High Impact Intervention
Care bundle to improve the cleaning and decontamination of clinical equipment

Aims

- To improve the cleanliness and decontamination of near-patient equipment.
- To help reduce the risk of healthcare-associated infection (HCAI) cross-contamination.
- To embed the importance of cleaning into the everyday work routine of the ward.
- To improve patient confidence.

Context

The aim of the care bundle, as set out in this high impact intervention (HII), is to ensure appropriate and high quality patient care. Regular auditing of the care bundle actions will support cycles of review and continuous improvement in care settings.

Registered providers must audit compliance against key policies and procedures for infection prevention, inline with the relevant legislation at the time of publication. The Code of Practice also reflects the provisions of the Chief Nursing Officer’s letter of November 2007 that the nurse in charge of any patient area has direct responsibility for ensuring that cleanliness standards are maintained throughout that shift.

Cleaning and decontamination are important in their own right, for public confidence as well as for supporting infection prevention and control. The national patient choice survey in 2008 found that ‘Hospital cleanliness and low rates of infection are selected most often (by 74% of patients) as an important factor when choosing a hospital’. Significant progress has been made in improving cleanliness across NHS organisations; standards must be maintained and improvements sustained.

This High Impact Intervention (HII) will help registered providers to achieve compliance under criterion 2 of the Code of Practice by providing a focus for activity and a method for measuring the implementation of policies and procedures for reducing reservoirs of infection. As such, it complements the auditing framework set out in the 2007 national specifications for cleanliness and provides nurses with an easy-to-use protocol for assessing cleanliness, as outlined in standard 3 of the Royal College of Nursing’s Infection prevention and control: Minimum standards. In addition, it complements High Impact Intervention for Clostridium difficile to ensure that the process of cleaning and decontamination within the patient environment is thorough and follows best practice for all equipment, not just equipment used for patients with Clostridium difficile infection.

Why use the care bundle?
This care bundle provides a means for registered providers to assure compliance with the Health and Social Care Act 2008 Code of Practice and the 2007 national specifications for cleanliness and, importantly, to ensure patient and public confidence that the cleanliness standards in healthcare organisations continue to rise.

This care bundle is based on expert advice and other national infection prevention and control guidance. It should support implementation of local and national policy. The purpose is to act as a way of improving and measuring the implementation of key actions to minimise the risks of infection. The risk of infection reduces when all elements within the clinical process are performed every time and for every patient to ensure that patient equipment is clean prior to use.
Pre-requisites of the care process:
While significant progress has been made in improving cleanliness across registered providers; standards must be maintained and improvements sustained. As part of this all staff should be aware of their roles and responsibilities with regard to cleaning and decontamination. Ward staff undertaking the cleaning of equipment must be trained in the correct cleaning and decontamination procedures as determined by the registered organisation, and the appropriate designated areas and cleaning products must be made available for the cleaning of equipment and storage to take place.

In relation to equipment, all equipment which cannot be cleaned must be risk assessed on a need-to-use basis, or alternatively designated for single patient use. Local decontamination guidance from the registered providers infection prevention and control and medical engineering departments should be sought. When new items of equipment are considered for purchase, the manufacturer’s advice on cleaning must be sought and training, if necessary, must precede use. Careful consideration should be given to the consequences of the purchase of any item of equipment that is not capable of being disinfected by chlorine or other sporicidal agents. Finally, single-use items must not be re-used.

Clear identification of cleaned items and a visibly clean environment will provide reassurance to patients that they are receiving safe care in a clean environment. Health and social care organisations must ensure that appropriate designated areas and cleaning products are available for the cleaning of equipment and storage to take place. A clutter-free environment and the adoption of local ‘clean as you go’ policies will provide the foundation for delivering high-quality care in a clean, safe place.

Staff competence and training:
Staff should be appropriately trained and competent in any stated procedure or care process. Assessment of competence is not a specific care action within the HII as it is a pre-requisite for any care delivered. Registered care providers will have mechanisms for assuring training, assessment and recording of competence.

Actions of the care process
Two separate sets of actions are detailed. The correct set needs to be used depending on the HCAI status of the patient.

a) Cleaning equipment after use by or on a patient with a suspected or confirmed HCAI or in a contaminated area.

b) Cleaning equipment after use on a non-infected patient and in a non-contaminated area.

| Cleaning equipment after use by or on a patient with a suspected or confirmed HCAI or in a contaminated area |
| Location of cleaning activity |
| - Patient equipment located in isolation areas is cleaned prior to its removal from that area. |
| Hand hygiene |
| - Hands are decontaminated immediately before and after each episode of patient contact using the correct hand hygiene technique. Use of the World Health Organizations ‘5 moments of hand hygiene’ or the NPSA ‘Clean you hands campaign’ is recommended. |
| Personal protective equipment |
| - Gloves and Apron are worn (in line with local policy) |
| - Personal protective equipment (PPE) is disposed of correctly (in line with local policy) after use. |
| Cleaning and decontamination |
| - Cleaning and decontamination is carried out immediately following use of the equipment by the patient or staff member. |
Equipment is cleaned with a neutral detergent followed by a 1,000 ppm chlorine-containing disinfectant solution or other sporicidal product, using a disposable cloth (products containing both detergent and chlorine can also be used). Follow local policy.

Systematic cleaning of items (top down) is carried out in line with local policy if available; if the local policy is not available, this is carried out following manufacturers’ guidance.

### Storage
- Cleaned and decontaminated equipment is stored separately from used items and away from areas where cleaning is taking place, to reduce risk of recontamination.

### Documentation
- Cleaning is documented by the person who cleaned the item and the item is identified as clean.

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**Cleaning equipment after use on a non-infected patient and in a non-contaminated area**

#### Location of cleaning activity
- Equipment is cleaned in a designated area or away from clean items.

#### Correct hand hygiene
- Hands are decontaminated immediately before and after each episode of patient contact using the correct hand hygiene technique. Use of the World Health Organizations ‘5 moments of hand hygiene’ or the NPSA ‘Clean you hands campaign’ is recommended.

#### Personal protective equipment
- Gloves and apron are worn (in line with local policy).
- PPE is disposed of correctly (in line with local policy) after use.

#### Cleaning
- Cleaning is performed immediately following patient use.
- A neutral detergent-based product is used for general cleaning.
- Systematic cleaning of items (top down) is carried out in line with local policy if available; if the local policy is not available, follow the manufacturers’ guidance.

#### Storage
- Cleaned equipment is stored separately from used items and away from areas where cleaning is taking place to reduce risk of recontamination.

#### Documentation
- Cleaning is documented by the person who cleaned the item and the item is identified as clean.

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**Using the care bundle and the electronic tool**

The use of this care bundle will support cycles of review and continuous improvement, which will deliver appropriate and high quality patient care.

Audits of compliance with the care bundle should be carried out regularly and the results recorded at the point of care. They should be carried out by peers and the results can be collected manually or electronically depending on what is appropriate. The use of an electronic, graphical package such as the HII electronic tool provided is recommended, as this will increase the understanding and usefulness of the overall results.

The electronic tool will:
- Collect, collate and produce different views of the information.
- Clearly identify when actions within the care bundle have or have not been performed.
• Provide information to support the development of plans to resolve any issues and improve the quality of care.
• Support a culture of continuous improvement.

**Recording and making sense of the results**
• Print an audit sheet from the HII electronic tool or alternatively create one such as the example below.
• When a care bundle action is performed, insert a Y in the relevant column. If the action is not performed, insert an X in the relevant column.
• When the care action is not performed, as it is not applicable (for example local policy has determined it as not applicable in all or certain situations) insert an N/A to demonstrate that local policy is being adhered to. (This is then recognised as a Y when total compliance is being calculated).
• Calculate the totals and compliance levels manually or enter the results into the HII electronic tool to calculate these for you.
• The goal is to perform every appropriate action of care every time it is needed and achieve 100% compliance with the care bundle. The “All actions performed” column should be filled with a Y when all the appropriate actions have been completed on every required occasion. See the example below.
• Where actions have not been performed, overall compliance will be less than 100%. This provides immediate feedback for users of the tool on those care bundle actions not completed, and action can then be taken to improve compliance levels.

**Example audit sheet**

<table>
<thead>
<tr>
<th>Observation</th>
<th>Care action 1</th>
<th>Care action 2</th>
<th>Care action 3</th>
<th>Care action 4</th>
<th>All actions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>2</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>3</td>
<td>Y</td>
<td>Y</td>
<td>N/A</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>4</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>5</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Total number of times an individual action was compliant</td>
<td>5</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>% when action of care was given</td>
<td>100%</td>
<td>80%</td>
<td>80%</td>
<td>80%</td>
<td>40%</td>
</tr>
</tbody>
</table>

• This example tool shows that while most care actions were performed, on only two occasions were ALL actions performed correctly while all actions was only 40% and as a result the risk of infection was significantly increased. (Please note for observation no 3. the N/A was calculated as a Y and overall compliance was achieved)
• When the information has been entered into the HII electronic tool a compliance graph for each action of care and for overall compliance with the care bundle can be produced. This will show where to focus the improvement efforts to achieve full compliance and achieve high quality patient care.
Best practice guides
NPSA National Colour Coding Scheme. www.nrls.npsa.nhs.uk/resources/?entryid45=59810

Department of Health HTM 07 01 Safe Management of Healthcare Waste

Recommended resources
Many guidelines and papers are available from the National Resource for Infection Control at: www.nric.org.uk.

The NHS infection control e-learning package is available at: www.infectioncontrol.nhs.uk.

Expert cleaning advice can be sought from the Association of Healthcare Cleaning Professionals (see www.ahcp.co.uk).

NPSA guidance and tools are downloadable from: www.npsa.nhs.uk/nrls/improvingpatientsafety/cleaning-and-nutrition/.

References

Bibliography

