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# Questioning the Use of Bedrails to Prevent Falls of Adults in Long Term Care



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Figure 1: Bedrail image taken from Home Medical Solutions

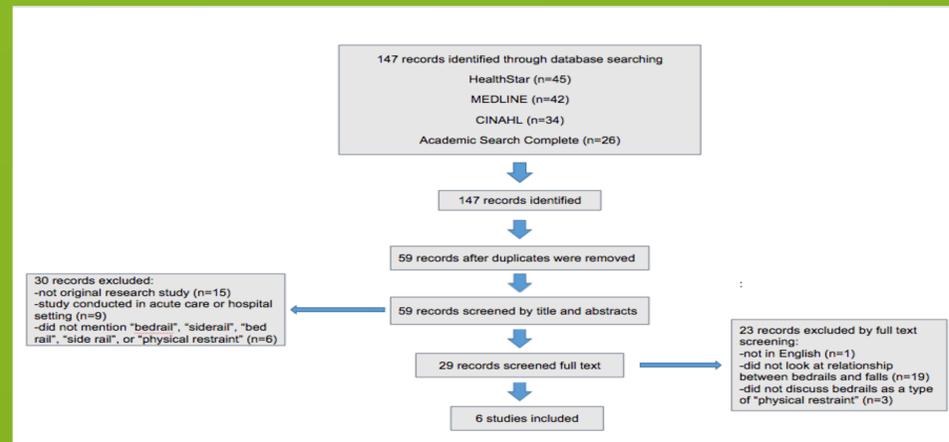


Table 2: Prisma diagram portraying methods



Figure 2: Bed side light image taken from Home Medical Solutions

## Background

- Bedrails are commonly used to prevent falls (Healey, Oliver, Milne, & Connelly, 2008)
- Bed related falls → hospitalization, increase healthcare costs, and death (Bradley, 2011)
- Fall survivors may be left with permanent disabilities (Centers for Disease Control and Prevention, 2015)
- 29-55% residents in long term care have fallen, 25% bed related (Healey, Oliver, Milne, & Connelly, 2008; Currie, 2008)
- Factors = environmental hazards, medications, vision problems, and impairments in strength or balance can increase the risk of falling (Bradley, 2011).

## Methods

Population	intervention	comparison	outcome
Older adult* senior* elder* Aged geriatric* Nursing home* Long-term care Long term care Longterm care Assisted living assisted-living	Bed n3 rail* Bedrail* bed-rail* Side n3 rail* siderail* side-rail*	No bed/side rails	fall* injur*

Table 1: Search strategy

## Results

- Fonad et al. (2008)
- Bedrails correlated to fewer falling out of bed
  - Bedrails → severe injuries if climbed over
- Meyer et al. (2008)
- Staff educated in alternative fall prevention strategies → decreased bedrails use
  - Did not examine bed-related falls
- Lee et al. (2008)
- Restraints marginally protective of falls: 2.5% with restraints vs 5.7% without in last 30 days (p<0.05)
- Luo et al. (2011)
- Bedrails → decreased falls by 33% (p<0.05) with dementia and 28% (p<0.05) without dementia
- Capezuti et al. (2007) (pre- and post- test study) and Kopke et al. (2012) (RCT)
- Facility-wide education & training to reduce bedrail use
  - Education = factors that increase risk of bed-related falls: incontinence, sleep disturbances, and pain
  - Examples fall prevention strategies = bedside mats, bed alarms, low height beds, and transfer poles
  - Reduced bedrail use → no significant change in fall frequency (bedrails → fall rate = 26.1% (95% CI); no bedrail → fall rate = 23.1 (95%CI)



Figure 3: Fall mat image taken from Home Medical Solutions

## Recommendations

- Bedrails use policies should include client-centered assessment for risk of bed-related falls.
- Bedrails = last resort
- Inform clients and families when bedrails are used
- Educate Health care providers, and clients, and their families on appropriate bedrails use
- Annual review of Bedrail use policies to ensure they are supported by current research findings and updated accordingly
- Health care providers need to be made aware of any changes to the bedrail use policies.

## Policies

- Alberta Health Services – individualized assessments
- Covenant Health – last resort measure
- Carewest – individualized assessment & consider their ability to climb over bedrails

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