

Cleaning and Disinfection Guidelines for Mattresses, Dynamic Pressure Relieving Systems, Pillows and Bedframes

For Use in:	Organisation-wide
By:	All staff groups
For:	Management of cleaning/disinfection of mattresses and bedframes
Division responsible for document:	Corporate
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4	January 2021 updates	<ul style="list-style-type: none"> •Updated names of line management team. •Included change of practice to double bag DPRS mattresses used for patients in isolation for infection prevention and control purposes. •Responsibility for action plans from annual audit process from IP&C lead to DNDs. 	IP&C
5	13/05/21	Updated appendix number in the waste management policy link on bed & mattress cleaning advice poster	IP&C

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2. Definitions of Terms Used

(DPRS) Dynamic Pressure Relieving System

(SFPRM) Static Foam Pressure Reducing Mattress

Condemned mattress - mattress that is no longer fit for purpose. This may be due to damage, strike through of liquids, staining of the foam, the foam being wet or bottoming out of the foam. (Whereby the foam has compressed and the bed base can be felt through the foam.) etc.

Bed frame - a rigid support surface to be used in conjunction with the mattress.

Cleaning - is the process, which physically removes organic matter and contamination but does not necessarily destroy micro-organisms even though the equipment may look cleaner. The cleaning process is an essential step before disinfection as it helps to remove debris e.g. dust, proteins such as blood etc. It is carried out using Trust approved detergent and warm water or cleaning wipes.

Disinfection/Decontamination - is the removal of micro-organisms to a safe level unlikely to cause infection, carried out by heat or chemicals. Disinfection/Decontamination cannot take place on unclean surfaces as organic matter will interfere with disinfectant. Therefore, surfaces must be cleaned before they can be disinfected. It is carried out using Trust approved disinfectant, cleaning wipes or other processes e.g. thermal washer disinfection.

3. Quick Reference Guidelines

Links to Quick Reference Flowcharts and Documents Some of these documents can be printed and displayed for information To open link hold the Ctrl button on your keyboard and click the link with your mouse.
Isolation Cleaning (Clinical) Sheet
Associated Documents: Policy and Guideline Links
Hand Hygiene Policy
Waste Policy
Cleaning and Disinfection Guideline
Procedure for Personnel Protective Equipment
Daily Mattress checklist/ audit
Posters
Actichlor Plus Poster – General Environment
Actichlor Plus Poster – Blood Spills
Bed and static mattress cleaning advice poster

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Bed and Static Mattress Cleaning Advice Poster

Bed & Mattress Cleaning Advice

<ul style="list-style-type: none"> All base mattresses must be checked & cleaned between every patient, on discharge or if contaminated. Staff to use correct Personal Protective Equipment (PPE). I.e. Gloves & Apron Upper section is the responsibility of the Trust to clean including safety sides and linen shelf. Lower section (below safety sides) is Serco's responsibility During a Clinical Clean Serco are responsible for cleaning the whole bed, but trust staff must check the mattress. 	
<p>Close the curtains before checking the mattress.</p> <p>Check the mattress cover is intact, not stained and zip functioning.</p> <p>Check the mattress core for soiling. Dispose of mattress if soiled.*</p>	
<p>If clean place a dated, timed and signed "I am clean" sticker inside the base mattress cover where the zip closes as evidence of a check being completed.*</p>	
<p>Clean the mattress cover using Clinell wipes</p> <p>Allow to dry naturally.</p>	
<p>If contaminated with bodily fluids, or if from an isolation area, clean as above then use Trust approved disinfectant to disinfect cover. Allow to dry naturally to give sufficient contact time. Refer to Mattress cleaning guideline for further details</p>	
<p><u>All dynamic mattresses</u> must be placed in red bags to be collected by the equipment library and returned to the contractor for decontamination.</p> <p>Mattresses from isolation rooms need to be double bagged.</p> <p>Please retain red bag with unique bar code under mattress for bagging after use. Refer to How to roll a dynamic mattress poster & Mattress cleaning guideline.</p>	
<p>*Disposal of mattress</p> <ul style="list-style-type: none"> In permanent marker, write the word 'Condemned' on the mattress cover. Wearing appropriate PPE, place mattress in large yellow bag and seal with ward specific blue and white tape and attach condemning certificate. Refer to appendix 5. waste management policy. Yellow bags are available through iSerco or service desk 3333. Place mattress in disposal hold and log 3333 call for collection. 	
<p><i>* Please keep a record of all mattress checklists for 12 consecutive months.</i></p>	

Author: IP&C Team Document: Bed and Static Mattress Cleaning Advice Poster
 Trust Docs ID: 12150 Approved: May 2021 Review: May 2024

New Improved Air Care Mattress Launch

We are pleased to announce an improved service for providing mattresses with more mattresses available to issue on a daily basis.

- **Order your Air Care Mattress as normal**
- **Each mattress is supplied with a red bag which has a unique bar code.**
- **Place the red bag under the mattress in order to avoid losing it.**
- **When ready for collection place in the red bag (whether contaminated or not) and fasten.**
- **If you have any concerns or queries, please do contact us in the Equipment Library x6567**

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4. Objectives

- To reduce the risk of healthcare associated infections related to hospital mattresses and related equipment e.g. cushions and pillows.
- To provide advice on cleaning and the maintenance of all mattresses, cushions, pillows and bedframes.
- To ensure that mattresses, cushions and pillows are replaced as soon as they become damaged/ contaminated.

This guideline relates to all mattresses; e.g. trolleys, dynamic pressure relieving system, couches, hospital beds and cots.

5. Rationale

Poor maintenance of foam mattresses and their covers may lead to staining of the foam or inner surfaces of the mattress covers. This damage can promote the growth of micro-organisms, which are a potential cause of cross infection. Proper care, maintenance and cleaning of mattresses and covers is, therefore, essential. Recent research highlights that different types of trauma to the mattress cover can result in damage which is not visible to the naked eye, but can allow fluid to enter the mattress (Russell 2001).

Foam mattresses have a relatively short life expectancy and if used for longer periods will experience core fatigue. This can result in the patient striking through the foam and being supported by the underlying bed base (Dunford 1994). If mattress covers are damaged, body or other fluids can pass through and contaminate the inner core. There is potential for cross infection if contaminated mattresses remain in use. (Medicines & Healthcare products Regulatory Agency, MHRA Jan 2010)

The hospital bed is comprised of different components which pose a potential risk of infection for the patient if not adequately decontaminated (Creamer and Humphries 2008). The hospital bed is the most frequently used piece of equipment in the clinical area. The constant high turnover of patients often leaves little time to clean equipment effectively (O'Connor 2000). It is recommended that the bed, including the frame, undercarriage, mattress and base, should be decontaminated between each patient and once per week if bed is occupied by same patient (Patel 2005) or more frequently if contaminated by blood or body fluids.

DPRS are now being used in many hospitals for prevention of pressure sores. Due to the complexity of their structures and multiple grooves this can make cleaning a challenge. There are numerous reports linking hospital-acquired infections to mattresses. The Department of Health recommends decontamination of mattresses between patients to prevent hospital acquired infections. (Denton et al 2004)

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6. Scope

This guideline applies to all healthcare staff involved in the cleaning and storing of static foam pressure reducing mattresses (**SFPRM**), dynamic pressure relieving system (**DPRS**) mattresses and cushions, pillows and bed frames.

7. Processes to be followed

Protecting the mattress and cushion covers

Care must be taken not to damage the cover in particular when patient mechanical transfer devices such as hoists and slings and bridging boards are used or when mattresses are being transported.

Avoid any protruding or sharp objects having contact with the mattress cover.

Cleaning and disinfection

Patients suspected or confirmed of having an infection must have the bed, static mattress and pillows, cleaned and disinfected as part of the clinical clean process.

- Do not use solvents, neat bleach, phenolic based cleaning solutions or abrasive products to clean mattresses, control units, cushions and pillows.
- Wear disposable apron, gloves and eye/face protection if risk of splashing.

Cleaning

- All surfaces to be wiped down with Trust approved cleaning wipes or a disposable soft cloth moistened with a mild detergent diluted in warm water (40°C)
- The wipe/cloth should be changed during the cleaning process if it becomes soiled.
- If using a wipe allow to air dry naturally.
- If using detergent rinse with cold clean water and a clean cloth then dry.

Disinfection

- If equipment has come into contact with blood or bodily fluids
- Complete cleaning as above
- Wipe surfaces down with 0.1% Chlorine solution (1,000ppm) using disposable cloths. [Actichlor Plus Poster – General Environment](#)
- It is important to wait 5 minutes to allow the disinfectant sufficient contact time
- After 5 minutes has elapsed wipe down with a clean cloth moistened with water.
- Dry off with a paper towel – always ensure the cleaned surfaces are allowed to fully dry before putting back into use or into a plastic bag otherwise there is an increased risk of damage to the mattress/cushion.

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7.1 General Cleaning and Checking (Mattresses)

All **SFPRM** should be checked and cleaned and or disinfected as appropriate following all patient discharges. Daily mattress checklists should also be completed. Mattress checking must take place prior to a clinical clean.

See [bed and static mattress cleaning advice poster](#) in quick reference guidelines on page 4.

7.2 Mattress storage (SFPRM)

If a standard mattress needs to be stored, prior to storing the mattress it must be

- Checked for any breaches.
- Checked, cleaned/disinfected as per bed and static mattress cleaning advice poster.
- Have a dated and signed “I am clean” sticker placed inside the mattress cover and another on top of the mattress.
- Request made via ext 3333 or via iSerco or the Trust Service Provider to arrange mattress collection.

7.3 All DPRS

All DPRS mattresses need to be sent to the contracted mattress decontamination centre, regardless of whether they have been used in an isolation room or not.

- Any obvious soiling with bodily fluids should be removed on the ward area with Trust approved disinfectant
- Roll the mattress as per [How to roll a dynamic mattress poster](#)
- Use the bar coded red bag which should have been stored under the mattress (to prevent it being lost)
- **DPRS mattresses used in isolation rooms need to be double red bagged as a precautionary measure introduced by the contracted service during the Covid-19 pandemic.**
- Request mattress removal via equipment library
- Do not attempt ward based disinfection or send used mattresses to other wards.
- Mattresses should be securely fastened, preferably with a cable tie.

7.4 Pillows

- To be in an impermeable cover.
- Pillows must be cleaned/disinfected as appropriate whenever visibly soiled and between each patient.
- Damaged/ stained pillows must be placed in a yellow bag and then put in a clinical waste bin. Pillows do not need a condemnation certificate.

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7.5 Bed frames

- Should be checked and cleaned/disinfected as appropriate following all patient discharges or when visibly soiled or contaminated with blood/body fluids.

8. Clinical audit standards

To ensure that this document is compliant with the above standards, the following monitoring processes will be undertaken:

- Daily mattress checklists (See [bed and static mattress cleaning advice poster with checklist/ audit](#)) need to be completed on every patient discharge and to be retained for 12 months. (e.g. Scanned and saved as evidence for CQC, NHSI etc.)
- Yearly audits of DPRS by supplier.
- Trust staff check the integrity of mattress and pillow covers and replace if necessary. Mattresses are unzipped so as to check foam element inside for staining before the terminal clean, following discharge of patients with suspected or confirmed infection prior to a clinical clean. Please see [Bed and Mattress Cleaning Advice](#).

9. Summary of development and consultation process undertaken before registration and dissemination

The authors listed drafted this document on behalf of IP&C department who has agreed the final content.

During its development it has been circulated for comment to:

Operations Centre team	Equipment Library Managers
Health and Safety Department	Tissue Viability
Matrons and Senior Nurses	Serco
Facilities Department	HICC members
Ward sisters/charge nurses	Procurement

This version has been endorsed by the Hospital Infection Control Committee (HICC).

10. References

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Monitoring Compliance / Effectiveness Table

Document Name: Mattress and Bedframe Guidelines

Document Owner: Infection Prevention and Control Team

<i>Element to be monitored</i> <i>(For NHSLA documents this must include all Level 1 minimum requirements)</i>	<i>Lead Responsible for monitoring</i> <i>(Title needed & name of individual where appropriate)</i>	<i>Monitoring Tool / Method of monitoring</i>	<i>Frequency of monitoring</i>	<i>Lead Responsible for developing action plan & acting on recommendations</i>	<i>Reporting arrangements</i> <i>(Committee or group where monitoring results and action plan progress are reported to)</i>	<i>Sharing and disseminating lessons learned & recommended changes in practice as a result of monitoring compliance with this document</i>
Mattress cleanliness	IP&CT	Audit	Annual spot checks	Divisional Nursing Directors (DNDs)	HICC	Ward feedback at time of audit