

CLINICAL GUIDELINES ON THE USE OF BEDRAILS

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KEY CHANGES FROM PREVIOUS VERSION	Assessing the risk of entrapment from bed rails Changes to BSI Bed rail dimensions Bed rail training Reporting faulty or damaged bed rails Amendments to bed rail risk assessment tools: Inpatients, WECHS & SEECHS Domiciliary services.
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CLINICAL GUIDELINE SUMMARY	
<p>This guideline is to provide a framework to improve the safety of patients across Essex Partnership University NHS Foundation Trust inpatient areas and community health services domiciliary residences through informing staff about the relative risks of falls and injury with and without bedrails. It aims to ensure that bedrails are used, when appropriate, to reduce the risk of patients accidentally slipping, sliding, falling or rolling out of bed, and that bedrails are not used inappropriately as a form of restraint.</p>	
<p>The Trust monitors the implementation of and compliance with this clinical guideline in the following ways;</p>	
<p>Incident reports will be monitored for recordings of bedrail related incidents with appropriate follow up or investigation as appropriate. Audit will be undertaken by the clinical governance and quality team every two years or more frequently if any risks are identified.</p>	

Services	Applicable	Comments
Trustwide		

The Director responsible for monitoring and reviewing this Clinical Guideline is the Executive Nurse

ESSEX PARTNERSHIP UNIVERSITY NHS FOUNDATION TRUST

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CLINICAL GUIDELINES ON THE USE OF BEDRAILS

1.0 INTRODUCTION

- 1.1 All NHS organisations should take all reasonable steps to ensure the safety and independence of patients in their care and respect their right to make their own decisions about their care.
- 1.2 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.
- 1.3 The patient's ability to stay safely in the middle of the bed can be affected by strokes, neuromuscular conditions, paralysis, epilepsy, muscle spasms or other conditions. It will increase the risk of a patient falling from the bed.
- 1.4 In England and Wales, over a single year there were around 44,000 reports of patients falling from bed. This included eleven deaths and around 90 fractured neck of femurs, although most falls from beds resulted in no harm or minor injuries like scrapes and bruises. Patients who fell from beds without bedrails were significantly more likely to be injured, and to suffer head injuries (usually minor). (NPSA, 2007) A systematic review of published bedrail studies suggests falls from beds with bedrails are usually associated with lower rates of injury, and initiatives aimed at substantially reducing bedrail use can increase falls (Oliver et al, 2010)
- 1.5 Deaths from bedrail entrapment in hospital settings in England and Wales occur less often than one in every two years according to reports from the MHRA, NPSA and HSE, and could have been avoided if MHRA guidance had been followed. Bed rail entrapment is categorised as a "never event" and defined as "serious, largely preventable patient safety incidents that should not occur if the available preventative measures have been implemented by health care providers." NHS "Never Events" number 11 (2018) covers chest or neck entrapment in bed rails.
- 1.6 The aim of the guideline is to reduce harm to patients caused by falling from beds or becoming trapped in bedrails, to support patients and staff in making individual decisions on bedrail use. It has been based on evidence from the following guidance:
 - Medicines and Health Care products Regulatory Agency (MHRA) Device Bulletin 2020, V3: Safe Use of bed rails,
 - MHRA Devices alert 2007/009: Beds, rails and grab handles,
 - Health and Safety Executive (HSE)
 - National Patient Safety Agency (NPSA 2007) safer practice notice: Using Bedrails Safely and Effectively
 - NPSA 2007 literature review.

2.0 CLINICAL GUIDELINE PRINCIPLES

- 2.1 The Trust recognises its duties to ensure, so far as is reasonably practicable, that staff responsible for making decisions on the use and provision of bedrails are aware of their responsibilities under the relevant health and safety legislation and guidance.
- 2.2 The Trust aims to take all reasonable steps to ensure the safety and independence of its patients and respects the rights of patients to make their own decisions about their care.
- 2.3 Where it is felt a patient may lack capacity to make autonomous decisions regarding care and treatment then a Capacity Assessment should be completed. Where a patient has been assessed as not having capacity, staff members have a duty of care and must decide if bedrail use is in the patient's best interests.
- 2.4 Relatives or carers cannot make decisions for adult patients; the exception to this is where they hold a Lasting Power of Attorney, extending to healthcare decisions under the Mental Capacity Act 2005. However it is good practice to discuss care and treatment requirements with relatives and include them in decisions where appropriate so that they are clear their relative is being treated by staff appropriately and in their best interests.

3.0 DEFINITIONS

- 3.1 The term bedrail describes rails on the sides of adult beds in healthcare and domiciliary settings. They are safety devices intended to reduce the risk of a person accidentally slipping, sliding, rolling or falling from a bed. They also serve as a reassurance for patients who are anxious about falling out of bed (NPSA 2007)
- 3.2 The term 'third party bedrails' describes bedrails intended to fit a wide range of domestic, divan or metal framed beds from a different supplier (MHRA 2020).
- 3.3 The term 'integral bedrails' describes bedrails that are incorporated into the bed design and supplied with it or are offered as an optional accessory by the bed manufacturer to be fitted later (MHRA 2020).
- 3.4 Side rails, cot sides and safety rails are common terms used to describe bedrails. Patients are said to prefer the term bedrails (NPSA 2007).
- 3.5 Bedrails are not hanging points for equipment, nor are they assistive devices to help the patient change position. Bedrails should not be confused with grab handles (synonymous with bed levers or bed sticks). Grab handles are designed to aid mobility whilst transferring to and from bed (NPSA 2007. MHRA 2020)
- 3.6 Bed rail bumpers – padded air-permeable accessories or enveloping covers for bedrails are used to prevent impact injuries and reduce potential limb entrapment

- 3.7 Entrapment – Where any part of the patient’s body becomes caught or trapped between the mattress and the rail or between the gap of the head/footboard and mattress. Death by asphyxiation can occur after entrapment of the head, neck or chest (MHRA 2020)
- 3.8 High/low or ultra-low beds are electronically operated profiling beds that can be height adjusted to a level lower than a standard hospital bed and can be to floor level.

4.0 RESPONSIBILITIES

- 4.1 **The Trust Board** is responsible for:
- Ensuring that the principles of this clinical guideline and other associated policies are implemented across the organisation;
 - Ensuring the necessary financial resources.
- 4.2 **The Executive Nurse** will ensure:
- That this clinical guideline is embedded within clinical practice;
 - That this clinical guideline is reviewed and updated regularly in line with recommended best practice and national guidance;
 - That the learning derived from quality monitoring and from the review of published local and national enquiries is incorporated into clinical practice.
- 4.3 **Unit/Ward Senior Sisters / Charge Nurses / Team Leads** will ensure:
- That all staff, including new employees, whether temporary or permanent, are made aware of the principles detailed within this policy and that the related procedural guidelines are implemented in order to ensure adherence with all relevant guidance;
 - That the implementation of this clinical guideline is monitored with support from the risk management and clinical audit teams (via clinical audit), and through supervision.
- 4.4 **The Workforce, Development and Training Department** will facilitate:
- The provision training and education to meet identified needs.
- 4.5 **Individual Staff** will ensure:
- That the principles contained within this clinical guideline are implemented;
 - Attendance at appropriate training.

5.0 IMPLEMENTATION

- 5.1 This guideline and any subsequent guidance or information on bedrail use will be available via the Trust Intranet site.
- 5.2 It is important to eliminate inappropriate use of bedrails, using them only where they have been individually prescribed but with a regular review of their use (Oliver et al. 2010). In domiciliary settings, carers should be provided with advice on how to contact the supplier to review bedrails and in the event that there are any issues relating to the bedrails.

- 5.3 If bedrails are to be applied, a reason for their use should be clearly documented and alternatives to bed rails should be considered. . Examples of reasonable alternatives are shown below:
- Positioning devices
 - Bed sensor alarms
 - 'Crash' mats (but it must be noted that the use of crash mats might introduce patient manual handling risks and falls)
 - Ultra-low profiling beds (refer to Appendix 13 CG58 Slips, Trips & Falls Clinical Guidelines)
 - Placing the mattress on the floor bearing in mind any patient handling difficulties that may arise (overhead hoisting might be required)
 - Detection and treatment of delirium
 - Mesh or inflatable sides
 - Reducing night sedation
- 5.4 It is recognised that some of the safety options outlined above may not be acceptable to patients and carers / relatives. Patient safety must be balanced against the wishes of patients and carers / relatives. These people need to be included in discussions to establish an acceptable level of risk. Any such discussions must be documented and kept with the patient's records.
- 5.5 It is crucial that a sensible balance is sought between the risks of harm from falls and the risks of harm from impaired independence (Oliver et al. 2010).
- 5.6 Bed rails are not designed to prevent patients leaving their bed voluntarily nor are they intended to restrain patients (please refer to restrictive practice guideline)
- 5.7 Cognitively impaired patients such as those who have dementia have an increased risk of falls and an increased risk of injury from bedrails. This guideline does not contraindicate bedrail use for all patients with dementia as these patients each have different levels of cognitive impairment. Some will also have other illnesses and all will need the same individualised assessment of the risks and benefits of bedrails as with any other patient.
- 5.8 These assessments (attached as Appendices 1a, 1b, 1c) must include:
- Discussions with patients and carers / relatives as appropriate;
 - The imparting of relevant information on associated risks and benefits;
 - Evidence to justify any contraindications for bedrail use;
 - Assurance of compatibility between type of bedrail, mattress and bed;
 - In domiciliary settings, clear verbal and written instructions on how to contact the supplier in relation to ongoing maintenance.
- 5.9 On **inpatient** areas, if bedrails are to be applied, a reason for their use should be clearly documented and all reasonable alternatives should have been explored. Their use should be reviewed on a **daily** basis by the multi-disciplinary team and they should be inspected regularly.

- 5.10 In **domiciliary** settings, bedrails must only be provided when they are the right solution to prevent falls. If bedrails are to be applied, a reason for their use should be clearly documented and all reasonable alternatives should have been explored.

A comprehensive risk assessment must be undertaken by a competent practitioner, taking into account the bed occupant, the bed, mattresses, other associated equipment and other relevant agencies. The practitioner is responsible for ensuring that patients/families carers understand the risks associated with bed rails and that they are instructed on how to use them safely. Reviews must be undertaken where the needs of patients change and are known to the multidisciplinary team. **Where bedrails have been provided by Community Equipment Providers, they have responsibility for inspection, review and maintenance of the equipment.**

- 5.11 If a patient's condition changes; if they fall out of bed, climb or attempt to climb over the rails, suffer entrapment or a contact injury, the patient must be reassessed immediately.

- 5.12 Bed rails increase the height of the bed and the risk of a serious injury if a patient climbs over the rails and falls. A risk assessment should identify if there is a hazard of leaving bed controls accessible. Where a patient is in a confused state, they may change the bed position control and raise the bed to maximum height. (MHRA, 2020)

- 5.13 Bedrails should **not** normally be used:

- If the patient is agile enough and confused enough to climb over them;
- If the patient would be independent if the bedrails were not in place.

- 5.14 Bedrails **should** usually be used:

- If the patient is being transported on their bed
- In areas where patients are recovering from anaesthetic or sedation and are under constant supervision

- 5.15 Where bed rails are assessed as safe to use to prevent a slip, slide, or roll from the bed, this must be documented on the bed rail risk assessment tool (Appendices 1a, 1b, 1c,) by the qualified nurse, or allied health professional. If bed rails are deemed as unsafe for a patient and an alternative to bed rails will be used i.e. high/low or ultra-low/floorline bed, the rationale for their use should be documented and whether a crash mat is to be placed at the side of the bed. Most decisions about bedrails are a balance between competing risks. The risks for individual patients can be complex and relate to their physical and mental health needs, the environment, their treatment, their personality and their lifestyle. Staff should use their professional judgement to consider the risks and benefits for individual patients.

- 5.16 Where a patient or carer / relative insist on the use or non-use of bedrails in opposition to the multidisciplinary team's opinion, this must be clearly documented in the patient's case notes. Further discussions about alternative care management must take place.

- 5.17 Where bedrails are indicated in inpatient areas, a care plan should be formulated for their use. In domiciliary settings, information about bedrail use will be entered onto the patient record.
- 5.18 Bed rail bumpers must be used if the patient is at risk of an impact injury such as a patient with involuntary movements, spasms or seizures. Patients with reduced sensation in their limbs for example following a stroke are at risk of an impact injury or entrapment. However, there is also the risk of suffocation using bed rail bumpers that needs to be considered and a risk assessment must always be completed prior to using. Only bed rail bumpers recommended by the manufacturer of the bed rail should be used.

Some patients are more at risk of entrapment in bed rails (MHRA 2020,). Those at greater risk could include older people and adults with:

- Communication problems
 - Confusion
 - Learning disabilities
 - Dementia
 - Repetitive or involuntary movements
 - High or low body mass(which may change entrapment risks)
 - Impaired or restricted mobility
 - Variable levels of consciousness, or those under sedation.
- 5.19 On discharge from hospital, all future care providers must be advised of the patient's needs regarding the use / non-use of bedrails. This information must be included in the patient's discharge plan.
- 5.20 A risk assessment **must** be completed before bed rail use. Bedrail risk assessment forms have been provided with this guideline:

Appendix 1a – Bedrail use and assessment tool: for use on **all** inpatient areas

Appendix 1b - Risk assessment for the provision of bed rails: For use by West Essex CHS domiciliary services

Appendix 1c - For SEECHS domiciliary services risk assessment for the provision of bed rails.

5.21 Safe Use of Detachable Bed Rails

The majority of electric profiling beds have integral bed rails. However, if detachable bed rails are used the dimensions should comply with British Standards Institution (BSI) BS EN 606-1-2-52:2010 for adults (See Appendix 2) and children BS EN 50637:2017. Bed rails should be fitted according to MHRA guidance.

The MHRA advises that bedrails that are too low due to their design or adjustment will not prevent the bed occupant from rolling out. Assessments therefore should include the height from the top of the bedrails to the top of the sleeping surface including any overlay mattresses and also the sleep pattern movement of the bed

occupant. Staff should be aware of this when ordering additional mattresses e.g. relating to tissue viability that bedrail dimensions will change and should seek advice from the supplier. Extra height bed rails are available.

The length, width and height of the mattress should always be checked to ensure that these dimensions are within the limits specified by the bed manufacturer and do not introduce gaps that could increase the risk of entrapment (MHRA 2020)

6.0 BEDRAIL SAFETY (THE EQUIPMENT)

6.1 Risks associated with bedrail use will be compounded when other safety aspects are ignored. Safety checks should be tailored to the equipment in use. On inpatient settings staff should check:

- That the bedrails are correctly fitted and that they match with the bed frame design and mattress type (according to manufacturer's specifications)
- That they operate correctly
- Bedrail dimensions when the patient has an unusual body size
- For signs of wear, loose fittings or damage
- That mattress overlays do not reduce the effective bedrail height
- That any accessories such as rail covers or bumpers are the correct design and do not present any risks to the patient
- That all unsafe bedrails must be removed and destroyed

7.0 BEDRAIL SAFETY (THE PATIENT)

7.1 Strategies that can be put in place to reduce risks to patients when bedrails are in use include:

- Frequent patient position checks
- Meeting care needs (such as toileting)
- Placing vulnerable patients in easily observable area
- Keeping the bed at its lowest position (except for the independently mobile patient)
- The use of padded bedrails, covers, bumpers, mesh rails, inflatable protectors and mattress infills
- Ensuring proper fitting, type and maintenance

8.0 TRAINING

8.1 The Trust acknowledges that imparting knowledge and developing skills is key to the effective management of risks. It is therefore essential that the safe and effective use of bedrails is communicated to all relevant occupational groups.

8.2 Bedrail related training will be provided for:

- All staff who are involved with decision making about bedrail use
- All staff who give advice on bedrail use
- All staff who are involved with the purchase, supply and storage of bedrails.
- All staff who are involved with the maintenance and fitting of bedrails
- Training also includes those working in community settings where bedrails are in use

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- 8.3 Training will be achieved through: E-learning; Ward induction; falls prevention and manual handling training sessions. All staff that have completed bed rail training will have a bed rail competency document completed. (Please see Appendix 3)
- 8.4 Students and temporary staff (bank and agency) should also receive an appropriate level of training and supervision in the use of bedrails where these are in use. ***This will be the responsibility of individual ward managers.***

9.0 SUPPLY, PURCHASE, STORAGE AND MAINTENANCE (IN DOMICILIARY SETTINGS THIS MAY BE UNDERTAKEN BY COMMUNITY EQUIPMENT PROVIDERS)
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- 9.1 All those involved with the supply, purchase, storage and maintenance of bedrails must be suitably trained and knowledgeable on bedrails to a level that reflects their responsibilities.
- 9.2 All equipment purchases should be made in conjunction with the Medical Devices Clinical Guideline.
- 9.3 Any bedrails purchased must be compatible with the host bed and mattress and availability must match need.
- 9.4 Those involved with purchasing bedrails must be aware of where to get compatible equipment.
- 9.5 Staff must make sure they know who to contact for information on bedrails. They must also know where bedrails and accessories are kept.
- 9.6 New and different equipment can introduce new and different risks. Purchasing staff need to know who to go to for advice on bedrails.
- 9.7 Companies should confirm how, when and where their equipment can be used including information on correct maintenance and cleaning. Bed rails should always be cleaned upon contamination and in between patients in accordance with the Trust's infection control policy.
- 9.8 The Trust has complied with MHRA advice that all beds with integral rails must have an identification number and be regularly maintained according to manufacturer's instructions.
- 9.9 If there are signs of damage, faults or cracks on the bed rail, nursing staff need to report this to the ward manager and Althea needs to be contacted on their 24 hour call centre helpline: 0844 809 4778. The faulty bed rail will need to be removed and stored in the department or on site. The equipment should be labelled "not in use" and that Althea has been contacted.

10.0 REPORTING

- 10.1 Front-line staff should report bedrail related incidents to their manager and complete an incident form (Datix) even when there has been no harm. Online reporting automatically forwards the report to the Risk Department.
- 10.2 Management investigation into the incident is recorded on the Datix system and should be completed within five days.
- 10.3 In the event of a Serious Incident a RCA will need to be completed in accordance with the Trust Adverse Incident Policy (including serious incidents)
- 10.4 It is the responsibility of employees to verbally report all accidents / incidents to their line manager as soon as possible. Incidents of bedrail entrapment will need reporting via their local risk management system to the National Reporting and Learning System (NRLS) even when patients have not been harmed. The Head of Risk Management is responsible for ensuring that all patient safety incidents are reported via NRLS.
- 10.5 The Head of Risk Management and Compliance should follow the reporting requirements set out in MHRA Device Alert 2007/ 001.

11.0 TARGET AUDIENCE

- 11.1 This guideline applies to all staff who are responsible for fitting and onward management of patients who require bedrails.

12.0 REVIEW DATE

- 12.1 This Policy will be reviewed in 3 years or in light of organisational or legislative changes.

13.0 LEGISLATION/POLICY

- 13.1 This guideline should be read in conjunction with:
 - The Health and Safety at Work Act 1974
 - The Management of Health and Safety at Work Regulations 1999
 - The Provision and Use of Work Equipment Regulations 1998
 - The Mental Capacity Act 2005
 - Trust Fire Safety Policy RM02
 - Restrictive Practice Policy RMPG05
 - CG58 Slips, Trips & Falls guidelines

14.0 REFERENCES & FURTHER READING

Health and Safety Commission. 1998. Provision and Use of Work Equipment Regulations 1998. Approved Code of Practice and Guidance. HSE Books

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Available at: <https://www.hse.gov.uk/>

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