Preventing Falls in Colorado Long-Term Care Facilities

Evidence-Based Interventions
Evidence-Based Regulations

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Fall prevention strategies: 

**Toolbox**

- Exercise, including physical therapy
- Medication review
- Management of urinary incontinence
- Environmental-assistive technologies
  - Proper bed height, lighting, footwear
  - Position change alarms
- Root cause analyses after falls
- Vitamin D
No randomized clinical trials

Two small, non-randomized studies (1993, 2010) failed to demonstrate efficacy.

Effects on residents, like physical restraints, *can be negative.*
Fall alarms: Negative effects

- Sleep interruptions
- Noise and confusion among residents (including increased agitation)
- Embarrassment and isolation
- False sense of security among staff
- Staff responses directed toward alarms *(Sit down!)* rather than residents’ needs
Harmful health outcomes

- Interrupted sleep →
  - Poor appetite, irritability, agitation
- Immobility →
  - Lack of independence
  - Increased weakness & decreased balance
  - Skin breakdown
- Isolation and embarrassment →
  - Depression, anxiety and need for sedating medications → higher fall risk
Evidence suggests that position change alarms should not be used as a primary or long-term fall prevention strategy in LTCFs.
Current investigation

- Survey of Colorado LTCFs regarding fall prevention strategies
  - Including the use of position change alarms
- Review the history of citations issued by Health Facilities Division
  - Citations written for failure to use position change alarms
Survey of Colorado LTC Facilities

- Web-based survey distributed to 215 facilities
  - 124 surveys returned (57.6%)
- Facility characteristics:
  - Urban locale (63%)
  - Number of beds: Range 15 - 210
Frequently used interventions

- Bed height adjustment: 58% Always, 38% Very Often
- Fall analysis: 80% Always, 15% Very Often
- Medication review: 50% Always, 40% Very Often
- Anti-slip footwear: 53% Always, 36% Very Often
- Exercise: 16% Always, 45% Very Often
- Toileting interventions: 25% Always, 15% Very Often
- Vitamin D: 14% Always, 27% Very Often
- Position change alarms: 35% Always, 44% Very Often
Bed/Chair Position Change Alarms

- Judged “very” or “moderately” effective;
  - 67% of facilities

- Wide range of alarm use in Colorado:
  - Almost half (48%) of LTCFs use alarms on 75% or more of their residents.
  - At the same time, 22% of LTCFs never use them or use them infrequently (≤ 10% of residents).
Comments about fall alarms

- We are working to eliminate use of alarms, because they are not effective.
- We never use them; it is mostly just a scare to other residents.
- Alarms contribute to anxiety, social isolation and loss of dignity; the natural reaction of any human being who hears an alarm ... is to just get up and move away.
Comments about fall alarms

- We feel that alarms are ineffective – but we were criticized by surveyors for removing an alarm that was disturbing a resident.

- Facilities are now more concerned about citations than about safety. Each resident situation should be looked at independently for the BEST solution to decreased falls .. vs. what we need to do to not get a citation.
Conclusions

- Fall prevention in high-risk LTC residents remains a challenge.

- In Colorado, 80% of LTCFs use position change alarms. And, 67% of LTCFs judge alarms to be “very” or “moderately” effective.

- The survey comments and survey reports show the Health Facilities Division has cited LTCFs for their failure to use position change alarms.
Action plans

- Educate LTC providers about alarms:
  - Lack of efficacy;
  - Potential harm.

- Share literature about effective fall prevention strategies.
Action plans

- Change the Health Facilities Division’s regulatory approach:
  - Educate surveyors about the use of position change alarms --- lack of efficacy and potential for harm.
  - End practice of citing LTCF based solely on a failure to use these alarms.
References

References

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