# Avoiding Bed Entrapment

Between 1985 and 2008, the FDA received 772 reports of residents caught, trapped, entangled or strangled in hospital beds. These incidents amounted to 460 deaths, 136 nonfatal injuries and 176 cases where staff needed to intervene to prevent injuries. Most residents were frail, elderly or confused.[1]

To combat the risks of hospital bed injuries, the FDA and the Hospital Bed Safety Workgroup released the Clinical Guidance for the Assessment and Implementation of Bed Rails, which helps caregivers perform risk assessments and offers tips on avoiding injuries.

## RISK ASSESSMENT

The guidance lists the following criteria to help you select the safest bed for each resident.

Low injury risk. Consider using a bed without a bed rail for residents at low risk for injury or those who:

- transfer safely to and from bed to wheelchair without assistance
- ambulate without assistance to and from the toilet without falling
- haven't fallen or are unlikely to fall out of bed
- notify staff appropriately using the call system.

High injury risk. A resident is at high risk for injury when he:

- can't transfer safely to and from the bed to a wheelchair
- has experienced previous entrapment or a near-entrapment episode
- can't ambulate to and from the toilet without falling
- has a history of bed-related serious injury
- has episodes of falling out of bed, or a likelihood that such episodes will occur
- is inconsistent in notifying staff of needs or can't access the call system.

Consider placing these residents in adjustable-height beds that can go low to the floor for sleeping, but can also be raised up for transfers and ADL care. Consider alternatives such as concave mattresses and use high-impact mats next to beds.

Moderate injury risks. Consider an adjustable-height bed for a resident that needs a bed in a low position but has difficulty getting into the low bed from the standing position. If this bed isn't available, consider adding a quarter rail or transfer device to a low bed for the resident to hold onto for support while getting into the low bed. When selecting a support hold, remember that such rails should contain cross bars close enough to prevent the passage of the resident's head or body part through the rail, and fit closely enough to the mattress to prevent entrapment.

Consider other interventions such as secured vertical poles for transferring in and out of bed. These poles, which are secured into the ceiling and floor, are generally used with more cognitively functional individuals. Apply tape to the pole to increase traction and pay attention to weight limits.

If a resident needs a low bed, but is in danger of injury while exiting from the low bed or from an unstable transfer after standing up, consider using a bed alarm. Base the decision on the resident's clinical condition. Carefully consider the use of bed alarms for the resident who is agitated or confused.

## REDUCING RISKS OF INJURY

The guidance lists the following recommendations to reduce injury risks to residents and caregivers.

- When the bed is occupied, keep it in the lowest position with the wheels locked and adjust the level to administer care or to transfer the resident.
- Place a high-impact mat next to the low bed to cushion falls as long as doing so doesn't create a greater risk of accidents. Store the mat when it's not in use.
- Raise the bed to give care and lower it when finished. If the bed is not adjustable, use body mechanics techniques such as kneeling on the impact mat rather than bending over.
- Look for objects in the surrounding area that may cause injury.
- Move furniture far enough away from the bed to avoid risk of injury.
- Train caregivers on how to properly use body mechanics and how to use low beds. ■

### Reference

1. U.S. Food & Drug Administration. Hospital Beds. Retrieved from www.fda.gov/MedicalDevices/ProductsandMedicalProcedures/MedicalToolsandSupplies/HospitalBeds/default.htm on June 1, 2009.

**Information Adapted from: Hospital Bed Safety Workgroup. Clinical Guidance for the Assessment and Implementation of Bed Rails In Hospitals, Long Term Care Facilities, and Home Care Settings. April 2003. Retrieved from *www.ute.kendal.org/learning/documents/clinicalguidance_SideRails.pdf* on June 1, 2009.**