INSTRUCTIONS
Selected Best Practices and Suggestions for Improvement

What is this tool? The purpose of this tool is to provide:

- Detailed description of best practices, including supporting evidence, suggestions for improvement, prescribed process steps, and additional resources.
- Sufficient information to complete a Gap Analysis (Tool D.5), make a decision to implement (or not to implement) a process, and develop an Implementation Plan (Tool D.6).

These tools provide information on evidence-based best practices when available, as well as information gathered from real-world experience in working with hospitals. These tools are not meant to replace validated guidelines. Rather, these documents are meant to supplement various improvement process projects related to the AHRQ Quality Indicators.

The information used to populate these documents is derived from professional association guidelines, the research literature, and experience and lessons learned from hospitals' work on previous AHRQ Quality Indicator implementation efforts. The references cited were not derived from a full systematic evidence-based literature review. Rather, the list includes more well-known research and publications on the subject, where available.

The information contained in these documents should be used to review and compare against your organization's current processes to determine where gaps may exist. As always, the final decision regarding whether to implement the guidance provided in this document should be made by a multidisciplinary quality improvement team in your hospital and should be based on information specific to your organization.

Who are the target audiences? The primary audiences include quality improvement leaders, clinical leaders, and multidisciplinary frontline staff members.

How can the tool help you? The Best Practices and Suggestions for Improvement Tool details each of the following components of a best practice and its implementation:

- Indicator Specifications
- Literature Support
- Best Processes/Systems of Care
- Additional Resources

How does this tool relate to others? The Best Practices and Suggestions for Improvement Tools are used to prepare the Gap Analysis (Tool D.5) and the Implementation Plan (Tool D.6).

Instruction Steps

1. See instructions for Gap Analysis (Tool D.5).

2. Use the appropriate Selected Best Practices and Suggestions for Improvement Tool to populate the Gap Analysis (Tool D.5).

Selected Best Practices and Suggestions for Improvement

Patient Safety Indicator Specifications

PSI 8: Postoperative Hip Fracture

Numerator: Discharges with International Classification of Diseases (ICD)-9 code for hip fracture in any secondary diagnosis field among cases meeting the inclusion and exclusion rules for the denominator.

Denominator: All surgical discharges age 18 and older defined by specific diagnosis-related groups (DRGs) or Medicare Severity (MS)-DRGs and an ICD-9-CM code for an operating room procedure.

Exclude cases:

- With principal diagnosis of hip fracture or secondary diagnosis present on admission.
- Where the only operating room procedure is hip fracture repair.
- Where a procedure for hip fracture repair occurs before *or on the same day* as the first operating room procedure. *Note: If day of procedure is not available in the input data file, the rate may be slightly lower than if the information were available.*
- With diseases and disorders of the musculoskeletal system and connective tissue (major diagnostic category [MDC] 8).
- With principal diagnosis (or secondary diagnosis present on admission, if known) of seizure, syncope, stroke, coma, cardiac arrest, poisoning, trauma, delirium and other psychoses, or anoxic brain injury.
- With any diagnosis of metastatic cancer, lymphoid malignancy or bone malignancy, or self-inflicted injury.
- With MDC14 (Pregnancy, Childbirth, and Puerperium).
- With missing gender (SEX=missing), age (AGE=missing), quarter (DQTR=missing), year (YEAR=missing), or principal diagnosis (DX1=missing).

Reference: AHRQ Patient Safety Indicators Technical Specifications, Version 4.3, August 2011.

Recommended Practice	Details of Recommended Practice
Identification of Patients at Risk for Falls	Multiple factors can place a patient at risk for falling postoperatively. Clinical and environmental factors should both be accounted for.[2,3]
Postoperative Medication Management	Polypharmacy has been shown to increase a patient's risk for falls and postoperative hip fracture.[4–15] In addition, use of certain medications may reduce a patient's risk for postoperative hip fracture after falling postoperatively.[11–15]

Standard Fall Prevention Protocol	Use a standardized fall prevention protocol to help reduce falls and associated injury. The falls prevention protocol should detail what interventions to put into place and for whom. [2,3]

Literature Support

Identification of Patients at Risk for Falls

"Recognition of fall risk factors will help design postoperative fall prevention programs by identifying patients at highest risk for postoperative falls."

Church S, Robinson T, Angles E, et al. Postoperative falls in the acute hospital setting: characteristics, risk factors, and outcomes in males. Am JSurg 2011;201:197–202.

Postoperative Medication Management

"This case-control study provides evidence that hip fracture risk in older people increases with the number of medications used, especially in women."

Shih-Wei L, Kuan-Fu L, Chien-Chang L, et al. Polypharmacy correlates with increased risk for hip fracture in the elderly: a population based study. Medicine 2010;89(5):295–9.

Standard Falls Prevention Protocol

"Eliminate all falls with injury through a falls prevention protocol in the acute care setting."

Prevention of falls (acute care). Health care protocol. Bloomington, MN: Institute for Clinical Systems Improvement (ICSI); April 2010.

Best Processes/Systems of Care:

Introduction: Essential First Steps

- Engage key personnel, including nurses, nursing assistants, physicians, technicians, physical therapists, occupational therapists, pharmacists, and representatives from the quality improvement department, to develop evidence-based protocols for care of the patient postoperatively who is at risk of hip fracture related to fall.
- The above team:
  - Identifies the purpose, goals, and scope and defines the target population for this guideline.
  - Analyzes problems with guideline compliance, identifies opportunities for improvement, and communicates best practices to frontline teams.
  - Establishes measures to indicate if changes are leading to improvement; identifies process and outcome metrics, and tracks performance using these metrics.

- Determines appropriate facility resources for effective and permanent adoption of practices.

Recommended Practice: Identification of Patients at Risk for Falls

- Develop a systematic and standardized approach for team members to acquire detailed history and physicals and assessments covering the following risk factors[2,3]:
  - Older age
  - Polypharmacy
  - Functional dependence
    - Gait instability
    - Lower limb weakness
  - Urinary frequency and incontinence
  - Low albumin level (if known)
  - Severe anemia
  - Comorbidities as defined by the American Society of Anesthesia (ASA) score, which defines an individual's preoperative health, of 3 or greater
  - Emergency surgery
  - History of previous falls
  - Agitation
  - Confusion
  - Iatrogenic delirium
  - Environmental hazards

Recommended Practice: Postoperative Medication Management

- Develop a systematic and standardized approach for team members to acquire a detailed medication reconciliation upon admission:
  - Polypharmacy of greater than four or five medications per day can double a patient's risk for falling.[4–8,10]
  - Polypharmacy of two to four medications in certain populations (e.g., elderly) may constitute polypharmacy and thus increase a patient's risk.[9,10]

- Develop a systematic and standardized approach for team members to evaluate a patient's medication regimen postoperatively:
    - Limit use of narcotics and sedatives together.

Recommended Practice: Standard Fall Prevention Protocol

- Develop a systematic and standardized practice for postoperative fall prevention that includes assessing and addressing the aforementioned risks[2,3]:
    - Implement standardized fall prevention approach[2, 3, 17]:
        - Familiarize the patient with the environment.
        - Have the patient demonstrate call light use and keep the call light within reach.
        - Keep patient personal possessions within the patient's reach.
        - Have sturdy handrails in patient bathrooms, room and hallway.
        - Place the hospital bed in a low position and keep the brakes locked.
        - Keep non-slip, well-fitting footwear on patient.
        - Utilize a night light or supplemental lighting.
        - Keep floor surfaces clean and dry. Clean up all spills promptly.
        - Keep patient care areas uncluttered.
        - Communicate patient fall risk to all caregivers.
        - Offer assistance to bathroom/commode or use bedpan hourly while awake.

Educational Recommendation

- Plan and provide education on protocols to physicians, nursing staff, therapists, pharmacists, and all other staff involved in postoperative care. Education should occur upon hire, annually, and when protocols are added to job responsibilities.

Effectiveness of Action Items

- Track compliance with elements of established practices by using checklists, appropriate documentation, etc..
- Evaluate effectiveness of new processes, determine gaps, modify processes as needed, and reimplement practices.
- Mandate that all personnel follow the safety practices related to preventing postoperative hip fracture as it relates to falling and develop a plan of action for staff in noncompliance.
- Provide feedback to all stakeholders (physician, pharmacy, nursing, and ancillary staff; senior medical staff; and executive leadership) on level of compliance with process.
- Conduct surveillance and determine prevalence of postoperative hip fracture, as it relates to falls, to evaluate outcomes of new process.
- Monitor and evaluate performance regularly to sustain improvements achieved.

Additional Resources

√ *Systems/Processes*

- The Falls Management Program: A Quality Improvement Initiative for Nursing Facilities, AHRQ

√ *Policies/Protocols*

- Vermont State Hospital Policy: Fall Prevention
- NCPS Falls Toolkit: Falls Policy (National Center Patient Safety, Department of Veterans Affairs)
- Inpatient Fall Prevention/Reduction (St. Joseph's Medical Center Brainerd, MN Protocol)

√ *Tools*

- Fall TIPS (Tailoring Interventions for Patient Safety), Partners Healthcare System
- Step Up to Stop Falls Toolkit™, Community Health Foundation of Western & Central New York
- National Center for Patient Safety 2004 Falls Toolkit
- Injurious Fall Data Collection Tool, Institute for Healthcare Improvement (IHI)
- Transforming Care at the Bedside How-to Guide: Reducing Patient Injuries from Falls, IHI

√ *Staff Required*

- Physicians
- Nurses
- Nursing assistants
- Physical therapists
- Occupational therapists
- Dietitian
- Social workers

√ *Equipment*

- Walkers
- Wheelchairs

- Bed monitors
- Commodes

√ *Communication*

- Systemwide education on policy/protocol of prevention of patient falls

√ *Authority/Accountability*

- Senior nursing leadership, nursing unit managers, physical therapy and occupational therapy managers

Supporting Literature

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15. Margolis KL, Ensrud KE, Schreiner PJ, et al. Body size and risk for clinical fractures in older women. Study of Osteoporotic Fractures Research Group. Ann Intern Med 2000;133:123–7.

16. Parker M, Anand JK, Myles JW, et al. Proximal femoral fractures: prevalence in different racial groups. Eur J Epidemiol 1992;8:730–2.

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