Health Canada Santé Canada

Bed Rails In Hospitals, Nursing Homes and Home Health Care

Bed Rail Entrapment Statistics

Between 1980 and April 2008, Health Canada received 61 incident reports involving bed rails. The majority of these incidents were due to bed rails falling unexpectedly due to latch failures. Bed rail failures accounted for nearly one quarter (23.9%) of all reported incidents related to hospital beds.

During the same time period, Health Canada received 67 reports of life-threatening bed entrapments, 36 of which led to deaths. These entrapment events occurred in openings within the bed rails, between the bed rails and mattresses, under bed rails, between split rails, and between the bed rails and headboard or footboard.

Entrapment events also accounted for 65% of all deaths that have been reported with the use of beds. There have been at least 17 coroners' inquests or investigations into deaths related to beds and side rails, many of which are included in the above statistics.

Patient Safety

In this notice, the term *patient* refers to a patient in a hospital, a resident of a nursing home, or any individual receiving services in a home care setting.

Patients who have problems with memory, sleeping, incontinence, pain, uncontrolled body movement, or who get out of bed and walk unsafely without assistance, must be carefully assessed for the best ways to keep them from harm, such as falling. Assessment by the patient's health care team will help to determine how best to keep the patient safe.

Historically, physical restraints (such as vests, ankle or wrist restraints) were used to try to keep patients safe in health care facilities. In recent years, the health care community has recognized that physically restraining patients can be dangerous. Although not indicated for this use, bed rails are sometimes used as restraints. Regulatory agencies, health care organizations, product manufacturers and advocacy groups encourage hospitals, nursing homes and home care providers to assess patients' needs and to provide safe care without restraints.

The Benefits and Risks of Bed Rails

Potential benefits of bed rails include:

- Aiding in turning and repositioning within the bed.
- Providing a hand-hold for getting into or out of bed.
- Providing a feeling of comfort and security.
- Reducing the risk of patients falling out of bed when being transported.
- Providing easy access to bed controls and personal care items.

Potential risks of bed rails may include:

- Strangling, suffocating, bodily injury or death when patients or part of their body are caught between rails or between the bed rails and mattress.
- More serious injuries from falls when patients climb over rails.
- Skin bruising, cuts, and scrapes.
- Inducing agitated behaviour when bed rails are used as a restraint.
- Feeling isolated or unnecessarily restricted.
- Preventing patients, who are able to get out of bed, from performing routine activities such as going to the bathroom or retrieving something from a closet.

Meeting Patients' Needs for Safety

Most patients can be in bed safely without bed rails. Consider the following:

- Use beds that can be raised and lowered close to the floor to accommodate both patient and health care worker needs.
- Keep the bed in the lowest position with wheels locked.
- When the patient is at risk of falling out of bed, place mats next to the bed, as long as this does not create a greater risk of accident.
- Use transfer or mobility aids.
- Monitor patients frequently.
- Anticipate the reasons patients get out of bed such as hunger, thirst, going to the bathroom, restlessness and pain; meet these needs by offering food and fluids, scheduling ample toileting, and providing calming interventions and pain relief.

When bed rails are used, perform an on-going assessment of the patient's physical and mental status; closely monitor high-risk patients. Consider the following:

- Lower one or more sections of the bed rail, such as the foot rail.
- Use a proper size mattress or mattress with raised foam edges to prevent patients from being trapped between the mattress and rail.
- Reduce the gaps between the mattress and side rails.

Which Ways of Reducing Risks are Best?

A process that requires ongoing patient evaluation and monitoring will result in optimizing bed safety. Many patients go through a period of adjustment to become comfortable with new options. Patients and their families should talk to their health care planning team to find out which options are best for them.

Health Canada has recently published a guidance document entitled *Adult Hospital Beds: Patient Entrapment Hazards, Side Rail Latching Reliability, and Other Hazards*, providing recommendations for reducing life-threatening entrapments associated with hospital bed systems. This guidance is available from Health Canada's website.

It characterizes the body parts at risk for entrapment, identifies the locations of hospital bed openings that are potential entrapment areas, and recommends dimensional criteria for these devices.

Since accidental lowering of side rails occurs frequently, either as a result of improper latching or latch failure, the guidance also provides recommendations for assessing the reliability of the side rail latching.

Patient or Family Concerns About Bed Rail Use

If patients or family ask about using bed rails, health care providers should:

- Encourage patients or family to talk to their health care planning team to determine whether or not bed rails are indicated.
- Reassure patients and their families that in many cases the patient can sleep safely without bed rails.
- Reassess the need for using bed rails on a frequent, regular basis.

Reporting bed-related incidents

To report a bed or side rail entrapment incident, please use the *Bed-related Entrapment and Fall Report Form*, available from Health Canada's website.

For information regarding a specific hospital bed, contact the bed manufacturer directly.