Safe Use of Bedrails

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Objectives

- Recognise the hazards to consider when assessing Service Users for bed rails in the community and other areas.
- To have an awareness of the alternatives to bed rails.
- To guide attendee’s through the risk assessment process and things to consider
- Access to bed rail measuring tool and the gaps to be aware of.
- To be ready to adopt the new bed rail standards from April 2013
Who am I??

- My main role is to work across the NHS, Council and Independent Sector, in the community. We provide Moving and Handling advice, support, training, information, equipment, complex risk assessment for the staff, service users and carers of Oldham.
- I work in a team of 2, Yvonne Beswick is my lovely colleague.
- I have worked in the health and social care field for 30 years, (yes, I started work when I was 12!).
- Member of National and Lancashire and Greater Manchester Back Exchange.
- Bed rails and the associated work was an extra that found it’s way to my door...
During this session I will use the term **Bed Rails**, however here are some common names that you may also use or have heard being used:-

Safety is Paramount

- Bed rails are used in Care Homes, Hospitals, Nursing Homes, Residential Homes and in the Community, to reduce the risk of falls from a bed. They are not intended to limit the freedom of movement, they are not meant to be used to restrain people and they are not to be used as grab handles.

- It is extremely important to ensure that all staff who operate bed rails are fully aware of the risk assessment process and the safety aspects to be considered and followed when working with bed rails to ensure the safety of the occupant (NPSA 2007).

- There have been a number of incidents involving bed rails that have led to injury or death. You MUST therefore be aware of the hazards associated with the use of bed rails and how to use them safely.
WHY DO WE USE BEDRAILS?

Bedrails should only be used to stop a person from falling out of bed, following an appropriate risk assessment.
What is restraint???

- The intentional restriction of a person's voluntary movement or behaviour – RCN 2008
- Stopping them from doing what they appear to want to do – Counsel and Care 2002
- Bed rails **must not** be used to prevent someone from getting out of bed.
Why avoid using bed rails???

To put the risks associated with the incorrect use of bed side rails into context, there have been more than 20 reported fatalities in the UK since 1997 due to bed rails (this is up to 2007, there have been more since).

The problem is not confined to the UK and more that 150 fatalities have been recorded in the USA since 1995.
Causes of Death:

- Head trapped either between the bed rail bars or between the bars and the mattress.
- Neck trapped between the end of the bed rail and the headboard.
- Patient hanged after slipping through the space between the bed rail bars.
- Patient rolled off the bed over the top of the bed rail.
- Patient climbed over the bed rails and fallen.
- Suffocation after getting a leg trapped – face down.
When should we use bed rails?

- Bed rails should be the one of the last choices when a person has problems staying in bed.

- They should only be used after all other options have been considered and a risk assessment has been carried out.

- Bed rails do prevent falls from bed when used appropriately.
Types of bed rail

Rigid bed rails can be classified into two basic types:

**integral** - rails 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.

**third party** - rails that 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. Some are telescopic to fit a range of bed sizes.

The MHRA know from their investigation that the integral rail is involved in far fewer adverse incidents than the third party rail. The majority of integral bed rails meet current recognised product standards that include generally acceptable gaps and dimensions when fitted to the bed. These dimensions are about to change!!
Bed grab handles/bed levers

Bed rails should not be confused with **bed grab handles** (also known as bed levers or bed sticks) which are designed to aid mobility whilst transferring to and from a bed. **Bed grab handles** are not designed to prevent patients falling from their bed.

Bed grab handles come in a variety of sizes and designs. They should not be used as, or instead of, bed rails, despite the larger models looking similar in both size and design.

It is essential to carry out a risk assessment based on the bed occupant’s requirements and the manufacturer’s instructions for use to ensure that use of the bed grab handle does not introduce unacceptable risks for the bed occupant.
How many people fall out of bed?

Around a quarter of all falls in hospitals are falls from bed

Over a one year period in hospitals and mental health units in England and Wales around 44,000 patients fell out of bed

- This is equivalent to around 1 in every 200 patients admitted to hospitals and mental health units
- Around 90 patients fractured their hip in falls from bed
- Eleven patients died, mainly from head injuries (NPSA 2007)

How many people fall out of bed in the community?
What’s the evidence?

- Research suggests that if used for the right patients, in the right way, bed rails can reduce the risk of falls and injury.
- Trying to restrict or reduce bed rail use too much can increase falls.
- Using bedrails for everyone would not be safe - decisions about bed rails need to be based on the risks and benefits for each individual patient.
- Blanket decisions not to use bed rails are unacceptable.
Other options available

- Low bed with a crash mat
- Wedges inserted under the mattress or behind the person
- Touch pads on the floor or assistive technology
- Medication re-assessment
- Sleep systems
- Half sized rails
- Bolsters (as pictured)

- Risk assessment is the key!!
Equipment provision issues.....

Crash mats on the floor can introduce a trip hazard.

Low beds can stop people from getting out of bed.

Beds with built in bed rails can result in the rails being raised, even if they are not appropriate for the person.
Air mattress and mattress overlays

If using bed rails on a divan bed with air or overlays consider...

- Height of the mattress in relation to the top of the rail
- Risk of entrapment between the side of the mattress and the bed rail due to the softness of the mattress
- The type of bed rail used. It is recommended that rails that are strapped or fixed to the bed are used
- Are extra height rails and bumpers needed?
- Could the mattress move the person around the bed?
Gaps and other things to avoid

- Gaps between the end of the rail and headboard – entrapment risk
- Using bed rails on a divan bed designed to be used on a wooden or metal beds, gaps may be created
- Using insecure fittings or designs of rail that allow the rail to move, creating an entrapment hazard
- Using only one side of a pair of bed rails, this may cause the single rail to become insecure
Bumpers

- Bumpers or padded accessories are primarily used to prevent impact injuries.
- They can reduce the potential for entrapment.
- It is recommended that bumpers be used in most situations.

Ensure that the bumpers are the correct size and design.
Is this bed safe???
Not really!!!
Rails and profiling beds

- Extra care must be taken if bed rails are fitted on a bed that profiles.
- There is a risk of entrapment if the bed is profiled whilst the person is in the bed.
- Ensure limbs and other body parts are away from the rails before profiling the bed or lowering the rail.
Maintenance and inspection

Most of the accidents caused by bed rails could have been avoided if thorough risk assessments of the bed, the bed occupant and the bed rail 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.
- It is your responsibility to check bed rails in your workplace and report any concerns.
A risk assessment MUST be carried out for each occupant for whom bed rails are being considered or already in use.

Bed rails should not be used before a risk assessment has been conducted, although you will probably find people with rails who are not assessed, especially in the community!

If bed rails are needed and there is not another suitable alternative, then you need to choose a rail that is suitable for use in combination with……..

THE BED
THE MATTRESS
THE OCCUPANT
Always remember that some clinical conditions and people’s abilities mean they are at greater risk of injury when bedside rails are in use. These may include the elderly and immobile, cerebral palsy, dementia, micro or hydrocephalus, learning difficulties, Huntington’s and Parkinson’s Disease. Children need a totally different approach.
## Bed rail risk matrix

<table>
<thead>
<tr>
<th>MENTAL STATE</th>
<th>MOBILITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patient is confused and disorientated</td>
<td>Use bedrails with care</td>
</tr>
<tr>
<td>Patient is drowsy</td>
<td>Bedrails recommended</td>
</tr>
<tr>
<td>Patient is orientated and alert</td>
<td>Bedrails recommended</td>
</tr>
<tr>
<td>Patient is unconscious</td>
<td>Bedrails recommended</td>
</tr>
<tr>
<td>Patient is very immobile (bedfast or hoist dependant)</td>
<td>Patient is neither independent nor immobile</td>
</tr>
</tbody>
</table>
Risk assessment - Things to consider

1. If the bed occupant is likely to fall from their bed, are bed rails an appropriate solution?
2. Does the bed occupant's physical size and behaviour present a risk?
3. The mental capacity of the bed occupant.
4. How often do they fall out of bed?
5. Are they likely to climb over the rails?
6. Are they taking medication that can affect them during their time in bed?
7. Do the manufacturers provide guidance about when the use of bedside rails may be inappropriate?
8. Is it to be used with a small person/child?
9. Does the person have an abnormally large or small head?
Rails that are in situ – What to look for…..

1. Has a risk assessment been carried out for the rails?
2. Are the bed rails fitted correctly?
3. Can their head, neck, chest or body become trapped between the bed rail's bars or any other gaps created by the bed, rail, mattress and headboard combination?
4. Is the bed rail secure – does it seem likely that it will move away from the side of the bed in use, or fall off one end, creating a hazard?
5. Are the rails in good repair and working order?
6. Are spaces between the bars an entrapment hazard?
7. Are the bedside rail and bed compatible?
8. Are bumpers used, do they fit correctly, if none in use, are they needed?
Risk Assessment is Key

- 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.

- If either the bed, mattress, bed rail or condition of the occupant changes then the risk assessment should be reviewed immediately.
Families and bed rails

Always discuss the risk assessment with the occupant or next of kin to see if they agree with the assessment any alternative methods of care.

Families quite often have expectations that bed rails will be used out of concern for the safety of their family members, not realising the potential risk and that they may not be the best approach for their relatives.

Some occupants may also see bed rails and their use as a loss of dignity. Always weigh up the occupants wishes against safety issues to find the best solution.

Every effort must be made to involve the family in the decision making and to explain the policy and guidance on bed rails.
Bed rail Policy.....

The NPSA (2007) is advising that all NHS organisations providing inpatient care produce a bed rail policy. Also to ensure that there are ongoing training programmes in place for staff who purchase, store, attach or maintain bed rails, or care for patients using bed rails.

(2007http://www.nrls.npsa.nhs.uk/resources/?EntryId45=59815)
New Standards - the main changes..

- From April 2013, the new BS EN 60601-2-52 bed standard comes in and the current standards are withdrawn.
- Gap between headboard and rail has to be less than 60mm (was less than 60mm or greater than 250mm)
- Gap between footboard and rail less than 60mm or greater than 318mm (was less than 60mm or greater than 250mm)
- N.B. Please read the new standard for other changes.
I have developed a bed rail measurement tool that uses the current standards to ensure that third party bed rails are fitted correctly and that the height of the rail from the mattress can be measured on all types of bed with integral or third party rails.

There are a few adjustments/differences to be aware of for the tool to meet the new standards.
Footboard to rail measurement……

The current standards are that the gap must be less than 60mm or greater than 250mm.

The new standard is less than 60mm or greater than 318mm.
The height of the rail from the mattress to the top of the rail should exceed 220 mm without mattress compression. This measurement is the same in the new standards.
Headboard gap….

the gap between the rail and the headboard has to be 60mm or less. This is the new standard From April 13 (gap greater than 250mm will no longer be recommended)
Gap between the rails or rail and mattress.....

Gap in between rail bars less than 120mm
Never Event List

The Department of Health have a list of incidents that they consider unacceptable and eminently preventable, bed rails entrapment or death is at No 16……

16. **Entrapment in bedrails** Death or severe harm as a result of entrapment of an adult in bedrails that do not comply with Medicines and Healthcare products Regulatory Agency (MHRA) dimensional guidance.
Court Cases....

- Kyle Flack, 20, died at Basildon University Hospital early on 12 October 2006 after his head became trapped between the bottom rail surrounding his bed and the edge of the bed itself. He died from asphyxiation. It was fined £50,000 and ordered to pay £40,000 in costs.

- Mr Morris, 23, who had cerebral palsy, was put in a bed fitted with bedrails that were not properly maintained or adjusted. He was injured when his head became trapped in the gap between the headboard and the bedrail, resulting in asphyxiation and severe brain damage. He subsequently died in hospital. Rhondda Cynon Taf County Borough Council were fined a total of £60,000 and ordered to pay costs of £22,675 at Cardiff Crown Court.

- BUPA Care Homes (CFC Homes) Ltd were fined £23,000 and ordered to pay costs of £12,607 for failing to implement their national bed rail policy, resulting in poor risk assessments, inadequate staff training and unsuitable bed rails being used at one of their care homes (February 2007);
  - [http://news.bbc.co.uk/1/hi/england/somerset/6325129.stm](http://news.bbc.co.uk/1/hi/england/somerset/6325129.stm)

- A care home charity was fined £65,000 after a 40 year old woman with Huntington's disease was trapped between the mattress and bed rail, and subsequently died. The bed rail was not the right size for the bed, allowing Charlotte Young to knock it out of position. A special bumper used to cushion the rails, to protect her from the consequences of involuntary movements caused by her condition, was not used correctly. These factors resulted in a gap between the rail and the mattress, where she became trapped and unable to breathe.
Summary

- Statistical information relating to bed rail fatalities, accidents and incidents.
- Safe use of bed rails policy – your responsibilities
- Recognise the hazards to consider when assessing Service Users/patients and their beds
- A knowledge of alternatives to bed rails
- The new standards, THE GAPS.
- Things to consider when carrying out a risk assessment.
- How to access help and support/references.....
Regulation/Guidance.

- MDA bulletin DB2006(06); Dec 2006 – advice on the safe use of bedrails.
- [http://www.mhra.gov.uk/Publications/Postersandleaflets/CON2025709](http://www.mhra.gov.uk/Publications/Postersandleaflets/CON2025709)
- Health and Safety at Work Act 1974
- PUWER 1998+
- Management Regulations 1999
- NPSA advice on bed rails 2007 [http://www.nrls.npsa.nhs.uk/resources/?EntryId45=59815](http://www.nrls.npsa.nhs.uk/resources/?EntryId45=59815)
- Health and Safety Executive guidance
- [http://www.hse.gov.uk/healthservices/bed-rails.htm](http://www.hse.gov.uk/healthservices/bed-rails.htm)
- Pennine Care NHS Foundation Trust bed rail policy 2011.
Thank you for listening

- Any Questions????
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