward staff were not always clear when and how often Patientline equipment was cleaned. This equipment was found to be dusty in wards 202, 203 and 205.

A cleaning matrix was available in the ward areas, although it was noted that this was dated 2007 in some areas. This matrix specifies that toilets are cleaned once a day as part of the domestic cleaning duties. Toilets in wards 202, 203 and 205 were found to be dirty, including urine spillage on the toilet floor in a four-bedded bay toilet in ward 205 (see Image 1) and some toilets in ward 202. Nursing staff reported that they do spot checks of patient toilets and clean them when required. The senior charge nurse on one ward stated that they had been trying to address the standard and frequency of toilet cleaning with the hospital service provider.



Image 1: Urine spillage in four-bedded bay toilet (ward 205)

- **Requirement 7:** NHS Lothian must ensure that cleaning schedules agreed between the Royal Infirmary of Edinburgh and the hospital service provider meet the specific needs of different patient and ward environments. This will ensure satisfactory standards of cleanliness and reduce any risk to patients.

We checked thirteen commodes across the wards and departments inspected. Five were found to be dirty in wards 202 and 205. Three of these commodes on ward 205 had been labelled with indicator tape, meaning that they were considered clean and ready for use. It was noted, however, that the indicator tape had not been signed or dated. One commode in ward 202 was also damaged. As a result, the commode cannot be cleaned effectively and was not fit for purpose.

- **Requirement 8:** NHS Lothian must ensure that patient equipment is maintained and cleaned in accordance with the *NHSScotland Code of Practice for the Local Management of Hygiene and Healthcare Associated Infection* (2004). This will reduce the risk to patients.

There were a number of rusty clinical pedal bins found in the patient bathrooms across the wards and departments inspected. Damaged surfaces like this cannot be cleaned effectively.

78% of those who responded to the HEI survey stated that they thought the wards were always clean.

68% of patients surveyed thought that the equipment used for care was always clean and in good repair.

3.2 Communication and public involvement

Communication with staff

Ward staff reported good communication links with the infection control team. However, varying levels of communication were reported with the hospital service provider, particularly domestic and facilities staff. Staff reported difficulties in addressing cleaning and estates issues due to a lack of a joint approach between the hospital service provider and the ward staff. This was also reported by some members of the infection control team. For example, log books which detail any estates or maintenance work required are held at ward level. However, across the wards and departments inspected, these did not include any date or signature when jobs were completed. Hand-held electronic devices are used by estates and maintenance staff to record when a job has been completed. This information is not transferred into the ward log books, so ward staff have no record of when a maintenance job has been completed.

- **Requirement 9:** NHS Lothian must review and improve the existing relationship between staff contracted through the hospital service provider (domestic and facilities staff), senior charge nurses and the infection control team. This will ensure effective communication with regard to the prevention and control of infection.

Appendix 1 – Requirements and recommendations

The actions the HEI expects the NHS board to take are called requirements and recommendations.

- **Requirement:** A requirement sets out what action is required from an NHS board to comply with the NHS QIS HAI standards published in March 2008. These are the standards which every patient in hospital has the right to expect. A requirement means the hospital has not met the NHS QIS HAI standards and the HEI is concerned about the impact this has on patients using the hospital. The HEI expects that all requirements are addressed and the necessary improvements are implemented.
- **Recommendation:** A recommendation relates to national guidance and best practice which the HEI considers a hospital should follow to improve standards of care.

Governance and compliance	
Requirements NHS Lothian must:	HAI standard criterion
1 ensure that senior charge nurses are empowered in their role in order to influence and direct prevention and control of infection activities within their ward environment (see page 8).	1a.1
2 improve the existing environmental audit process to ensure that recurring themes are identified, appropriate quality improvement actions are taken and these are reliably implemented (see page 8)	1a.3
3 ensure that all staff comply at all times with national guidance relating to dress code. This will minimise the risk of infections and cross contamination for patients and the public (see page 9).	1a.2
4 ensure that all staff follow Health Protection Scotland standard infection control precautions at all times, and monitor compliance (see page 10).	3a.3
5 ensure that antimicrobial prescribing complies with local policy and national guidelines to ensure effective prevention and control of infection (see page 10).	3a.4
6 implement a consistent approach to PVC insertion and maintenance to ensure appropriate communication and transfer of patient information across wards and departments. This will ensure a single system approach to PVC care and reduce the risk of device-related blood stream infections (see page 10).	3b.2

7	ensure that cleaning schedules agreed between the Royal Infirmary of Edinburgh and the hospital service provider meet the specific needs of different patient and ward environments. This will ensure satisfactory standards of cleanliness and reduce any risk to patients (see page 12).	4a.1
8	ensure that patient equipment is maintained and cleaned in accordance with the <i>NHSScotland Code of Practice for the Local Management of Hygiene and Healthcare Associated Infection</i> (2004). This will reduce the risk to patients (see page 12).	4a.3
Recommendations		
NHS Lothian should:		
a	ensure that its policy for care and management of mattresses is fully implemented, and monitor compliance. This will provide assurance that mattresses are clean and fit for purpose at all times (see page 9).	
b	ensure that all infrequently used outlets are included in the NHS board's regular flushing programme to reduce the risk of legionella (see page 11).	

Communication and public involvement

Requirements	HAI standard criterion
NHS Lothian must:	
9 review and improve the existing relationship between staff contracted through the hospital service provider (domestic and facilities staff), senior charge nurses and the infection control team. This will ensure effective communication with regard to the prevention and control of infection (see page 13).	1a.7
Recommendations	
None	

Appendix 2 – Inspection process

Inspection is a process which starts with local self-assessment, includes at least one inspection to a hospital and ends with the publication of the inspection report and improvement action plan.

First, each NHS board assesses its own performance against the *Standards for Healthcare Associated Infection (HAI)*, published by NHS Quality Improvement Scotland (NHS QIS) in March 2008, by completing an online self-assessment and providing supporting evidence. The self-assessment focuses on three key areas:

- governance/compliance
- communication/public involvement, and
- education and development.

We assess performance both by considering the self-assessment data and inspecting acute hospitals within the NHS board area to validate this information and discuss related issues. We use audit tools to assist in the assessment of the physical environment and practices by noting compliance against a further nine areas:

- environment and facilities
- handling and disposal of linen
- departmental waste handling and disposal
- safe handling and disposal of sharps
- patient equipment
- hand hygiene
- ward/department kitchen
- clinical practice, and
- antimicrobial prescribing.

The complete inspection process is described in the flow chart in Appendix 3.

Types of inspections

Inspections may be announced or unannounced and will involve the physical inspection of the clinical areas, interviews with staff and patients on the wards, interviews with key staff and a discussion session with senior members of staff from the NHS board and hospital. We will publish a written report 6 weeks after the inspection.

- **Announced inspection:** the NHS board and hospital will be given **at least 4 weeks notice** of the inspection by letter or email.
- **Unannounced inspection:** the NHS board and hospital **will not be given any advance warning** of the inspection.

Follow-up activity

The inspection team will follow up on the progress made by the NHS board in relation to their improvement action plan. This will take place no later than 16 weeks after the inspection. The exact timing will depend on the severity of the issues highlighted by the inspection and the impact on patient care.

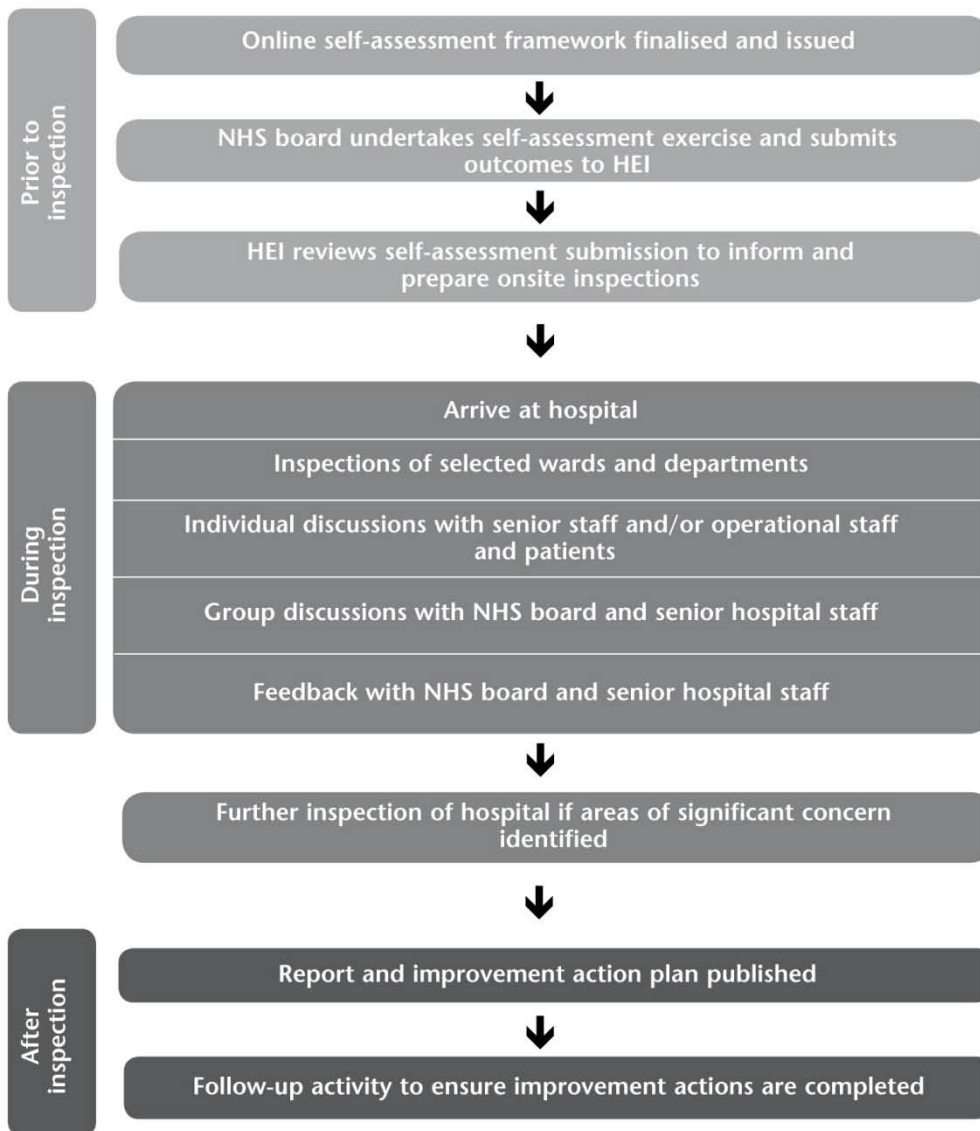
The follow-up activity will be determined by the risk presented and may involve one or more of the following:

- an announced or unannounced inspection
- a targeted announced or unannounced inspection looking at specific areas of concern
- an on-site meeting
- a meeting by video conference
- a written submission by the NHS board on progress with supporting documented evidence, or
- another intervention deemed appropriate by the inspection team based on the findings of an inspection.

Depending on the format and findings of the follow-up activity, we may publish a written report.

More information about the HEI, our inspections, methodology and audit tools can be found at <http://www.healthcareimprovementscotland.org/HEI.aspx>.

Appendix 3 – Inspection process flow chart



Appendix 4 – Details of inspection

The inspection to the **Royal Infirmary of Edinburgh, NHS Lothian** was conducted on **Thursday 18 August 2011**.

The inspection team consisted of the following members:

Ian Smith

Regional Inspector

Brian Auld

Associate Inspector

Anna Brown

Associate Inspector

Kay Eastwood

Associate Inspector

Jim Wilson

Associate Inspector (Patient focus)

Supported by:

Jan Nicolson

Project Officer

Observed by:

Brian Robson

Medical Director, Healthcare Improvement Scotland

Appendix 5 – Glossary of abbreviations

Abbreviation

CDI	<i>Clostridium difficile</i> infection
CEL	Chief Executive Letter
HAI	healthcare associated infection
HDL	Health Department Letter
HEI	Healthcare Environment Inspectorate
HPS	Health Protection Scotland
IV	intravenous
NHS QIS	NHS Quality Improvement Scotland
PVC	peripheral vascular catheter
SABs	<i>Staphylococcus aureus</i> bacteraemias

You can read and download this document from our website. We are happy to consider requests for other languages or formats. Please contact our Equality and Diversity Officer on 0141 225 6999 or email contactpublicinvolvement.his@nhs.net



Ensuring your hospital is **safe** and **clean**

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