

Collaborative Breakthrough Series on Reducing Falls and Injuries Due to Falls

Topic: Utilizing Protective and Assistive Devices To Prevent Injuries Due To Falls

The Opportunity

Falls are the number one cause of reported adverse events in VA. Among the 620 serious falls reported to the VA Adverse Events Registry in 1999, 60% resulted in hip fractures and 7% resulted in death. Reducing veteran falls and injuries due to falls remains a top priority of VA. In the United States, one of every three adults 65 years old or older falls each year. Falls are the leading cause of injury deaths among people 65 years and older and are the most common cause of injuries and hospital admissions for trauma among the elderly (Centers for Disease Control and Prevention, CDC).

Demographic reports have profiled veterans' aging projections to plan for their health care needs. Due to the increased aging population, prevention of falls and fall related injuries have received national attention with the Veterans Health Administration. According to Doweiko (2000), 7,000 – 12,000 people 65 years and older have lost their lives due to falls in the past few years (p. 38). “Nearly one-third of older Americans fall, costing more than \$20 billion in direct health care costs, according to the U.S. Department of Health and Human Services” (Doweiko, p. 38). Falls are a major component of adverse patient events, consistently the largest single category of reported incidents in hospitals (Gaebler, 1993), with estimates of 25% to 84% of all adverse events in health care agencies (DiBella & Harvey, 1998). In 1996, falls accounted for more than 14,000 deaths and 22 million visits to hospitals and physicians' offices (Hoskin, 1998).

A Northeast Veteran Integrated Service Network (VISN) focused-review-team analyzed fiscal year 1996 data and determined that 20.4% of all falls occurred in the Nursing Home Care Unit, 14.8% on the Acute Medical Unit, and 60% were 65 years of age or older (DiBella & Harvey, 1998). Estimates are that 45% to 70% of residents in long-term care settings fall each year, twice the rate of those dwelling in the community (Thapa, et al., 1995). This epidemiological profile is particularly relevant as the VA veteran patient population ages.

Falls are the leading cause of death in the home, taking the lives of 10,700 people in 1998, a 9 percent increase from 9,200 in 1996; and more than 86 percent of these fatal falls are in people 65 years old or older (National Safety Council, 1999). **The U.S. Public Health Service estimates that two thirds of the deaths associated with a fall are preventable.** Adverse outcomes go well beyond the injuries sustained as a result of a fall. An injurious fall increases estimated costs (relative to non-fallers, in 1996 dollars) by \$11,042 in hospitals, by \$5325 in nursing homes, by \$253 in the emergency room, and by \$2,820 in a home health setting (Rizzo, et al., 1998). Staffs in hospitals and long term care settings work hard to reduce the number of patient falls and the resultant injury to the patient. These efforts are challenging at a time when facilities are striving to have restraint-free environments in the climate of a nursing shortage.

On July 12-13, 2001, 40 Multidisciplinary Falls Improvement Teams came together with experts on reducing falls and injuries due to falls, for an initial two-day learning session to learn both specific strategies for reducing falls and injuries, and a

Collaborative Breakthrough Series on Reducing Falls and Injuries Due to Falls

model for implementing changes. For eight months after the first learning session, the teams were supported through conference calls, e-mail/listserv, and coaching to reduce falls and injuries at their facilities. The teams turn in monthly “Senior Leader” reports on progress and changes made. On March 7-8, 2002 the teams came together again to share their results and create these documents. This document is a synthesis of the teams’ work in a specific area. It represents what the teams learned about how to make changes and improve care, and is supported by the actual outcome the teams achieved.

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Key Changes to Reduce Falls and Injuries (What teams did):

Staff used various devices to reduce injuries due to falls. Examples of devices:

Bedside mats, bed alarms, tab alarms, alarm system connected to nurse call bell system, low beds, hip protectors, talking alarms, seat alarms with Velcro, tilted cushions, colored toilet seats for contrast and adapters for call bells to signal a different tone for getting out of bed vs. wanting a drink of water.

The Improvement Process- (How they did it):

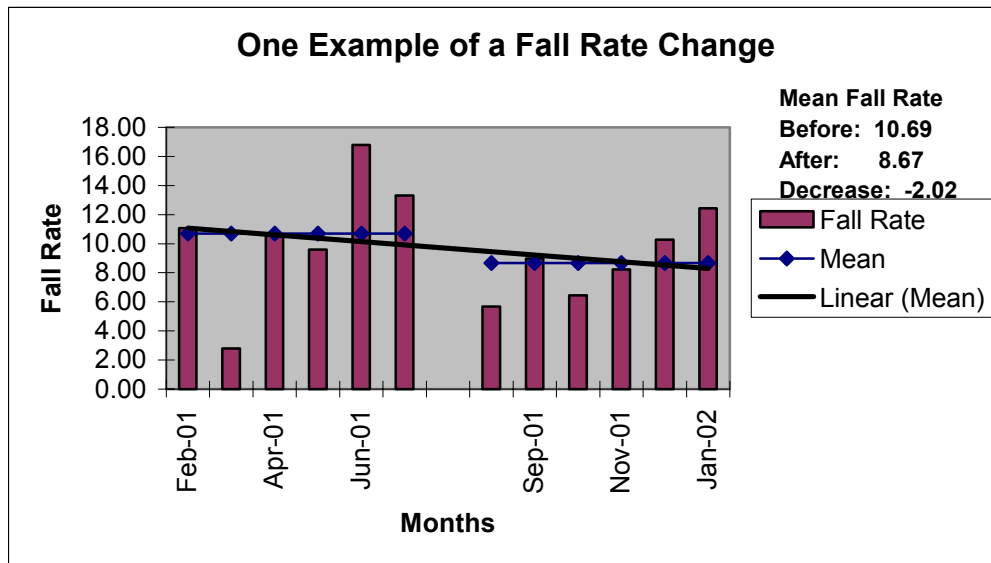
- Educate staff on the use of the devices.
- Get staff input for ordering new items through pilot testing devices.
- Low beds; piloting made a significant difference.
- Involve the right staff to get them to buy into it.
- Patient and family education about how to use assistive devices.
- Give rehab nursing staff ability to get the equipment without PT/OT.

Measures: (How they monitored the process of improvement):

- Monthly fall aggregate data analysis on everything: major/minor injuries, what worked, what didn’t work and give staff positive feedback. Talk about the successes. Measure equipment use.
- Ask on incident report if an assistive device was used.
- Examine equipment used on a given unit and the falls; link what was bought with outcomes of falls and injuries to show the cost effectiveness of the purchase.
- Aggregate the fall data and present to monthly head nurses meeting, those who have high fall incidents go to staff meeting, implement action plans and follow up
- VISN 8 has a fall equipment guide. This is a link to their website www.patientsafetycenter.com.

Collaborative Breakthrough Series on Reducing Falls and Injuries Due to Falls

Outcomes:



Mean Fall Rate: Before: 10.69 After: 8.67 Decrease: -2.02 and No major injuries Aug-Jan 02.

More Detailed Process (PDSA description of the process):

Sample Time Line:

- Vendors came every two weeks, left products for 30 days and nurse managers developed a list of what they would like to try out. Prioritize the list.
- Hip pads; staff members wore them for a week, 24 hours a week and assessed comfort, and what it was like to sleep in them.
- VA 30 day trial, don't let it become 31 days, a form.

Key Success factors in the VA system:

- “The Director supports this collaborative”
- Pilot products to overcome the budget challenges. Contact vendors for product samples, testimonials, other VA’s. Try products out on staff and patients, small-scale pilots. Think big but start with small.
- Develop an assessment tool for the product.
- Success: One protective device is not the answer.
- Educate the leadership, committees, chief of staff, patient safety officer, show the literature, tell them you did a pilot, have staff input, ask for reasonable number for each unit. Use data.
- Became members of the RCA team.
- Plug into QM staff. “As clinical people we had never seen the data”. Create a bridge between QM and clinical staff.

Collaborative Breakthrough Series on Reducing Falls and Injuries Due to Falls

- Budget constraint issues: involve acquisition, they wanted a protocol for use of the hip protectors: they were afraid all patients would get them. Assure administration that you will use the products carefully.

Pitfalls to avoid:

- Don't base all your decisions on one pilot.
- Documentation doesn't get done when there is a sheet with 40 things to check off.
- Mats next to beds but beware of other patients/staff tripping on them.
- Beware of using tab alarms on dementia patients, one patient wrapped the tab unit cord around her neck, so use under mat or bed for these patients.

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