CAPTURE Falls

Collaboration and Proactive Teamwork Used to Reduce

Types of Falls

University of Nebraska Medical Center

What is a fall?

"A fall is a sudden, unintended, descent of a patient's body to the ground or other object (e.g., onto a bed, chair, or bedside mat) that can be assisted or unassisted."

Unassisted vs. Assisted Falls

Falling without vs. with help

Unassisted	Assisted
• Fall occurs without hands-on assist from another person • May or may not be observed	• When a patient begins to fall and is assisted to the ground or other object by another person • Ideally occurs with a gait belt to allow the caregiver to control the patient's descent

All Falls Are Not Created Equal

Staggs et al, 2014

"When falls tend to occur with assistance, it suggests that staff have identified at-risk patients and are in attendance during mobilization activities...."	"...a more appropriate patient safety goal is reducing unassisted falls, which pose the greatest preventable risk of injury."	"...we would argue that an assisted fall, particularly during mobilization, is not necessarily a failure for the hospital staff and should not be treated as such."

Staggs VS, Mion LC, Shorr RI. Assisted and unassisted falls: different events, different outcomes, different implications for quality of hospital care. *Jt Comm J Qual Patient Saf*. 2014;40(8):358-364.

All Falls Are Not Created Equal
Staggs et al, 2015

"Unassisted falls…uniquely reflect quality of care in that they occur when staff members are absent, unaware that the patient needs assistance, or unable to help for some other reason."

"…attempts to prevent all falls could discourage appropriate patient mobilization."

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. *J Nurs Care Qual*. 2015 Apr-Jun;30(2):106-12.

Predictors of Falling Unassisted

Gender

Male patients more likely than females to fall unassisted

Nursing Staff Mix

Fewer RNs vs. LPNs/assistants related to more unassisted falls

Unit Type

Rehab = most unassisted falls; ICU = least

Total Nurse Hours per Patient Day
(total nursing care hours per month/total patient days per month)

Unassisted falls decline as nurse hours increase beyond 9.1 per patient day

Average tenure of RNs

Unassisted falls decline with longer RN tenure on the unit

Staggs VS, Knight JE, Dunton N. Understanding unassisted falls: effects of nurse staffing level and nursing staff characteristics. *J Nurs Care Qual*. 2012;27(3):194-199.
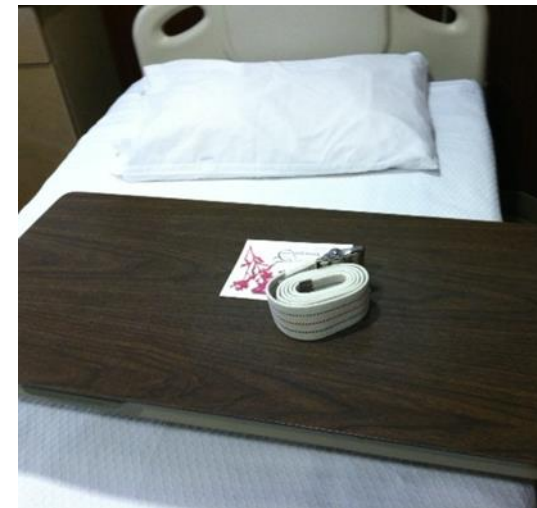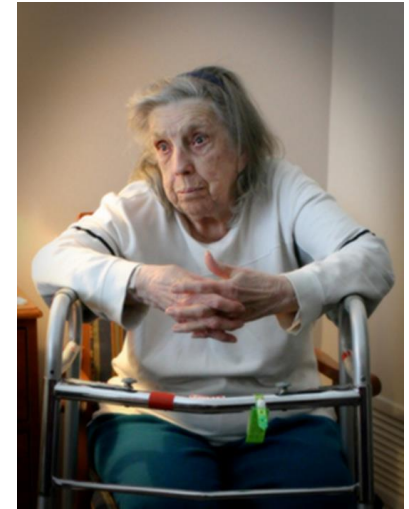
Staggs VS, Mion LC, Shorr RI. Assisted and unassisted falls: different events, different outcomes, different implications for quality of hospital care. *Jt Comm J Qual Patient Saf*. 2014;40(8):358-364.

Staggs VS, Dunton N. Associations between rates of unassisted inpatient falls and levels of registered and non-registered nurse staffing. *Int J Qual Health Care*. 2014;26(1):87-92.

Predictors of Falling Unassisted

Based on 353 falls reported by 17 rural Nebraska hospitals in 2012-2014, the odds of a fall being unassisted were:

- 2.5 times greater for someone ≥ 65 vs. < 65

- 3.7 times greater for someone with cognitive impairment vs. without

- 7 times greater if a gait belt was not identified as an intervention in the care plan for that patient vs if it was identified as an intervention.

Venema DM, Skinner AM, Nailon R, Conley D, High R, Jones KJ. Patient and system factors associated with unassisted and injurious falls in rural hospitals: An observational study. BMC Geriatr. 2019;19:348. https://doi.org/10.1186/s12877-019-1368-8

Injurious vs. Non-injurious Falls

Harm of any kind vs. no harm

Injurious	Non-Injurious
• Patient is harmed by the fall • Harm ranges from minor injury to death	• Patient is not harmed by the fall

Extent of Harm From Injurious Falls

National Database of Nursing Quality Indicators

Minor
- Fall resulted in application of dressing, ice, cleaning of wound, limb elevation, topical medication

Moderate
- Fall resulted in suturing, application of steri-strips/skin glue, splinting or muscle/joint strain

Major
- Fall resulted in surgery, casting, traction, consultation for neurological (e.g. skull fracture, subdural hematoma) or internal injury (e.g. rib fracture, liver laceration) or need for blood products
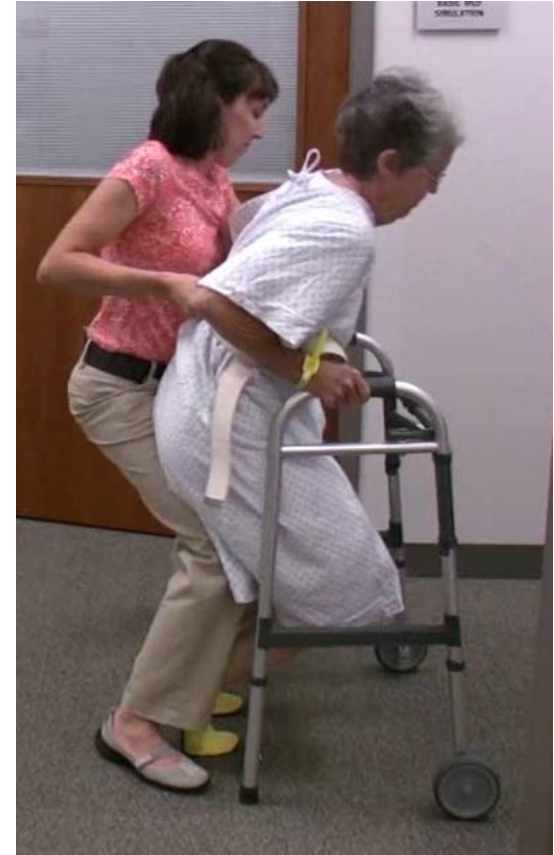
Death
- Patient died as a result of injuries sustained from the fall

Predictors of Fall-Related Injury

- Based on 3,962 falls from 8 Midwestern Hospitals from 2001-2003, the odds of injury for an unassisted fall were 1.83 times that of an assisted fall.

- "Even if fall rates remain the same, increasing the proportion of falls that are assisted by a staff member could help decrease injury rates."

Krauss MJ, Nguyen SL, Dunagan WC, Birge S, Costantinou E, Johnson S, Caleca B, Fraser VJ. Circumstances of patient falls and injuries in 9 hospitals in a midwestern healthcare system. *Infect Control Hosp Epidemiol*. 2007 May;28(5):544-50.
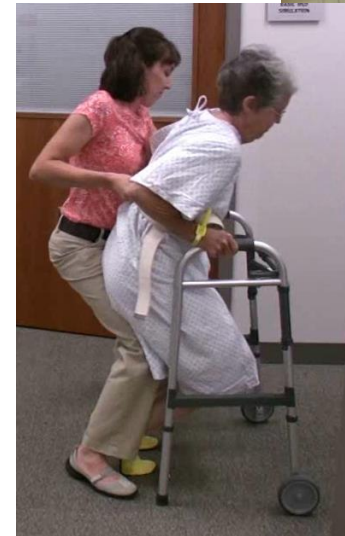
Predictors of Fall-Related Injury

Based on 154,324 falls reported to the NDNQI in 2011, the odds of injury for an unassisted fall were 1.59 times that of an assisted fall.

Staggs VS, Mion LD, Shorr RI. Assisted and unassisted falls: different events, different outcomes, different implications for quality of hospital care. *Jt Comm Jrnl*. 2014;40: 358-364
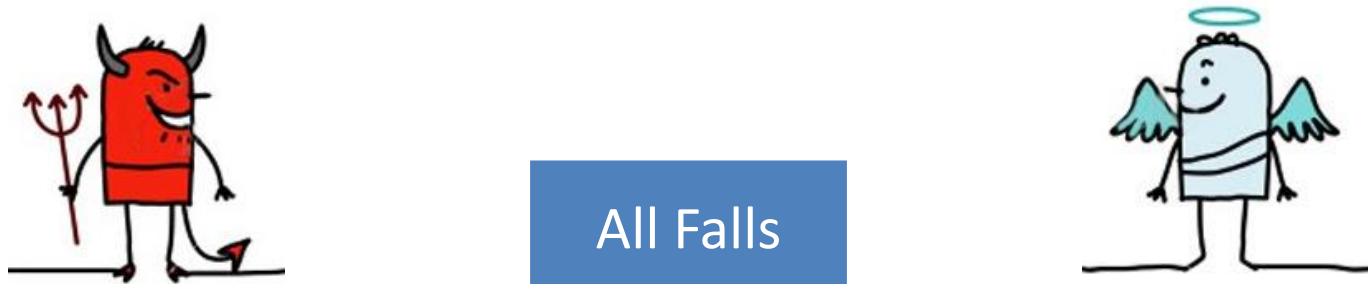
Predictors of Fall-Related Injury

Based on 353 falls reported by 17 rural Nebraska hospitals in 2012-2014, the odds of a fall resulting in injury were:

- 2.5 times greater for someone ≥ 65 vs. < 65

- 2.5 times greater if a fall occurred in the bathroom vs. other location

- 3.7 times greater if an fall was assisted <u>without</u> a gait vs. assisted <u>with</u> a gait belt

Venema DM, Skinner AM, Nailon R, Conley D, High R, Jones KJ. Patient and system factors associated with unassisted and injurious falls in rural hospitals: An observational study. BMC Geriatr. 2019;19:348. https://doi.org/10.1186/s12877-019-1368-8

Fall Incident Types

Categories combine to make four distinct types of falls

All Falls

Unassisted
Fall alone

Assisted
Fall with help

Injurious
Worst case

Staff not there to help and patient is harmed

Non-injurious
Got lucky

Injurious
Still not good

Non-injurious
Best case

Staff there to help and patient is unharmed

Case Example: Unassisted, Injurious

Patient	• 95 year-old female
Diagnosis and Comorbidities	• Cerebrovascular Accident • Dementia
Fall Description	• Patient found in bathroom on floor after nurse heard a loud "thump."
Contributing Factors	• Bowel urgency; left foot drop; staff unaware patient needed to use bathroom
Injury	• Hematoma to head, requiring application of ice and additional neuro checks

Case Example:
Unassisted, Non-Injurious

Patient	• 80 year-old male
Diagnosis and Comorbidities	• Pneumonia • Hypertension
Fall Description	• Patient found sitting on floor in front of bedside chair. Reports he was attempting to stand, felt lightheaded, and missed the chair seat as he tried to sit back down.
Contributing Factors	• Recent change in blood pressure medication; found to have orthostatic hypotension and low oxygen saturation following the fall upon further assessment.
Injury	• None

Case Example:
Assisted, Injurious

Patient	• 68 year-old male
Diagnosis and Comorbidities	• Total hip arthroplasty
Fall Description	• Patient ambulating in hall with assist of 1, wheeled walker, and gait belt. Loses balance sideways. Hits elbow against wall as staff attempts to steady patient before lowering into a chair.
Contributing Factors	• Anticoagulant medications, pain, deconditioning
Injury	• Skin tear to right elbow requiring dressing

Case Example: Assisted, Non-Injurious

Patient	• 70 year-old female
Diagnosis and Comorbidities	• Diarrhea • Dehydration
Fall Description	• Patient performing standing transfer from commode to bed with assist of staff. Legs begin to buckle during the turn. Staff uses gait belt to guide patient back to the commode.
Contributing Factors	• Electrolyte imbalance, lower extremity weakness
Injury	• None