Patient Safety Tip of the Week

December 3, 2013

Reducing Harm from Falls on Inpatient Psychiatry

In our May 29, 2012 Patient Safety Tip of the Week "Falls, Fractures, and Fatalities" we briefly mentioned that the inpatient psychiatric/behavioral health unit is one area in which attention to fall risk tends to be less than optimal. Our January 15, 2013 Patient Safety Tip of the Week "Falls on Inpatient Psychiatry" highlighted the fact that injuries from falls are more likely with falls on psychiatric/behavioral health units.

A "snapshot" of falls in behavioral health hospitals compared to other hospitals published by the Pennsylvania Patient Safety Authority (PPSA 2010) showed patient harm was more likely in falls in behavioral health hospitals (9.6% compared to 3.7% in non-behavioral health hospitals). The VHA National Falls Data Collection Project also demonstrated that overall fall rates were lower on behavioral health units but percentages of falls with injury were higher on those units (Stalhandske 2008).

Many of the same risk factors for falls in any inpatient setting are present in patients on psychiatry/behavioral health units. But there are also some risk factors and contributing factors that are unique to the inpatient psychiatry unit. Compared to med/surg units where patients are largely confined to bed or chairs (even though we encourage early ambulation) patients on behavioral health units are usually much more active. Hence the increased risk for falls may simply be related to this increased opportunity to fall. Scanlan et al. (Scanlan 2012) looked at activity during falls and found that the majority occurred on walking or transferring. Location of falls was most often bedrooms, outdoor areas, corridors and bathrooms. Lee and colleagues (Lee 2012) noted that falls most often occurred as patients were getting up from bed or a chair or wheelchair, walking/running, bathroom-related, or behavior-related.

Lee et al. point out that patients on behavioral health units are on a variety of medications that may increase the fall risk (antipsychotics, antidepressants, sedative/hypnotics, and others). The PPSA study also showed a greater percentage of medications related to falls were reported by behavioral health hospitals than other hospitals (70.3% versus 57.6%).

Some patients may be confused or agitated. Others may have impaired gait or balance, sometimes as a result of extrapyramidal side effects of their medications. Many of the medications cause orthostatic hypotension. The elderly patient on the behavioral health unit is especially at risk for falls with injury. Lee et al. noted that sometimes behavioral health units restrict use of canes or other devices that could assist ambulation because such might also be used as weapons.

Our January 15, 2013 Patient Safety Tip of the Week "Falls on Inpatient Psychiatry" also discusses the potential roles that sleep disturbances, multiple medical comorbidities, and the primary psychiatric diagnoses may play. And the factors noted in our December 22, 2009 Patient Safety Tip of the Week "Falls on Toileting Activities" apply equally well to psychiatry/behavioral health units as other units. In fact, some of the bathroom assist devices we might use to help prevent falls (eg. grab bars) may be "loopable" items that represent a suicide risk and are not used on psychiatry/behavioral health units.

The VA National Patient Safety Center, which does a great job of aggregating lessons learned from RCA's across the VA system, put together such lessons learned as they pertain to falls on behavioral health units (Lee 2012). In addition to the predisposing factors noted above, the most common root causes they identified were environmental hazards, poor communication of fall risk, lack of suitable equipment, and a need to improve the system of falls assessment. Assessing the **environmental risks**, using a checklist, is one of the most important steps in preventing falls and fall-related injuries.

The VA has a long history of successful collaboarative patient safety programs related to falls and fall-related injuries (Stalhandske 2008). These have included the National Falls Collaborative Breakthrough Project, the development and deployment of the National Falls Toolkit, and the National Falls Data Collection Project. The National Fall Collaborative Breakthrough Project involved 40 participating facilities and achieved a remarkable 62 percent reduction from baseline for major injuries. Most of you are probably already familiar with the VA NCPS Falls Toolkit, a compendium of useful references, resources, presentations, posters, and spreadsheets that were culled from existing research and the Falls Collaborative.

VA's National Falls Data Collection Project grew out of a desire to create an incentive for people to use the Falls Toolkit and to develop some outcome measures for the effectiveness of falls programs. Participating facilities collected and reported various data elements from January 2004 through March 2006. Over the course of the 2 years, there was a reduction in major injuries as a percent of falls in all three unit types. This change was especially apparent in the behavioral health setting, with a relative rate reduction of 64.3 percent.

Despite much research on falls occurring on medical-surgical units and in long-term care settings, falls on inpatient psychiatry units are still relatively understudied. A new VA collaborative project (Quigley 2014) addressed prevention of falls and fall-related injuries on psychiatry/behavioral health units. This VA collaborative project looked at evidence-

based interventions for fall prevention and injury prevention and modified the interventions for inpatient psychiatry. For example, grab bars cannot be used on psychiatry units because they may be loopable and, hence, a suicide risk. Similarly, height-adjustable beds with electrical cords would not be allowed on psychiatry units because of the suicide risk.

Ultimately they recommended each of the following across all their participating sites:

1. implement a unit peer leader program
2. customize use of hip protectors to reduce risk of hip fractures
3. customize use of floor mats to reduce trauma from bed-related falls
4. expand patient assessment to include injury risk on admission
5. expand patient education to include protection from fall-related injury

Admittedly, the evidence base for hip protectors is mixed but does suggest they are protective for high risk populations. Because the units could not use height-adjustable beds, the use of floor mats to prevent injuries from falls from beds was considered a prime intervention.

Expert faculty provided monthly lectures, coaching, and mentoring through biweekly conference calls and collaborative e-mail exchange.

There was evidence of improvement in several process measures after implementation of the program at the VA collaborative sites. There were small improvements in the fall injury risk assessment and discharge education. Use of hip protectors did not change but was at a relatively high level (55.8% for high risk patients) even before the project began. The biggest improvement, however, was seen for use of floor mats which increased from a baseline of 24.4% to between 36.3% to 49.0% after implementation.

It's probably too early to determine the impact of this program on injuries related to falls. Their data graphs demonstrate, as expected, some variation in rates from quarter to quarter. While there has probably been an overall downward trend in fall rates, the rates of falls with injury have changed little. The percentage of falls with injury trend is upward but likely because the denominator (overall fall rate) has decreased. The results indicate there is a continued need for programs aimed at reducing injuries from falls.

We hope that you'll go back to our January 15, 2013 Patient Safety Tip of the Week "Falls on Inpatient Psychiatry" for many useful tips on fall prevention in behavioral health patients and also to some of our prior columns related to falls listed below:

- April 16, 2007 "Falls With Injury"
- January 1, 2008 "Fall Prevention"
- October 7, 2008 "Lessons from Falls....from Rehab Medicine"
- November 18, 2008 "Ticket to Ride: Checklist, Form, or Decision Scorecard?"
- August 4, 2009 "Faulty Fall Risk Assessments?"
- September 22, 2009 "Psychotropic Drugs and Falls in the SNF"
- December 22, 2009 "Falls on Toileting Activities"

- January 2010 "Falls in the Radiology Suite"
- May 29, 2012 "Falls, Fractures, and Fatalities"
- January 15, 2013 "Falls on Inpatient Psychiatry"
- March 2013 "Sedative/Hypnotics and Falls"

Update: See also our March 14, 2017 Patient Safety Tip of the Week "More on Falls on Inpatient Psychiatry".

References:

PPSA. Data Snapshot: Falls Reported by Behavioral Health Hospitals. Pa Patient Saf Advis 2010; 7(4): 149-150
http://patientsafetyauthority.org/ADVISORIES/AdvisoryLibrary/2010/dec7%284%29/Pages/149.aspx

Stalhandske E, Mills P, Quigley P, et al. VHA's National Falls Collaborative and Prevention Programs. In Henriksen K, Battles JB, Keyes MA, Grady ML (eds.) Advances in Patient Safety: New Directions and Alternative Approaches. Volume 2. Culture and Redesign. AHRQ 2008
http://www.ncbi.nlm.nih.gov/books/NBK43724/pdf/advances-stalhandske2_70.pdf

Scanlan J, Wheatley J, McIntosh S.. Characteristics of falls in inpatient psychiatric units. Australas Psychiatry 2012; 20(4): 305-308
http://apy.sagepub.com/content/20/4/305.abstract

Lee A, Mills PD, Watts BV. Using root cause analysis to reduce falls with injury in the psychiatric unit. Gen Hosp Psych 2012; 34(3): 304-311
http://www.sciencedirect.com/science/article/pii/S0163834311004117

NCPS Falls Toolkit. VA National Center for Patient Safety updated July 18, 2013
http://www.patientsafety.va.gov/SafetyTopics/fallstoolkit/index.html

Quigley PA, Barnett SD, Bulat T, et al. Reducing Falls and Fall-Related Injuries in Mental Health: A 1-Year Multihospital Falls Collaborative. J Nurs Care Qual 2014; 29(1): 51-59

http://journals.lww.com/jncqjournal/Abstract/2014/01000/Reducing_Falls_and_Fall_Related_Injuries_in_Mental.7.aspx

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