Unannounced Inspection Report

Aberdeen Maternity Hospital | NHS Grampian

21 August, 5 September and 17 September 2013
Ensuring your hospital is safe and clean

Healthcare Improvement Scotland is committed to equality. We have assessed the inspection function for likely impact on equality protected characteristics as defined by age, disability, gender reassignment, marriage and civil partnership, pregnancy and maternity, race, religion or belief, sex, and sexual orientation (Equality Act 2010). You can request a copy of the equality impact assessment report from the Healthcare Improvement Scotland Equality and Diversity Officer on 0141 225 6999 or email contactpublicinvolvement.his@nhs.net

© Healthcare Improvement Scotland 2013

First published October 2013

The publication is copyright to Healthcare Improvement Scotland. All or part of this publication may be reproduced, free of charge in any format or medium provided it is not for commercial gain. The text may not be changed and must be acknowledged as Healthcare Improvement Scotland copyright with the document’s date and title specified. Photographic images contained within this report cannot be reproduced without the permission of Healthcare Improvement Scotland.

This report was prepared and published by Healthcare Improvement Scotland.

www.healthcareimprovementscotland.org
## Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Background</td>
<td>4</td>
</tr>
<tr>
<td>2 Summary of inspection</td>
<td>6</td>
</tr>
<tr>
<td>3 Key findings</td>
<td>8</td>
</tr>
<tr>
<td>Appendix 1 – Requirements and recommendations</td>
<td>19</td>
</tr>
<tr>
<td>Appendix 2 – Inspection process</td>
<td>22</td>
</tr>
<tr>
<td>Appendix 3 – Inspection process flow chart</td>
<td>24</td>
</tr>
<tr>
<td>Appendix 4 – Details of inspection</td>
<td>25</td>
</tr>
<tr>
<td>Appendix 5 – Glossary of abbreviations</td>
<td>26</td>
</tr>
</tbody>
</table>
1 Background

The Healthcare Environment Inspectorate (HEI) was established in April 2009 to undertake inspections of all acute hospitals across NHSScotland. In addition to the acute hospitals, the NHS National Waiting Times Centre (Golden Jubilee National Hospital, Clydebank), the Scottish Ambulance Service and the State Hospitals Board for Scotland (State Hospital, Carstairs) will also be inspected.

Our focus is to improve the standards of care for patients through a rigorous inspection framework. Specifically we will focus on:

- providing public assurance and protection, to restore public trust and confidence
- ensuring care is delivered in an environment which is safe and clean, and
- contributing to the broader quality improvement agenda across NHSScotland.

In keeping with our philosophy, we will use an open and transparent method for inspecting hospitals, using published 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
- publish reports on our inspection findings which are available to the public in a range of formats on request, and
- listen to the concerns of patients and the public 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.

Our contact details are:

**Healthcare Environment Inspectorate**  
Gyle Square  
1 South Gyle Crescent  
Edinburgh  
EH12 9EB

**Telephone:** 0131 623 4300  
**Email:** hcis.chiefinspector@nhs.net
2 Summary of inspection

Aberdeen Maternity Hospital provides a consultant-led obstetric service, supported by a midwife-led unit. The hospital serves the region of Grampian, the islands of Shetland and Orkney, and also cares for babies requiring neonatal surgery transferred from the Highlands. It contains 133 staffed beds and deals with approximately 5,500–6,000 births each year.

We previously inspected Aberdeen Maternity Hospital in November 2011. That inspection resulted in six requirements and three 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 Aberdeen Maternity Hospital on Wednesday 21 August 2013. Due to significant concerns we had about the cleanliness in the neonatal unit, we carried out a further announced follow-up inspection on Thursday 5 September 2013 which included an arranged visit to theatre and the procedure room. A further unannounced visit was made to theatre and the procedure room on Tuesday 17 September 2013 because of continued concerns we had about the cleanliness of the environment and patient care equipment.

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

- Ashgrove ward (inspected on 21 August)
- labour ward (inspected on 21 August and 5 September)
- neonatal unit (inspected on 21 August and 5 September)
- Summerfield ward (inspected on 21 August)
- Westburn ward (admissions and assessment unit) (inspected on 21 August)
- theatre (inspected on 5 and 17 September), and
- procedure room (used as a theatre) (inspected on 5 and 17 September).

The inspection team was made up of four 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. Membership of the inspection team visiting Aberdeen Maternity Hospital can be found in Appendix 4.

During our inspection, we handed out patient questionnaires. We received completed questionnaires from 28 patients.

Overall, we found evidence that NHS Grampian had varying compliance with the NHS QIS standards to protect patients, staff and visitors from the risks of acquiring an HAI. Areas of good compliance include the following.

- Staff demonstrated good hand washing technique and took the opportunity to wash their hands, or use alcohol-based hand rubs, between tasks.
- Staff in the neonatal unit displayed a good knowledge of the appropriate measures to take to manage the potential risk of Pseudomonas aeruginosa infection in high risk units.
Ensuring your hospital is safe and clean

However, we did find that significant improvements are required in the following areas.

- Ensuring that patient equipment is clean and that the procedure for the cleaning of patient equipment is understood by staff and fully implemented.
- Ensuring expressed breast milk is stored appropriately and that documentation reflects best practice.
- Ensuring that a suitable HAI audit tool, or equivalent, is produced for theatre and the procedure room.
- Ensuring the environment in the theatre and procedure room is clean.

**What action we expect NHS boards to take after our inspection**

This inspection resulted in seven requirements and six 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 Grampian 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](http://www.healthcareimprovementscotland.org/HEI.aspx).

We would like to thank NHS Grampian and in particular all staff at Aberdeen Maternity Hospital for their assistance during the inspection.
3  Key findings

3.1 Governance and compliance

Roles and responsibilities
During the inspection, we spoke with a number of staff including senior charge nurses, senior charge midwives, staff midwives and nursing auxiliaries. Staff spoken with demonstrated good awareness, knowledge and understanding of their roles and responsibilities for infection prevention and control, HAI audit activity, risk assessment and appropriate patient placement.

We spoke with staff about domestic cleaning in the ward areas. The senior charge midwives and midwives in charge said they felt able to direct domestic staff and ask for additional cleaning, if required. We were told that the domestic supervisor can also take action on any cleaning concerns after environmental audits are carried out. However, it was not clear what accountability the senior charge midwives have for the cleanliness of their ward areas. We were told that senior charge midwives rely on the domestic supervisor to ensure that ward cleaning is carried out to a good standard. Senior charge midwives do not sign off on the cleanliness of the ward or the work carried out by domestic staff.

**Recommendation a:** NHS Grampian should ensure that senior charge nurses and senior charge midwives have accountability for ward cleanliness. This will ensure full accountability in line with Health Department Letter (HDL) (2005) relating to infection control and cleaning issues for nursing staff.

Audit and surveillance
NHS Grampian continues to comply with the requirements of mandatory surveillance for surgical site infections (SSIs) following caesarean sections as described within Health Department Letter (HDL) (2006). Results were displayed in the wards inspected.

There is evidence of regular audit activity taking place at Aberdeen Maternity Hospital. This includes:

- monthly hand hygiene audits
- peer-to-peer environmental audits which are carried out every 3 months, and
- monthly HAI inspections for local assurance in the neonatal unit.

In the wards where we discussed environmental audits, the charge midwives told us that they conduct these audits and the domestic supervisor is invited to participate. Action plans are produced following the audits and appropriate timescales are put in place for completion. We were told that the senior charge midwives have overall responsibility for the actions outlined in the action plan for their ward. In Ashgrove ward, we saw good examples of detailed remedial actions in place. For example, following the results of an environmental audit, some wards now carry out spot checks on staff knowledge.

The infection control manager told us that the infection prevention and control team and the clinical governance team carry out quality assurance audits. We requested information on quality assurance audits for theatre, the procedure room and the neonatal unit. None had been carried out in these areas. Between March 2012 and July 2013, one quality assurance audit had been carried out within Aberdeen Maternity Hospital.
An announced revisit to Aberdeen Maternity Hospital took place on 5 September 2013. During the visit, we spoke with the infection control manager about the purpose of the quality assurance audits. We discussed how the wards are selected and prioritised for quality assurance audits. The infection control manager advised that data are considered from peer-to-peer environmental audits and concerns raised by the infection control team.

We were told that Aberdeen Maternity Hospital is hoping to introduce shorter, targeted audits focusing on two to three topics. These audits are still in development and are due to be in place by October 2013. The hospital is aiming to inspect 10% of all areas.

While discussing the theatre and procedure room with the infection control manager, we were told that it had been difficult to access theatres, despite attempts to do so in the past. Another factor in not visiting was the construction of the new modular theatre. A specific tool for auditing theatre has not been developed. NHS Grampian have advised us that the HAI audit tool currently in use is designed to be used in any healthcare setting, including theatre.

■ Requirement 1: NHS Grampian must undertake a review of the current audit tool used in theatre to ensure that it captures best practice.

Before our inspection, we gathered information from Health Protection Scotland about the SSI rates for patients following caesarean section surgery. We were told that data are given to Health Protection Scotland from information gathered up to, and including, day 10 post-operatively. The data collected at 10 days post-operative demonstrate that NHS Grampian has a below average caesarean section SSI rate, with their data falling within the expected range. It was noted that NHS Grampian collects SSI data up to day 30 post-caesarean section which is presented locally using a statistical process chart format. NHS Grampian has also taken proactive action on the 30 days post-operative SSI results by, for example, changing the type of dressing used and the antibiotic prophylaxis prescribed.

Policies and procedures
Staff were aware of the NHS Grampian infection prevention and control policies. The infection control manual was available for all staff on the NHS board’s intranet site.

As part of the NHS board’s self-assessment, requested before the inspection, we were advised that the NHS board had adopted the national infection prevention and control manual in January 2013, which includes direction on the decontamination of patient equipment. A copy of NHS Grampian’s policy for the decontamination of patient equipment and reusable medical devices was also submitted as part of the self-assessment. A copy of this policy was also given to us on the day of inspection. We noted that both copies were out of date and were due to be reviewed in April 2011. Some of the information given in the local policy does not reflect the advice given in the national infection prevention and control manual.

■ Requirement 2: NHS Grampian must review the content of all HAI policies and procedures to ensure that they are compliant with the national infection prevention and control manual. This will reduce the risk of infection to patients and visitors.

NHS Grampian has developed a patient placement tool. The NHS board’s self-assessment stated that the patient placement tool had been implemented throughout NHS Grampian hospitals. This assesses the infection risk factors and provides guidance on when to contact the infection control team. The results are collated and a score is given to direct which action
should be taken, for example, if a patient should be isolated or if the infection control team should be contacted for further advice. However, in two wards inspected the tool was not in use. At a recent meeting, staff discussed the use of this tool and stated that it was being considered for implementation in the near future.

- Recommendation b: NHS Grampian should ensure that all staff understand and implement the patient placement tool in line with local policy.

We noted good compliance with the national dress code policy, with all staff disciplines adhering to the Chief Executive Letter (CEL) 42(2010).

In all wards inspected, we saw staff demonstrating good hand washing technique and taking the opportunity to wash their hands, or use alcohol-based hand rubs, between tasks. Alcohol-based hand rubs were available at the entrance to all wards and patient rooms. We saw good compliance with all staff groups and visitors to the neonatal unit during both visits. We saw good examples of staff encouraging visitors to wash their hands and use alcohol-based hand rubs before and after contact with their babies and their environment. However, in Ashgrove ward, we saw that alcohol-based hand rubs were not available near the point of patient care. For example, once the curtain is drawn around a patient bed space and a member of staff needs to decontaminate their hands, alcohol-based hand rubs may not be readily available. This would restrict the access staff had to these facilities when carrying out procedures.

- Requirement 3: NHS Grampian must review the availability of alcohol-based hand rubs in Ashgrove ward. This will ensure that, where hand hygiene is required, it is available to staff as near to the point of patient care as possible.

We saw staff using appropriate personal protective equipment (PPE), such as aprons and gloves, when caring for patients and when cleaning patient rooms. Staff also adhered to standard infection control precautions when cleaning and handling used linen. Linen segregation was good, with clean linen being appropriately stored on linen trolleys.

We noted some good compliance with waste management such as disposing, segregating and labelling of waste. However, we saw a number of instances where PPE was disposed of in domestic waste bins. This was identified as a requirement in a recent inspection report for another NHS Grampian hospital. Actions from this inspection are progressing and we will review this at future inspections.

In the neonatal unit, we found a lack of dedicated storage space for equipment and stores. The storage areas were cluttered which resulted in limited access to equipment. We also noted that the storage areas did not allow easy access for cleaning and were not suitable for stock rotation.

- Recommendation c: NHS Grampian should review the storage areas in the neonatal unit. The storage areas should allow for the adequate storage and stock rotation of equipment required for the department.

In the neonatal unit, we noted that there were sterile polythene gloves available for use in the high dependency unit room. The senior charge midwife advised that these gloves are used for the endotracheal suction of babies, who did not have a closed suction system in place, and for ensuring sterility while adding milk thickeners to infant feeds in the clinical environment. We were told that staff ‘double-glove’ for endotracheal suction procedures.
This is when two pairs of sterile polythene gloves are worn at the same time. Staff should use nitrile gloves when they need protection from contact with blood or other body fluids. In addition, the use of sterile polythene gloves is not documented in the HPS National Infection Prevention and Control Manual, Appendix 5 – Glove use and selection.

■ **Requirement 4:** NHS Grampian must ensure that all staff adhere to HPS National Infection Prevention and Control Manual, Appendix 5 – Glove use and selection. This will ensure that the selection of gloves available for use is based on evidence, best practice and expert opinion. The use of PPE must not put patients, staff or visitors at increased risk of infection.

■ **Recommendation d:** NHS Grampian should contact Health Protection Scotland to discuss and review the use of sterile polythene gloves in clinical areas and its compliance with the national glove selection policy.

**Risk assessment and patient management**

During the inspection, we spoke with charge midwives about how staff record infection control advice. We were told that when the infection control team gives advice, this is recorded in the nursing notes. When the infection control team visits the ward, advice is recorded in the patient’s notes. When the infection control team visits the ward, advice is recorded in the patient’s notes.

Across the wards inspected, we found that staff had a good awareness of the NHS board’s isolation policy. We saw one patient who was isolated in a single side room. There was clear signage on the isolation room door which advised staff and visitors to speak with ward staff before entering. We also saw staff wearing appropriate PPE when caring for the patient.

NHS Grampian has implemented a peripheral vascular catheter (PVC) insertion and maintenance bundle across all wards and departments. The bundles are used to reduce the risk of device-related bloodstream infections. This includes a record to document the safe management of the inserted PVC. Compliance with the bundle is monitored locally and nursing staff record the data on the quality improvement portal (LanQip). We saw that this data are being recorded effectively. However, we did not see any PVCs during the inspection.

We spoke with staff about the measures that NHS Grampian has taken to address the requirements of CEL 08(2013). This sets out the requirements for all NHS boards in Scotland to ensure they have appropriate measures in place to manage the potential risk of *Pseudomonas aeruginosa* infection in high risk units where patients may be at a higher risk of infection. We found that nursing staff were responsible for carrying out the daily flushing of taps and showers in the neonatal unit and a record is kept.

We spoke with the senior charge nurses and nursing staff in the neonatal unit about their role in the disposal of used bathing water from baby baths, bed baths or from nappy changes. We were advised that water from nappy changes would be soaked up with the nappy or cotton wool balls, bagged in a clinical waste bag and then disposed of in the general clinical waste bin in the room. Staff members confirmed used bathing water would be disposed of in the sluice room sink. Staff members were not aware of a contingency plan that would be put in place in the event of a *Pseudomonas aeruginosa* infection within the water supply. However, staff described how care would continue in the absence of water.

In the neonatal unit, we were told that soft sheets, blankets and baby grows were laundered in the unit using the 60°C cycle on the unit washing machine. The items are then tumble
dried. This is instead of using the NHS board’s laundry facilities. There is no evidence that the washing machines reach appropriate temperatures and hold the temperatures for the required times to achieve thermal disinfection. Contaminated items are sent to the hospital laundry to be cleaned. Patient's own clothing and bedding is placed in a plastic bag to be laundered at home. We were told that grossly contaminated items belonging to the patient may be rinsed in the laundry room before being placed in a plastic bag to be laundered at home.

**Requirement 5:** NHS Grampian must ensure that staff implement standard infection control precautions for linen management in the neonatal unit. This will reduce the risk to patients, staff and visitors.

The NHS Grampian breast milk refrigerator storage policy states a critical temperature range of 2-4°C. NHS Grampian did not provide evidence of a policy for the handling and storage of frozen expressed breast milk. We identified a number of issues with the storage of expressed breast milk.

- The fridge temperature record sheets in use on Summerfield ward and Ashgrove ward stated a critical temperature limit range of 2-8°C.
- Records examined for the expressed breast milk fridge on Summerfield ward and Ashgrove ward regularly had temperatures recorded outwith the critical temperature range.
- The refrigerator located in special care unit ‘A’ was found to be operating at -1°C, which is outwith the critical temperature limits. Upon checking the corresponding temperature record sheet, we found that the refrigerator had not achieved a temperature of 2-4°C since the beginning of August 2013. The other refrigerators inspected were found to be in control.
- Freezer temperatures in the neonatal unit were being recorded using a fridge temperature record sheet which stated a critical temperature limit range of 0-8°C in July 2013 and 0-4°C in August 2013.
- There were significant gaps in the recording of freezer temperatures in July 2013 and August 2013 for the three freezers in the neonatal unit.

The infant feeding midwife advised us that the policies on the storage and handling of expressed breast milk were under review and at present they were advising staff of new practices until the revised policies are published. We revisited the neonatal unit on 5 September. We found that the new policies had been introduced and the appropriate temperature record sheets were in use.

We were advised that expressed breast milk is frozen or stored under refrigeration on the ward. We saw that there were dedicated refrigerators in each area for the storage of breast milk. Staff advised us of two methods for defrosting breast milk. Expressed breast milk was defrosted under refrigeration for 24 hours before use. It was then brought up to room temperature and used within 3 hours. A new warm air bottle warmer has also been introduced on a trial basis. This technology allows a frozen bottle of breast milk to be defrosted to the correct temperature within a short period of time. As this is a trial, there is no written policy documented on the process for defrosting breast milk.

**Requirement 6:** NHS Grampian must demonstrate that expressed breast milk is stored appropriately and that documentation reflects best practice. This will ensure that the storage of expressed breast milk is managed in a way that reduces the risk to patients.
Ensuring your hospital is safe and clean

The theatre lead midwife told us that the hospital performs approximately 5,000 deliveries per year, with around 1,400 being caesarean deliveries. The theatres are also used for assisted deliveries and early pregnancy loss. Patients requiring potential intensive therapy unit care are taken to the main theatres of Aberdeen Royal Infirmary.

Following the previous inspection in November 2011, NHS Grampian was required to develop an estates action plan with proposals which detail how works to improve the theatre environment and ventilation systems to meet current standards will be achieved using a proportionate and risk-based approach.

NHS Grampian recognised that the ventilation systems for the theatre and procedure room do not meet the current standards set out in Scottish Health Technical Memorandum (SHTM) 03-01: Ventilation for Healthcare Premises (2010). The national standard, as set out in SHTM 03-01, Part A, appendix 1 is 25 air changes every hour. The current standards came into effect after the construction of the theatres. NHS boards are expected to review the current guidance and ensure that they are managing any potential risk as a result of systems not being in line with current standards.

During the inspection on 21 August, we spoke with the head of maintenance and the theatre lead midwife about a risk assessment to reduce the risks raised from the ventilation in the theatre and procedure room. Neither were aware of a risk assessment being carried out for the continued use of theatres.

During our visit on 5 September, we inspected the theatre and procedure room. The procedure room has an air exchange rate of fewer than 14 per hour and theatre has a rate of fewer than 9 per hour. A risk assessment for the ‘continued use of the two theatres with known substandard ventilation transfer rates’ was made available to us at the time of this visit. A new ‘modular’ build theatre is in the process of being commissioned and constructed. It is anticipated that this unit will be ready for use by the end of September 2013. We were advised that a refurbishment of the existing theatre was to be carried out once the new ‘modular’ theatre was commissioned and in use. The refurbishment will provide ventilation which will be compliant with SHTM 03-01. This will provide two theatres with ventilation which meet current standards and the procedure room will no longer be used as a theatre. This issue will be followed up at future inspections.

Cleaning

During the inspection, we saw that the bed space checklist was not in use in the neonatal unit and labour ward, and was being used incorrectly by staff in Summerfield ward and Westburn ward. The bed space checklist should be laminated and kept at the patient bed side. The checklist details the areas around the bed space which are to be cleaned and checked, including the inside of mattresses and mattress covers. The checklist should then be signed and dated by the staff member who completed it. On Westburn ward, we noted that the checklist was not in use in the majority of bed spaces. We spoke with the senior charge midwife who told us that the checklists must have fallen and were therefore not being used when a patient is discharged. We spoke with a nurse auxiliary who told us that they were aware of a bed space checklist, but had not seen or used it, and therefore did not document that they had cleaned a particular bed space. They also told us that they would not check the mattress as part of the cleaning routine. Of the bed space checklists available, none had been signed or dated.

We also spoke with a senior charge midwife who stated that some staff were unwilling to put their name on the checklist in case the staff member that followed them did not clean the bed space to the required standards.
Ensuring your hospital is safe and clean

On the labour ward, we were told that the bed space checklist is not in use. Instead the ward has a record book which records that the patient room has been cleaned. Therefore, there is an expectation that everything in the patient room will be cleaned and ready for use for the next patient. We inspected two beds in the labour ward. Both had been cleaned and were ready for the next patient. We noted that the labour rooms had been renovated since our last inspection, with new worktops and sinks installed (see Image 1).

During the inspection, we checked seven mattresses, three of which were found to be contaminated with blood or other body fluids (labour ward, Summerfield ward and Westburn ward).

Following the previous inspection in November 2011, NHS Grampian was required to ensure that patient equipment is cleaned in accordance with national guidance, to achieve a consistent approach to cleaning. During the inspection on 21 August, we found some issues with the cleanliness of patient equipment in the majority of areas inspected. All issues identified were brought to the immediate attention of the charge midwife.

- Contamination to incubators and cots, which were in use by patients (neonatal unit).
- Contamination to incubators, cots and drip stands, which were marked as being clean, but were not yet in use by patients (neonatal unit).
- Dust on floor, monitor stands, ventilator equipment, tubing of equipment and surfaces of equipment, which were marked as being clean in the equipment store (neonatal unit) (see Image 2).
- Significant dust was found on the blades of patient fans, UV lamps and on horizontal surfaces, such as incubator lights and wall sockets (neonatal unit).
- Blood staining was found on bed rails and on a patient's bed control cabling (see Image 3). Staining was also found inside a mattress cover (Summerfield ward).
- Blood staining was found on sinks and a wall mounted seat (Westburn ward).
- High-level dust was found on curtain rails, lamp shades and picture frames (Westburn ward).
- Blood staining was found on the underside of mattresses and on the metal bed frame (labour ward) (see image 4).
- Significant dust was found on the blades of patient fans (labour ward).
- Body fluids were found on the walls and ledges at the back of incubator spaces (intensive care unit A and B).
Ensuring your hospital is safe and clean

**Image 2: dust on floor of equipment store in the neonatal unit**

**Image 3: blood staining on patient’s bed control cabling**

**Image 4: blood staining on bed frame**

- **Requirement 7:** NHS Grampian must ensure that patient equipment is clean and that the procedure for the cleaning of patient equipment is understood by staff and fully implemented. This will provide assurance that patient equipment and bed spaces are clean and ready for use.

- **Recommendation e:** NHS Grampian should ensure that all staff understand and implement the ‘checklist for discharge bed space cleaning for nursing staff’ in line with the local policy. This will provide assurance that patient equipment is clean and ready to use.

In NHS Grampian’s self-assessment, the NHS board stated that a standardised system was developed for cleaning patient care equipment. This was developed in partnership with Health Protection Scotland and was appropriate to all settings where healthcare is delivered, including a monitoring framework. We were told that this involved checking five pieces of patient equipment every week for cleanliness. This system of monitoring should be reviewed in light of the inspection findings.
**Recommendation f:** NHS Grampian should continue to review the monitoring framework for cleaning patient care equipment and its application, in partnership with Health Protection Scotland, to provide assurance that this system is effective.

Due to the significant concerns we had at our inspection on 21 August 2013, we returned to Aberdeen Maternity Hospital on 5 September 2013 to inspect cleanliness in the neonatal unit and labour ward. We also agreed a pre-arranged a visit to theatre and the procedure room. We were told that an infection control nurse had gained access to the theatre on the day before our visit. The infection control nurse’s visit was a ‘supportive visit’ rather than a documented inspection.

In spite of the infection control nurse’s visit, and staff being aware of our request to visit theatre, we noted that there was significant contamination to patient equipment in the procedure room and theatre:

- blood contamination and damage to the operating theatre bed (theatre and procedure room)
- body fluids on the cot sheet (theatre)
- mattress of the resuscitator was found to be broken and could not be effectively cleaned (procedure room)
- significant dust was noted to the lower sections of the syringe driver (theatre - anaesthetic room)
- mattress of the incubator was found to be broken and could not be effectively cleaned (theatre)
- the cover of one theatre mattress was damaged, meaning it could not be effectively cleaned (theatre)
- dust was noted on a dressing trolley and multiple procedure trolleys (theatre), and
- oxygen mask was found to be perished and broken and could not be effectively cleaned (theatre).

The environment was tired and we noted the following environmental cleaning concerns in the procedure room and theatre:

- rusting to the metal work of the hand wash basins / scrubbing sinks (procedure room)
- staining was noted around the drainage hole of the scrub sinks (procedure room)
- areas of the floor were damaged and taped with hazard tape in a number of places (theatre) (see Image 5)
- chipped wooden surfaces to shelves and cupboard doors (procedure room)
- chipped paint work to the radiator, (procedure room)
- damaged plasterwork around the window (procedure room)
- areas of the floor were damaged and taped with hazard tape (theatre)
- thick dust on cupboard tops (theatre)
- holes in the wall underneath the clinical hand wash basin of the anaesthetic room (theatre)
- chipped and damaged wooden surfaces to shelves (theatre), and
- no dedicated hand wash basin in the disposal room (theatre).
Ensuring your hospital is safe and clean

We also saw that sterile packs in theatres were stored on open shelving in a dedicated area which was a thoroughfare through to the disposal room. This is not an appropriate workflow, as dirty items, for example clinical waste bags, mops and other waste will be transported through what should be a dedicated clean area.

We also revisited the labour ward on 5 September 2013 and found it to be clean.

We also noted that the standard of cleaning had improved in the neonatal unit, particularly that of the patient equipment. The majority of incubators inspected were found to be clean, with the exception of one which was cleaned immediately. We also looked at two storage rooms which had been organised and the equipment was clean and ready for use. The equipment store was found to be clean and free from dust and grit.

Due to our continued concerns about the cleanliness of the theatre and procedure room, we returned to Aberdeen Maternity Hospital on 17 September 2013 to ensure that improvements had been made. Although we saw that there had been marked improvements made to the general cleanliness levels, we noted the following issues:

- blood staining was noted on the metal post of one section of one theatre bed
- dust on multiple procedure trolley ledges and on items of equipment
- base of one theatre table was in a poor state of repair, meaning it could not be effectively decontaminated (see Image 6), and
- one procedure trolley was stained with drips of skin cleanser.

We escalated our concerns about the cleaning of patient equipment and the environment on the day of each inspection.
3.2 Communication and public involvement

Communication with staff
We were told that staff felt able to contact the infection control team to seek advice and guidance about the prevention and control of infections, when required.

Some staff spoken with described the input from the infection control team during previous incidences of chicken pox outbreaks in the hospital. We were told that the infection control nurse had visited the wards to provide advice to staff about the screening of patients and the cleaning of patient rooms.

In Ashgrove ward, we spoke with the charge midwife about the audits carried out by the domestic manager for the cleaning of the ward environment. The charge midwife is invited to take part in these audits and is informed of the results. On a weekly basis, the domestic supervisor will discuss the provision of domestic services with the charge midwife. We were told that the charge midwife felt empowered to direct the domestic services, as required, and raise any concerns directly with the domestic staff and with the domestic supervisor.

Communication with the public
We saw posters on display throughout the hospital reminding patients and visitors of good hand hygiene practice. Information notice boards were also displayed in all ward areas for the benefit of staff, patients and visitors.

During the inspection, we asked patients to complete patient questionnaires. Patients were complimentary about the care and treatment they had received at Aberdeen Maternity Hospital and made positive comments about the frequency of cleaning in the ward areas. Of the 28 patients who responded to our survey, 21 patients (75%) stated that their ward was ‘always’ clean.
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 standards published by Healthcare Improvement Scotland, or its predecessors. These are the standards which every patient has the right to expect. A requirement means the hospital or service has not met the standards and the HEI are concerned about the impact this has on patients using the hospital or service. 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 or service should follow to improve standards of care.

Prioritisation of requirements:

All requirements have been priority rated (see table below). Compliance is expected within the highlighted timescale.

<table>
<thead>
<tr>
<th>Priority</th>
<th>Timescale</th>
</tr>
</thead>
<tbody>
<tr>
<td>MINOR</td>
<td>9 months</td>
</tr>
<tr>
<td>LOW</td>
<td>6 months</td>
</tr>
<tr>
<td>MEDIUM</td>
<td>3 months</td>
</tr>
<tr>
<td>HIGH</td>
<td>1 month</td>
</tr>
</tbody>
</table>

### Governance and compliance

<table>
<thead>
<tr>
<th>Requirements</th>
<th>HAI standard criterion</th>
<th>Priority</th>
<th>Timescale</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>3a</td>
<td>Medium</td>
<td>3 months</td>
</tr>
<tr>
<td>Undertake a review of the current audit tool used in theatre to ensure that it captures best practice (see page 9).</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>3a.2</td>
<td>Medium</td>
<td>3 months</td>
</tr>
<tr>
<td>Review the content of all HAI policies and procedures to ensure that they are compliant with the national infection prevention and control manual. This will reduce the risk of infection to patients and visitors (see page 9).</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>3a.3</td>
<td>Medium</td>
<td>3 months</td>
</tr>
<tr>
<td>Review the availability of alcohol-based hand rubs in Ashgrove ward. This will ensure that, where hand hygiene is required, it is available to staff as near to the point of patient care as possible (see page 10).</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Ensuring your hospital is safe and clean

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>ensure that all staff adhere to <em>HPS National Infection Prevention and Control Manual, Appendix 5 – Glove use and selection</em>. This will ensure that the selection of gloves available for use is based on evidence, best practice and expert opinion. The use of PPE must not put patients, staff or visitors at increased risk of infection (see page 11).</td>
<td>3a.3</td>
</tr>
<tr>
<td>5</td>
<td>ensure that staff implement standard infection control precautions for linen management in the neonatal unit. This will reduce the risk to patients, staff and visitors (see page 12).</td>
<td>3a.3</td>
</tr>
<tr>
<td>6</td>
<td>demonstrate that expressed breast milk is stored appropriately and that documentation reflects best practice. This will ensure that the storage of expressed breast milk is managed in a way that reduces the risk to patients (see page 12).</td>
<td>3a</td>
</tr>
<tr>
<td>7</td>
<td>ensure that patient equipment is clean and that the procedure for the cleaning of patient equipment is understood by staff and fully implemented. This will provide assurance that patient equipment and bed spaces are clean and ready for use (see page 15).</td>
<td>4a.3</td>
</tr>
</tbody>
</table>

**Recommendations**

**NHS Grampian should:**

- **a** ensure that senior charge nurses and senior charge midwives have accountability for ward cleanliness. This will ensure full accountability in line with Health Department Letter (HDL) (2005)7 relating to infection control and cleaning issues for nursing staff (see page 8).

- **b** ensure that all staff understand and implement the patient placement tool in line with local policy (see page 10).

- **c** review the storage areas in the neonatal unit. The storage areas should allow for the adequate storage and stock rotation of equipment required for the department (see page 10).

- **d** contact Health Protection Scotland to discuss and review the use of sterile polythene gloves in clinical areas and its compliance with the national glove selection policy (see page 11).

- **e** ensure that all staff understand and implement the ‘checklist for discharge bed space cleaning for nursing staff’ in line with the local policy. This will provide assurance that patient equipment is clean and ready to use (see page 15).

- **f** continue to review the monitoring framework for cleaning patient care equipment and its application, in partnership with Health Protection Scotland, to provide assurance that this system is effective (see page 16).
## Communication and public involvement

<table>
<thead>
<tr>
<th>Requirements</th>
<th>HAI standard criterion</th>
<th>Priority</th>
<th>Timescale</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### 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 8 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 inspection tools can be found at [http://www.healthcareimprovementscotland.org/HEI.aspx](http://www.healthcareimprovementscotland.org/HEI.aspx).
Appendix 3 – Inspection process flow chart

How we inspect hospitals and services:
We follow a number of stages in our inspection process.

Before inspection

The NHS board undertakes a self-assessment exercise and submits the outcome to us.

The self-assessment submission is reviewed to help inform and prepare for on-site inspections.

During inspection

We arrive at the hospital or service and undertake physical inspection. We have discussions with senior staff and/or operational staff, people who use the hospital or service and their carers.

We give feedback to the hospital or service senior staff.

We undertake further inspection of hospitals or services if significant concern is identified.

After inspection

We publish reports for patients and the public based on what we find during inspections. NHS staff can use our reports to find out what other hospitals and services do well and use this information to help make improvements. Our reports are available on our website at www.healthcareimprovementscotland.org

We require NHS boards to develop and then update an improvement action plan to address the requirements and recommendations we make. We check progress against the improvement action plan.
Appendix 4 – Details of inspection

The unannounced inspection to Aberdeen Maternity Hospital, NHS Grampian was conducted on Wednesday 21 August 2013.

The inspection team was made up of the following members:

Alastair McGown
Senior Inspector

Jacqueline Jowett
Inspector

Aidan McCrory
Inspector

Allison Wilson
Inspector

Supported by:

Jan Nicolson
Project Officer

The announced follow-up inspection to Aberdeen Maternity Hospital, NHS Grampian was conducted on Thursday 5 September 2013.

The inspection team consisted of the following members:

Jacqueline Jowett
Inspector

Allison Wilson
Inspector

The unannounced follow-up inspection to Aberdeen Maternity Hospital, NHS Grampian was conducted on Tuesday 17 September 2013.

The inspection team consisted of the following members:

Jacqueline Jowett
Inspector
## Appendix 5 – Glossary of abbreviations

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CEL</td>
<td>Chief Executive Letter</td>
</tr>
<tr>
<td>HAI</td>
<td>healthcare associated infection</td>
</tr>
<tr>
<td>HDL</td>
<td>Health Department Letter</td>
</tr>
<tr>
<td>HEI</td>
<td>Healthcare Environment Inspectorate</td>
</tr>
<tr>
<td>HPS</td>
<td>Health Protection Scotland</td>
</tr>
<tr>
<td>NHS QIS</td>
<td>NHS Quality Improvement Scotland</td>
</tr>
<tr>
<td>PPE</td>
<td>personal protective equipment</td>
</tr>
<tr>
<td>PVC</td>
<td>peripheral vascular catheter</td>
</tr>
<tr>
<td>SSI</td>
<td>surgical site infection</td>
</tr>
</tbody>
</table>