

NAON Position Statement: Fall Prevention in the Acute Care Setting

Issue

Hospital falls make up the largest, single category of reported patient falls. The incidence of inpatient falls ranges from 2-17% (Mahoney, 1998; Tack, Ulrich & Kehr, 1990; Vlahov, Myers & al-Ibrahim, 1990). Thirty-eight percent of those who fall sustain injury, and of those injured, 8% experience serious harm such as fractures, head trauma and death (Halfon, Egli, Van Melle, & Vagnair, 2001; Hitcho et al., 2004; Krauss et al., 2005; Krauss et al., 2008; Schwendimann, Buhler, De Geest & Milisen, 2008). Additional consequences include reduced mobility due to fear of falling, prolonged hospital stay and liability risk (Bates, Pruess, Souney & Platt, 1995; Vellas, Wayne, Romero, Baumgartner & Garry, 1997). Falls can lead to substantial resource expense. Projected cost associated with injury is expected to be \$32.4 billion by 2020 (Englander, Hodson & Terragrossa, 1996).

Position

NAON views falls prevention as a lead objective aligned with *The Joint Commission (TJC)* national safety goals and the safety aims of the *American Academy of Orthopaedic Surgeons (AAOS)*. NAON supports the role that orthopaedic nurses play in the prevention and management of patient falls. Through the assessment of risk and implementation of best practice interventions, nurses reduce the likelihood of falls and related injuries.

NAON recognizes the work of others in falls prevention:

Department of Health and Human Services (HHS) - HHS oversees national and local education falls reduction campaigns under the 2005 Keeping Seniors Safe from Falls Act.

Center for Medicare and Medicaid Services (CMS) - CMS has created a system that targets hospital falls as preventable non-reimbursable conditions.

Agency for Healthcare Research and Quality (AHRQ) - AHRQ provides funding for falls research.

Center for Disease Control (CDC) - CDC maintains the *National Center for Injury Prevention and Control (NCIP)* that targets prevention of falls, supports related research and provides educational resources.

Background

Approximately 1% of admitted orthopaedic patients fall at a rate of 2-2.5 falls per 1000 patient days (Ackerman et al., 2010; Mandl, et al., 2010; Memtsoudis et al., 2011). Falls with injury occur in 13-19% of these patients. Ackerman and

colleagues note patients ($N = 70$) are almost twice as likely to fall if they are female ($OR\ 1.9$, $95\%\ CI = 1.1-3.1$) and older than 65 years ($OR\ 1.7$, $95\%\ CI = 1.4-2.2$). Additionally, patients with knee replacements are 5 times ($OR\ 5.0$, $CI\ 95\% = 2.3-10.8$) more likely to fall than patients with total hip replacements.

In a second larger study ($N = 911$), researchers found more patients (38%) with total knee replacements fell compared with other procedures, however patients with total hip replacement were almost 4 times ($OR\ 3.7$, $95\%\ CI = 1.7-8.2$) more likely to have a serious outcome after falling (Mandl et al., 2010). In a third large secondary analysis ($N = 1,088,002$), researchers studied orthopaedic falls between 1998-2007 using the Nationwide Inpatient Sample (NIS) of the Hospital Cost and Utilization Project (HCUPs), (Memtsoudis et al., 2011). Independent risk factors associated with falls were revision knee surgery ($p < 0.001$), advanced age ($p < 0.001$), male gender ($p = 0.001$), minority race ($p = 0.01$) and the presence of comorbid conditions ($p < 0.001$).

NAON supports the implementation of falls reduction programs. Programs that evaluate risk, assign responsibility, and provide standard procedures to avert falls have been found to be effective in preventing patient falls (Chang, et al., 2004; Dykes, et al., 2011). In a meta-analysis of 22 studies of older adults who fell, combined data showed a significant reduction on the risk for falling ($RR\ .88$, $95\%\ CI = 0.82-0.95$, $p = 0.03$) after implementation of a falls prevention program (Chang, et al., 2004). The most commonly assessed risks were drugs, vision, environmental hazards and orthostatic blood pressure.

Falls prevention programs vary and may include: a) risk assessment and individualized plan of care, b) patient and family education, c) toileting schedules d) safety rounds, e) review of medications and f) physical therapy to build strength and balance (National Center for Patient Safety, 2004). Although researchers have reported that falls programs are beneficial, the effectiveness of isolated program components have been less studied. Standardized risk screening for falls is useful to identify risk factors, however, the prognostic value of these tools is limited (Ganz, Bao, Shekelle, & Rubenstein, 2007). To date, nurse researchers have found safety rounds to be most effective component toward intercepting patient falls (Meade, Bursell & Ketelsen, 2006).

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