

Patient Safety Tip of the Week

July 28, 2015 Not All Falls Are the Same

A fall is a fall is a fall... Not so! Some falls on pediatric units or rehabilitation units or behavioral health units may be much different from falls on med/surg units or long-term care settings. We've discussed some of these before (see our Patient Safety Tips of the Week for January 15, 2013 "[Falls on Inpatient Psychiatry](#)" and October 7, 2008 "[Lessons from Falls....from Rehab Medicine](#)"). And always keep in mind that prevention of falls is really a secondary goal, with the primary goal being to prevent injury related to falls.

So how do we classify falls? It depends on how you intend to use the data about falls. The most widely used "quality" measures for falls simply look at the rate of falls per 1000 patient days or the rate of falls with injury per 1000 patient days. These gross rates can provide very misleading impressions about quality of care and do very little to help quality improvement efforts at the individual facility or unit level.

Various schemes have been proposed to better categorize falls. Some have been based on cause, others on preventability, others on type of unit, outcome of fall, whether a fall was assisted or not, or whether a fall was "intentional".

In 2012, the National Database of Nursing Quality Indicators launched a project to expand its falls indicator for use on pediatric, neonatal, and psychiatric units ([Staggs 2015](#)). The NDNQI is the nation's largest repository of data related to the quality of hospital nursing care.

But defining and categorizing falls on diverse unit types has proved to be quite challenging ([Staggs 2015](#)). Staggs and colleagues concede that categorizing falls by cause may be helpful in specific situations but is not beneficial in large-scale quality improvement efforts to track and prevent inpatient falls. For example, categorizing a fall by cause may be helpful in a post-fall analysis for risk management purposes. But there are significant barriers to categorizing hospital-wide falls in a way that allows for confident comparison of rates from one hospital to another.

Staggs and colleagues argue that categorization by cause has too many problems. There is sometimes too much subjectiveness and it's difficult to separate out which falls are "accidental" and which are "intentional" (similarly there are gray areas between "assisted" falls and "unassisted" falls). Moreover, many falls are indeed multifactorial. The classic example is the visually impaired patient who slips and falls at night because of inadequate lighting. And medications can be factored into a variety of falls.

Falls on pediatric units are particularly problematic when it comes to categorizing. Toddlers may have “developmental” falls as they are learning to walk. Older children may have “intentional” falls as they play. One particular type of event that may be labeled a fall is the “**baby drop**”. This is where a baby is dropped while being carried, held, or transferred from person to person. It is distinct from other falls on neonatal units, such as an infant rolling off a bed or other piece of furniture. In the NDNQI categorization both falls from furniture and baby/child drops are counted in a unit's total falls count.

A recent Pennsylvania Patient Safety Authority review found a surprising number of newborn injuries related to falls ([PPSA 2014](#)). There were 272 newborn falls reported over roughly a 10-year period and suspect this may be an underestimate because parents and family sometimes do not report such falls to staff. They actually categorized 6 types of fall in newborns:

- Family member fell asleep in bed or chair (while holding newborn)
- Newborn slipped out of arms while family member was lying, sitting, or standing
- Newborn rolled out of hospital bed or isolette
- Family member dropped newborn while transferring
- Newborn rolled off family member's lap
- Unknown

While the numbers at any one hospital are likely to be so low that they would not impact a hospital's overall fall per 1000 patient days rate, they could conceivably impact the falls with injury per 1000 patient days rate because of the high likelihood of injury to the newborn in such falls.

The PPSA review really opened our eyes to a unique population at risk for falls. Combine the unfamiliarity of new parents or relatives with infants and the fatigue or exhaustion from sometimes prolonged labor and it is not surprising that such accidents occur. 58% of the falls occurred between midnight and 7 AM, with a peak between 5 AM and 6 AM.

And parents, family and friends are not the only ones who might drop an infant. In a recent incident, a tired nurse dropped an infant ([Grossman 2015](#)). The family was told that the nurse was feeding the newborn infant and burping him, and she was drowsy and fell asleep and dropped him. Apparently there was a resultant skull fracture and intracranial bleeding.

The PPSA review provides strategies for reducing the risk of newborn falls. These include staff education, parent and family education, discussion with parents at each shift, rooming-in without bed-sharing, review of maternal medications, hourly rounding with nurses intervening when finding a sleepy mother with a newborn in her arms, protocols for transport of newborns, and environmental assessments. Parents in one facility were also encouraged to call staff before and after newborn feeding so bedrails could be raised or lowered as appropriate.

PPSA also noted a number of maternal characteristics from the literature that were associated with newborn falls, including:

- High level of fatigue
- Breastfeeding or breast/bottle feeding
- Cesarean birth
- Second or third postoperative night
- Pain medication in the last two to four hours
- Age 18 to 28 years
- Prior near miss (e.g., nurses found mother either falling asleep or asleep while holding newborn)
- History of narcotic substance use and/or methadone treatment program

The PPSA website also has a variety of tools and educational materials pertinent to preventing newborn falls, including an excellent [form for post-fall huddles](#).

The VA has an outstanding fall prevention program and it was recently reviewed ([Murphy 2015](#)) in the July/August 2015 issue of VA TIPS (Topics in Patient Safety). The [VA National Center for Patient Safety Falls Tool Kit](#) also has many very useful resources available for download.

The VA system ([Quigley 2015](#)) uses the classification of fall types from the work of Dr. Janet Morse and colleagues:

- Accidental falls
- Anticipated physiological falls
- Unanticipated physiological falls

Quigley notes that not all falls are preventable. For example, the “unanticipated physiological fall” (exemplified by a seizure or unexpected cardiac event) can’t really be prevented (but it is still included in most fall statistics!). And the intervention programs are tailored to the fall type. For example to prevent “accidental falls” attention is paid to things like reduction of slip and trip hazards, proper lighting, safe exit transfer sides from bed or chair, elevated toilet seat, grab bars on either side of the toilet seat, height adjusted beds etc. And strategies to prevent “anticipated physiological falls” include things like multifactorial fall risk screening and assessment, linking interventions for treatment to specific fall risk factors, determining medications that increase fall risk and modify if possible, examining mobility and transfer skills and deficits and individualize plans to help patients modify or compensate, evaluating for postural hypotension and educate patients to compensate if present, and educating patients and family members about fall risk factors and treatment plan of care. Scheduled toileting programs are emphasized for specific patients. Note that we have really focused on toileting activities in past columns because such a high percentage of falls occur on toileting (see our previous Patient Safety Tips of the Week for December 22, 2009 “[Falls on Toileting Activities](#)” and June 9, 2015 “[Add This to Your Fall Risk Assessment](#)”). Quigley also stresses the importance of using teach-back strategies in verifying that patients understand the risks and are able to perform the skills necessary to prevent falls.

Our own feeling is that rate of falls with injury per 1000 patient days should remain as a hospital-wide measure that can be used for comparisons. The more generic rate of falls per 1000 patient days should be continued primarily as an internal benchmark for quality improvement purposes. Again, we find determining cause(s) for falls to be valuable in identifying vulnerabilities your system may have in fall and injury prevention.

While you need general fall risk reduction strategies (eg. reducing environmental hazards) you need to do a specific fall risk assessment on every patient and focus especially on those risk factors that are modifiable. And even some non-modifiable fall risk factors may still lead to specific interventions. One example we've often given is that male gender has been identified in some tools as a risk factor for falls. While you obviously cannot modify that risk factor, you might look extra carefully at toileting needs of the male patient. As before, we don't know how much of the male risk for falls is "macho" vs. "modesty". But if that latter is a factor in raising the fall risk during toileting in males, you may need to consider having non-female staff assist the males in toileting activities.

You also need to beware that risk prediction **scores** may give you a false sense of confidence. Many falls occur in patients who scored low on such assessments. And you especially need to remember that the risk of falls in the hospital is ever-changing and needs to be updated not just daily but also when certain key events take place. For example, any time a new medication is prescribed the fall risk should be reassessed (a good EHR with clinical decision support might alert nursing to redo the fall risk assessment when a medication known to be associated with falls is begun).

Some of our prior columns related to falls:

- April 16, 2007 ["Falls With Injury"](#)
- July 17, 2007 ["Falls in Patients on Coumadin or Heparin or Other Anticoagulants"](#)
- 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"](#)
- June 2010 ["Seeing Clearly a Common Sense Intervention"](#)
- May 29, 2012 ["Falls, Fractures, and Fatalities"](#)
- June 5, 2012 ["Minor Head Trauma in the Anticoagulated Patient"](#).
- January 15, 2013 ["Falls on Inpatient Psychiatry"](#)
- March 2013 ["Sedative/Hypnotics and Falls"](#)
- December 3, 2013 ["Reducing Harm from Falls on Inpatient Psychiatry"](#)
- June 2014 ["New Glasses and Fall Risk"](#)

- July 8, 2014 “[Update: Minor Head Trauma in the Anticoagulated Patient](#)”
- August 2014 “[Cataract Surgery and Falls](#)”
- November 4, 2014 “[Progress on Fall Prevention](#)”
- March 2015 “[Another Paradox: Falls Due to Walking Aids](#)”
- June 9, 2015 “[Add This to Your Fall Risk Assessment](#)”

Some of our previous columns on falls after correction of vision:

- June 2010 “[Seeing Clearly a Common Sense Intervention](#)”
 June 2014 “[New Glasses and Fall Risk](#)”
 August 2014 “[Cataract Surgery and Falls](#)”

Some of our previous columns on head trauma in the anticoagulated patient:

- April 16, 2007 “[Falls With Injury](#)”
 July 17, 2007 “[Falls in Patients on Coumadin or Heparin or Other Anticoagulants](#)”
 June 5, 2012 “[Minor Head Trauma in the Anticoagulated Patient](#)”
 July 8, 2014 “[Update: Minor Head Trauma in the Anticoagulated Patient](#)”

References:

Staggs VS, Davidson J, Dunton N, Crosser B. Challenges in Defining and Categorizing Falls on Diverse Unit Types: Lessons from Expansion of the NDNQI Falls Indicator. Journal of Nursing Care Quality 2015; 30(2): 106-112
http://journals.lww.com/jncqjournal/Fulltext/2015/04000/Challenges_in_Defining_and_Categorizing_Falls_on.4.aspx

Pennsylvania Patient Safety Authority (PPSA). Balancing Family and Newborn Bonding with Patient Safety. Pa Patient Saf Advis 2014; 11(3): 102-108
<http://patientsafetyauthority.org/ADVISORIES/AdvisoryLibrary/2014/Sep;11%283%29/Pages/102.aspx>

Grossman J. Drowsy Nurse Drops Newborn Baby in Pennsylvania. Huff Post Blog
 Posted: 07/06/2015
http://www.huffingtonpost.com/van-winkles/drowsy-nurse-drops-newbor_b_7737062.html

Murphy J. Understanding the VA Fall Reduction. VA TIPS (Topics in Patient Safety) 2015; 15(4): 1-3

http://www.patientsafety.va.gov/docs/TIPS/tips2_july_aug_15.pdf#page=1

VA National Center for Patient Safety. Falls Tool Kit

<http://www.patientsafety.va.gov/professionals/onthejob/falls.asp>

Quigley P. Types of Falls and Suggestions to Reduce Them. VA TIPS (Topics in Patient Safety) 2015; 15(4): 3

http://www.patientsafety.va.gov/docs/TIPS/tips2_july_aug_15.pdf#page=3



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