

# Bed Rails – Procedure for Safe and Effective Use

## CLIN-0047-v7

**Status: Approved**

**Document Type: Procedure**

**Overarching Policy: [Medical Devices Policy](#)**

## Contents

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<b>1.</b>	<b>Introduction.....</b>	<b>3</b>
<b>2.</b>	<b>Purpose .....</b>	<b>4</b>
<b>3.</b>	<b>Who this procedure applies to.....</b>	<b>4</b>
<b>3.1.</b>	<b>Roles and responsibilities.....</b>	<b>4</b>
<b>4.</b>	<b>Related Documents .....</b>	<b>5</b>
<b>5.</b>	<b>Procedure.....</b>	<b>5</b>
<b>5.1.</b>	<b>Risk assessment.....</b>	<b>5</b>
<b>5.2.</b>	<b>Fitting Bed Rails .....</b>	<b>7</b>
<b>5.3.</b>	<b>Consent .....</b>	<b>7</b>
<b>5.4.</b>	<b>Record Keeping .....</b>	<b>7</b>
<b>5.5.</b>	<b>Ongoing assessment, review and maintenance.....</b>	<b>7</b>
<b>5.6.</b>	<b>Using bed rails on children’s beds.....</b>	<b>8</b>
<b>5.7.</b>	<b>Specialist beds/cot beds .....</b>	<b>8</b>
<b>5.8.</b>	<b>Using third party bed rails safely e.g. non-integral .....</b>	<b>9</b>
<b>5.9.</b>	<b>Using integral bed rails safely .....</b>	<b>9</b>
<b>5.10.</b>	<b>Using electric profiling beds safely.....</b>	<b>9</b>
<b>5.11.</b>	<b>Using pressure-relieving mattresses and overlays safely.....</b>	<b>10</b>
<b>5.12.</b>	<b>Bed rail bumpers .....</b>	<b>10</b>
<b>5.13.</b>	<b>Procurement .....</b>	<b>10</b>
<b>5.14.</b>	<b>Incident Reporting .....</b>	<b>11</b>
<b>6.</b>	<b>Definitions .....</b>	<b>11</b>
<b>7.</b>	<b>How this procedure will be implemented.....</b>	<b>12</b>
<b>7.1.</b>	<b>Training needs analysis .....</b>	<b>12</b>
<b>8.</b>	<b>How the implementation of this procedure will be monitored.....</b>	<b>12</b>
<b>9.</b>	<b>References .....</b>	<b>13</b>
<b>10.</b>	<b>Document control (external) .....</b>	<b>13</b>
	<b>Equality Analysis Screening Form .....</b>	<b>15</b>
	<b>Appendix 1 - Risk Assessment Tool for Provision of Bed Safety Rails .....</b>	<b>19</b>
	<b>Appendix 2 - Bed Rail Fitting Checklist.....</b>	<b>23</b>
	<b>Appendix 3 - WHEN TO USE BED RAILS Decision making flowchart.....</b>	<b>25</b>
	<b>Appendix 4 - Bed rail dimensions and safe use of bed rails MHRA .....</b>	<b>26</b>
	<b>Appendix 5 – Approval checklist .....</b>	<b>37</b>

## 1. Introduction

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In this section describe:

- Why this procedure is needed  
Bed rails are used in healthcare to prevent occupants falling out of bed and injuring themselves. Patients in hospital may be at risk of falling from bed for many reasons including poor mobility, dementia or delirium, visual impairment, and the effects of their treatment or medication.
- How this procedure links to Our Journey to Change (OJTC) and has been developed with OJTC in mind.

### To co-create a great experience for our patients, carers and families, so you will experience:

- **Outstanding** and compassionate care, all of the time.
- **Access** to the care that is right for you.
- **Support** to achieve your goals.
- **Choice** and control.

This procedure is aligned to the organisational journey to change and its work to create safe and personalised care that improves the lives of individuals with mental health needs, a learning disability or autism.

This procedure supports the trust to co- create a great experience for all patients, carers and families from its diverse population by allowing access to care that is right for the individual and ensuring the correct equipment is in place and used safely, correctly and in the least restrictive way.

### To co-create a great experience for our colleagues, so you will be:

- **Proud**, because your work is meaningful.
- **Involved** in decisions that affect you.
- **Well led** and managed.
- That your workplace is **fit for purpose**.

This procedure supports the trust to co-create a great experience for our colleagues by ensuring they have the correct skills, knowledge and training to provide the best possible care.

### To be a great partner, so we will:

- Have a **shared understanding** of the needs and the strengths of our communities
- Be **working innovatively** across organisational boundaries to improve services.
- Be **widely recognised** for what we have achieved together.

This procedure supports us to work hand in hand with our community equipment service providers and across health and social care settings to meet the needs of our communities.

## 2. Purpose

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Following this procedure will help the Trust to:

- Ensure staff understand and follow the procedure for risk assessment of bed rails;
- Comply with National, Medicines and Healthcare Related Products Agency (MHRA) and Local Guidance.
- Reduce harm to patients caused by falling from beds or becoming trapped in bed rails;
- Support patients and staff to make individual decisions around the risks of using and not using bed rails.

## 3. Who this procedure applies to

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This procedure applies to all staff caring for patients in Inpatient areas of Tees, Esk and Wear Valleys NHS Foundation Trust (the Trust).

Employees of the Trust who work in the community where bed rails are supplied via home loans services, e.g. Medequip or Teesside Community Equipment Stores (TCES), staff should follow the relevant local protocol for using this equipment. Where no local guidance is available, staff members will use the most suitable guidance document as agreed by head of profession.

### 3.1. Roles and responsibilities

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Role	Responsibility
Manager	<ul style="list-style-type: none"> <li>• Ensuring all staff are aware of and follow this procedure and are aware of their own roles and responsibilities to ensure safe practice.</li> </ul>
Modern Matrons	<ul style="list-style-type: none"> <li>• Ensuring this procedure is implemented.</li> </ul>
Ward Managers	<ul style="list-style-type: none"> <li>• Following the procedure and ensuring staff are trained.</li> </ul>
Inpatient and Community Employees	<ul style="list-style-type: none"> <li>• Nursing staff to undertake assessment for the use of bed rails,</li> <li>• Ensure bed rails are used safely and effectively in line with Trust policy and Local Community Policy e.g. TCES or Medequip</li> <li>• All staff involved in assessment or provision of bed rails to be aware of up to date national guidance including <a href="http://www.gov.uk/government/publications/bed-rails-management-and-safe-use">http://www.gov.uk/government/publications/bed-rails-management-and-safe-use</a> and <a href="https://www.hse.gov.uk/healthservices/bed-rails.htm">https://www.hse.gov.uk/healthservices/bed-rails.htm</a></li> </ul>
Back Care Advisor	<ul style="list-style-type: none"> <li>• Provide advice for the safe moving and handling of patients where bed rails are used.</li> </ul>

Occupational Therapist	<ul style="list-style-type: none"> <li>• Provide advice on the safe use of bedrails and undertake assessment and provision of bed rails in the community where this is within their professional role/ remit.</li> </ul>
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### Respect

- Listening
- Inclusive
- Working in partnership



### Compassion

- Kind
- Supportive
- Recognising and Celebrating



### Responsibility

- Honest
- Learning
- Ambitious

## 4. Related Documents

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[Medical Devices Policy](#)

[Policy for Consent to Examination or Treatment](#)

[Decontamination of Equipment Procedure](#)

Human Rights and Equality, Diversity Policy

<https://intranet.tewv.nhs.uk/download.cfm?doc=docm93ijim4n1360.pdf&ver=12804>

Health and Safety Policy

Harm Minimisation (Clinical risk assessment and Management Policy)

Restraint policy Safe use of physical restraint techniques

## 5. Procedure

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### 5.1. Risk assessment

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Bed rails should only be used to reduce the risk of a patient accidentally:

- ✓ slipping;
- ✓ sliding;
- ✓ falling or rolling out of a bed (bed rails used for this purpose are not a form of restraint, where restraint is defined as 'the intentional restriction of a person's voluntary movement or behaviour.')

And

- ✓ Where other lower risk options are not suitable
- ✓ Where bed rail is suitable for use with bed, environment, and patient size/ needs.



**Bed rails:**

- ✗ will not prevent a patient leaving their bed and falling elsewhere;
- ✗ are not intended as a moving and handling aid.

A baseline assessment of the patient's ability to maintain a safe environment should be made and documented immediately on admission to the clinical area. This should be reviewed as indicated in the patients care plan after 2 weeks or if the patient condition changes. An individual risk assessment (see Appendix 1) must be completed prior to bed rail usage with any patient.



**Bed rails should not usually be used:**

- if the patient is agile enough and/or confused enough, to climb over them;
- if the patient would be independently mobile if the bedrails were not in place.

**Bed rails should be considered:**

- if the patient is being transported on their bed;
- in areas where patients are recovering from anaesthetic or sedation and are under constant observation (ECT suites).
- Patients who experience severe anxiety may request bed rails to make them feel safe.

**Some clinical conditions can mean that clients are at greater risk of injury or entrapment – for example those with:**

- acute or chronic confusion showing signs of agitation or challenging behaviours. They are unaware of the risks and limitations imposed by their disabilities;
- involuntary movements or muscle spasms;
- epilepsy;
- micro- or hydrocephalus presenting a particular risk of entrapment;
- sensory impairment who may not be aware of trapped limbs;
- learning disabilities affecting their ability to understand safety issues;
- communication difficulties; unable to understand safety issues or alert others when in danger.
- People who may self harm with the help of electric beds or bed rails [EFA-2010-006 - Self harm associated with profiling beds \(health-ni.gov.uk\)](#)

Bed rails should be used if the benefits outweigh the risks.



The risk assessment is intended to highlight the potential risks but does not replace clinical reasoning or judgment. The decision to provide or not provide remains that of the clinician after careful consideration of the risks and benefits to the patient and wherever possible a multidisciplinary approach should be taken.

The behaviour of individual patients can never be completely predicted, and the Trust will be supportive when decisions are made by frontline staff in accordance with this procedure.

## 5.2. Fitting Bed Rails

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The choice of correct bed rail/ bumper and correct fitting of a bed rail is essential to avoid accidents and injuries to patients. Two members of staff who have the relevant competence must fit bed rails and complete the bed rail fitting checklist (Appendix 2) before the patient occupies the bed to ensure safety. If the bed rails are fitted in trust facilities by staff outside the trust (e.g. equipment suppliers/ equipment services), trust staff must still ensure they are fitted correctly and safe prior to use.

For community equipment provision, beds and bed rails should be fitted by the community equipment provider/ supplier and checked using a bed rail checklist by the prescribing trust clinician.

## 5.3. Consent

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Decisions about bed rails need to be made in the same way as decisions about other aspects of treatment and care as outlined in [Policy for Consent to Examination or Treatment](#)

## 5.4. Record Keeping

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- Record the decision to use or not use bed rails for a patient on service specific electronic care record.
- Complete the Trust's bed rails risk assessment tool for each patient where bed rails are considered for use and place a copy in the patient's clinical record.
- Document the rationale to use or not to use bed rails with reference to the risk assessment form and cross reference in safety summary. Record any discussions with the patient and carers.
- Record any subsequent reviews, reassessments, discussions and changes in the patients' clinical condition.
- Record the reasons for discontinuing bed rail use following reassessment.

## 5.5. Ongoing assessment, review and maintenance

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Decisions about bed rails need to be reviewed and changed. **If either bed, mattress (including mattress toppers), bed occupant or bed rail changes, an immediate reassessment is needed.** Even stable patients in rehabilitation or mental health settings can have rapidly changing needs when physical illness intervenes. Changes to patient behaviour/ sleeping habits such as attempts to move into positions that pose risk of entrapment or attempting to climb over rails also require changes to risk assessment and require review of bed rail use. Nursing staff should review decisions about bed rails whenever an in-patient's condition or wishes change, but as a minimum review this every 24 hours and ensure regular cleaning and safety checks of rails/ bumpers.

In community settings, home carers should maintain regular safety checks and cleaning

and contact the relevant community team if there are any changes that indicate a need to review.

## 5.6. Using bed rails on children's beds

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Most bed rails are for use only with adults and adolescents. Suitability of the bed rail for the individual child or small adult **must always** be risk assessed, as bar spacing and other gaps (e.g. between the bed base and mattress/rails) may need to be reduced.



Manufacturing standard BS EN 50637:2017 specifies that all gaps between the rail bars should be a maximum of 60mm. There was no standard prior to this, therefore Trust staff will need check the gap width on older beds prior to their use.



When purchasing or making assessments of bed rails for children, seek guidance on suitable rails from the manufacturers and assess their compatibility with the size of the individual and the specific circumstances of use.

A risk assessment must be carried out involving the parent(s)/carer(s) of the child (A child is identified as person under the age of 18years) to determine what the child usually sleeps in and what will provide a safe environment for the child. If a cot is used, the cot sides are permanently fixed, and must be used when the child is asleep, or unattended by an adult. The assessment must consider the mobility of the child, and whether they will be likely to climb over the cot sides.

If a child usually sleeps in a bed, the assessment, with the parent(s)/carer(s), should determine whether bed rails are needed to keep the child safe.

## 5.7. Specialist beds/cot beds

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Specialist beds and cot beds can be used for children and adults. These beds can be made-to-measure for the needs of each individual. All beds must be used as per the manufacturer's instructions and a full risk assessment completed before use to comply with MHRA and BS EN60601-2 Standards. Trust staff to be aware of the change in guidance from MHRA (2020) in relation to the maximum bed rail gap width of 60mm and check this for older beds.

Effectuated decontamination of bed rails and bed bumpers must occur for specialised cleaning refer to Appendix 2 in the Decontamination of Equipment Procedure.



## 5.8. Using third party bed rails safely e.g. non-integral

Third party bedrails:

- ✓ are not specific to any particular bed model; they are intended to fit a wide range of domestic, divan or metal framed beds from different suppliers;
- ✓ must be assessed for each use to ensure suitability for use with the bed and meeting the dimensions outlined in Appendix 4;
- ✓ should be fixed in matching pairs to the correct sides of the bed and as per manufacturers' instructions.



Third party bed rails are different from bed grab handles (bed sticks) which are designed as mobility aids and not to prevent patients falling out of bed – as these can pose similar risks, staff need to be aware of up to date safety warnings and guidance, and undertake related risks assessments (MHRA) – these types of equipment are not covered by this document.

For all types of bed rail, staff should refer to the MHRA advice for guidance. Web Links are given in [Section 9 - References](#)



Before each use all bed rails must be inspected for any signs of damage, faults or cracks. Any defective bed rails must be quarantined and either reported for repair or condemned (as appropriate). Defective bed rails must **NOT** be used and should be disposed of immediately in line with the Trust Medical Devices Policy.

## 5.9. Using integral bed rails safely

Integral bed rails are those that are incorporated in the bed design and supplied with it or offered as an optional accessory e.g. electric profiling bed. Beds that have integral bed rails must be used as per manufacturers' instructions. Split bed rails must be used with both parts of the bed rail in the upright position.

Bock beds have integral bed rails. When these bed rails are fully elevated and the bed rails locked, they provide a non-collapsible rail. Deaths from non-collapsible rails are a patient safety 'never event'.



All units that use Bock beds must complete a full risk assessment on each patient which may indicate the removal of these bed rails for certain patients.

## 5.10. Using electric profiling beds safely

Electric profiling beds must be used as per the manufacturer's instructions. Take extra care with profiling beds to ensure there is no possibility of entrapment once the bed is adjusted to a differing profile from horizontal, as potential entrapment hazards can be created in different configurations and present possible risk of accidental or intentional harm to self by the patient. Staff will reflect consideration of this Sin bedrail risk assessment, related support plans and safety summary on electronic record system.

**All instructions for the use of hired beds must be handed over to the nurse in charge on arrival.**

## 5.11. Using pressure-relieving mattresses and overlays safely

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Staff must consider the combined height of the mattress plus overlay as this increases the overall height. This may allow the patient to roll over the top of the bed rail. The need for extended height bed rails must be assessed for use in this situation.



The hazard of entrapment between the mattress and the bed rails may be exacerbated due to the easily compressed nature of the mattress. A risk assessment must be carried out.

When using a Bariatric bed that requires a pressure-relieving mattress, ensure this is a Bariatric pressure-relieving mattress.

## 5.12. Bed rail bumpers

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Bed rail bumpers, padded accessories or enveloping covers are primarily used to prevent impact injuries. They can also reduce the potential for entrapment when securely fitted to the bed or rail according to the instructions for use. All accessories must be risk assessed to ensure they are fit for purpose and risks management is optimised, as they can also add their own inherent risks. For example mesh bumpers may cause friction burns and breathable materials may need to be considered if there is a risk of asphyxiation.



Be aware that bumpers can move or be compressed introducing entrapment risks. Bedding/ duvets should only be used as emergency interim measure as they can move to impact on gap width and increase entrapment and asphyxiation risks.

## 5.13. Procurement

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New beds, bed rails or mattresses can introduce a new risk if they are not fully compatible with existing stock. To reduce the risk, all purchase orders from Trust premises for beds, bed rails or mattresses must be agreed the Medical Devices Management Group for authorisation. All orders should provide supporting evidence to justify the reason for purchase. See [Medical Devices Policy](#)

## 5.14. Incident Reporting



All accidents and injuries involving the use of bed rails are an untoward incident and must be reported immediately.

### You must:

- Raise a Datix incident;
- Document the incident on the patient’s electronic care record;
- Inform the Patient Safety Team of all incidents involving bed rails for investigation;
- Report any serious untoward incident due to the use of bed rails to the Medicines and Healthcare Regulatory Agency (MHRA) yellow card scheme <https://yellowcard.mhra.gov.uk/>
- Remove all defective equipment from service immediately and quarantine.
- Keep the defective equipment and do not dispose until after any investigation can be undertaken.

## 6. Definitions

Term	Definition
Integral (split rail)	These types are incorporated into a profiling hospital bed design. These are commonly provided within a hospital setting
Straight rail design	Attaches to profiling beds
Third party	These types are not specific to any particular bed model. They are intended to fit a range of domestic divan or metal framed beds from different suppliers. Sometimes these types may be called Trombone Rails. These differ from bed grab handles/ bed sticks in both purpose and design.
Bumpers	These are padded covers that fit over the bed safety rails. Their function is to reduce the risk of injuries caused by limbs or head striking the metal rail and reducing risk of injury when limbs protrude between rails.
Extended Height Bed Rails	Either an extra height rail or an extender bar can be fitted to a compatible rail

## 7. How this procedure will be implemented

- This policy will be published on the Trust’s intranet and external website.
- Line managers will disseminate this policy to all Trust employees through a line management briefing.

### 7.1. Training needs analysis

Staff/Professional Group	Type of Training	Duration	Frequency of Training
All staff on wards who will use bed rails.	Cascade training from staff competent in using the equipment.	n/a	At induction referencing the procedure. Equipment provider company available for support/training if required.
Occupational Therapy (for community provision and additional inpatient advice)	Within core training.	n/a	Responsible to keep own skills updated as per HCPC requirements. No specific method mandated.

## 8. How the implementation of this procedure will be monitored

### In patient settings.

A bed rail audit will be carried out in all inpatient areas that use bed rails to monitor compliance with this policy. Results will be discussed at the Medical Devices Group.

**Audit plan to be developed in Jan 2022.**

### Community

Bed rail prescription will be monitored within clinical supervision and their use reviewed regularly. Community equipment services will review their beds and bed rails policy on a regular basis in conjunction with prescribers.

Community equipment services regularly review the bed rail equipment provided and their contract with suppliers, and lead on any medical device or field safety issues.

## 9. References

- [EFA-2010-006 - Self harm associated with profiling beds \(health-ni.gov.uk\)](https://www.health-ni.gov.uk/publications/efta-2010-006)
- Medicines and Healthcare products Regulatory Agency (MHRA) (2020) *The Safe Use of Bed Rails*:  
<https://www.gov.uk/government/publications/bed-rails-management-and-safe-use>
- MHRA Device Alert 2007/009 (2007) *Beds Rails and Grab Handles* [www.mhra.gov.uk](http://www.mhra.gov.uk)
- NPSA Safer practice notice *Using Bed Rails Safely and Effectively* [www.npsa.nhs.uk](http://www.npsa.nhs.uk)
- NPSA resources to support implementation of safer practice notice *Using Bed Rails Safely and Effectively* [www.npsa.nhs.uk](http://www.npsa.nhs.uk)
- NPSA (2007) Slips, Trips and Falls in hospitals [www.npsa.nhs.uk](http://www.npsa.nhs.uk)
- NICE (2004) Falls: the assessment and prevention of falls in Older People.
- BS EN 50637:2017 “Medical electrical equipment. Particular requirements for the basic safety and essential performance of medical beds for children”.
- BS EN 60601-2-52: 2010+A1:2015 “Particular requirements for the basic safety and essential performance of medical beds”.

## 10. Document control (external)

To be recorded on the policy register by Policy Coordinator

Date of approval:	Virtual approval by medical devices group – concluded by email by 29 <sup>th</sup> Dec 2021 (to be minuted at medical devices group meeting 12 <sup>th</sup> Jan 2022)	
Next review date:	29 December 2024	
This document replaces:	CLIN-0047-v6 Bed rails - procedure for safe and effective use	
This document was approved by:	Name of committee/group	Date
	Medical devices committee	29 December 2021
This document was ratified by:	Name of committee/group	Date
	n/a	
An equality analysis was completed on this document on:	21 December 2021	
Document type	Public	
FOI Clause (Private documents only)	n/a	

### Change record

Version	Date	Amendment details	Status
6	05 Dec 2017		Published

6	Oct 2020	Review date extended to 05 June 2021	Published
6	06 July 2021	Review date extended to 05 Dec 2021	Published
7	29 Dec 2021	Full review with minor amendments. Amendments include transfer to new template and minor wording changes throughout with review of links and practice guidance.	Approved

## Equality Analysis Screening Form

Please note; The Equality Analysis Policy and Equality Analysis Guidance can be found on InTouch on the policies page

Name of Service area, Directorate/Department i.e. substance misuse, corporate, finance etc.	Medical Devices Committee			
Policy (document/service) name	CLIN-0047-v7Using Bed Rails Safely and Effectively Procedure			
Is the area being assessed a;	Policy/Strategy	<input type="checkbox"/>	Service/Business plan	<input type="checkbox"/>
	Procedure/Guidance	<input checked="" type="checkbox"/>	Code of practice	<input type="checkbox"/>
	Other – Please state			
Geographical area	Trust wide			
Aims and objectives	To set standards in practice to ensure the delivery of patient care is carried out safely and effectively by trust staff.			
Start date of Equality Analysis Screening (This is the date you are asked to write or review the document/service etc.)	12/09/2021			
End date of Equality Analysis Screening (This is when you have completed the analysis and it is ready to go to EMT to be approved)	21/12/2021			

**You must contact the EDHR team as soon as possible where you identify a negative impact.**

<b>1. Who does the policy, Service, Function, Strategy, Code of practice, Guidance, Project or Business plan benefit?</b>					
Trust staff and patients and those who care for them.					
<b>2. Will the Policy, Service, Function, Strategy, Code of practice, Guidance, Project or Business plan impact negatively on any of the protected characteristic groups below?</b>					
<b>Race</b> (including Gypsy and Traveller)	No	<b>Disability</b> (includes physical, learning, mental health, sensory and medical disabilities)	No	<b>Gender</b> (Men, women and gender neutral etc.)	No
<b>Gender reassignment</b> (Transgender and gender identity)	No	<b>Sexual Orientation</b> (Lesbian, Gay, Bisexual and Heterosexual etc.)	No	<b>Age</b> (includes, young people, older people – people of all ages)	No
<b>Religion or Belief</b> (includes faith groups, atheism and philosophical belief's)	No	<b>Pregnancy and Maternity</b> (includes pregnancy, women who are breastfeeding and women on maternity leave)	No	<b>Marriage and Civil Partnership</b> (includes opposite and same sex couples who are married or civil partners)	No
If this procedure is followed, it will prevent any potential for negative impact as there is mitigation included in the procedure to ensure that any negative impact is reduced or removed completely.					



<b>3. Have you considered other sources of information such as; legislation, codes of practice, best practice, nice guidelines, CQC reports or feedback etc.?</b>		Yes			
<b>Sources of Information may include:</b> <ul style="list-style-type: none"> <li>• Feedback from equality bodies, Care Quality Commission, Equality and Human Rights Commission, etc.</li> <li>• Investigation findings</li> <li>• Trust Strategic Direction</li> <li>• Data collection/analysis</li> <li>• National Guidance/Reports</li> </ul>		<ul style="list-style-type: none"> <li>• Staff grievances</li> <li>• Media</li> <li>• Community Consultation/Consultation Groups</li> <li>• Internal Consultation</li> <li>• Research</li> <li>• Other (Please state below)</li> </ul>			
<b>4. Have you engaged or consulted with service users, carers, staff and other stakeholders including people from the following protected groups?:</b> Race, Disability, Gender, Gender reassignment (Trans), Sexual Orientation (LGB), Religion or Belief, Age, Pregnancy and Maternity or Marriage and Civil Partnership					
<b>Yes</b> – Please describe the engagement and involvement that has taken place					
<p>We have consulted with a range of Trust staff with knowledge of bed rails and their use – working group and out for wide consultation previously. This version contains minor changes for approval and will be approved by the medical devices group.</p>					

**No** – Please describe future plans that you may have to engage and involve people from different groups

**5. As part of this equality analysis have any training needs/service needs been identified?**

<b>No</b>	Please describe the identified training needs/service needs below
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A training need has been identified for;

Trust staff	No	Service users	No	Contractors or other outside agencies	No
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**Make sure that you have checked the information and that you are comfortable that additional evidence can provided if you are required to do so**

**If you need further advice or information on equality analysis, the EDHR team host surgeries to support you in this process, to book on and find out more please contact team.**

## Appendix 1 - Risk Assessment Tool for Provision of Bed Safety Rails

This assessment tool is an aid to assist your clinical judgement in making decisions about the safe and appropriate use of bed rails. It is not a prescriptive scoring system.

NHS No \_\_\_\_\_

Client Name \_\_\_\_\_ DOB \_\_\_\_\_ Height \_\_\_\_\_ Weight \_\_\_\_\_

Ward/Unit \_\_\_\_\_ NHS No \_\_\_\_\_

Assessor Name \_\_\_\_\_ Title \_\_\_\_\_ Date \_\_\_\_\_

RISK ASSESSMENT CHECKLIST	Risk		Comments
	Y	N	
<b>Existing Equipment</b>			
Have alternative measures been considered? e.g. Using a mattress on the floor, High- low beds, Floor bed, Telecare devices, Side wedges/ Posey wedges, Non-metal bed rails			
Does the client have a wooden slatted based or metal framed (non-hospital type) bed			Bed rails not suitable
Does the client have a divan? Consider length, width and height			See dimensions guide
What mattress is on the bed? Foam, sprung or pressure relieving?			
What is the overall height of the mattress(s)?			
<b>Social Situation</b>	<b>Y</b>	<b>N</b>	<b>Comments</b>
Will the client be left in bed for prolonged periods of time during the day or night?			
Will the rails be in use day and night?			
<b>Assessment Checklist – The Client</b>	<b>Y</b>	<b>N</b>	<b>Comments</b>

Has the client fallen out of bed and why?			
Why is client trying to get out of bed?			
Did the client and/or their carer request the Bed rails and why?			
Do they have a medical condition that affects their sleeping position? What is the client's preferred sleeping position?			
Can the client transfer into and out of the bed during the day and night?			
Does the client need to get out of bed during the day and night?			
Would the client be able to raise and lower the bed rails independently?			
Is the client confused or agitated or present with challenging behaviour?			
Is the clients head or body small enough to pass through and become trapped in the bed rails or any gap between the mattress and the rail, headboard or footboard? Is the client within height recommendation for rail considered (e.g. above 1.5m for most adult bed rails)?			See dimensions guide
Does the client suffer from involuntary movement or seizures that may lead to limb strike?			Do bumpers reduce risk of injury?
Will the client attempt to climb over the bed rails or out of the bottom of the bed?			If yes do not issue
Does the client understand why and how to safely use the bed rails?			

Assessment Checklist – The Environment	Y	N	Comments
Does the client use a mattress variator?			Do not use bed safety rails with a mattress variator
Does the client use a pillow lifter?			? Risk of falling over rails when raised into a sitting position and /or entrapment between pillow lifter and rail
Does the client have other equipment that may interfere with access to and operation of the bed rails e.g. IV lines, catheters, wheelchairs, hoists?			
Is there clear access to both sides of the bed?			Create access
Assessment Checklist – The Carer	Y	N	Comments
Can the carer follow instructions and demonstrate the ability to safely raise and lower the rails and remove/attach bumpers?			
Does the carer understand the importance of and be able to take responsibility for monitoring the bed rails			
<b>Other Comments</b>			

OUTCOME OF ASSESSMENT	Y	N	Comments
Have alternatives to bed safety rails been considered/ trialled?			Hi-lo bed, hip protectors, side wedges
Does the Assessment indicate the use of bed safety rails and bumpers?			
Is the bed rail suitable for style of bed and size/ height of patient?			
Is the client aware of their responsibilities?			
<b>Other Comments</b>          			
<b>Signature of assessor</b>  .....			

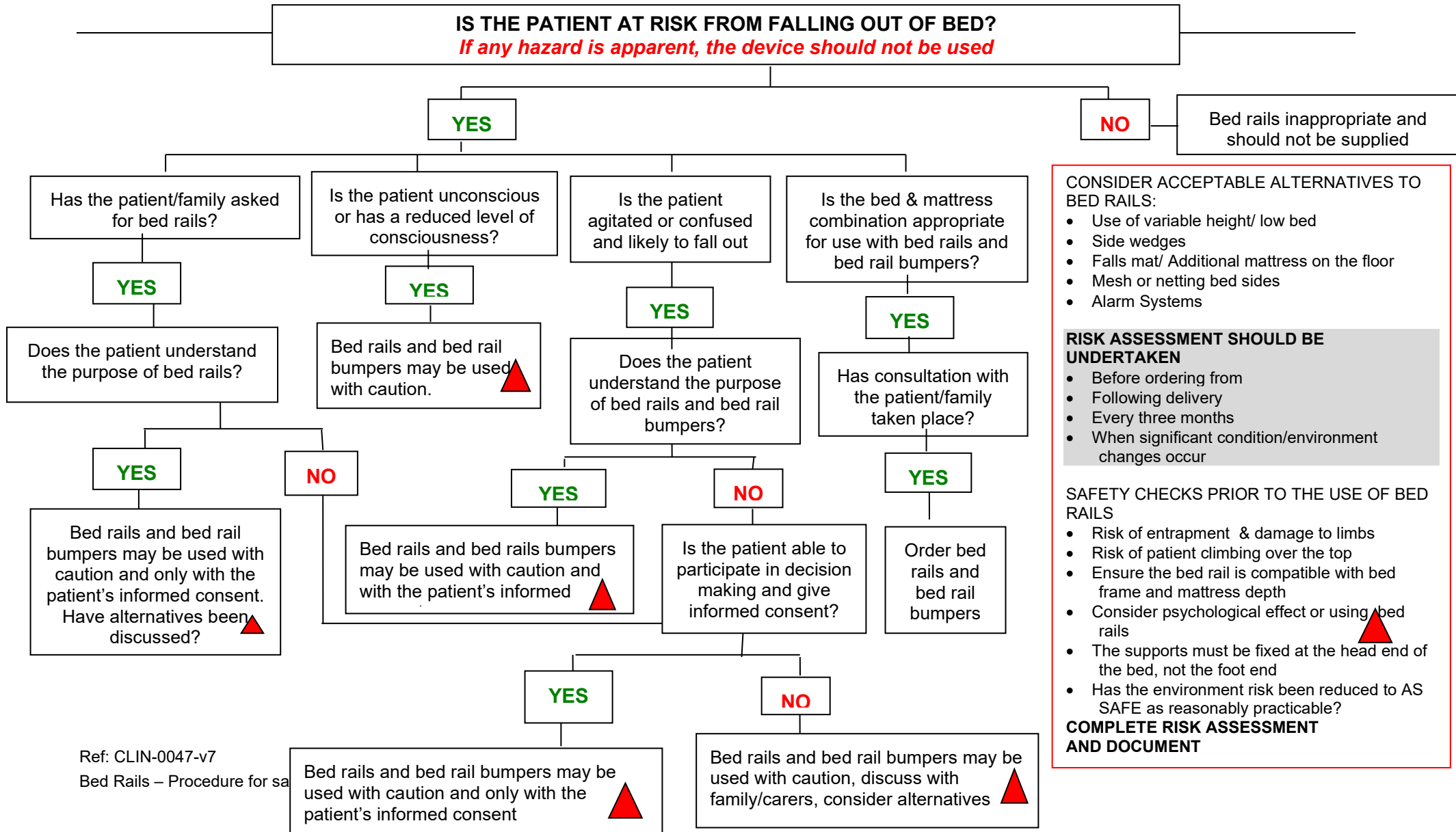
## Appendix 2 - Bed Rail Fitting Checklist

FITTING CHECKLIST	Y	N	Comments
Do staff fitting bed rails have access to fitting instructions and are competent in fitting rails?			
Are all parts present and in good condition?			
Are the spring clips fully engaged in the cross bars under the mattress?			
Does the rail move away from the side of the bed?			
Are there gaps that could cause entrapment (for children bed rails maximum 60mm)?			
Is the top rail 220mm above the top of uncompressed mattress? If less than this an extended height rail is required.			
Does compressed mattress create a gap with risk of entrapment?			
Are bumpers air permeable and compatible with the bed safety rails?			
Is there a gap between the bumper and the mattress?			
Are all dimensions in accordance with safety standards as in Appendix 4, cover at least 2/3 <sup>rd</sup> of the length of the bed and fitted to both sides (MHRA).			

Are the bed safety rails compatible with the bed and type of mattress (consider light weight mattress impact on bed rail stability, MHRA 2020)?			
Is the rail fitted correctly and securely in the up position?			
Has the client/carer been supplied with an Information booklet?			Date
<b>When to Re-assess</b>			
<ul style="list-style-type: none"> <li>• If the bed or mattress is changed</li> <li>• If the clients medical or mental condition has changed</li> <li>• If the rail has been moved out of position</li> </ul>			
<b>Date of Formal Review Assessment</b>			
<b>To be completed by:</b>			



## Appendix 3 - WHEN TO USE BED RAILS Decision making flowchart





## **Appendix 4 - Bed rail dimensions and safe use of bed rails MHRA**

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See over page

**Bed rail dimensions in BS EN 60601-2-52:2010+A1:2015 Medical Electrical Equipment. Particular requirements for basic safety and essential performance of medical beds (for adults).**

Description	Ref on diagrams (see below)	New combined standard	Notes
		BS EN 60601-2:2010	
Height of the top edge of the side rail above the mattress without compression	1	≥220mm <sup>a</sup>	<sup>a</sup> Where a speciality mattress or mattress overlay is used and the side rail does not meet ≥ 220mm a risk assessment shall be performed to assure equivalent safety.
Gaps between elements within the perimeter of the side rail and between the side rail and mattress platform	2	< 120mm	
Gap between head board and end of side rail	3	<60mm <sup>c</sup>	<sup>b</sup> Side elevation between head board and side rail <sup>c</sup> Most disadvantageous angle between head board and side rail
Gap between foot board and end of side rail	4	<60 or >318mm <sup>e</sup>	<sup>d</sup> Side evaluation between foot board and side rail. <sup>e</sup> Most disadvantageous angle between foot board and side rail
Distance between open end of side rail(s) and mattress platform <sup>f</sup>	5	<60mm	<sup>f</sup> The gap between the open end of the side rail and head board is not relevant to this ID
Gap between split side rails	6	<60 or >318mm <sup>h</sup>	<sup>g</sup> when in flat position
			<sup>h</sup> When in most disadvantageous position
Gap between side rail and mattress in 'plan' elevation	7	Perform test <sup>i</sup>	<sup>i</sup> 120mm aluminium cone is positioned between mattress and side rail to determine if gap is acceptable or not

Diagram of side view of bed with split side rails

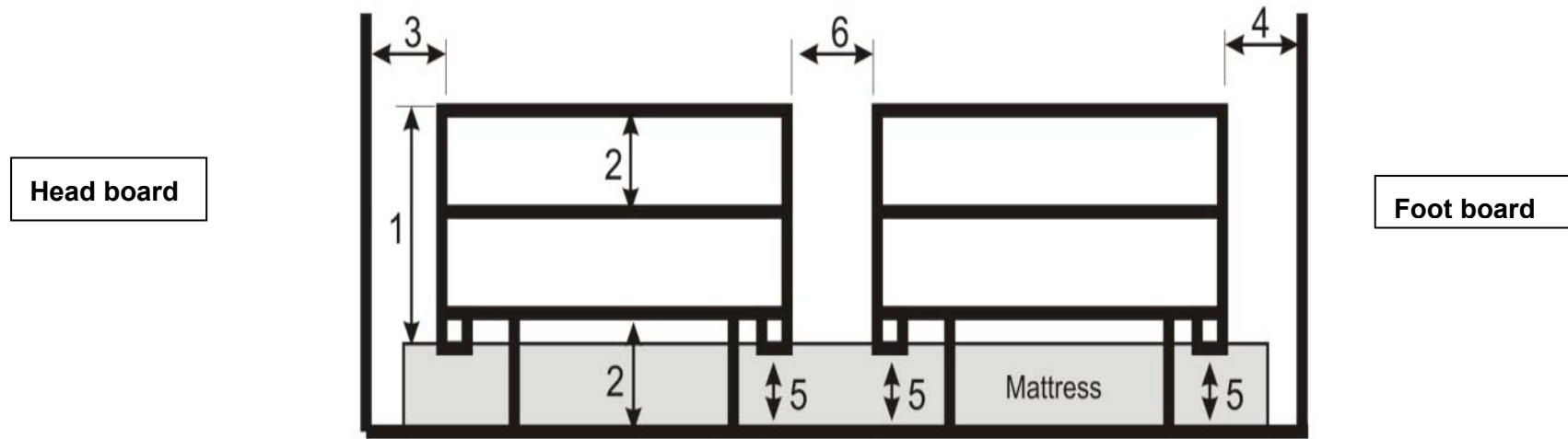


Diagram of side view of bed with cantilever side rails

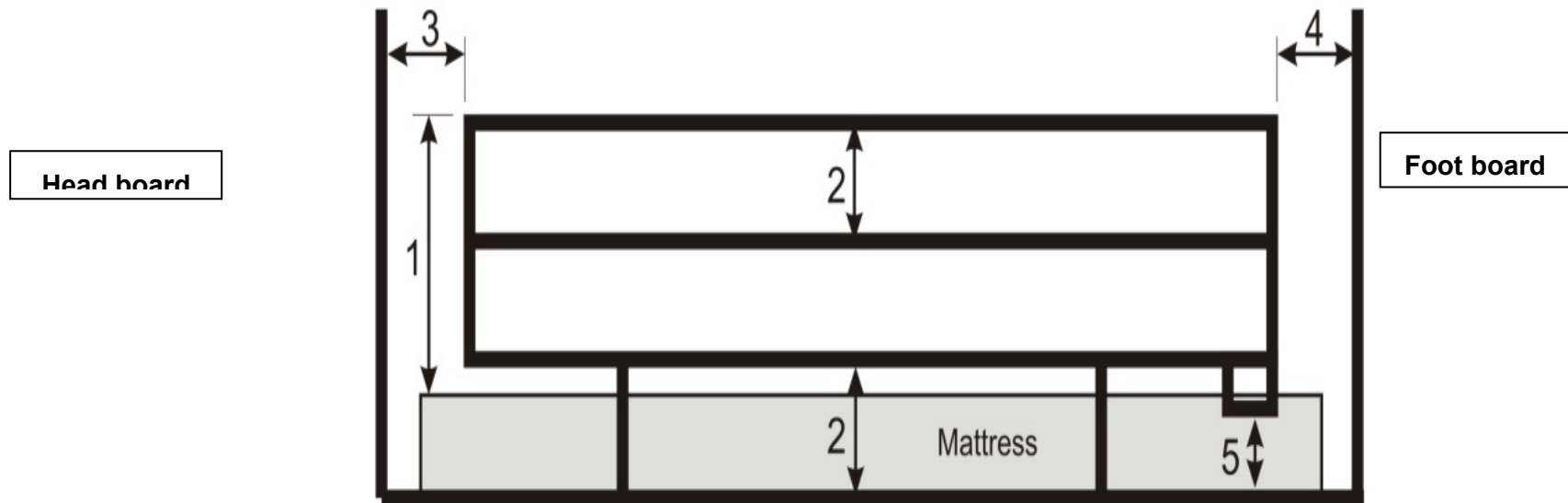
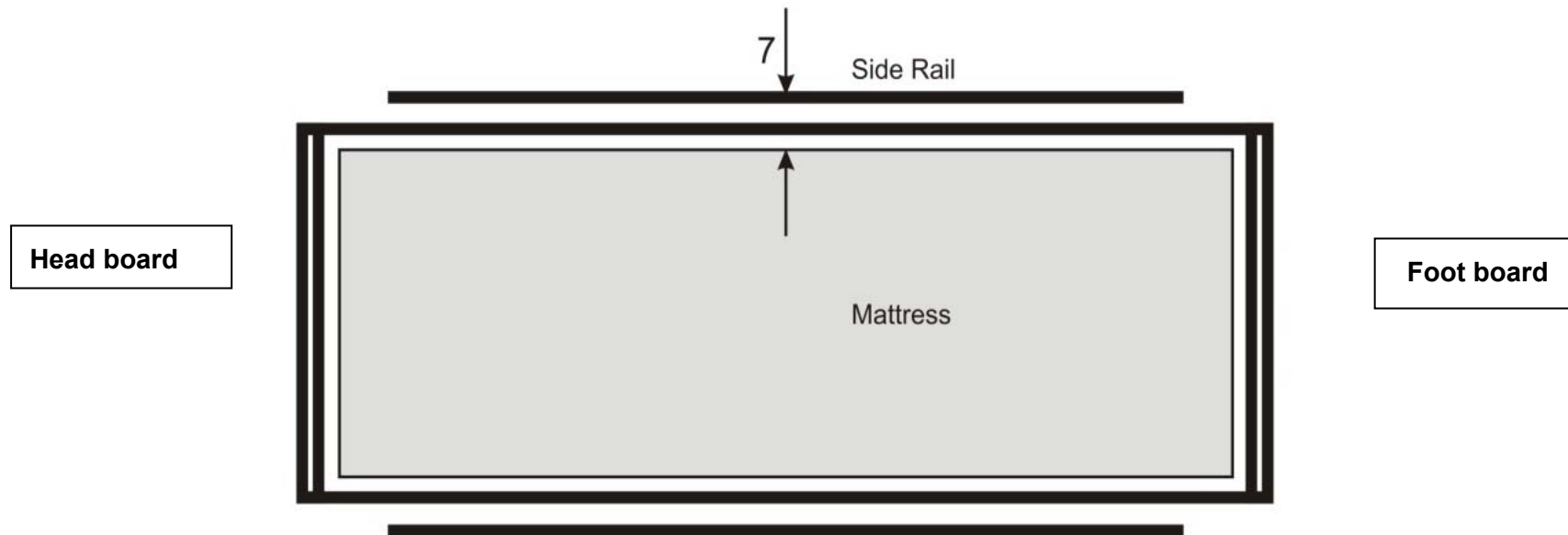


Diagram of bed in plan view



**Bed Rail Dimensions in BS EN 50637:2017 Medical electrical equipment. Particular requirements for the basic safety and essential performance of medical beds for children.**

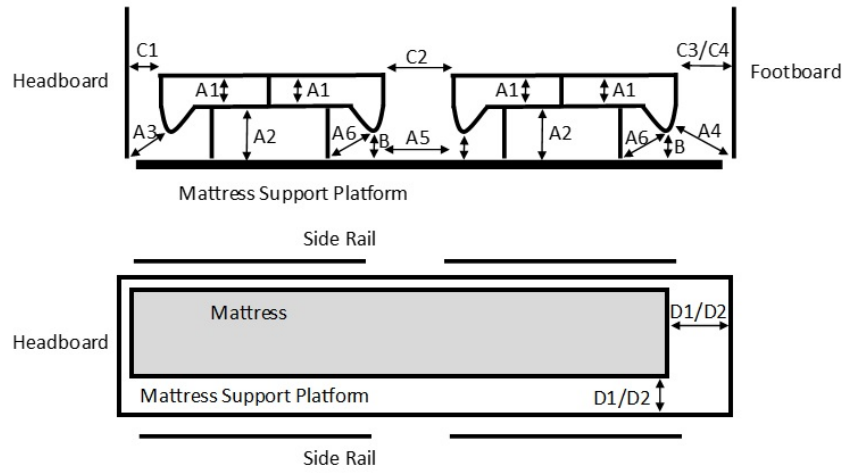
Description	Diagram Reference	BS EN 50637:2017	Notes
Fully enclosed openings within a side rail, head/foot board, mattress support platform	A1	<60mm	
Fully enclosed opening defined by the side rail, its supports and the mattress support platform	A2	<60mm <sup>7</sup>	
Partially enclosed opening defined by the head board, mattress support platform and side rail	A3	<60mm	
Partially enclosed opening defined by the foot board, mattress support platform and side rail	A4	<60mm	Except when gap between side rail and foot board is >300mm
Partially enclosed opening between segmented or split side rail and the mattress support	A5	<60mm	Except when gap between side rails is >300mm
Partially enclosed opening defined by lowest point of a side rail, the adjacent side rail support and mattress support platform, to the outside of the side rail supports	A6	<60mm	
Other openings defined by accessories (e.g. IV poles, fracture frames) and side rails, head or foot boards and or mattress support platform. Not shown in figures.	A	<60mm	

Description	Diagram Reference	BS EN 50637:2017	Notes
Distance between mattress support platform and the lowest point of the side rail outside the side rail support AND The angle between the side rail and mattress support platform at the range of the mattress height defined by the manufacturer $\pm$ 2 cm	B	<40mm AND Angle between mattress support platform and side rail interface $>75^\circ$ over the entire range of mattress heights from minimum recommended height minus 2 cm to the maximum recommended mattress height plus 2 cm.	
Gap between head board and adjacent side rail	C1	<40mm	
Gap between segmented or split side rails with both side rails raised	C2	<40mm OR >300mm	
For a gap >300mm: the gap shall be >300mm or <400mm for the entire vertical distance			
For all medical beds except junior beds: gap between side rail and foot board. Other openings defined by accessories (e.g. IV poles, fracture frames etc.) and side rails, head board, foot board, and or mattress platform	C3	<40mm	
For junior beds: gap between side rail and foot board. Other openings defined by accessories (e.g. IV poles, fracture frames etc.) and side rails, head board, foot board, and or mattress platform	C4	<40mm OR >300mm	
For a gap >300mm: the gap shall be >300mm or <400mm for the entire vertical distance			
Region defined by side rail/head board/foot board and the mattress for cribs and cots	D1	Perform test	Cone tool does not sink below the

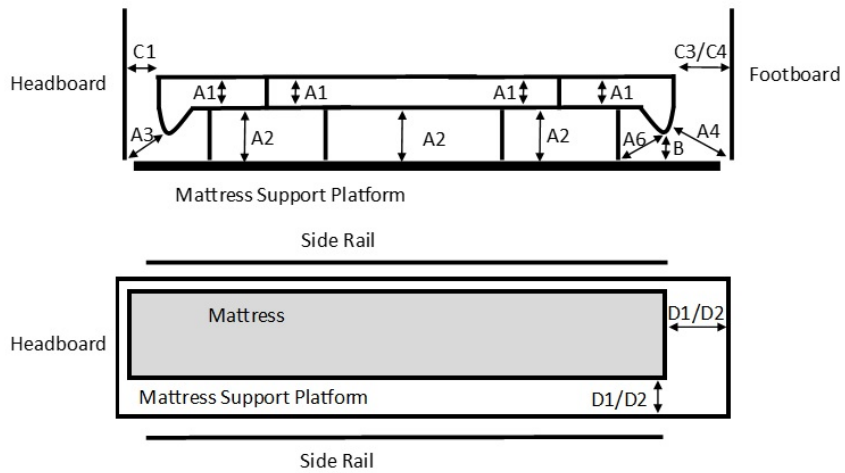


Description	Diagram Reference	BS EN 50637:2017	Notes
Region defined by the side rail/head/foot board and the mattress for junior beds and oversize cots	D2	Perform test OR Gap between side rail/head/foot board and mattress <30mm	mattress surface by 50% or more of its 60mm diameter.
Cone tool does not sink below the mattress surface by 50% or more of its 60mm diameter.			
Note that 50637:2017 defines different sized beds: cots, oversized cots, cribs and junior beds. Please see the text of the standard for full definitions or contact the manufacturer of a particular bed in your control that complies with this standard.			
Compliance to this standard requires the use of specific measurement tools, rather than basic distance measurements alone. It is intended to be used by manufacturers. For this reason, it is recommended that end users do not use solely these measurements as the sole basis for evaluating suitability of a bed rail installation			

Split Rail Beds



Single Rail Beds



Approved date: 29 December 2021  
Last amended: 29 December 2021

# Safe use of bed rails

Bed rails successfully prevent many falls, but their incorrect use has resulted in the deaths of bed occupants by asphyxiation through entrapment in gaps.

Risk assessment is key to ensure safe use. It should start with the bed occupant and include the combination of the proposed equipment, the bed and the mattress.

## Issues to consider

- If the person is likely to fall from their bed, are bed rails an appropriate solution?
- Does the person's physical size or behaviour present a risk?
- Is the bed rail height appropriate for the bed occupant?
- Can the person's head, neck, chest or body become trapped between:
  - > the bars of the bed rails?
  - > other gaps created by the bed, rail, mattress and head/footboard combination?
- Is the bed rail fitted correctly – does it seem likely that it will move away from the side of the mattress or bed during use and so creating a hazard?
- Bed rails designed for adults should not be used for children.

If either the bed, mattress, bed rail or condition of the occupant changes then the risk assessment should be carried out again.

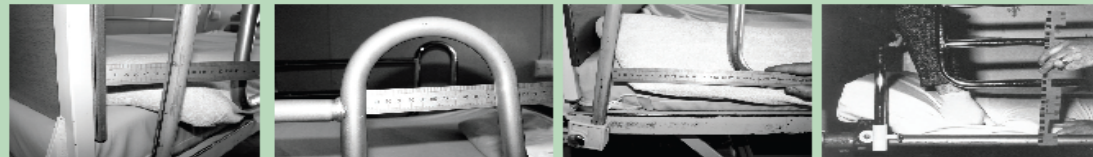
Our publication 'Safe use of bed rails' DB 2006(06) v2.0 has more detailed information and is available on our website [www.mhra.gov.uk](http://www.mhra.gov.uk)  
Report problems with assistive technology products online, via the MHRA website [www.mhra.gov.uk](http://www.mhra.gov.uk) or by email: [aic@mhra.gsi.gov.uk](mailto:aic@mhra.gsi.gov.uk)  
For advice email [dts@mhra.gsi.gov.uk](mailto:dts@mhra.gsi.gov.uk)

'Third party' bed rails, as photographed below, are not model specific and fit a wide range of beds. The principles set out below apply to all types of bed rails.

## Design safety

Bed rails should be fitted so that the gap between their end and the headboard is less than 60mm.

All gaps between the rail bars for adults must be 120mm or less and for children 60mm or less.

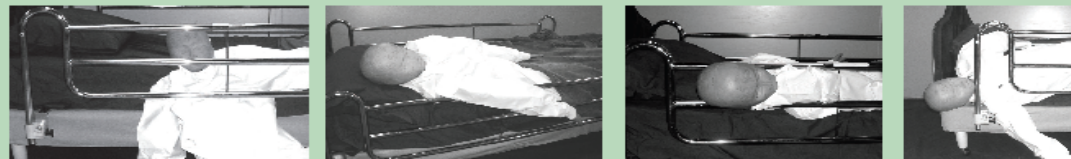


## Hazards

Most of the deaths caused by bed rails could have been avoided if thorough risk assessments of the bed occupant, the bed and the bed rail combination had been carried out.

MHRA investigations have also shown that many serious and fatal incidents with bed rails have been caused by a lack of maintenance.

Bed rails must be inspected on a regular basis to ensure they are in good condition.



## Things to avoid

- Gaps that could cause head, neck or chest entrapment when the mattress is compressed or between the end of the bed rail and the headboard or footboard.
- Using bed rails which are not compatible with the bed base.
- Using insecure fittings that let the bed rail drop down or move away from the side of the bed.
- Using bed rails that have not been maintained regularly.
- Bed rails with parts missing.





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## Appendix 5 – Approval checklist

To be completed by lead and attached to any document which guides practice when submitted to the appropriate committee/group for consideration and approval.

	Title of document being reviewed:	Yes/No/ Not applicable	Comments
<b>1.</b>	<b>Title</b>		
	Is the title clear and unambiguous?	Y	
	Is it clear whether the document is a guideline, policy, protocol or standard?	Y	
<b>2.</b>	<b>Rationale</b>		
	Are reasons for development of the document stated?	Y	
<b>3.</b>	<b>Development Process</b>		
	Are people involved in the development identified?	Y	
	Has relevant expertise has been sought/used?	Y	
	Is there evidence of consultation with stakeholders and users?	Y	
	Have any related documents or documents that are impacted by this change been identified and updated?	Y	
<b>4.</b>	<b>Content</b>		
	Is the objective of the document clear?	Y	
	Is the target population clear and unambiguous?	Y	
	Are the intended outcomes described?	Y	
	Are the statements clear and unambiguous?	Y	
<b>5.</b>	<b>Evidence Base</b>		
	Is the type of evidence to support the document identified explicitly?	Y	
	Are key references cited?	Y	
	Are supporting documents referenced?	Y	
<b>6.</b>	<b>Training</b>		
	Have training needs been considered?	Y	

	Title of document being reviewed:	Yes/No/ Not applicable	Comments
	Are training needs included in the document?	Y	
<b>7.</b>	<b>Implementation and monitoring</b>		
	Does the document identify how it will be implemented and monitored?	y	
<b>8.</b>	<b>Equality analysis</b>		
	Has an equality analysis been completed for the document?	Y	
	Have Equality and Diversity reviewed and approved the equality analysis?	y	
<b>9.</b>	<b>Approval</b>		
	Does the document identify which committee/group will approve it?	Y	
<b>10.</b>	<b>Publication</b>		
	Has the document been reviewed for harm?	Y	
	Does the document identify whether it is private or public?	y	public
	If private, does the document identify which clause of the Freedom of Information Act 2000 applies?	n/a	