AHC Media

November 16, 2016

Falls Prevention 2016

CMS, DNV, TJC Hospital CoPs & Standards

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Objectives

- Describe what constitutes a fall, including how to measure the fall rate.
- Explain the intrinsic and extrinsic causes of falls.
- List evidence-based fall assessment tools used in inpatient and outpatient settings.
- Explain new and revised standards, regulations, and laws put forth by CMS, TJC and the federal government.
- Evaluate compliance requirements and penalties.

CDC: Falls Doubled Since 2000 for Seniors

Falls 1 of 34 Safe Practices by NQF

- Falls is one of the 34 Safe Practices for Better Healthcare by NQF (Updated April 2010 and March 2011)
- Safe Practice 33 is on Falls Prevention
  - Hospitals and other healthcare facilities should take action to prevent patient falls and reduce fall-related injuries by implement evidenced based interventions
- Safe Practice 4 includes falls as one of the identification and mitigation of risks in healthcare
  - Need to monitor the effectiveness of the falls programs including reduction strategies, environmental redesign, and patient/family education

34 Safe Practice Number 33 on Falls

- Have a fall reduction program
- Program must do an appropriate evaluation of the patient
- Must include interventions based on risk
- Staff must be educated on fall reduction program
- Patient and family is educated on program
- Evaluate the effectiveness of the falls program
- Remember you need organizational support for a fall prevention program!
- Source: National Quality Forum, 34 Safe Practices for Better Healthcare 2011 and revision March 2012

NQF 29 Never Events

- The National Quality Forum (NQF) initial list of serious events that should be publicly reported was published in 2002 which was updated in 2006
- Updated in 2011
- Called Serious Reportable Events in Healthcare or never events
- It identified 29 adverse events that were considered to be largely preventable
- This document would include death or disability associated with a fall while being cared for by the facility

CMS Hospital Acquired Conditions (HACs)

- CMS has HACs in which there will be no additional payment for Medicare payments
- This includes hospital acquired injuries, fractures, dislocations, crushing injury, burn, and **patient falls**
  - Falls is the number one HAC
- Data when this was introduced showed 2,591 cases at an average cost of $24,962 for fiscal year 2006 when it first started
- There is a business case for falls (AHRQ, 2013)

Cost of Falls

- Another study found the cost for fallers with serious injury was $13,316.00 more than non-fallers
  - Wong CA, Recktenwald AJ, Jones ML, et al. The cost of serious fall-related injuries at three Midwestern hospitals. Jt Comm J Qual Patient Saf 2011;37(2):81-7.
- One study found 31-51% of falls in hospitals resulted in some injury
  - Oliver D, Healey F, Haines TP. Preventing falls and fall-related injuries in hospitals. Clin Geriatr Med 2010;26(4):645-92
- Fall related injuries account for up to 15% of rehospitalizations in the first month after discharge
  - Fall and Injury Prevention, Leanne Currie 2008, AHRQ Patient Safety Handbook for Nurses

Conditions for Which Medicare Will No Longer Pay More If Acquired during an Inpatient Stay.

Condition	No. of Medicare Cases in Fiscal Year 2006	Average Medicare Payment for Admissions in Which Condition Was Present
Object left in patient during surgery	764	$61,962
Air embolism	45	$66,007
Blood incompatibility	33	$46,492
Catheter-associated urinary tract infection	11,780	$40,347
Pressure ulcer	322,946	$40,381
Vascular-catheter–associated infection†	Unknown	Unknown $64,894*
Mediastinitis after coronary-artery bypass grafting	108	$304,747
Fall from bed	2,591	$24,962

Data are from the *Federal Register*.[8]
Data are unknown because a unique code for this condition was introduced for fiscal year 2008.

Rosenthal MB., *NEJM*. 2007;357(16):1573-75
insert: Shannon RP., *AJMQ*. 2006:21(6):7S-16S – Dollar value is excess costs

Healthcare Associated Falls

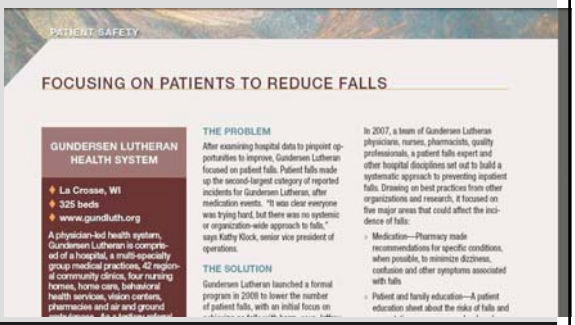
- 2-20% of patients will have a fall in the hospital
- Higher rates of falls on rehab, geriatric and neurosurgery units
- Fall related injuries account for 6% of all medical expenditures for patients 65 or older
- 23-40% will have an injury an 1.5-8% will be a major injury
- Associated with increased charges of $4,233
  - Falls and trauma in hospital is hospital acquired condition with no additional payment

- Schwendimann R, et al. Falls and Consequent Injuries in Hospitalized Patients. BMC Health Ser Research 2006;6:69
- Bates DW. Serious Falls in Hospitalized Patients: Correlates and Resource Utilization. Am J Med 1995;99:137-143

Overview

- Between 700,000 and 1 million people in the US fall every year
- About one-third of them can be prevented
- CMS has not reimbursed hospitals since 2008 for certain type of traumatic injuries that occur and many result from falls
- Fall prevention involves managing patient's under lying fall risks so look at issues specific to that patient
  - Problems with walking and transfer, medication side effects, confusion, toileting needs, etc.
  - Ganz DA, Huang C, Saliba D, et al. Preventing falls in hospitals: a toolkit for improving quality of care. January 2013. AHRQ Publication No. 13-0015-EF.

One Hospital's Approach AHA



PATIENT SAFETY

FOCUSING ON PATIENTS TO REDUCE FALLS

GUNDERSEN LUTHERAN HEALTH SYSTEM

- La Crosse, WI
- 325 beds
- www.gundluth.org

A physician-led health system, Gundersen Lutheran is comprised of a hospital, a multi-specialty group medical practices, 42 regional community clinics, four nursing homes, home care, behavioral health services, vision centers, pharmacies and air and ground

THE PROBLEM

After examining hospital data to pinpoint opportunities to improve, Gundersen Lutheran focused on patient falls. Patient falls made up the second-largest category of reported incidents for Gundersen Lutheran, after medication events. "It was clear everyone was trying hard, but there was no systemic or organization-wide approach to falls," says Kathy Klock, senior vice president of operations.

THE SOLUTION

Gundersen Lutheran launched a formal program in 2008 to lower the number of patient falls, with an initial focus on

In 2007, a team of Gundersen Lutheran physicians, nurses, pharmacists, quality professionals, a patient falls expert and other hospital disciplines set out to build a systematic approach to preventing inpatient falls. Drawing on best practices from other organizations and research, it focused on five major areas that could affect the incidence of falls:

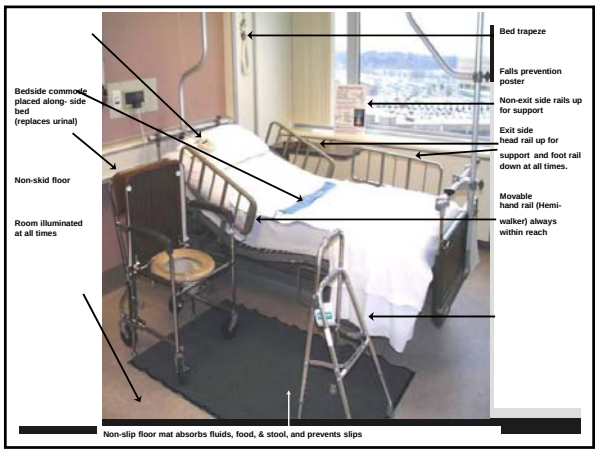
- Medication—Pharmacy made recommendations for specific conditions, when possible, to minimize dizziness, confusion and other symptoms associated with falls
- Patient and family education—A patient education sheet about the risks of falls and

What 5 Things Did They Do?

- Medication-Pharmacy made recommendations for specific conditions, when possible, to minimize dizziness, confusion and other symptoms associated with falls
- Patient and family education-A patient education sheet about the risks of falls and preventative measures was developed
  - A registered nurse reviews the sheet with patients and families on admission and reinforces the information each shift

5 Things to Prevent Falls

- Safe room setup-Includes an environment that is free of obstacles and clutter and a patient's call light and personal items are within reach.
- Safety signage-Caution posters that encourage patients to call for help are displayed in all patient rooms and bathrooms.
- Rounding-Created a log that nursing staff fills out each hour with time and initials that confirms staff checks for pain, bathroom needs and positioning.



More Nurses and Alarms To Reduce Falls

- Study in Journal of Patient Safety discusses hospitals in Washington State must report falls to department of health
  - 11 states must report
- Some hospitals have installed alarms to monitor patients prone to sleepwalking
- But need enough nurses and staff to respond when alarm goes off
  - Hospital reduced falls by 66% by having enough nurses
- Patients given Ambien are four times more likely to fall

More Nurse and Alarms To Reduce Falls

Is There Conclusive Evidence?

- One study found that there is no conclusive evidence that hospital fall prevention programs can reduce the number of falls or fallers
- Stated more studies are needed to evaluate the trend toward actively targeting the patient's most important risk factors
- So let's focus on both and newer studies gives us some hope where a program reduced falls
  - Coussement J. Interventions for Preventing Falls in Acute and Chronic-Care Hospitals: A Systematic Review and Meta-Analysis. JAGS 2008;56:29-36
  - Dykes PC, et al. Fall Prevention in Acute Care Hospitals: A Randomized Controlled Trial. JAMA 2010: 304: 1912-1918
  - Cameron ID. Interventions for Preventing Falls in Older People in Nursing Care Facilities and Hospitals. Cochrane Databse Syst Rev 2010;20(1):CD005465

New Studies

- New studies are being published and hospitals should do periodic literature searches on falls
- Falls committee can ask librarian to send the committee any articles on fall
- For example, Mayo Clinic study found that the popular sleeping pill Zolpidem (**Ambien,** Intermezzo, Stilnox, Sublinox) for sleep is correlated with an increase risk of falls (quadruples fall risk)
  - Approximately 3% of all patients on this drug fell compared with 0.7% who did not take this drug
- Source Journal of Hospital Medicine
- Women can have chemotherapy induced peripheral neuropathy which is associated with the risk of falls
  - American Society of Clinical Oncology, news release, Jan. 11, 2016

New Studies

- Create a no pass zone
  - Any who see the call light on responds whether it is their patient or not
- Create a personalized recorded message for the call alarm
  - Helps some confused patients in an unfamiliar setting by hearing their name, the language they speak and something personal about the patient
- Put a patient board in every patient room
  - Identify if patient uses a cane, bed alarm, walker, or some other activity such as toileting and no patient walks alone

Infections Lead to Falls

- Research shows that infections can be an underlying cause of patient falls
- The Massachusetts General Hospital study found that bloodstream, urinary, and respiratory infections are the most common causes for infection-related falls
- Infections can cause patients to experience dizziness or lightheadedness, which can lead to falls and leads to patients coming to the ED
  - Not just the elderly: 20% of patients in the study were younger than 65.

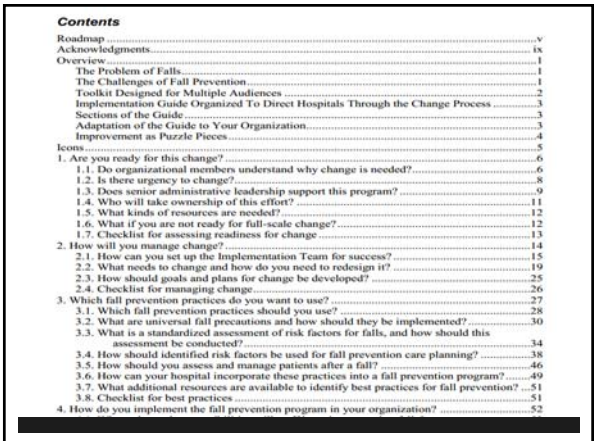
AHRQ Toolkit

- AHRQ toolkit is an excellent resource available at no cost
- It is called “Preventing Falls in Hospitals; A Toolkit for Improving Quality of Care”
- It is a roadmap for preventing of falls in hospitals
- It has many excellent evidence based tools
- States a number of practices have been shown to reduce the occurrence of falls but these practices are not systematically used in all hospitals
  - www.ahrq.gov/legacy/research/ltc/fallpxtoolkit/index.htm

AHRQ Preventing Falls in Hospitals

www.ahrq.gov/legacy/research/ltc/fallpxtoolkit/index.html

AHRQ Preventing Falls Toolkit 2013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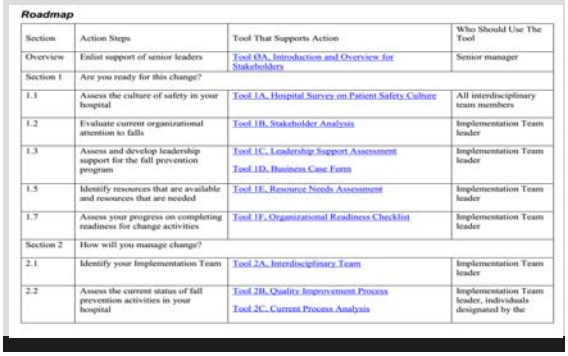
A Roadmap to Follow!


Roadmap

Section	Action Steps	Tool That Supports Action	Who Should Use The Tool
Overview	Enlist support of senior leaders	Tool 0A, Introduction and Overview for Stakeholders	Senior manager
Section 1	Are you ready for this change?		
1.1	Assess the culture of safety in your hospital	Tool 1A, Hospital Survey on Patient Safety Culture	All interdisciplinary team members
1.2	Evaluate current organizational attention to falls	Tool 1B, Stakeholder Analysis	Implementation Team leader
1.3	Assess and develop leadership support for the fall prevention program	Tool 1C, Leadership Support Assessment Tool 1D, Business Case Form	Implementation Team leader
1.5	Identify resources that are available and resources that are needed	Tool 1E, Resource Needs Assessment	Implementation Team leader
1.7	Assess your progress on completing readiness for change activities	Tool 1F, Organizational Readiness Checklist	Implementation Team leader
Section 2	How will you manage change?		
2.1	Identify your Implementation Team	Tool 2A, Interdisciplinary Team	Implementation Team leader
2.2	Assess the current status of fall prevention activities in your hospital	Tool 2B, Quality Improvement Process Tool 2C, Current Process Analysis	Implementation Team leader, individuals designated by the

AHRQ Toolkit

- Geared at negotiating a change process at your hospital
- Stresses it is an interdisciplinary process
- Has a implementation guide which is organized into six major questions
- Focused on putting preventive strategies into practice
- Have a standing committee to oversee fall program
  - Hempel S, Newberry S, Wang Z, et al. Review of the evidence on falls prevention in hospitals. RAND Working Paper. (Prepared for the AHRQ, Publication No. WR-907-AHRQ. Santa Monica, CA: RAND; 2013) www.rand.org/pubs/working_papers/WR907.html

AHRQ Falls Plan of Care

Care Plan

GOAL: To reduce likelihood of falls while maintaining dignity and independence	State action taken below (sample provided):
Call. Ensure call bell explained and in reach. Consider alternatives for patients unable to recall use of call bell, e.g., use brass bell, move bed in sight of nurses' station.	Call bell in reach but may forget, will probably call her daughter's name instead; moved within earshot of nurses' station.
Eyesight. Ensure eyesight is checked and patient is wearing glasses if needed. Can the patient identify pen/key from bed length away? If eyesight is too poor to identify objects, ask the treating medical provider to review. Ensure glasses/hearing aid are worn or within reach.	Glasses broken in fall at home; family has ordered replacement and hopes to provide it tomorrow. Has fair distance vision without them. Have suggested that the family order a spare pair too.
Bed and bedrails. Assess the need for bedrails (refer to policy). If patient is likely to fall from bed, ensure bed is at the lowest possible height unless this would reduce mobility or independence. Consider use of special low bed.	Bedrails not appropriate as this patient can mobilize on her own, even though unsteady, and might be confused enough to climb over. Bed set at right height for safe move from sitting to standing.
Medication. Check for medication associated with fall risk, such as antidepressants, sleeping tablets, sedatives, and antipsychotics. Ask the pharmacist to review and make recommendations to treating medical provider (do not stop abruptly).	On temazepam 15 mg qhs for some years; will discuss with pharmacist.
Mobility. Determine the patient's level of mobility and whether actions should be taken to improve or maintain mobility.	Participating in supervised mobility protocol with nursing assistant. Currently able to ambulate 50 feet with front wheeled walker daily.
Interdisciplinary team. Ensure medical staff, physical therapist, occupational therapist, social worker, and others on the team are aware of the patient's risk, frequency, nature, and seriousness of falls (local protocol or pathway would cover expected actions by team members, e.g., cognitive evaluation, osteoporosis check, mobility aid review).	Treating physician aware of patient's fall risk. Physical and occupational therapy referral sent on 11/14/11. Fall risk noted on discharge plan.
Footwear. Check footwear for secure fit	Patient does not have footwear. Provided with

Detailed Action Plan

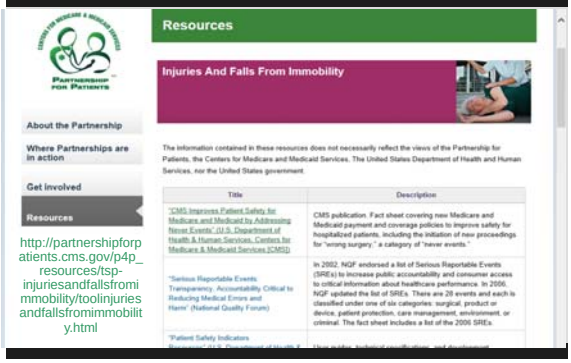
Improvement Objective: Implement standard fall prevention practices within 6 months.

Key Interventions/Tasks	Steps To Complete Task and Tools To Use	Team Members Responsible for Task Completion	Target Date for Task Completion
	Examples	Examples	Examples
Analyze current state of fall prevention practices in this organization.	Identify strengths and weaknesses using process mapping and gap analysis. Tool 2C and Tool 2D.	Team leader, RNs	Within 6 weeks from initiative start
	Assess the current state of staff knowledge about fall prevention. Tool 2E.	Education department	Within 6 weeks from initiative start
	Set target goals for improvement.	QI department	Within 8 weeks from initiative start
Identify the set of prevention practices to be used in redesigned system.	Determine how comprehensive universal fall precautions should be performed.	Implementation Team	Within 12 weeks from initiative start
	Decide which scale or questions will be used for performing fall risk factor assessment.	Implementation Team	Within 12 weeks from initiative start
	Decide which fall prevention activities should be in your program.	Clinical staff members	Within 12 weeks from initiative start
Assign roles and responsibilities for implementing the redesigned fall prevention practices.	Determine who will complete the fall risk factor assessment on admission. Tool 4A.	Implementation Team	Within 16 weeks from initiative start
	Identify unit champions.	Team leader	Within 16 weeks from initiative start
	Determine how prevention work will be organized at the unit level, such as paths of communication and lines of oversight.	QI team	Within 16 weeks from initiative start
Put the redesigned set into practice.	Engage staff and get them excited about the changes needed.	Team leader, unit staff	Within 12 weeks from initiative start

HENS Poster How Many Days Since Last Fall

www.hret-hen.org/index.php?option=com_content&view=article&id=5&Itemid=130

Falls Resources Partnership for Patients HHS

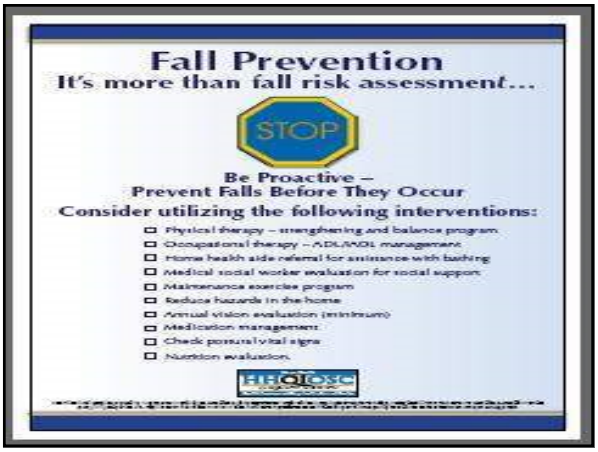


http://partnershipforpatients.cms.gov/p4p_resources/tsp-injuriesandfallsfromimmobility/toolinjuriesandfallsfromimmobility.html

"Patient Safety Indicators Resources" (U.S. Department of Health & Human Services, Agency for Healthcare Research and Quality [AHRQ])	User guides, technical specifications, and development materials (such as brochure, link to software, etc.).
"Inpatient Quality Indicators Resources" (AHRQ)	User guide, technical specifications, and development materials (such as brochure, link to software, etc.).
"Fall and Injury Prevention," Patient Safety and Quality: An Evidence-Based Handbook for Nurses, Chapter 10 (AHRQ) [PDF, 612KB]	Evidence-based handbook for nurses.
The Falls Management Program: A Quality Improvement Initiative for Nursing Facilities (AHRQ)	Manual designed to assist in providing individualized person-centered care and improving fall care processes and outcomes through education and quality improvement tools.
"Fall Prevention and Management" (U.S. Department of Veterans Affairs, National Center for Patient Safety [NCPS])	Online assessment and guide to a multi-disciplinary approach to falls prevention and management using a systematic assessment for determining risk and recommended interventions.
"2004 Falls Toolkit" (NCPS)	Toolkit accompanied by introductory monograph and PowerPoint slide deck.
"Fatal Falls: Lessons for the Future," Sentinel Event Alert, Issue 14 (The Joint Commission)	Topic Library Item: Health care organizations that have experienced sentinel events due to falls have identified the root causes and risk reduction strategies included in this issue. In addition, experts have commented on the events and the related root causes and risk reduction strategies. The Joint Commission offers this information for consideration by hospitals, long-term care facilities, and behavioral health care organizations in their continuing efforts to reduce the risk of falls of their patients, residents, or individuals served.
"Fall Prevention in Hospitals" (Premier Inc.)	Comprehensive falls prevention resource page. Includes definitions & measures, causes of falls, interventions & prevention, risk assessment, prevention program, sample procedures, tools, education & training materials, and resources.
"Falls Prevention" (Institute for Healthcare	Listing of Mentor Hospitals for falls prevention. Includes a quick reference table to find a mentor with similar demographics to the

Fall Risk Assessment Pa PSA

http://patientsafetyauthority.org/ADVISORIES/AdvisoryLibrary/2012/Sep;9(3)/Pages/73.aspx



Call Before You Fall Posters

Falls and Mobility

- The goal should focus on prevention and severity of injury from falls and increased immobility
- We need to get patients up and moving
- Immobility causes increased LOS, delirium, pressure ulcers, functional loss, and readmissions
  - Foley catheters increase fall risk
- Study showed 30% of elderly patients had an initial order of bedrest
- Another study showed median amount of time standing or walking is 43 minutes

Falls and Mobility

- Translation means that up ad lib means 97% of the time patients are immobile or 23 hours 17 minutes
- Immobility or deconditioning may explain why so many patients fall when toileting
- Immobility creates an increased risk when patients do need to mobilize
  - Brown CJ et al. The Under recognized Epidemic of Low Mobility During Hospitalization. JAGS 2009;57:1160-1665
  - Early Ambulation and Length of Stay in Older Adults Hospitalized for Acute Illness. Arch Int Med 2010;170:1942-1943

TJC Standard

- Falls was as a Joint Commission **National Patient Safety Goal** in 2009 but moved to standard in 2010 under PC.01.02.08
- PC.01.02.08 The hospital assesses and manages the patient's risks for falls
- EP1 Hospital must assess the patient's risk for falls based on the patient population and setting (elderly, behavioral health, pediatric patients)
- EP2 Hospital implements interventions to reduce falls based on the patient's assessed risk

TJC Standard

- PI.01.01.01 The hospital collects data to monitor its performance
- EP 38 The hospital evaluates the effectiveness of all fall reduction activities including assessment, interventions, and education. (Deleted 7-1-2016)
  - Note: Examples of outcome indicators to use in the evaluation include number of falls and number and severity of fall-related injuries.
- However, August 1, 2016 surveyor will ask to see your falls policy and in the document review session

Joint Commission Fall Standard

- Generally a fall assessment is done as part of the initial nursing assessment
- Based on the assessment a plan of care is developed
- The patient interventions are based on what their score is on the fall tool
- Most have two or three types of interventions depending on the risk
- Joint Commission abbreviated TJC since no longer called JCAHO

Intervention Strategies

	Level of Risk			Area of Risk					
Intervention	High	Med	Low	Frequent Falls	Altered Elimination	Muscle Weakness	Mobility Problems	Multiple Medications	Depression
Low beds	X	X	X	X	X	X	X	X	X
Non-slip grip footwear	X	X	X	X	X	X	X	X	X
Assign patient to bed that allows patient to exit toward stronger side	X	X	X	X	X	X	X	X	X
Lock movable transfer equipment prior to transfer	X	X	X	X	X	X	X	X	X
Individualize equipment to patient needs	X	X	X	X	X	X	X	X	X

Why Look at Falls? TJC Data on Falls

- Falls rate high on the list of sentinel events tracked by The Joint Commission (TJC)
- 2cd leading cause of sentinel events now
- July 5, 2016 data of 12,561 SE shows 833 falls which is about 6% of all sentinel events reported
  - 95 in 2015 and 52 so far in 2016
- TJC issues “Reduce your risk of falling” as one of their Speak UP brochures and video
- Sept 2015 issues sentinel event alert on preventing falls and fall related injuries

TJC Sentinel Event Alert on Falls

Sentinel Event Alert

www.jointcommission.org/assets/1/6/SEA_55_Falls_4_26_16.pdf

A complimentary publication of The Joint Commission
Issue 55, September 28, 2015

Preventing falls and fall-related injuries in health care facilities

Published for Joint Commission accredited organizations and interested health care professionals, *Sentinel Event Alert* identifies specific types of sentinel and adverse events and high risk conditions, describes their common underlying causes, and recommends steps to reduce risk and prevent future occurrences.

Accredited organizations should consider information in a *Sentinel Event Alert* when designing or redesigning processes and consider implementing relevant suggestions contained in the alert or reasonable alternatives.

Please route this issue to

Falls resulting in injury are a prevalent patient safety problem. Elderly and frail patients with fall risk factors are not the only ones who are vulnerable to falling in health care facilities. Any patient of any age or physical ability can be at risk for a fall due to physiological changes due to a medical condition, medications, surgery, procedures, or diagnostic testing that can leave them weakened or confused. Here are some statistics about falls in health care facilities:

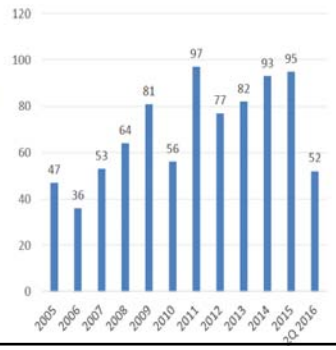
- Every year in the United States, hundreds of thousands of patients fall in hospitals, with 30-50 percent resulting in injury.[1-8]
- Injured patients require additional treatment and sometimes prolonged hospital stays. In one study, a fall with injury added 6.3 days to the hospital stay.[7]
- The average cost for a fall with injury is about $14,000.[8,9]

Falls with serious injury are consistently among the Top 10 sentinel events reported to The Joint Commission's Sentinel Event database*, which has 465 reports of falls with injuries since 2009, with the majority of these falls occurring in hospitals. Approximately 63 percent of these falls resulted in death, while the remaining patients sustained injuries. In addition, ECRI Institute reports a significant number of falls occurring in non-hospital settings such as long-term care facilities.[10]

Analysis of falls with injury in the Sentinel Event database reveals the most common contributing factors pertain to:

Patient Fall

Patient falls resulting in injury are a common occurrence in healthcare and are consistently among the most frequently reviewed Sentinel Events by The Joint Commission.



TJC Root Causes of Falls

Root Cause Information for Fall-related Events Reviewed by The Joint Commission

(Resulting in death or permanent loss of function)

2004 through 2015 (N=806) *The majority of events have multiple root causes*	
Assessment	863
Communication	672
Human Factors	639
Leadership	601
Physical Environment	335
Care Planning	167
Information Management	92
Continuum of Care	66
Patient Education	56
Medication Use	46

TJC 2016 With Targeted Solutions

TJC Transforming Care

- Announced results of 7 hospitals study in 2014 and released on-line targeted solutions tool (TST) for preventing falls August 2015
- Reduced falls by 35% and injuries by 62%
- Average fall patient has increased LOS of 6.3 days and costs $14,056.
- Results of study would save 400 bed hospital 1.9 million a year and reduced injured fall patients by 133 and expected savings 1.9 million in costs
- Created 21 targeted solutions
  - www.centerfortransforminghealthcare.org/tst_pfi.aspx

TJC Preventing Falls

- AHA Hospitals in Pursuit of Excellence and TJC released a guide to prevent falls
- 20 page document and describes factors and solutions to prevent falls
- Based on 30 RCAs and the 21 targeted solutions
- Hospitals reduced falls by 35% and falls with injury by 62%
- Helps to analyze the contributing factors that result in falls

TJC Preventing Falls 20 Pages

www.hpoe.org/Reports-HPOE/2016/preventing-patient-falls.pdf

hospitals in pursuit of excellence

400-bed hospital could expect 134 fewer injuries and $1.9 million in costs avoided

Preventing Patient Falls:
A Systematic Approach from the Joint Commission Center for Transforming Healthcare Project

October 2016

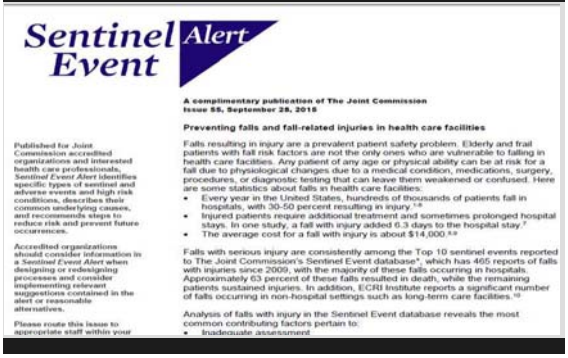
Top Contributing Factors to Falls

- Fall risk assessment issues such as tool not a valid predictor or inconsistent ratings
- Handoff communication issues and use ticket to ride or incorporate alerts to which patients are at risk
- Toileting issues as patients did not seek help and medications that increase risk of falling
- Call light issues
- Education and organizational culture issues and
- Medication issues as 1 or more that increase risk

TJC Sentinel Event 55

- TJC issues SEA 55 on preventing falls September 28, 2015 and is five pages long
- Discusses average cost for a fall is $14,000
- States hundreds of thousands of patients fall every year in the hospital and 30-50% are injured
- Remains one of the top 10 sentinel events reported
- Due to inadequate assessment, communication failures, inadequate staff orientation, environmental deficiencies (toilet height, slip hazards) and lack of leadership

TJC Sentinel Event 55



Sentinel Event Alert

A complimentary publication of The Joint Commission
Issue 55, September 28, 2015

Preventing falls and fall-related injuries in health care facilities

Published for Joint Commission accredited organizations and interested health care professionals, *Sentinel Event Alert* identifies specific types of sentinel and adverse events and high risk conditions, describes their common underlying causes, and recommends steps to reduce risk and prevent future occurrences.

Accredited organizations should consider information in a *Sentinel Event Alert* when designing or redesigning processes and consider implementing relevant suggestions contained in the alert or reasonable alternatives.

Please route this issue to appropriate staff within your

Falls resulting in injury are a prevalent patient safety problem. Elderly and frail patients with fall risk factors are not the only ones who are vulnerable to falling in health care facilities. Any patient of any age or physical ability can be at risk for a fall due to physiological changes due to a medical condition, medications, surgery, procedures, or diagnostic testing that can leave them weakened or confused. Here are some statistics about falls in health care facilities:

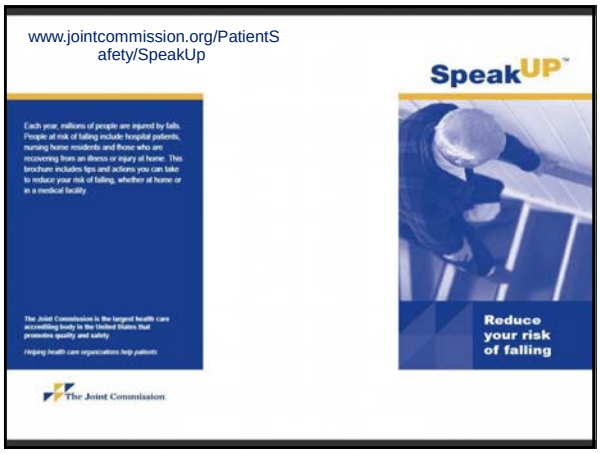
- Every year in the United States, hundreds of thousands of patients fall in hospitals, with 30-50 percent resulting in injury.[1-6]
- Injured patients require additional treatment and sometimes prolonged hospital stays. In one study, a fall with injury added 6.3 days to the hospital stay.[7]
- The average cost for a fall with injury is about $14,000.[8,9]

Falls with serious injury are consistently among the Top 10 sentinel events reported to The Joint Commission's Sentinel Event database*, which has 465 reports of falls with injuries since 2009, with the majority of these falls occurring in hospitals. Approximately 63 percent of these falls resulted in death, while the remaining patients sustained injuries. In addition, ECRI Institute reports a significant number of falls occurring in non-hospital settings such as long-term care facilities.[10]

Analysis of falls with injury in the Sentinel Event database reveals the most common contributing factors pertain to:

- Inadequate assessment

www.jointcommission.org/PatientSafety/SpeakUp



TJC Video on Reduce Risk of Falling

www.jointcommission.org/multimedia/speak-up-reduce-your-risk-of-falling/

The Joint Commission Matrix for Falls RCA

- TJC requires a RCA be done for reviewable sentinel events which includes a patient fall that results in death or major permanent loss of function as a direct result
- These are the elements that must be included in the RCA
  - So RCA must include area marked such as physical assessment process, individual observation process, medication management, staffing level etc.
  - Matrix **removed** from July 2015 SE policy but still helpful
  - Available in SE policy (revised) at www.jointcommission.org/Sentinel_Event_Policy_and_Procedures/

Root Cause Analysis Matrix
Minimum Scope of Root Cause Analysis for Specific Types of Sentinel Events – October 2005

Note: Updates are highlighted in RED
Detailed inquiry into these areas is expected when conducting a root cause analysis for the specified type of sentinel event. Inquiry into areas not checked (or listed) should be conducted as appropriate to the specific event under review.

	Suicide (24/7 care)	Med. Error	Procedural Complication	Wrong site surgery	Treatment delay	Restraint death	Elopement death	Assault/ rape/ homicide	Transfusion death	Patient Abduction	Unanticipated death of full term infant	Unretrieved device/ retained foreign body	Fall- related
Behavioral assessment process (1)	X					X	X	X					
Physical assessment process (2)	X	X	X	X	X	X	X				X		X
Patient identification process		X		X					X				
Patient observation procedures	X				X	X	X	X	X		X		X
Care planning process	X		X			X	X				X		X
Continuum of care	X	X			X	X							X
Staffing levels	X	X	X	X	X	X	X	X	X	X		X	X
Orientation & training of staff	X	X	X	X	X	X	X	X	X	X	X	X	X
Competency assessment/ credentialing	X	X	X	X	X	X	X	X	X	X	X	X	X
Supervision of staff (3)	X	X	X		X	X			X			X	
Communication with patient/ family	X	X		X	X	X	X			X			X
Communication among staff members	X	X	X	X	X	X	X	X	X	X	X	X	X
Availability of information	X	X	X	X	X	X			X		X		X
Adequacy of technological support		X	X										
Equipment maintenance/ management		X	X		X	X					X		X
Physical environment (4)	X	X	X	X		X	X	X	X	X			X
Security systems and processes	X						X	X		X			
Medication Management (5)		X	X		X				X		X		X

Consider Doing a Falls FMEA www.ihi.org

Failure Modes and Effects Analysis (FMEA) Tool

> Outpatient falls risk assessment

Littleton Adventist Hospital
Littleton, Colorado, United States
Hospital-Community

Aim: To decrease outpatient falls by 50% in 12 months.

Process Data

Date: 03/30/2008

Step	Description
1	Outpatient enters facility

Step	Description
2	Outpatient check in at volunteer check-in

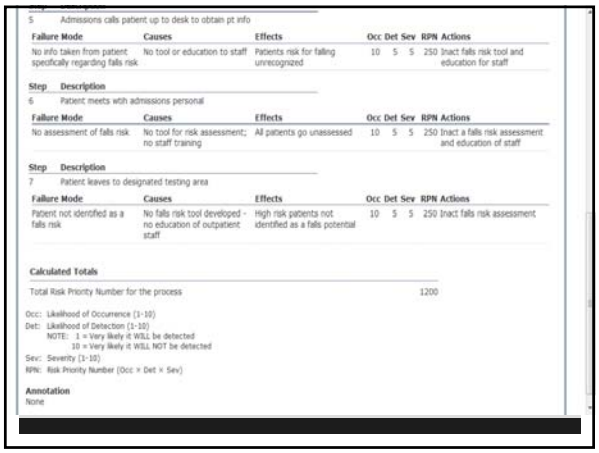
Failure Mode	Causes	Effects	Occ	Det	Sev	RPN	Actions
Volunteers can not determine if patients are at risk to fall	No assessment tool or education for volunteers	No fall risk assigned to outpatients	10	9	5	450	Inact education on fall risk

Step	Description
3	OP fills out registration form and volunteer signs the pt in for test/procedure

Step	Description
4	Patient sits in the waiting area and waits to be called by admissions

Step	Description
5	Admissions calls patient up to desk to obtain pt info

Failure Mode	Causes	Effects	Occ	Det	Sev	RPN	Actions
No info taken from patient	No tool or education to staff	Patients risk for fallsn	10	5	5	250	Inact falls risk tool and



5 Admissions calls patient up to desk to obtain pt info

Failure Mode	Causes	Effects	Occ	Det	Sev	RPN	Actions
No info taken from patient specifically regarding falls risk	No tool or education to staff	Patients risk for falling unrecognized	10	5	5	250	Inact falls risk tool and education for staff

Step Description

6 Patient meets with admissions personal

Failure Mode	Causes	Effects	Occ	Det	Sev	RPN	Actions
No assessment of falls risk	No tool for risk assessment; no staff training	All patients go unassessed	10	5	5	250	Inact a falls risk assessment and education of staff

Step Description

7 Patient leaves to designated testing area

Failure Mode	Causes	Effects	Occ	Det	Sev	RPN	Actions
Patient not identified as a falls risk	No falls risk tool developed - no education of outpatient staff	High risk patients not identified as a falls potential	10	5	5	250	Inact falls risk assessment

Calculated Totals

Total Risk Priority Number for the process 1200

Occ: Likelihood of Occurrence (1-10)
Det: Likelihood of Detection (1-10)
NOTE: 1 = Very likely it WILL be detected
10 = Very likely it WILL NOT be detected
Sev: Severity (1-10)
RPN: Risk Priority Number (Occ x Det x Sev)

Annotation
None

CMS CoP Requirements

- CMS requires hospitals in the hospital CoPs to have a safe environment/setting
- CMS has this as hot spot in their Guidelines for Immediate Jeopardy
- CMS requires the health and safety of patients at risk are identified, investigated and resolved
- Having falls and no investigation would be a violation of this CoP which could come up during complaint or validation survey

Source: http://www.cms.hhs.gov/manuals/downloads/som107_Appendicestoc.pdf

Medicare State Operations Manual

Appendix

Questions can be emailed to CMS at hospitalscg@cms.hhs.gov

- Each Appendix is a separate file that can be accessed directly from the SOM Appendices Table of Contents, as applicable.
- The appendices are in PDF format, which is the format generally used in the IOM to display files. Click on the red button in the 'Download' column to see any available file in PDF.
- To return to this page after opening a PDF file on your desktop, use the browser "back" button. This is because closing the file usually will also close most browsers

website www.cms.hhs.gov/manuals/downloads/som107_Appendixtoc.pdf

App. No.	Description	PDF File
A	Hospitals	2,185 KB
AA	Psychiatric Hospitals	606 KB
B	Home Health Agencies	761 KB

Why Look at Falls

- Falls program is the standard of care
- Substandard care could be the basis of a medical malpractice suit (average cost $70,000)
- Substandard care can be a compliance issue since billed for substandard care
  - Fraud and abuse issue with either CMS or the OIG
- In Autumn vs. CMS[1] LTC found guilty and had to pay monetary penalty of $3,050 per day from the date of discovery of deficiency, until date of resurvey

[1] Autumn Breeze Rehabilitation Center v. CMS, the Dept of HHS, No. CR1285, March 2005

Why Look at Falls CMS CoPs

- CMS states that use of restraints for prevention of falls should not be considered a routine use of a fall prevention program (Tag 154)
- CMS states use of restraints does not reduce fall rate
- CMS states falls that occur when a patient is restrained often result in more serious injuries
- Articles were older publications

CMS Hospital CoPs

- Patient should not be restrained because he might fall (Tag 154)
- When assessing risk for falls consider if medical condition or symptom that indicates a current need for protective intervention
- History of falling without current clinical basis is inadequate
- Determine if there are other interventions that can be used to prevent the patient from falling

Why Look at Falls? CDC

- Falls are the leading cause of injury, hospitalization, and death for seniors (one third of adults over 65 each year, accessed CDC March, 2016)
- 2.2 million treated in ED for injuries related to falls and CDC says 1.8 million (CDC[1])
- 581,000 seniors were hospitalized for fall injuries and 18,000 seniors died due to fall related injuries
- CDC issues two free publications[2]

1 http://www.cdc.gov/HomeandRecreationalSafety/Falls/adultfalls.html

2 http://www.cdc.gov/ncipc/preventingfalls/

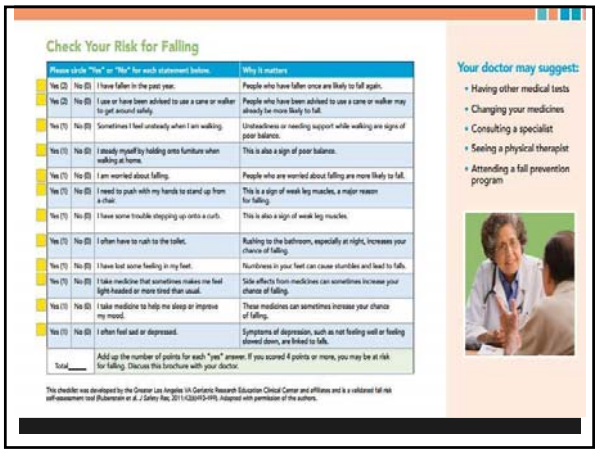
CDC Data on Falls Among Older Adults

www.cdc.gov/HomeandRecreationalSafety/Falls/index.html

CDC Resources

- Has a fall prevention pocket guide for physicians
- Fall risk perception and risk assessment project
  - Go to Stopfalls.org
  - Bibliography database updated
  - Focus is to help the community reduce falls in their homes
- Information that a community Tai Chi fall prevention program can help

Falls Brochures for Patients



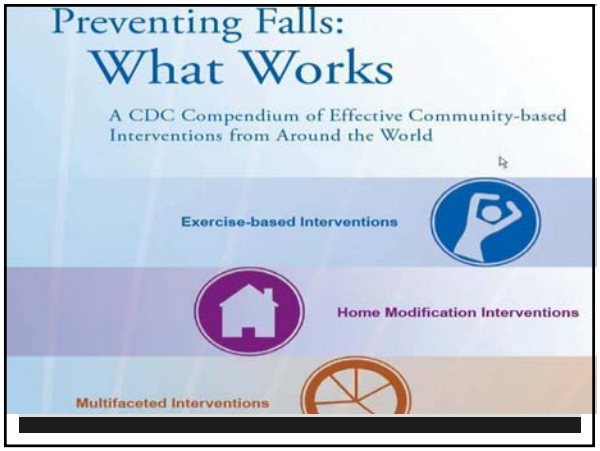
Check Your Risk for Falling

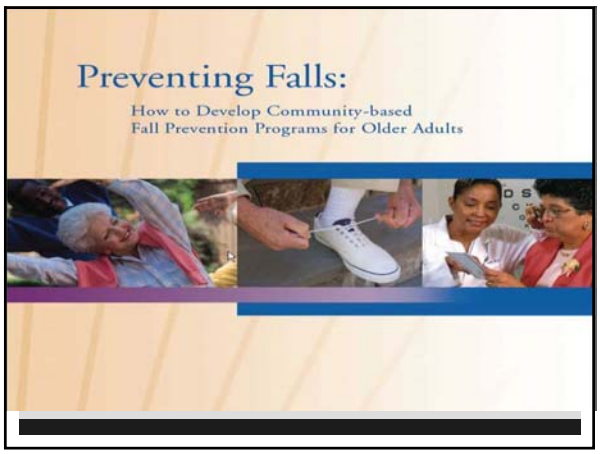
Please circle "Yes" or "No" for each statement below.			Why it matters
Yes (2)	No (0)	I have fallen in the past year.	People who have fallen once are likely to fall again.
Yes (2)	No (0)	I use or have been advised to use a cane or walker to get around safely.	People who have been advised to use a cane or walker may already be more likely to fall.
Yes (1)	No (0)	Sometimes I feel unsteady when I am walking.	Unsteadiness or needing support while walking are signs of poor balance.
Yes (1)	No (0)	I steady myself by holding onto furniture when walking at home.	This is also a sign of poor balance.
Yes (1)	No (0)	I am worried about falling.	People who are worried about falling are more likely to fall.
Yes (1)	No (0)	I need to push with my hands to stand up from a chair.	This is a sign of weak leg muscles, a major reason for falling.
Yes (1)	No (0)	I have some trouble stepping up onto a curb.	This is also a sign of weak leg muscles.
Yes (1)	No (0)	I often have to rush to the toilet.	Rushing to the bathroom, especially at night, increases your chance of falling.
Yes (1)	No (0)	I have lost some feeling in my feet.	Numbness in your feet can cause stumbles and lead to falls.
Yes (1)	No (0)	I take medicine that sometimes makes me feel light-headed or more tired than usual.	Side effects from medicines can sometimes increase your chance of falling.
Yes (1)	No (0)	I take medicine to help me sleep or improve my mood.	These medicines can sometimes increase your chance of falling.
Yes (1)	No (0)	I often feel sad or depressed.	Symptoms of depression, such as not feeling well or feeling slowed down, are linked to falls.
Total___		Add up the number of points for each "yes" answer. If you scored 4 points or more, you may be at risk for falling. Discuss this brochure with your doctor.	

This checklist was developed by the Greater Los Angeles VA Geriatric Research Education Clinical Center and Affiliates and is a validated fall risk self-assessment tool (Rubenstein et al. J Safety Res. 2011;42(6):493-499). Adapted with permission of the authors.

Your doctor may suggest:

- Having other medical tests
- Changing your medicines
- Consulting a specialist
- Seeing a physical therapist
- Attending a fall prevention program





CDC Free STEADI Toolkit

www.cdc.gov/homeandrecreationalsafety/Falls/steadi/index.html

Preventing Falls in Older Adults

- Exercise regularly
- Have doctor or pharmacist review medications
- Get adequate calcium and Vitamin D in your diet
- Do a program of weight bearing exercises
- Get screened and treated for osteoporosis
- Have eyes checked annual and update your eyeglasses
- Reduce trip hazards in home, add grab bars and railing and improve lighting in your home

The Four C's of Falls

- **Consistent for all patients at risk for falling,**
- **Cross Disciplines means interdisciplinary approach,**
- **Coordinated from admission to discharge and continue at home,**
- **Culture from responding to errors to prevention from harm,**

Introduction into Falls

- What are effective strategies or best practices for fall prevention?
- How can you reduce the fall rate in your facility?
- How can you decrease the level of injury or severity related to falls?
- Do you have a falls committee?
- How do you communicate risk factors for falls?

Introduction into Falls

- What patient and family education do you do?
- Remember you need a standardized assessment tool and injury risk assessment.
- How do evaluate and monitor falls?
- How do you ensure accountability through auditing to make sure the falls risk assessments and interventions are done correctly?

Introduction into Falls

- What equipment and unit design configuration can maximize fall prevention?
- Standardize interventions for at risk patients with attention to highest risk patients
- Is there an understanding of the definition and any inconsistencies in reporting?
  - WHO said inconsistency in reporting and did not report coming to rest on the ground
  - WHO Global Report on Falls Prevention in Older Age. Available at: whqlibdoc.who.int/publications/2008/9789241563536_eng.pdf
  - Sari AB, et al. Sensitivity of routine system for reporting patient safety incidents in an NHS hospital: retrospective patient case note review. BMJ2007;334(7584):79.

Introduction into Falls

- What are common risks for falls?
- What is a good incident report specific for falls?
  - One study found 44% of falls were not capture on the hospital's incident reporting system
    - Haines TP, et al. Inconsistency in classification and reporting of in-hospital falls. J Am Geriatr Soc 2009;57(3):517-523.
- Fall assessment need to be **patient specific** and do you use sitters for high risk patients?
- How do you ensure compliance with risk assessments, incident investigations and confronting problem?

Introduction into Falls

- Preventing falls requires a **multifaceted fall prevention approach**
  - Fall prevention monitoring system
  - Creation of CNS position
  - Have a good policy and make sure staff educated on policy
  - Fall incident report, post fall assessment and documentation system
  - Individualized approach to fall prevention, PI, responsibility of all staff to prevent falls, etc.

Is There A Road Map to Preventing Falls?

*www.mnhospitals.org/inc/data/tools/Safe-from-**Falls**-Toolkit/**falls-prevention-roadmap**.pdf*

Road Map to a Comprehensive Falls Prevention Program

Road Map to Preventing Falls

- Falls prevention program that includes:
  - A team approach
  - Identify what group is responsible to oversee the strategic plan for falls including planning, implementation and evaluation
  - Unit based falls champions (very important)
  - Look at unique needs of special population
- Accurate and concurrent reporting
  - Need data on all falls
  - Need to analyze falls data for common factors and to make sure interventions are working

Road Map to Preventing Falls

- Expectations, Education, and Accountability
  - Clear expectations communicated to all including expectations on fall risk screening, assessment and interventions
  - Education for all clinical and non-clinical staff
  - Administration must provide resources and support for the falls program
  - Need to do continuing education for physicians and in new physician orientation
  - Annual training on fall prevention education

Fall Prevention Checks Include:

Fall prevention checks include:

2b) Check that bed alarms are in place and activated as appropriate.
2c) Patient beds are in the correct position.
2d) Ensuring safe pathways, e.g. reduced clutter, clear and well-lit pathway to bathroom, IV poles are in a safe position.
2e) Appropriate equipment and assistive devices, e.g. raised toilets with safety rails, commodes, shower chairs, floor mats are in use.
2f) Managers incorporate fall prevention checks during their observation audits and provide feedback to front-line staff on a least a quarterly basis.

3a) The facility has an algorithm in place to assign low-beds and floor mats to patients identified at high-risk for injury related to falls.
3b) Equipment to reduce risk for injury (e.g. low beds, hip protectors, floor mats) is accessible to staff.

4a) The facility has guidelines in place for appropriate bed alarm use, or alternatives to alarms (e.g. sitters), individualized to the patient's risk factors.
4b) Forcing functions (e.g. alarm reset reminders on beds) or reminders (e.g. signage) are in place for resetting alarms prior to leaving patient's room.
4c) Front-line staff from across the facility (e.g. therapy staff, nursing assistants) are trained on falls prevention equipment (e.g. bed alarms, chair alarms, low-bed use, floor mat placement).

Key Words Falls Prevention

- It is important that you do not attempt to get out of bed or walk without assistance. We want to assist you when getting out of bed and walking to keep you safe from falling
- We will be in your room every hour to assist you with using the restroom, to make sure your call light is within reach, and to reposition you
- Remember call before you fall. It's our job and it is not an inconvenience and we don't want you to get hurt

Definition of Falls

- One article reported that 21% of hospitals had not defined what constitutes a fall (ECRI, Oct. 2005),
- Reported also that only 82% of the facilities document in the chart the interventions chosen to mitigate the risk of falls,
- Documentation is important to provide the staff and hospital in the event a lawsuit is filed,

Definition of Falls

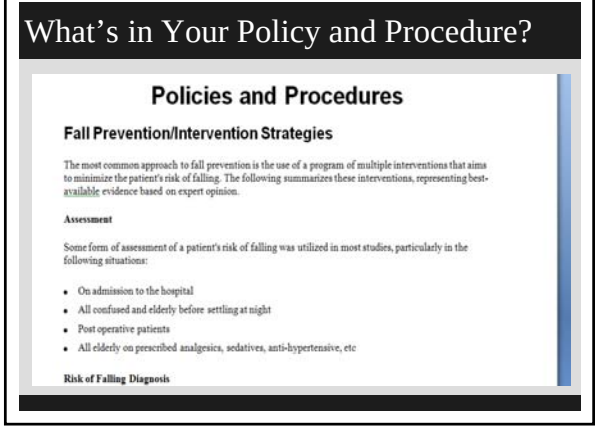
- Important to have a **definition** for falls and for staff to know what your definition is
- An unintended event resulting in a person coming to rest on the ground/floor or other lower level (witnessed)
- Or is reported to have landed on the floor (unwitnessed) not due to any intentional movement or extrinsic force such as stroke, fainting, seizure
- Basically an unplanned descent to the floor (NQF) or lower surface

Source: Florida Hospital Association available at http://premierinc.com/quality-safety/tools-services/safety/topics/falls/

www.premierinc.com/quality-safety/tools-services/safety/topics/falls/

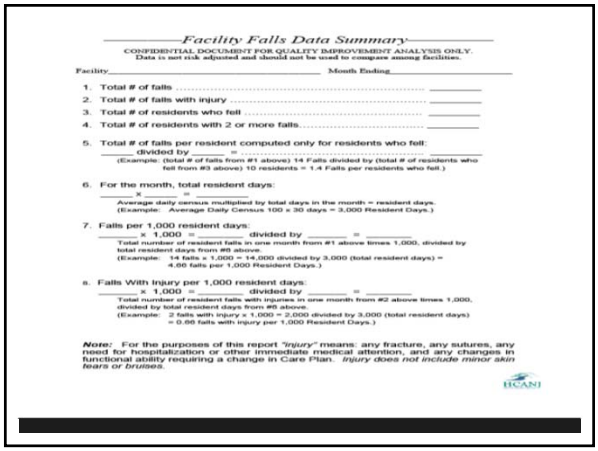
Tool Kits for Fall Prevention

What's in Your Policy and Procedure?



Measurement

- How do you measure your fall rate?
- Difficult to benchmark data between facilities because definitions are different
- Also there are differences in the way facilities collect and report the data
- Problem of lack of risk adjustment
- One hospital sees twice as many elderly patients than the other hospital in town



Facility Falls Data Summary

CONFIDENTIAL DOCUMENT FOR QUALITY IMPROVEMENT ANALYSIS ONLY.
Data is not risk adjusted and should not be used to compare among facilities.

Facility_____ Month Ending_____

1. Total # of falls ..... _____
2. Total # of falls with injury ..... _____
3. Total # of residents who fell ..... _____
4. Total # of residents with 2 or more falls..... _____
5. Total # of falls per resident computed only for residents who fell:
   _____ divided by _____ = ...
   (Example: (total # of falls from #1 above) 14 Falls divided by (total # of residents who fell from #3 above) 10 residents = 1.4 Falls per residents who fell.)
6. For the month, total resident days:
   _____ x _____ = _____
   Average daily census multiplied by total days in the month = resident days.
   (Example: Average Daily Census 100 x 30 days = 3,000 Resident Days.)
7. Falls per 1,000 resident days:
   _____ x 1,000 = _____ divided by _____ = _____
   Total number of resident falls in one month from #1 above times 1,000, divided by total resident days from #6 above.
   (Example: 14 falls x 1,000 = 14,000 divided by 3,000 (total resident days) = 4.66 falls per 1,000 Resident Days.)
8. Falls With Injury per 1,000 resident days:
   _____ x 1,000 = _____ divided by _____ = _____
   Total number of resident falls with injuries in one month from #2 above times 1,000, divided by total resident days from #6 above.
   (Example: 2 falls with injury x 1,000 = 2,000 divided by 3,000 (total resident days) = 0.66 falls with injury per 1,000 Resident Days.)

Note: For the purposes of this report *"injury"* means: any fracture, any sutures, any need for hospitalization or other immediate medical attention, and any changes in functional ability requiring a change in Care Plan. *Injury does not include minor skin tears or bruises.*

HCANJ

Measurement

- Common method is to measure and track your fall rate using the following;
- Number of patient falls x 1,000
  Number of patient days
- Look at the total number of eligible falls and divide it by the total number of patient days,
- Then multiple this number by 1,000 to create a rate per 1,000 patient days,
- Can also look at patients at risk, patient who fell, or falls per bed
- Used by NQF at http://www.qualityforum.org/ and Maryland Quality Indicator Project at http://www.qiproject.org/

Other Fall Rate Measurements

- The Number of Patients at Risk Rate

Number of patient falls x 1,000
Number of patients at risk

- This rate is commonly used in long-term care facilities

- The Number of Patients Who Fell Rate

Number of patients who fell x 1,000
Number of patients at risk

- In this formula repeated falls experienced by the same person are only included once in the numerator

Other Fall Rate Measurements

The Number of Falls per Bed

- Your facility had **4 falls** last month.
- Data shows you had **900** bed days last month,
- Fall rate= (number of falls/bed days of care) X1000 BDOC=(4/900) X 1000=**4.44** per 1000 BDOC,
- In other words for every 1000 bed days of care you can expect to have about 4 falls.

What is the Fall Rate?

- Studies show fall rate of acute care hospitals to be in range of 2.5% to 3.5%,
- Valuable to trend falls per 1,000 patient days,
- Difficult to compare from unit to unit not alone hospital to hospital unless risk adjusted,
- This means consideration of population mix and types of care,
- Some units and types of care will have higher falls than others (LTC, Neuro floor, Rehab),

What is the Fall Rate?

- Literature shows difficulty in comparing studies and trying to benchmark because studies use different calculations and some were not risk adjusted
- Inpatient rate is between 1.7 to 25 falls per 1,000 patient days depending on care area with geropsych the highest (Currie 2008)
  - Morse shows fall rate as 2.2 to 7 per 1,000 bed days in acute care hospitals
  - 11.0 to 24.9 percent in long term care
  - 8.0 to 19.8 percent in rehabilitation hospitals
  - 4 to 7.5 percent result in serious injury

What is the Fall Rate Per 1000 Patient Days?

- Acute care first falls 2.2 (Magaziner et. al.)
- Neuro floor rate is 5.2
- Psychiatry at 4.1
- Rehab at 7.6 to 12.6
- Geriatrics at 7.8
- Medical surgical unit 3.6 falls (Donaldson)

Falls Injuries

- Falls are a nursing sensitive quality indicator
- Injuries are reported in 6-44% of acute inpatient falls
- Serious injury in 2 to 8% of falls (Currie, 2008) with less than 1% resulting in death

What is the Fall Rate?

- Some emergency department calculates falls per 10,000 visits
- Other calculate falls per 1,000 visit
- Fall rate is 0.288 per 1,000 visit
  - Terrell, KN; Weaver CS; Giles, BK; Ross, MJ. (2008) ED Patient Falls and Resulting Injuries; Journal of Emergency Nursing. 35(2): 89-92
- Hospital compare is 0.527 per 1,000 discharges or 5.27 per 10,000 discharges
- Others: 0.15 (Duke), or 0.45 (Alexander) per 1,000 discharges and used Kinder 1 fall tool
  - Alexander, D; Kinsley, T ;Waszinski, C (2013), Journey to a Safe Enviroment: Fall Prevention in an Emergency Dept Level I Trauma Center, Journey Emergency Nursing. 39 (4): 346-352

Kinder 1 Fall Assessment for ED

RN Performs a Fall Risk Assessment:
A patient's fall risk is assessed on admission and reassessed every shift to determine the patient's risk of accidental injury.

*For a score of **4 or more**, **if patient's admission is related to a fall or if the patient falls during this hospital admission**, implement the fall prevention protocol

- **Fall history to floor or ground** = 2 points
  - Fall in past year or during prior hospitalization
- **Altered Mental Status** = 4 points
  Examples may include:
  - Confusion/disorientation/impaired judgment
  - Unable to follow instructions, poor safety awareness
  - Positive Confusion Assessment Method (CAM)
- **Mobility impaired** = 2 points
  Examples may include:
  - Leg weakness, unsteady gait
  - Transfers with assistive device or supervision
- **Elimination altered** = 1 point
  Examples may include:
  - Incontinence, diarrhea
  - frequency, urgency, nocturia
- **Other, i.e. nursing judgment, diagnosis related** = 2 points
  Examples may include:
  - Sensory deficits
  - Orthostatic hypotension

Added Additional Elements

RISK	YES	NO	Fall Protocol Interventions Initiated Bracelet Triangle Exit alarm
Present to ED because of fall			
Age > 70			
Altered Mental Status Intoxicated with Alcohol or Substance Confusion			
Impaired Mobility: Ambulates or transfers with assistive devices or assist Ambulates with unsteady gait and no assistance Unable to ambulate or transfer			
Nursing Judgment (free text)			

Yes to any risk = high fall risk

Once an ED patient is deemed a high fall risk in the emergency department –the patient remains a high fall risk throughout the ED stay.

Conley ED Fall Scale

FALL TOOL	RISK ASSESSMENT FACTORS
Morse	Fall history Secondary diagnosis Ambulatory aides IV therapy/heplock Gait Mental status Orientation to own ability
Hendrich II	Recent fall history Altered elimination Confusion/disorientation Dizzy/vertigo Poor mobility/generalized weakness Poor judgment
Conley	Fall history Impaired judgment Agitation Impaired gait Dizziness Incontinence
Johns Hopkins Fall Risk Assessment tool	Age Fall History Elimination, bowel and urine Medications Patient care equipment Mobility Cognition

Conley ED Fall Scale

- Memorial Hospital ED selects as fall assessment tool
  - http://charmcolorado.org/wp-content/uploads/2013/11/KFlarity-Fall-Prev-Forum-presentation.pdf
  - Ask if history of fall in last 3 months (Score of 2)
  - Observed if impaired judgment or lack of safety awareness (3)
  - Observed any agitation (2)
  - Impaired gait, shuffle, unsteady walk (1), mobility device (1)
  - Asked if had any dizziness in past 3 months (1)
  - Asked if ever wet or soiled yourself on way to bathroom (1)
  - Hourly rounding, implemented interventions, and documented electronically (low 1-2, mod 3-4, high 5)

What is the Fall Rate?

- VHA, Inc. reported the fall rate as 3.0 per 1,000 patient days
- Maryland Quality Indicator Project reported fall rate as 3.7 per 1,000 patient days
- California Nursing Outcome Coalition reported 3.2 per 1,000 patient days
  - Updated report issued 2009 www.calnoc.org/globalPages/mainpage.aspx
- Falls is a nursing sensitive quality indicator See AHRQ study and Evidenced Based Handbook for Nurses

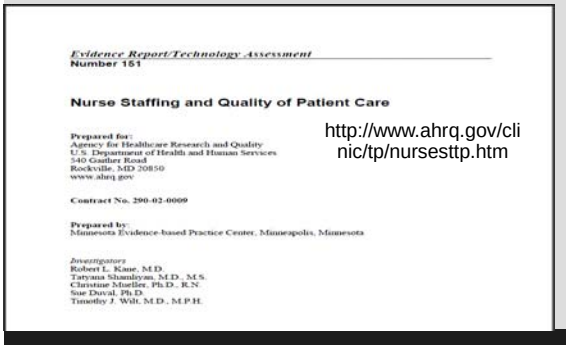
Bedside Floor Mat

- VA National Center for Patient Safety has a website on patient safety
- Includes a falls tool kit
- Tool kit has tips and tricks for selecting a floor mat with total of nine pages
- Also note blood thinner pamphlet for patients who fall and are on anticoagulants
- Go to http://www.patientsafety.gov/SafetyTopics/fallstoolkit/index.html

Falls and Staffing AHRQ Study

- Increase in nurse turnover increases the fall rate by 0.2%
- ANA and NQF also have falls as a nursing sensitive or quality indicator
- Also found adding one extra patient to LPN and nurse aide increased fall rate by 0.03
- Found staffing in ICU was significant to the fall rate
- Found lower falls rates with nurses satisfied with the care provided

Nurse Staffing & Quality of Care



Evidence Report/Technology Assessment
Number 151

Nurse Staffing and Quality of Patient Care

Prepared for:
Agency for Healthcare Research and Quality
U.S. Department of Health and Human Services
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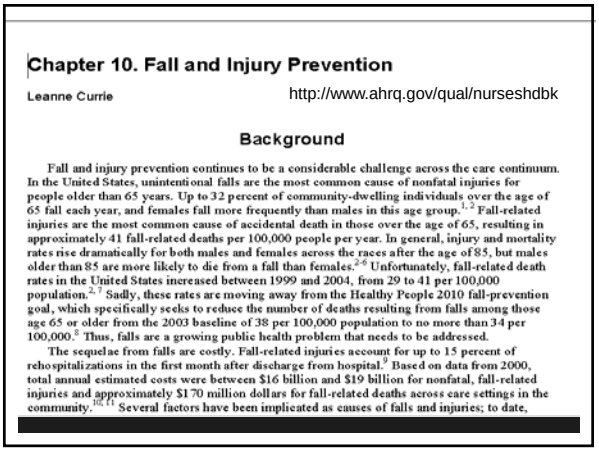
http://www.ahrq.gov/clinic/tp/nursesttp.htm



Chapter 10. Fall and Injury Prevention

Leanne Currie

http://www.ahrq.gov/qual/nurseshdbk

Background

Fall and injury prevention continues to be a considerable challenge across the care continuum. In the United States, unintentional falls are the most common cause of nonfatal injuries for people older than 65 years. Up to 32 percent of community-dwelling individuals over the age of 65 fall each year, and females fall more frequently than males in this age group.[1, 2] Fall-related injuries are the most common cause of accidental death in those over the age of 65, resulting in approximately 41 fall-related deaths per 100,000 people per year. In general, injury and mortality rates rise dramatically for both males and females across the races after the age of 85, but males older than 85 are more likely to die from a fall than females.[2-6] Unfortunately, fall-related death rates in the United States increased between 1999 and 2004, from 29 to 41 per 100,000 population.[2, 7] Sadly, these rates are moving away from the Healthy People 2010 fall-prevention goal, which specifically seeks to reduce the number of deaths resulting from falls among those age 65 or older from the 2003 baseline of 38 per 100,000 population to no more than 34 per 100,000.[8] Thus, falls are a growing public health problem that needs to be addressed.

The sequelae from falls are costly. Fall-related injuries account for up to 15 percent of rehospitalizations in the first month after discharge from hospital.[9] Based on data from 2000, total annual estimated costs were between $16 billion and $19 billion for nonfatal, fall-related injuries and approximately $170 million dollars for fall-related deaths across care settings in the community.[10, 11] Several factors have been implicated as causes of falls and injuries; to date,

Common Risk Factors for Falling

- History of falls, age over 80
- Arthritis and balance deficit
- Cognitive impairment, confusion, and depression (impaired mental status)
- Gait deficit and impaired ability to perform ADLs (unsteady gait)
  - Use of assistive device and muscle weakness
- Special toileting needs (lack of response time)
- Connected to O2, SCD boots, foley catheter etc.

Common Risk Factors for Falling

- Visual deficit (double risk) and fear of falling
- Cardiac arrhythmias and delirium
- Dizziness/lightheadedness and fatigue
- Fluid and electrolyte imbalance
- Multiple medications and orthostatic hypotension
- Longer LOS show increased risk and patients with bleeding disorders

Home Health Nurses

- Tinetti (1986) develop risk assessment for community dwellers with nine risk factors;
- Mobility, morale, mental status
- Distance vision
- Hearing
- Postural blood pressure
- Back exam
- Medication and ability to perform ADLs

Risk of Falling for Children

- Falls are relatively rare
- What's in your policy and procedure for children?
- However Graf (2005) found risk factors to be
  - Seizure medication
  - Orthopedic diagnosis
  - IV
  - Physical/occupational therapy ordered
  - LOS (odds ratio 1.84 for every 5 days)

- Graf E. Pediatric hosptial falls: Development of a predictor model to guide pediatric clincial practice. Paper presented at: Sigma Theta Tau International: 38th Biennial Convention, 2005; Indianapolis, Indiana.

P&P for Children

- Uses many of the recommendations for adults
- Bed in low position with brakes on
- Keep night light on
- Orient patient and family to the setting
- Patients under 3 are placed in cribs
- If parent issues written release can go to junior bed
- If parent request full bed must stay with child
- Non skid footwear if ambulating etc.

IHI.org How to Guide with Peds Section

How-to Guide:

Reducing Patient Injuries from Falls

Transforming Care at the Bedside (TCAB) is a national effort of the Robert Wood Johnson Foundation and Institute for Healthcare Improvement designed to improve the quality and safety of patient care on medical and surgical units, to increase the vitality and retention of nurses, and to improve the effectiveness of the entire care team. For more information, go to http://www.ihi.org/ or http://www.rwjf.org/goto/tcabtoolkit.

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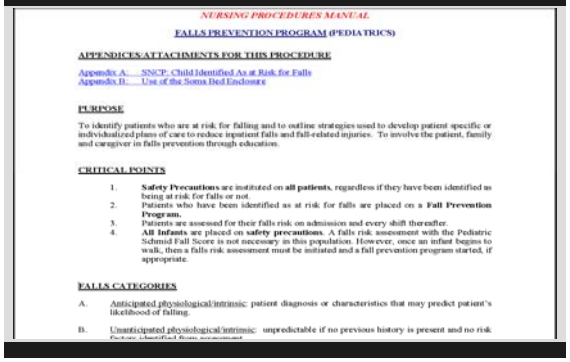
What's in Your P&P for Children?



NURSING PROCEDURES MANUAL

FALLS PREVENTION PROGRAM (PEDIATRICS)

APPENDICES/ATTACHMENTS FOR THIS PROCEDURE

Appendix A: SNCP: Child Identified As at Risk for Falls
Appendix B: Use of the Soma Bed Enclosure

PURPOSE

To identify patients who are at risk for falling and to outline strategies used to develop patient specific or individualized plans of care to reduce inpatient falls and fall-related injuries. To involve the patient, family and caregiver in falls prevention through education.

CRITICAL POINTS

1. **Safety Precautions** are instituted on **all patients**, regardless if they have been identified as being at risk for falls or not.
2. Patients who have been identified as at risk for falls are placed on a **Fall Prevention Program.**
3. Patients are assessed for their falls risk on admission and every shift thereafter.
4. **All Infants** are placed on **safety precautions**. A falls risk assessment with the Pediatric Schmid Fall Score is not necessary in this population. However, once an infant begins to walk, then a falls risk assessment must be initiated and a fall prevention program started, if appropriate.

FALLS CATEGORIES

A. Anticipated physiological/intrinsic: patient diagnosis or characteristics that may predict patient's likelihood of falling.

B. Unanticipated physiological/intrinsic: unpredictable if no previous history is present and no risk

NURSING PROCEDURES MANUAL

FALLS PREVENTION PROGRAM (PEDIATRICS) *(continued)*

APPENDIX A: SNCP: (Patient Identified As at Risk for Falls)

Click here to access online file

Initiated Date/Signature	Problem	Resolved Date/Signature
	#1Child Identified As at Risk for Falls	
Related to: Anticipated physiologic risk factors		
Expected Outcomes: The patient will not fall.		
1. Ensure that all safety precautions as noted in the Falls Prevention Program (Pediatrics) procedure are followed. (Applies to ALL children regardless of Falls Score).		
Nursing Interventions		
1. Place green dot on patient armband – Falls Precaution sign outside door.		
2. Write in Kardex, "patient at risk for falls" and communicate this at each shift change.		
3. Consider moving closer to the Nursing Station.		
4. Staff alerted to make frequent visual checks.		
5. Toileting schedule at least every 2 hours or more frequently if needed.		
6. Commode at bedside.		
7. Continuous supervision while toileting. Do not leave a patient who is at risk for falling unattended on a commode or in the bathroom.		
8. Provide continuity of staff.		
9. Obtain Physical Therapy and/or Occupational Therapy consult, i.e. for assistive device needs, as ordered.		
10. Place in SOMA bed – as per Nursing Procedure: Fall Prevention Program (Pediatrics) Appendix C. Contact nursing supervisor or nurse manager to obtain bed.		
11. Monitor lying and sitting BPs as condition warrants.		
12. Family, friends to stay with patient, or sitter, if needed. Educate family and/ or sitter regarding fall prevention.		
Comments ***(To add interventions after initial assessment, circle the number and make note here, e.g., "#6 Commode at bedside" added 3/2—due to frequent urination."):***		

I'M SAFE Pediatric Fall Risk Assessment

	Fall Risk Score Criteria (*I'M SAFE*)	Score if present	Score if not present	Patient's Score
I	Impairment (OT/PT service involved, orthostatic/dizzy)	1	0	
M	Medications (seizure medications, narcotics, epidurals)	2	0	
S	Sedation/anesthesia within the previous 24 hours	2	0	
A	Admitting diagnosis (neuro or ortho diagnosis)	1	0	
F	Fall History	1	0	
E	Environment of care (oxygen, IV tubing, restraints, foley, etc.)	1	0	
	Fall Risk Score (total scores assigned for each criteria)			

Interventions

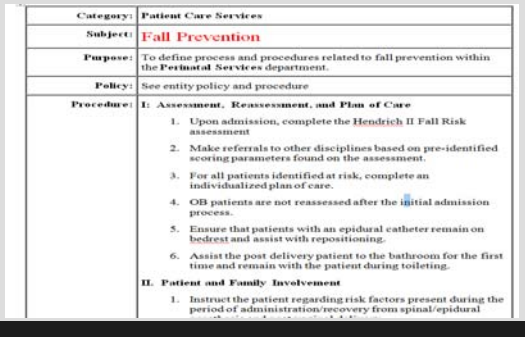
Interventions

a) Interventions to consider based on assessed risk (implement any appropriate interventions)
   - i) Low risk interventions (Score 0)
     1. Hourly rounds/care checks (include assessment of elimination needs & re-orientation to call light)
     2. Patient/family education regarding fall prevention
     3. No activity/mobility restrictions necessary
     4. Bed to remain in low position
   - ii) Moderate risk interventions (Score 1)
     1. Hourly rounds
     2. Provide & reinforce patient/family education regarding fall prevention
     3. Some assisting with activity/mobility per the patient's individualized plan of care
     4. Educate patient/family to request help with ambulation
     5. Bed to remain in low position
   - iii) High risk interventions (Score 2 or greater)
     1. Hourly rounds
     2. Assist patient with activity/mobility
     3. Ensure patient is placed in the appropriate bed (e.g., consider use of crib with topper "bubble top" for toddler)
     4. Yellow high fall risk band placed on patient
     5. Close observation, particularly when in a wheelchair or out of bed
     6. Assess need for 1:1
     7. Accompany patient with ambulation & transfers, especially when related to elimination needs
     8. Provide & reinforce patient/family education regarding fall prevention & include in the individualized plan of care

Pediatric Scoring

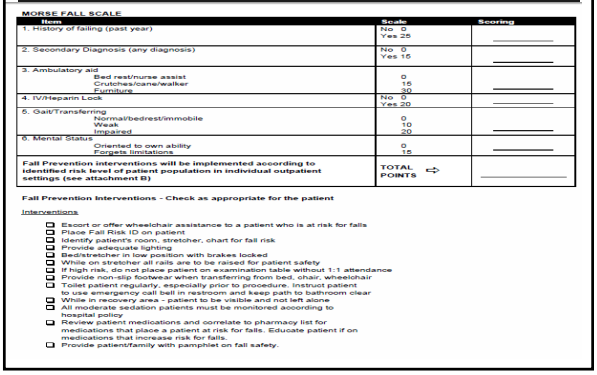
- Remember the goal is to eliminate all falls with injury though the fall prevention program and
- Goal to increase the percentage of patients who get an appropriate fall risk assessment and fall prevention intervention
- Risk Score
  - Low risk = 0 (all peds patients are, at a minimum, a low fall risk)
  - Moderate risk = 1
  - High risk = 2 or greater
    - Patients age 2 years & younger are scored as high risk
    - Patients admitted to the ICU are scored as high risk

Don't Forget OB Patient Fall Risks



Category:	**Patient Care Services**
Subject:	**Fall Prevention**
Purpose:	To define process and procedures related to fall prevention within the **Perinatal Services** department.
Policy:	See entity policy and procedure
Procedure:	**I: Assessment, Reassessment, and Plan of Care** 1. Upon admission, complete the Hendrich II Fall Risk assessment 2. Make referrals to other disciplines based on pre-identified scoring parameters found on the assessment. 3. For all patients identified at risk, complete an individualized plan of care. 4. OB patients are not reassessed after the initial admission process. 5. Ensure that patients with an epidural catheter remain on bedrest and assist with repositioning. 6. Assist the post delivery patient to the bathroom for the first time and remain with the patient during toileting. **II. Patient and Family Involvement** 1. Instruct the patient regarding risk factors present during the period of administration/recovery from spinal/epidural

Don't Forget Outpatients



MORSE FALL SCALE

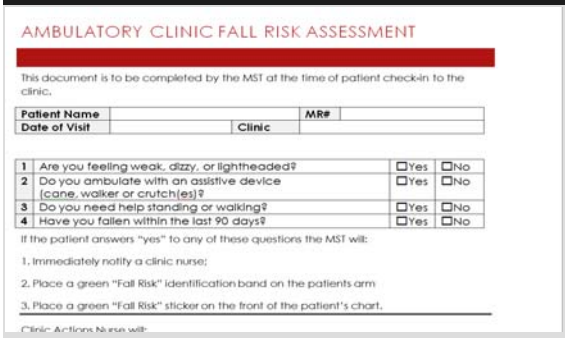
Item	Scale	Scoring
1. History of falling (past year)	No 0 Yes 25	
2. Secondary Diagnosis (any diagnosis)	No 0 Yes 15	
3. Ambulatory aid Bed rest/nurse assist Crutches/cane/walker Furniture	0 15 30	
4. IV/Heparin Lock	No 0 Yes 20	
5. Gait/Transferring Normal/bedrest/immobile Weak Impaired	0 10 20	
6. Mental Status Oriented to own ability Forgets limitations	0 15	
Fall Prevention interventions will be implemented according to identified risk level of patient population in individual outpatient settings (see attachment B)	TOTAL POINTS ⇨	

Fall Prevention Interventions - Check as appropriate for the patient

Interventions

- ☐ Escort or offer wheelchair assistance to a patient who is at risk for falls
- ☐ Place Fall Risk ID on patient
- ☐ Identify patient's room, stretcher, chart for fall risk
- ☐ Provide adequate lighting
- ☐ Bed/stretcher in low position with brakes locked
- ☐ While on stretcher all rails are to be raised for patient safety
- ☐ If high risk, do not place patient on examination table without 1:1 attendance
- ☐ Provide non-slip footwear when transferring from bed, chair, wheelchair
- ☐ Toilet patient regularly, especially prior to procedure. Instruct patient to use emergency call bell in restroom and keep path to bathroom clear
- ☐ ☐ While in recovery area - patient to be visible and not left alone
- ☐ ☐ All moderate sedation patients must be monitored acoording to hospital policy
- ☐ Review patient medications and correlate to pharmacy list for medications that place a patient at risk for falls. Educate patient if on medications that increase risk for falls.
- ☐ Provide patient/family with pamphlet on fall safety.

Don't Forget Clinic Patients



AMBULATORY CLINIC FALL RISK ASSESSMENT

This document is to be completed by the MST at the time of patient check-in to the clinic.

Patient Name		MR#	
Date of Visit		Clinic	

1	Are you feeling weak, dizzy, or lightheaded?	☐Yes	☐No
2	Do you ambulate with an assistive device (cane, walker or crutch(es))?	☐Yes	☐No
3	Do you need help standing or walking?	☐Yes	☐No
4	Have you fallen within the last 90 days?	☐Yes	☐No

If the patient answers "yes" to any of these questions the MST will:

1. Immediately notify a clinic nurse;
2. Place a green "Fall Risk" identification band on the patients arm
3. Place a green "Fall Risk" sticker on the front of the patient's chart.

Clinic Actions Nurse will:

Medications

- Risk is greater if patient is taking four or more types of medications
- Over the counter medication can also increase the risk of falling
- 21% of falls from recent study were involving patients taking one or more medications that influence fall rate
- Patients at risk for serious injury include those on anticoagulants (also over age 85, with prolonged steroid use, bone conditions such as osteoporosis or metastatic bone cancer)

Medications

- Half of falls due to medications like antianxiety and antipsychotics (ICSI, 2012)

Medications most frequently associated with increased risk of falling

- Serotonin-reuptake inhibitors
- Tricyclic antidepressants
- Neuroleptic agents
- Benzodiazepines
- Anticonvulsants
- Class IA antiarrhythmic medications

Medications

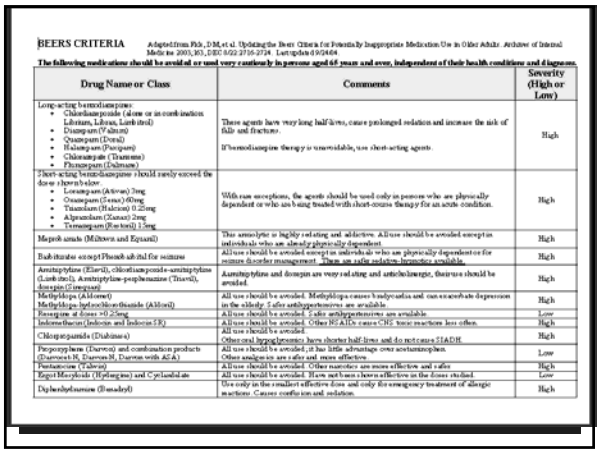
- Anti-hypertensives
- Diuretics
- Laxatives and patient undergoing prep for colonoscopies and other similar tests
- Nonsteroidal anti-inflammatory agents
- Psychotropics
- Sedatives and hypnotics
- Vasodilators

Fall Risk Medication Component

- One hospital added one with four risk categories of risk for medications and category 4 marked with orange sticker
- **Risk Category 1** includes anti-depressant and anti-psychotics and focuses on dosage adjustment made in past five days,
- **Risk Category 2** includes bowel prep and diuretics since these can lead to electrolyte imbalance, hypotension, and urgency related to the need to eliminate

Fall Risk Medication Component

- **Risk Category 3** included opiates, narcotics, analgesics and antihistamines since these can lead to sedation, depressed reflexes, and can effect motor coordination
- **Risk Category 4** includes Benzodiazepines and Alpha Blockers, which can be associated with sedation, dizziness, balance control, and hypotension
- Also note Beers List is medications that should not be given to the elderly as can increase the fall rate and AHRQ as a toolkit



BEERS CRITERIA Adapted from Fick, D M, et al. Updating the Beers Criteria for Potentially Inappropriate Medication Use in Older Adults. Archives of Internal Medicine 2003, 163, DOI: 0.1001/archinte.163.22.2716 Last updated 09/2404

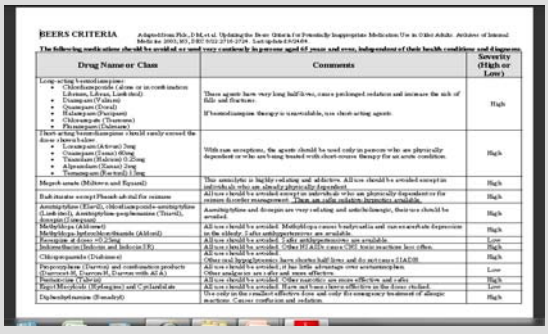
The following medications should be avoided or used very cautiously in persons aged 65 years and over, independent of their health conditions and diagnoses.

Drug Name or Class	Comments	Severity (High or Low)
Long-acting benzodiazepines: • Chlordiazepoxide (alone or in combination: Librium, Libras, Limbitrol) • Diazepam (Valium) • Quazepam (Doral) • Halazepam (Paxipam) • Chlorazepate (Tranxene) • Flurazepam (Dalmane)	These agents have very long half-lives, cause prolonged sedation and increase the risk of falls and fractures. If benzodiazepine therapy is unavoidable, use short-acting agents.	High
Short-acting benzodiazepine: should rarely exceed the dose shown below • Lorazepam (Ativan) 3mg • Oxazepam (Serax) 60mg • Triazolam (Halcion) 0.25mg • Alprazolam (Xanax) 2mg • Temazepam (Restoril) 15mg	With rare exceptions, the agents should be used only in persons who are physically dependent or who are being treated with short-course therapy for an acute condition.	High
Meprobamate (Miltown and Equanil)	This anxiolytic is highly sedating and addictive. All use should be avoided except in individuals who are already physically dependent.	High
Barbiturates except Phenobarbital for seizures	All use should be avoided except in individuals who are physically dependent or for seizure disorder management. There are safer sedative-hypnotics available.	High
Amitriptyline (Elavil), chlordiazepoxide-amitriptyline (Limbitrol), Amitriptyline-perphenazine (Triavil), doxepin (Sinequan)	Amitriptyline and doxepin are very sedating and anticholinergic, their use should be avoided.	High
Methyldopa (Aldomet) Methyldopa-hydrochlorothiazide (Aldoril)	All use should be avoided. Methyldopa causes bradycardia and can exacerbate depression in the elderly. Safer antihypertensives are available.	High
Reserpine at doses >0.25mg	All use should be avoided. Safer antihypertensives are available.	Low
Indomethacin (Indocin and Indocin SR)	All use should be avoided. Other NSAIDs cause CNS toxic reactions less often.	High
Chlorpropamide (Diabinese)	All use should be avoided. Other oral hypoglycemics have shorter half-lives and do not cause SIADH.	High
Propoxyphene (Darvon) and combination products (Darvocet-N, Darvon-N, Darvon with ASA)	All use should be avoided; it has little advantage over acetaminophen. Other analgesics are safer and more effective.	Low
Pentazocine (Talwin)	All use should be avoided. Other narcotics are more effective and safer.	High
Ergot Mesyloids (Hydergine) and Cyclandelate	All use should be avoided. Have not been shown effective in the doses studied.	Low
Diphenhydramine (Benadryl)	Use only in the smallest effective dose and only for emergency treatment of allergic reactions. Causes confusion and sedation.	High

Beer's List Updated 2012!

- AHRQ has a number of other free toolkit
- One is the Beer's Criteria which is a list of medications that should not be prescribed for patients over the age of 65
- Some increase the fall risk in the elderly
- It lists the drugs or class of drugs and explains why it should not be use
- Also lists the severity such as low or high risk
- Available at http://www.qsource.org/topics/safetyprov.htm

Beer's List



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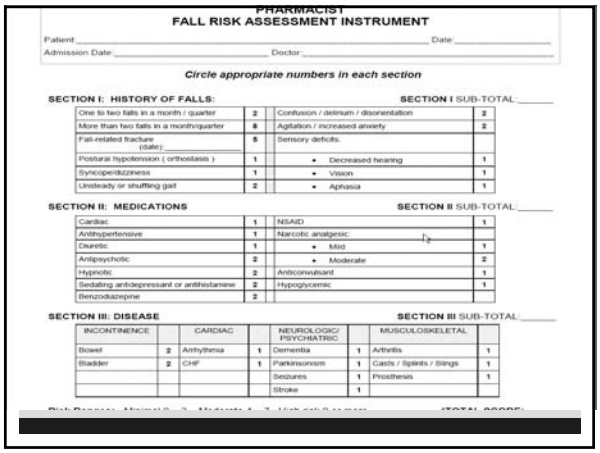


PHARMACIST
FALL RISK ASSESSMENT INSTRUMENT

Patient:_____ Date:_____
Admission Date:_____ Doctor:_____

Circle appropriate numbers in each section

SECTION I: HISTORY OF FALLS: SECTION I SUB-TOTAL:_____

One to two falls in a month / quarter	2	Confusion / delirium / disorientation	2
More than two falls in a month/quarter	8	Agitation / increased anxiety	2
Fall-related fracture (date):_____	5	Sensory deficits:	
Postural hypotension (orthostasis)	1	• Decreased hearing	1
Syncope/dizziness	1	• Vision	1
Unsteady or shuffling gait	2	• Aphasia	1

SECTION II: MEDICATIONS SECTION II SUB-TOTAL:_____

Cardiac	1	NSAID	1
Antihypertensive	1	Narcotic analgesic:	
Diuretic	1	• Mild	1
Antipsychotic	2	• Moderate	2
Hypnotic	2	Anticonvulsant	1
Sedating antidepressant or antihistamine	2	Hypoglycemic	1
Benzodiazepine	2		

SECTION III: DISEASE SECTION III SUB-TOTAL:_____

INCONTINENCE		CARDIAC		NEUROLOGIC/ PSYCHIATRIC		MUSCULOSKELETAL	
Bowel	2	Arrhythmia	1	Dementia	1	Arthritis	1
Bladder	2	CHF	1	Parkinsonism	1	Casts / Splints / Slings	1
				Seizures	1	Prosthesis	1
				Stroke	1		

Causes of Falls

- Falls can be classified in a number of ways
- Can be based on environmental or physiological
- One approach used by Janet Morse is to classify as
  - **Accidental, unanticipated physiologic, or anticipated physiologic**
- Prevention depends on the type of fall

Morse - 3 Classifications of Falls

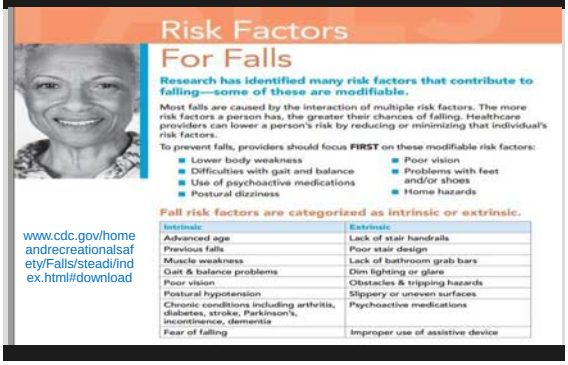
- **Accidental** – a fall can occur in a low risk patient due to an environmental hazard such as the patient slipping or tripping, such as water on the floor so to prevent reduce environmental hazard (14%)
- **Anticipated physiological**- falls by persons considered to be at risk for falling (8%)
  - The patients have some risk factors for falling such as abnormal gait, frequent toileting needs, high risk medications, etc.
  - Close supervision and attempt to address risk factors
- **Unanticipated physiological** - falls attributed to physiological factors that can not be predicted before the first fall (78%)
  - Such as a stroke, seizure, or syncopal episode so need appropriate post fall care

Intrinsic vs. Extrinsic Factors

- Generally accepted that falls are caused by multiple factors
- Another classification scheme is that falls result from complex interaction of extrinsic and/or intrinsic factors
- **Intrinsic** is related to patient's physical, mental and cognitive condition
- **Extrinsic** is related to the **e**nvironment

Source: Tideiksaar, 1998

CDC Risk Factor Chart



www.cdc.gov/homeandrecreationalsafety/Falls/steadi/index.html#download

Intrinsic Risk Factors

These are integral to patient's system and many are associated with age-related changes

- **Previous fall** - studies have cited a history of falls as a significant factor associated with patients being more likely to fall again
- **Reduced vision or visual acuity** – vision affected by, for example, a decline in visual acuity, decreased night vision, altered depth perception, decline in peripheral vision, or glare intolerance
- **Unsteady gait** - manner and style of walking

Intrinsic Risk Factors

- Mental status – status affected by confusion, disorientation, inability to understand, and impaired memory, dementia, depression, poor impulse control, inability to perceive depth
- Having had a stroke in the past with sustained neurological impairment
- Low physical activity, being given a laxative or psychotropic drug, or sedative
- Acute illnesses – rapid onset of symptoms associated with seizures, stroke, orthostatic hypotension, and febrile conditions

Intrinsic Risk Factors

- Chronic illnesses - conditions such as arthritis, cataracts, glaucoma, dementia, diabetes and Parkinsonism
- Postural or orthostatic hypotension
- Incontinence or urinary frequency or urgency
- Use of four or more prescriptions
- Belief that asking for help is inappropriate- call before you fall campaign and age
- Fear of falling that increases the fall rate after increased mobility

Extrinsic Risk Factors

External to the system and relating to physical environment

- **Medications** - those that affect the central nervous system, such as sedatives and tranquilizers, benzodiazepines, and the number of administered drugs (some consider intrinsic)
- **Bathtubs and toilets** – equipment without support, such as grab bars, toilets in low position
- **Design of furnishings** – height of chairs and beds, bed in high position, table or beds that are on wheels and have sharp edges

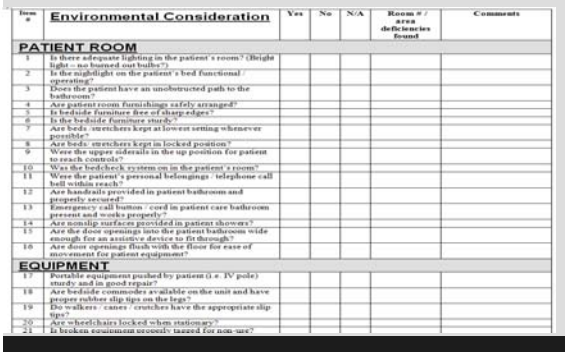
Extrinsic Risk Factors

- **Condition of ground surfaces-**floor coverings with loose or thick-pile carpeting or throw rug, sliding rugs, upended linoleum or tile flooring, highly polished or wet floors
- **Poor illumination conditions -** intensity or glare issues and monochromatic color schemes or colors that agitate
- Distracting noise and prolonged length of stay
- Use of restraints

Extrinsic Risk Factors

- Poor staff training
- **Not answering call lights promptly**
- Attached to equipment like monitor or IV or oxygen tubing
- Time of day (more falls at night)
- ECT therapy in behavioral health
- Being physically challenged in rehab

Environment Assessment to Prevent Falls



Item #	Environmental Consideration	Yes	No	N/A	Room # / area deficiencies found	Comments
PATIENT ROOM						
1	Is there adequate lighting in the patient's room? (Bright light – no burned out bulbs?)					
2	Is the nightlight on the patient's bed functional / operating?					
3	Does the patient have an unobstructed path to the bathroom?					
4	Are patient room furnishings safely arranged?					
5	Is bedside furniture free of sharp edges?					
6	Is the bedside furniture sturdy?					
7	Are beds / stretchers kept at lowest setting whenever possible?					
8	Are beds / stretchers kept in locked position?					
9	Were the upper siderails in the up position for patient to reach controls?					
10	Was the bedcheck system on in the patient's room?					
11	Were the patient's personal belongings / telephone call bell within reach?					
12	Are handrails provided in patient bathroom and properly secured?					
13	Emergency call button / cord in patient care bathroom present and works properly?					
14	Are nonslip surfaces provided in patient showers?					
15	Are the door openings into the patient bathroom wide enough for an assistive device to fit through?					
16	Are door openings flush with the floor for ease of movement for patient equipment?					
EQUIPMENT						
17	Portable equipment pushed by patient (i.e. IV pole) sturdy and in good repair?					
18	Are bedside commodes available on the unit and have proper rubber slip tips on the legs?					
19	Do walkers / canes / crutches have the appropriate slip tips?					
20	Are wheelchairs locked when stationary?					
21	Is broken equipment properly tagged for non-use?					

Environment Assessment to Prevent Falls

OTHER ENVIRONMENTAL CONSIDERATIONS						
22	Are floor surfaces/carpeting free of cracks and tripping hazards?					
23	Are hallways kept adequately clear / clutter free to allow patient ambulation?					
24	Are floors properly marked when wet to avoid slipping or spill cleaned up immediately?					
25	Do parking lots have uneven pavement / potholes / tripping hazards?					
26	Do sidewalks have uneven pavement / tripping hazards?					
27	Entrance areas free and clear?					
28	Parking areas / entrances well – lit?					
29	Parking lots well marked?					

Interventions Universal Fall Precautions

Identify steps and interventions to prevent falls in light of the intrinsic and extrinsic factors and the score on the risk assessment:

- Bed in low position
- Toileting and continence programs
  - Elevated toilet seats
- An appropriate armchair with wheels locked at the patient's bedside
  - Cameron ID, Murray GR, Gillespie LD, et al. Interventions for preventing falls in older people in nursing care facilities and hospitals. Cochrane Database of Systematic Reviews 2010, Issue 1. Art. No.: CD005465.

Interventions Universal Fall Precautions

- Comprehensive patient assessment and environmental assessment
- Assess for low BMI, osteoporosis, vitamin D deficiency and anti-platelet therapy since evidence based practice recommendations
- Ensure that the pathway to the restroom is free of obstacles and properly lighted
- Sturdy handrails in patient bathrooms
- Ensure the hallways are clear of obstacles
  - Top TJC Problematic Standard

Interventions Universal Fall Precautions

- Bathroom close to bed or bedside commode
  - Do not leave patient unattended in bathroom
- Medication review
  - Reconciliation of medication should also be done
  - Treat underlying disorders such as syncope, diabetes and anemia
- Increase mobility and get patients moving
- Instruct the patient or resident to request assistance as needed - call before you fall
- Safe handling practices

Interventions

- Answer call lights promptly and one hour rounds during day and evening on high risk patients
  - Use teach back regarding call light use
  - Have patient demonstrate call light
- Instruct the patient to wear non-skid footwear
- Place assistive devices such as walkers and canes within a patient's or resident's reach
- Evaluate chair and bed height, lower bedrails
- Validate instrument that assesses for risk injury
- Reassess at regular intervals

Interventions

- Consider peak effect for prescribed medications that affect level of consciousness, gait and elimination when planning patient care
- Reduce use of **restraints**
- Observe environment for potentially unsafe conditions, such as loose carpeting and water on the floor. Do not over wax. Notify appropriate department(s) of hazardous conditions
- Use alarm devices
- Monitor and treat calcium and Vit D deficiencies for long term care patients

Interventions

- Do not leave “at risk” patients or residents unattended in diagnostic or treatment areas such as x-ray
- Ensure patients or residents being transported by stretcher/bed have all side-rails in the up position during transport and while awaiting test
- Reduce bedrail hazards
- Use floor mats
- Keep patient’s personal items within reach at all times
- Transfer belts should be available
- Assess need for 1:1 monitoring

Plan of Care

- Interventions are also based on the actual number obtained on the risk assessment tool
- Morse scale, Hendrich II, Tinetti, Schmidt , Johns Hopkins, STRATIFY, Edmonson-Psychiatric, Downton, Mahc Home Health, Innes, or other evidenced based scales
- Recent history of falls (category) and indicator is fallen past 3 months gives you 7 points
- North America Nursing Diagnosis Association nursing diagnosis guideline on “risk for falls”

Plan of Care Based on Total Score

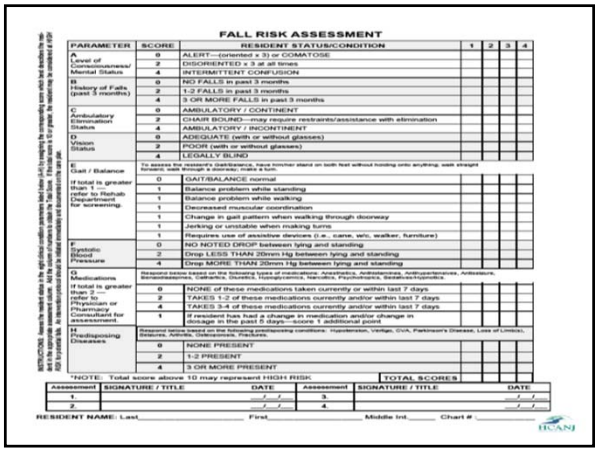
- Poor mobility/generalized weakness (category) and indicator is difficulty rising from chair unassisted, unsteady gait, use of assistive devices, needs assistance, imbalance gives you 4 points
- Altered elimination and indicator is incontinence, frequency, nocturia, diarrhea, needs assist toileting, gives you 3 points
- Confusion/disorientation and indicator is poor judgment, lack of safety awareness, not able to follow instructions and memory problems gives you a score of 3

Plan of Care

- Dizziness/vertigo/syncope and indicator is related medications, blood/volume loss, vital signs INR, orthostatic changes, dizzy with position change gives you score of 3 points
- Medications and indicator is psychotropics, antihistamine, benzodiazepines, antidepressants, cardiac-hypertensive meds, diuretics, laxatives, multiple meds, sleep aides gives you a 3 points

Plan of Care

- Poor judgment (if not confused) and indicator is lacks safety awareness, needs assistance but reports independence gives you score of 3 points
- Eye sight and indicator is decreased vision, nonuse of optical devices gives score of 2
- Age and indicator is over 65 years of age and gives you score of 1



FALL RISK ASSESSMENT

PARAMETER	SCORE	RESIDENT STATUS/CONDITION	1	2	3	4
A Level of Consciousness/ Mental Status	0	ALERT—(oriented x 3) or COMATOSE				
	2	DISORIENTED x 3 at all times				
	4	INTERMITTENT CONFUSION				
B History of Falls (past 3 months)	0	NO FALLS in past 3 months				
	2	1-2 FALLS in past 3 months				
	4	3 OR MORE FALLS in past 3 months				
C Ambulatory Elimination Status	0	AMBULATORY / CONTINENT				
	2	CHAIR BOUND—may require restraints/assistance with elimination				
	4	AMBULATORY / INCONTINENT				
D Vision Status	0	ADEQUATE (with or without glasses)				
	2	POOR (with or without glasses)				
	4	LEGALLY BLIND				
E Gait / Balance		To assess the resident's Gait/Balance, have him/her stand on both feet without holding onto anything, walk straight forward, walk through a doorway, make a turn.				
If total is greater than 2 — refer to Rehab Department for screening.	0	GAIT/BALANCE normal				
	1	Balance problem while standing				
	1	Balance problem while walking				
	1	Decreased muscular coordination				
	1	Change in gait pattern when walking through doorway				
	1	Jerking or unstable when making turns				
	1	Requires use of assistive devices (i.e., cane, wtc, walker, furniture)				
F Systolic Blood Pressure	0	NO NOTED DROP between lying and standing				
	2	Drop LESS THAN 20mm Hg between lying and standing				
	4	Drop MORE THAN 20mm Hg between lying and standing				
G Medications		Response below based on the following types of medications: Anesthetics, Antihistamines, Antihypertensives, Antiseizure, Benzodiazepines, Cathartics, Diuretics, Hypoglycemics, Narcotics, Psychotropics, Sedatives/Hypnotics				
If total is greater than 2 — refer to Physician or Pharmacy Consult for assessment.	0	NONE of these medications taken currently or within last 7 days				
	2	TAKES 1-2 of these medications currently and/or within last 7 days				
	4	TAKES 3-4 of these medications currently and/or within last 7 days				
	1	If resident has had a change in medication and/or change in dosage in the past 5 days—score 1 additional point				
H Predisposing Diseases		Response below based on the following predisposing conditions: Hypotension, Vertigo, CVA, Parkinson's Disease, Loss of Limb(s), Seizures, Arthritis, Osteoporosis, Fractures.				
	0	NONE PRESENT				
	2	1-2 PRESENT				
	4	3 OR MORE PRESENT				
*NOTE: Total score above 10 may represent HIGH RISK		TOTAL SCORES				

Assessment	SIGNATURE / TITLE	DATE	Assessment	SIGNATURE / TITLE	DATE
1.		__/__/__	3.		__/__/__
2.		__/__/__	4.		__/__/__

RESIDENT NAME: Last_____ First_____ Middle Int.____ Chart #:_____

Level 1 Score 0-3

- Intervention is based on score
- All patients get level one
- Orient to environment and patient items, call light within reach
- Bed low and locked
- Night light evening and night shift
- Non-slip footwear, use of visual / hearing devices,
- Safest rail position for mobility (**3** or less rails up)
- Room, floor free of obstacles and educate pt /family related fall risk factors/ prevention strategy

Level 2 Score 4-7

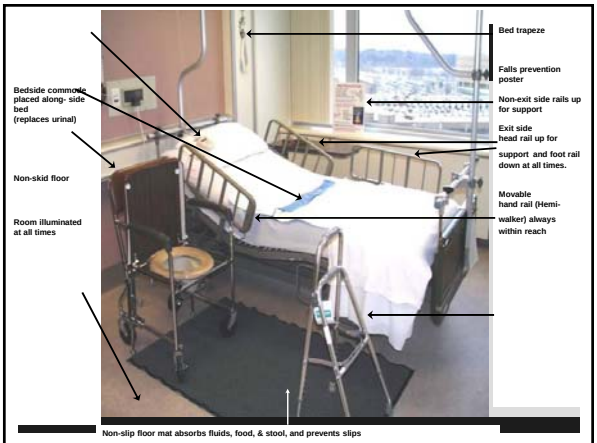
- Patients get everything in level 1 plus the folllowing
- Fall Precaution ID band, magnet, red or yellow socks, different colored gown, and on Kardex
- Toilet before bedtime & q 4 hr while awake
  - Do not leave unattended in bathroom. Bedside commode prn
- Observe Q 2 hr day for care needs/ obstacles
- Observe for orthostatic symptoms with activity
- Increase daytime activity to increase rest at night

Level 2 Score 4-7

- Communicate fall risk in report & when sending to other departments
- Cannot be unattended when transported
- Use gait belt and assist devices as appropriate
- PT/OT screen with new onset of poor mobility
- Transport on cart to procedures (to facilitate transfers)

Level 3 Score 8 or More

- Get everything in level 1 and 2 plus the following
- Observe every 1 hr for care needs/obstacles
- Relocate for improved visibility
- Supervise patient when toileting, ambulating or transferring
- Obtain high-low bed and keep in low position when unattended
  - See safe room set up
- Encourage family to stay with patient or sitter
- Bed or chair alarm



Ambulatory Outpatient Fall Assessment

Variable	0	1	2	2
Age	18-30	31-60	61-75	>75
History of Falls	No history	> 6 months	1-6 months ago	Within 1 month
Mental Status	Alert & Oriented x 3, follows instructions	Oriented to person/place	Oriented to person only, Short Term Memory loss	Disoriented, unable to follow instructions

Ambulatory Outpatient Fall Assessment
9 or more points patient at risk of fall

Physical Mobility	No physical impairment, no assistive devices to ambulate	Use assistive device and/or able to ambulate	Assist of 2 or more to ambulate	Unable to ambulate
Communication/ Sensory Impairment (vision, hearing, speech, neuropathy, language barrier)	No deficits	1 deficit with correction	1 deficit without correction ***or 2 deficits with correction***	3 or more deficits or onset of 1 new problem
Elimination (nocturia, frequency, urgency, diarrhea, incontinence, retention, laxative, bowel prep)	No problem	1 problem and/or Foley/ostomy	2 problems or removal of Foley within 24 hours	3 or more problems or onset of 1 new problem

Get Up and Go Test

Get Up and Go Test

www.gericareonline.net/tools/eng/falls/

The "Get Up and Go Test" is an assessment that should be conducted as part of a routine evaluation when dealing with older persons. Its purpose is to detect "fallers" and to identify those who need evaluation.

The staff should be trained to perform the "Get Up and Go Test" at check-in and query those with gait or balance problems for falls.

INITIAL CHECK

All older persons who report a single fall should be observed as they:

- From a sitting position, stand without using their arms for support.
- Walk10 feet, turn, and return to the chair.
- Sit back in the chair without using their arms for support.

Individuals who have difficulty completing the above in less than 10 seconds or demonstrate unsteadiness performing this test require further assessment.

Intervention Strategies

	Level of Risk			Area of Risk					
Intervention	High	Med	Low	Frequent Falls	Altered Elimination	Muscle Weakness	Mobility Problems	Multiple Medications	Depression
Low beds	x	x	x	x	x	x	x	x	x
Non-slip grip footwear	x	x	x	x	x	x	x	x	x
Assign patient to bed that allows patient to exit toward stronger side	x	x	x	x	x	x	x	x	x
Lock movable transfer equipment prior to transfer	x	x	x	x	x	x	x	x	x
Individualize equipment to patient needs	x	x	x	x	x	x	x	x	x

High risk fall ro	x	x		x	x	x	x	x	x
om setup									
Non-skid floor mat	x	x		x	x	x	x	x	x
Medication review	x	x		x	x	x	x	x	x
Exercise program	x	x		x	x	x	x	x	x
Toileting worksheet	x	x			x				
Color armband / Falling Star etc	x			x	x	x	x	x	x
Perimeter mattress	x			x	x	x	x		
Hip protectors	x			x		x	x		
Bed/chair alarms	x			x		x	x		

Stratify Risk Assessment Tool

STRATIFY Risk Assessment Tool
Answer all five questions below and count the number of "Yes" answers.

1	Did the patient present to hospital with a fall or has he or she fallen on the ward since admission **(recent history of fall)**?	Yes = 1	No = 0
2	Is the patient **agitated**?	Yes = 1	No = 0
3	Is the patient **visually impaired** to the extent that everyday function is affected?	Yes = 1	No = 0
4	Is the patient in need of especially **frequent toileting**?	Yes = 1	No = 0
5	Does the patient have a combined **transfer and mobility** score of 3 or 4? (calculate below)	Yes = 1	No = 0
	Transfer score: Choose **one** of the following options which best describes the patient's level of capability when transferring from a bed to a chair: 0 = Unable 1 = Needs major help 2 = Needs minor help 3 = Independent		
	Mobility score: Choose **one** of the following options which best describes the patient's level of mobility: 0 = Immobile 1 = Independent with the aid of a wheelchair 2 = Uses walking aid or help of one person 3 = Independent		
	Combined score **(transfer + mobility)**: _____		
	Total score from questions 1-5: _____ 0 = Low risk 1 = Moderate risk 2 or above = High risk		

Supplement Tools with Medication Risk

Medication Fall Risk Score

Point Value (Risk Level)	American Hospital Formulary Service Class	Comments
3 (High)	Analgesics,* antipsychotics, anticonvulsants, benzodiazepines†	Sedation, dizziness, postural disturbances, altered gait and balance, impaired cognition
2 (Medium)	Antihypertensives, cardiac drugs, antiarrhythmics, antidepressants	Induced orthostasis, impaired cerebral perfusion, poor health status
1 (Low)	Diuretics	Increased ambulation, induced orthostasis
Score ≥ 6		Higher risk for fall; evaluate patient

* Includes opiates.
† Although not included in the original scoring system, the falls toolkit team recommends that you include non-benzodiazepine sedative-hypnotic drugs (e.g., zolpidem) in this category.

Medication Fall Risk Evaluation Tools
Use the tools below when evaluating patients found to have high medication-related risk for falls. The comments section provides information on how to evaluate the indicators.

Indicator	Comments
Medications	Beers criteria,* dose adjustment for renal function or disease state, overuse of medications, IV access
Laboratory	Therapeutic drug levels (digoxin, phenytoin), international normalized ratio, electrolytes, hemoglobin/hematocrit
Disease states	Comorbidities, hypertension, congestive heart failure, diabetes, orthopedic surgery, prior fall, dementia, other†
Education	Patient's ability/willingness to learn, patient's mental status

* Beers criteria are available at: American Geriatrics Society updated Beers criteria for potentially inappropriate medication use in older adults. J Am Geriatr Soc 2012;60(4):616-31.
† Age 65 years or older.

Hendrich II Falls Risk Model

RISK FACTOR ASSESSMENT	Points
▪ Confusion/disorientation	4
▪ Depression	2
▪ Altered elimination (incontinence, nocturia, frequency)	1
Dizziness/vertigo 1 Gender (male)	1
▪ Any anti-epileptics	2
▪ Any benzodiazepines	1

Hendrich II Falls Risk Model

RISK FACTOR ASSESSMENT		Points
▪ **GET UP**	Rises in a single movement	0
▪ **AND**	Pushes up in one attempt	1
▪ **GO**	Multiple attempts, successful	3
▪ **TEST**	Unable to rise without assistance	4

▪ Score (Document under Observation Record)

Morse Fall Scale

Morse Fall Scale

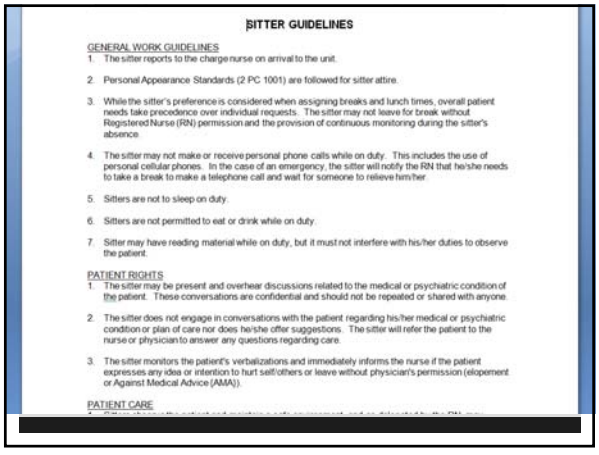
Item	Item Score	Patient Score
1. History of falling (immediate or previous)	No 0 Yes 25	
2. Secondary diagnosis (≥ 2 medical diagnoses in chart)	No 0 Yes 15	
3. Ambulatory aid None/bedrest/nurse assist Crutches/cane/walker Furniture	 0 15 30	
4. Intravenous therapy/heparin lock	No 0 Yes 20	
5. Gait Normal/bedrest/wheelchair Weak* Impaired†	 0 10 20	
6. Mental status Oriented to own ability Overestimates/forgets limitations	 0 15	
Total Score‡: Tally the patient score and record. <25: Low risk 25-45: Moderate risk >45: High risk		

Sitters or Patient Safety Attendant

- Patients who are at risk for self-harm or who are impaired and unable to follow instructions may need a sitter
- A sitter may also be ordered by the physician
- Provide continuous one to one observation
- Sitter responsible for maintaining safe environment
- Many hospitals that did away with sitter programs have reinstituted them

Sitters

- Hospital should have sitter policy
- 1:1 observation is required for patients in restraint and seclusion unless video/audio
- Sitters should never leave patient alone
- Work under the direction of the nurse and are often non-licensed
- Can be hospital employee with completed sitter competencies
- Note mixed results in the literature



SITTER GUIDELINES

GENERAL WORK GUIDELINES

1. The sitter reports to the charge nurse on arrival to the unit.
2. Personal Appearance Standards (2 PC 1001) are followed for sitter attire.
3. While the sitter's preference is considered when assigning breaks and lunch times, overall patient needs take precedence over individual requests. The sitter may not leave for break without Registered Nurse (RN) permission and the provision of continuous monitoring during the sitter's absence.
4. The sitter may not make or receive personal phone calls while on duty. This includes the use of personal cellular phones. In the case of an emergency, the sitter will notify the RN that he/she needs to take a break to make a telephone call and wait for someone to relieve him/her.
5. Sitters are not to sleep on duty.
6. Sitters are not permitted to eat or drink while on duty.
7. Sitter may have reading material while on duty, but it must not interfere with his/her duties to observe the patient.

PATIENT RIGHTS

1. The sitter may be present and overhear discussions related to the medical or psychiatric condition of the patient. These conversations are confidential and should not be repeated or shared with anyone.
2. The sitter does not engage in conversations with the patient regarding his/her medical or psychiatric condition or plan of care nor does he/she offer suggestions. The sitter will refer the patient to the nurse or physician to answer any questions regarding care.
3. The sitter monitors the patient's verbalizations and immediately informs the nurse if the patient expresses any idea or intention to hurt self/others or leave without physician's permission (elopement or Against Medical Advice (AMA)).

PATIENT CARE

PATIENT CARE

1. Sitters observe the patient and maintain a safe environment, and as delegated by the RN, may provide care to the patient that does not interfere with the ability to maintain continuous visual contact.
   a. Non-licensed nursing staff assigned as sitters may complete all aspects of ADL's for all patients in the room. This includes but is not limited to the following: vital signs, bathing, feeding, toileting, ROM and restraint protocol if appropriate.
   b. Ancillary staff may provide care within the scope of their regular practice.
2. Sitters sit in the patient's room with an unobstructed view of the patient. Patient requests for assistance are promptly referred to the nursing staff via the call light/intercom system.
3. The sitter accompanies the patient for any clinical tests or procedures off the unit. The sitter remains within an arm's length distance of the patient unless otherwise directed by the person performing the test or procedure.
4. The sitter may be assigned to monitor two patients in the same room. The sitter positions him/herself to maintain an unobstructed view of both patients. Additional staff must be provided if patient activity (e.g., patient ambulating in the hall, patient in the restroom or patient transported off the unit) prevents the sitter from simultaneously monitoring both patients.

Patient Assessment Should be Done

- On **admission**
- When the patient's **condition changes** (after surgery, new medication regimen, change in condition like onset of confusion, sustains a stroke, return form PT, etc.)
- When a **fall** or good catch (near miss) occurs
- When **transferred** to a new unit
- More often if high risk

Toileting

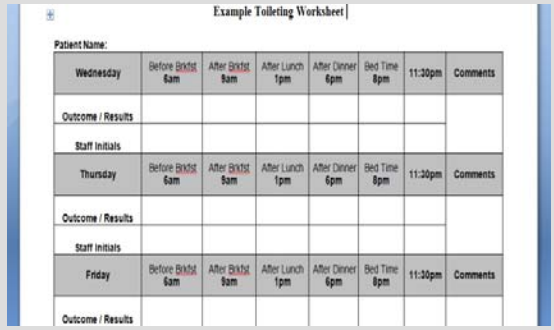
- Recent studies show that up to 50% of falls are related to toileting needs
- 49% of falls involved left alone to void after being assisted to BR or BSC[1]
- Regular toileting or bladder training may be especially helpful for patients/residents with cognitive impairment[2]

[1]Hitcho, EB, Characteristics and circumstances of falls in hospital setting. J Gen Intern Med 2004 Jul;19(7); 732-9.

[2]McDowell J., Burgio, K, Urinary Eliminations in: Burke, MM, Walsh MB, Eds, Gerontology Nursing:Case of the frail elderly. Missouri: Mosby 1992, 312-331.

See Meade, 2006: Quigley, 2008; Tzeng, 2009; Can reduce falls by 60%

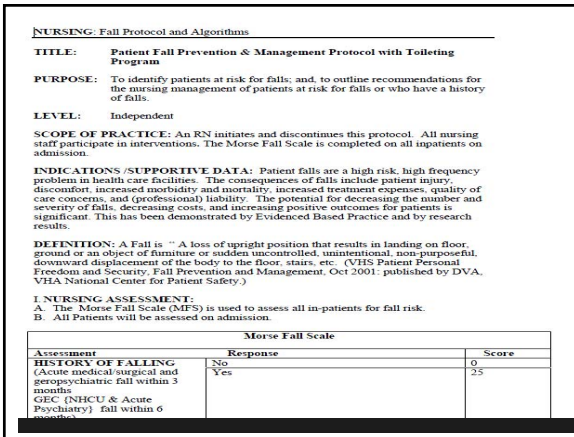
Toileting Worksheet



Example Toileting Worksheet

Patient Name:

Wednesday	Before Brkfst 6am	After Brkfst 9am	After Lunch 1pm	After Dinner 6pm	Bed Time 8pm	11:30pm	Comments
Outcome / Results							
Staff Initials							
Thursday	Before Brkfst 6am	After Brkfst 9am	After Lunch 1pm	After Dinner 6pm	Bed Time 8pm	11:30pm	Comments
Outcome / Results							
Staff Initials							
Friday	Before Brkfst 6am	After Brkfst 9am	After Lunch 1pm	After Dinner 6pm	Bed Time 8pm	11:30pm	Comments
Outcome / Results							



NURSING: Fall Protocol and Algorithms

TITLE: **Patient Fall Prevention & Management Protocol with Toileting Program**

PURPOSE: To identify patients at risk for falls; and, to outline recommendations for the nursing management of patients at risk for falls or who have a history of falls.

LEVEL: Independent

SCOPE OF PRACTICE: An RN initiates and discontinues this protocol. All nursing staff participate in interventions. The Morse Fall Scale is completed on all inpatients on admission.

INDICATIONS /SUPPORTIVE DATA: Patient falls are a high risk, high frequency problem in health care facilities. The consequences of falls include patient injury, discomfort, increased morbidity and mortality, increased treatment expenses, quality of care concerns, and (professional) liability. The potential for decreasing the number and severity of falls, decreasing costs, and increasing positive outcomes for patients is significant. This has been demonstrated by Evidenced Based Practice and by research results.

DEFINITION: A Fall is " A loss of upright position that results in landing on floor, ground or an object of furniture or sudden uncontrolled, unintentional, non-purposeful, downward displacement of the body to the floor, stairs, etc. (VHS Patient Personal Freedom and Security, Fall Prevention and Management, Oct 2001; published by DVA, VHA National Center for Patient Safety.)

I. **NURSING ASSESSMENT:**
A. The Morse Fall Scale (MFS) is used to assess all in-patients for fall risk.
B. All Patients will be assessed on admission.

Morse Fall Scale

Assessment	Response	Score
HISTORY OF FALLING (Acute medical/surgical and geropsychiatric fall within 3 months GEC {NHCU & Acute Psychiatry} fall within 6 months)	No	0
	Yes	25

Hourly Rounding

- Some hospitals do hourly rounding during the day and evening shift
- Found reduced number of call lights and falls
- Could answer call lights more promptly when patients needed to use to the bathroom
- Might be nurse visiting even hours and aide odd hours
- Use documentation form
- Evaluate if rounding reduced falls

Hourly Rounding Forms

Hourly Rounding Form

Purpose: The purpose of this log is for data collection on hourly patient rounding ensuring clinical accountability and keeping our patients and families informed.

Instructions: The log serves as documentation of hourly rounds. Completed logs are submitted to the Clinical Supervisor daily for review and compliance. The Manager will retain the log for 30 days.

Date _____ Room #_____(Do **NOT** include name)

Time Standard Time Military Time	Initials of Person Rounding	Time of Rounding Visit	Reason for Patient Unavailable	
			Sleeping	Off unit / Out of room
6 – 7 a.m. 0600 - 0700				
7 – 8 a.m. 0700 - 0800				
8 – 9 a.m. 0800 - 0900				
9 – 10 a.m. 0900 - 1000				
10 – 11 a.m. 1000 - 1100				
11 a.m. – 12 noon 1100 - 1200				
12 noon – 1 p.m. 1200 - 1300				
1 – 2 p.m. 1300 - 1400				
2 – 3 p.m. 1400 - 1500				
3 – 4 p.m. 1500 - 1600				
4 – 5 p.m. 1600 - 1700				
5 – 6 p.m. 1700 - 1800				

Frequent Rounding Research

- Lancaster AD, Ayers A, Belbot B, et al. Preventing falls and eliminating injury at Ascension Health. *The Joint Commission Journal on Quality and Patient Safety.* 2007;33(7):367-375.
- Meade CM, Bursell AL, Ketelsen L. Effects of nursing rounds: On patients' call light use, satisfaction, and safety. *American Journal of Nursing.* 2006;106(9):58-70.
- See also Weinberg J, Proske D, Szerszen A. An inpatient fall prevention initiative in a tertiary care hospital. Jt Comm J Qual Pat Saf 2011;37(7):317-25

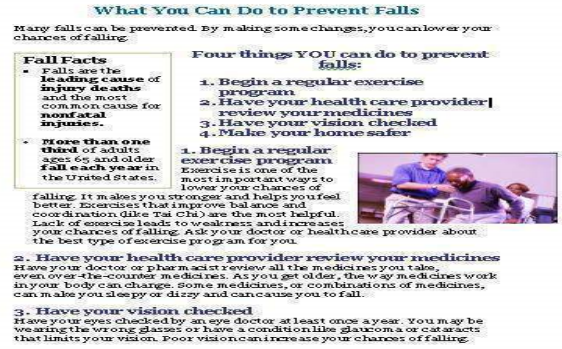
Bed Alarms

- Bed exit alarms warn caregivers when patients leave or attempt to leave their beds
- The Joint Commission cited bed alarms as an effective risk reduction technique
- Also has one of the root causes of problems when they malfunction or are misused

Bed Alarms

- Many forms such as pressure-sensitive pad which can be placed under buttocks
- Cords and garment clips, patient wears alarms that are attached directly to body such as ankle
- Floor mats with sensors and bedside infrared beam detectors that are set up next to the wall or bed

Education



What You Can Do to Prevent Falls

Many falls can be prevented. By making some changes, you can lower your chances of falling.

Fall Facts

- Falls are the **leading cause** of **injury deaths** and the most common cause for **nonfatal injuries.**
- **More than one third** of adults ages 65 and older **fall each year** in the United States.

Four things YOU can do to prevent falls:

1. Begin a regular exercise program
2. Have your health care provider review your medicines
3. Have your vision checked
4. Make your home safer

1. Begin a regular exercise program

Exercise is one of the most important ways to lower your chances of falling. It makes you stronger and helps you feel better. Exercises that improve balance and coordination (like Tai Chi) are the most helpful. Lack of exercise leads to weakness and increases your chances of falling. Ask your doctor or health care provider about the best type of exercise program for you.

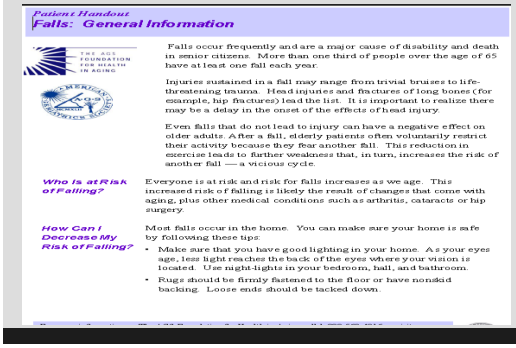
2. Have your health care provider review your medicines

Have your doctor or pharmacist review all the medicines you take, even over-the-counter medicines. As you get older, the way medicines work in your body can change. Some medicines, or combinations of medicines, can make you sleepy or dizzy and can cause you to fall.

3. Have your vision checked

Have your eyes checked by an eye doctor at least once a year. You may be wearing the wrong glasses or have a condition like glaucoma or cataracts that limits your vision. Poor vision can increase your chances of falling.

Give Patients Educational Material



Patient Handout

Falls: General Information

Falls occur frequently and are a major cause of disability and death in senior citizens. More than one third of people over the age of 65 have at least one fall each year.

Injuries sustained in a fall may range from trivial bruises to life-threatening trauma. Head injuries and fractures of long bones (for example, hip fractures) lead the list. It is important to realize there may be a delay in the onset of the effects of head injury.

Even falls that do not lead to injury can have a negative effect on older adults. After a fall, elderly patients often voluntarily restrict their activity because they fear another fall. This reduction in exercise leads to further weakness that, in turn, increases the risk of another fall — a vicious cycle.

Who Is at Risk of Falling?

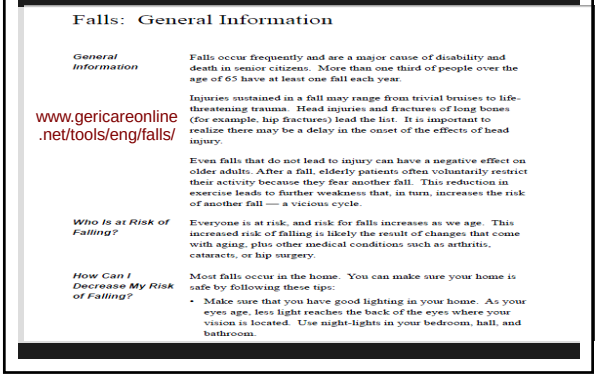
Everyone is at risk and risk for falls increases as we age. This increased risk of falling is likely the result of changes that come with aging, plus other medical conditions such as arthritis, cataracts or hip surgery.

How Can I Decrease My Risk of Falling?

Most falls occur in the home. You can make sure your home is safe by following these tips:

- Make sure that you have good lighting in your home. As your eyes age, less light reaches the back of the eyes where your vision is located. Use night-lights in your bedroom, hall, and bathroom.
- Rugs should be firmly fastened to the floor or have nonskid backing. Loose ends should be tacked down.

Patient Educational Material



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www.gericareonline.net/tools/eng/falls/

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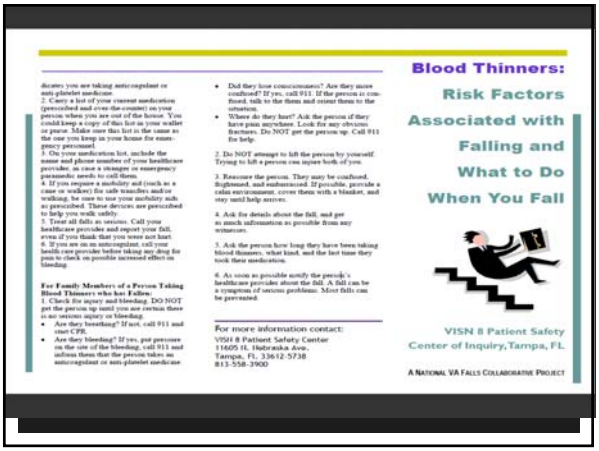


Blood Thinners:

Risk Factors Associated with Falling and What to Do When You Fall

VISN 8 Patient Safety Center of Inquiry, Tampa, FL

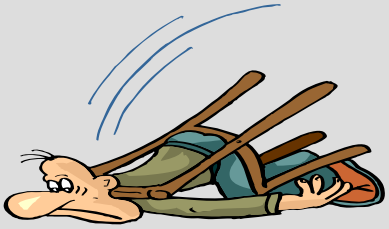
A National VA Falls Collaborative Project

Patient Education

- **Call before You Fall!**
- Education is critical for both the patient and the family
- Give flyers in the admission packets and have in waiting room
- Give patient direct verbal information since may not read material
- Show the patient where the call cord is and location of the bathroom

Call...

Don't Fall

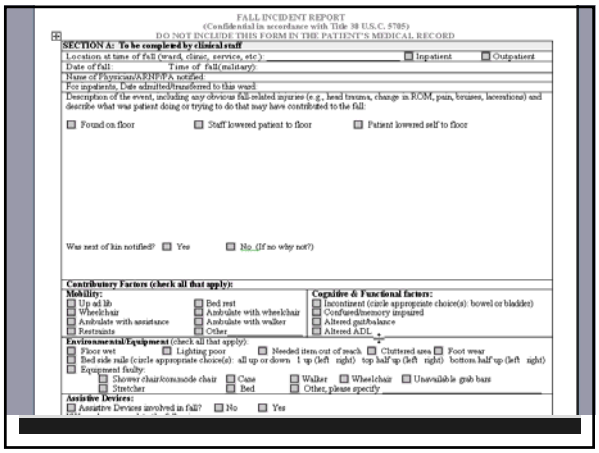


Patient and Family Education

- High risk male patients should be asked to urinate from a sitting position
- Explain to patient the risks of falling from medications
- Patients can be taught to walk close to wall and lean on wall if feels they are starting to fall

Documentation

- Documentation is important
- The fall assessment performed on all patients will be documented in the medical record
- Interventions that have been implemented should also documented
- Incident reports are completed for each fall episode



FALL INCIDENT REPORT
(Confidential in accordance with Title 38 U.S.C. 5705)
DO NOT INCLUDE THIS FORM IN THE PATIENT'S MEDICAL RECORD

SECTION A: To be completed by clinical staff

Location at time of fall (ward, clinic, service, etc): ☐ Inpatient ☐ Outpatient
Date of fall: Time of fall (military):
Name of Physician/APN/PA notified:
For inpatients, Date admitted/transferred to this ward:
Description of the event, including any obvious fall-related injuries (e.g., head trauma, change in ROM, pain, bruises, lacerations) and describe what was patient doing or trying to do that may have contributed to the fall:

☐ Found on floor ☐ Staff lowered patient to floor ☐ Patient lowered self to floor

Was next of kin notified? ☐ Yes ☐ No (If no why not?)

Contributory Factors (check all that apply):

Mobility:
☐ Up ad lib ☐ Bed rest
☐ Wheelchair ☐ Ambulate with wheelchair
☐ Ambulate with assistance ☐ Ambulate with walker
☐ Restraints ☐ Other

Cognitive & Functional factors:
☐ Incontinent (circle appropriate choice(s): bowel or bladder)
☐ Confused/memory impaired
☐ Altered gait/balance
☐ Altered ADL

Environmental/Equipment (check all that apply):
☐ Floor wet ☐ Lighting poor ☐ Needed item out of reach ☐ Cluttered area ☐ Foot wear
☐ Bed side rails (circle appropriate choice(s): all up or down 1 up (left right) top half up (left right) bottom half up (left right)
☐ Equipment faulty:
☐ Shower chair/commode chair ☐ Cane ☐ Walker ☐ Wheelchair ☐ Unavailable grab bars
☐ Stretcher ☐ Bed ☐ Other, please specify

Assistive Devices:
☐ Assistive Devices involved in fall? ☐ No ☐ Yes

Documentation

Documentation in the medical record after a fall incident consists of the following:

- Patient assessment at time of discovery
- Patient response to fall
- Evidence of injury
- Description of fall (location and position of patient when found)

Documentation in the MR after a Fall

- Notification of patient's physician
- Notification of patient's family
- Any medical or nursing actions that were implemented
- If pictures were taken
- Patient assessment at time, date of discovery
- Patient response to fall (what patient said)
- Evidence of injury
- Medical or nursing action implemented

HCANJ Fall Management Guidelines

FALLS MANAGEMENT INVESTIGATION — POST FALL TOOL

Resident Name_____ Age_____ Living Quarters Room #_____

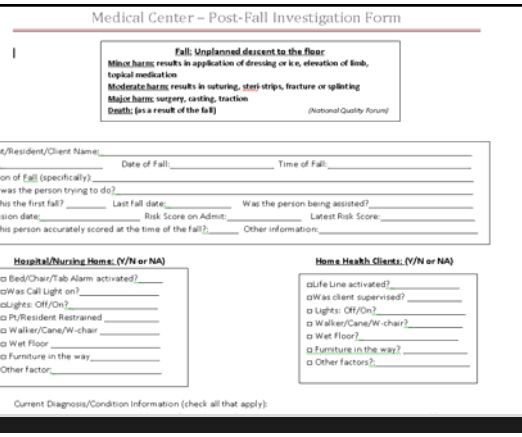
Date of fall: ____/____/____ Day of week_____ Time_____ AM or PM

1. Was this fall observed? ☐No ☐Yes If yes, by whom: i._____ (name and title of individual)
2. Location of fall (be as exact as possible) _____
3. Was the Resident alone at the time of the fall? ☐Yes ☐No
4. What was the reason for the Resident to be in that location?_____
5. Was this the residents first fall? ☐Yes ☐No
6. Were protective or safety devises in use at the time of the fall? ☐Yes ☐No
7. Investigate the surroundings where the incident occurred for any evidence of the following:
   - The witness is to complete this section: ☑

Clue	Yes	No	Clue	Yes	No
Water spills?			Resident in a hurry? If yes, explain why:		
Clutter on the floor?			Resident not using cane/walker as MD ordered?		
Phone cords/TV cords lying about?			Improper footwear?		
Poor lighting?			Clothing got in the way?		
Improper bed height?			Resident using incontinent supplies at time of fall?		
Other furniture involved?			Resident became tired?		
Wheelchair unlocked?			Resident reaching for items?		
Wheelchair foot rests in the way?			Other		

8. Has the Residents health care status changed? Answer the following questions: ☑

Clue	Yes	No	Clue	Yes	No
New/Increase/decrease in medications?			Decrease in fluid intake?		
Weakness/fatigue?			Recent fever/cough/cold?		
Dizziness?			Changes in diagnosis status?		
Changes in blood pressure?			Changes in mental status?		
Recent return from hospital?			Changes in behaviors?		



Medical Center – Post-Fall Investigation Form

Fall: Unplanned descent to the floor
Minor harm: results in application of dressing or ice, elevation of limb, topical medication
Moderate harm: results in suturing, steri-strips, fracture or splinting
Major harm: surgery, casting, traction
Death: (as a result of the fall) *(National Quality Forum)*

Patient/Resident/Client Name:_____
MRN:_____ Date of Fall:_____ Time of Fall:_____
Location of Fall (specifically):_____
What was the person trying to do?_____
Was this the first fall? _____ Last fall date:_____ Was the person being assisted?_____
Admission date:_____ Risk Score on Admit:_____ Latest Risk Score:_____
Was this person accurately scored at the time of the fall?_____ Other information:_____

Hospital/Nursing Home: (Y/N or NA)

- ☐ Bed/Chair/Tab Alarm activated?_____
- ☐Was Call Light on?_____
- ☐Lights: Off/On?_____
- ☐ Pt/Resident Restrained _____
- ☐ Walker/Cane/W-chair _____
- ☐ Wet Floor _____
- ☐ Furniture in the way_____
- Other factor:_____

Home Health Clients: (Y/N or NA)

- ☐Life Line activated?_____
- ☐Was client supervised? _____
- ☐ Lights: Off/On?_____
- ☐ Walker/Cane/W-chair?_____
- ☐ Wet Floor?_____
- ☐ Furniture in the way? _____
- ☐ Other factors?:_____

Current Diagnosis/Condition Information (check all that apply):

POST FALL ASSESSMENT

Admitting Diagnosis:
- ☐ CVA
- ☐ TBI
- ☐ Ortho
- ☐ Other _____

Fall occurred on _____ (date) at _____ (time). Patient last checked at _____ (time).

	Yes	No	N/A	Comments
History of previous falls? (Within the past 3 months)				
Any medical conditions that predispose to falls or underlying medical conditions that increase injury risk from falls?				
Was the patient identified as a fall risk?				
Were the precautions in place?				
If this was a transfer, was a gait belt in use?				
Was the patient wearing proper footwear?				
Were the brakes locked on the bed/wheelchair/stretcher?				
Personal items with in reach?				
Call light used?				
Environment free of clutter?				
Patient receiving any of these categories of medications? ☐ Anticoagulants ☐ Anti-psychotics ☐ Antihypertensives ☐ Diuretics ☐ Narcotics ☐ Laxatives ☐ >5 Routine Medications ☐ Other (i.e. Antidepressants, Vasodilators)				
Recent change in medication?				
Change in mobility, standing, sitting balance or activity tolerance?				
Change in bowel and bladder continence status?				
Any visual and auditory impairment?				
Any changes in cognition, judgment, memory, safety awareness, decision-making capacity?				

INTERVENTIONS (mark the new interventions)

	Fall armband applied to patient's wrist		PT/OT consultation
	Reviewed medication therapy with Pharmacist		Modification of environmental factors
	Increase patient observation/monitoring		Assitive device in place

Document

- Skin - any lacerations, abrasions, skin tears, hematoma
- ROM - can the patient move arms and legs
- Environment - did the fall occur at the bedside, in bathroom, activity engaged in, wet floor, broken glass, etc.

Post Fall Assessment

- If high risk patient on **anticoagulants** experiences a fall in hospital, is referral for a PT screening needed to assess mobility?
  - Since at high risk for injury, Coumadin, Heparin drip, Plavix, Lovenox, Integra, Low weight heparin, Xarelto, Eliquis, Pradaxa. Savaysa, Arixtra, etc.)
- If patient on **psychotropic medication** falls in hospital, is referral to clinical pharmacist needed for medication review? (Antidepressants: Elavil, Norpramin, or Antipsychotic : Risperdal, Haldol, Geodon, Zyprexa, or Seroquel)

Post Fall Assessment

- Review fall prevention interventions and modify plan of care
- Should now institute high risk interventions if not already implemented
- Communicate to all shifts in report that patient has fallen and is high risk to fall again[1]
- Physician checklist for assessing fall risk or performing post fall evaluation[2]

[1]King D., Dickerson L. (2003) "Anticoagulant Use in Patient with Risk of Falling", American Academy of Family Physicians, 8 (67);1-2.

[2]http://www.cpgnews.org/FF/tools.cfm

TABLE 3
Checklist for Assessing Fall Risk or Performing a Post-Fall Evaluation

	Assessing Fall Risk	Performing a Post-Fall Evaluation
Fall history	◆ Review patient's history of falls.	◆ Review patient's history of recent or recurrent falls.
Medications	◆ Review patient's record for medications or combinations of medications that could predispose to falls. Stop or reduce the dosage of as many of these medications as possible.	◆ Review patient's record for medications or combinations of medications that could predispose to falls. Stop or reduce the dosage of as many of these medications as possible. ◆ Review patient's record for recent changes in the medication regimen that may have increased fall risk.
Underlying conditions	◆ Assess patient for underlying medical conditions that may predispose to falls, including conditions that affect balance or cause dizziness or vertigo. ◆ Assess heart rate and rhythm, postural pulse and blood pressure. ◆ Assess patient for orthostatic hypotension and conditions predisposing to it. ◆ Assess for underlying medical conditions that may increase the risk of injury from falls.	◆ Review status of medical conditions that predispose to falls or that could increase the risk of injury from falls. ◆ Assess patient for orthostatic hypotension and manage predisposing conditions.
Functional status	◆ Assess level of mobility. ◆ Assess gait and standing / sitting balance. ◆ Assess lower extremity joint function. ◆ Assess ability to use ambulatory assistive devices (e.g., cane, walker). ◆ Review appropriateness and safety of any current restraints. ◆ Review activity tolerance. ◆ Assess for deconditioning. ◆ Review bowel and bladder continence status.	◆ Reassess patient for significant changes in gait, mobility and standing / sitting balance, and lower extremity joint function. ◆ Reassess use of ambulatory assistive devices (e.g., cane, walker) and modify as indicated. ◆ Review appropriateness and safety of any current restraints. ◆ Assess for significant changes in activity tolerance. ◆ Review bowel and bladder continence status. ◆ Assess whether patient's footwear may have contributed to fall.
Neurological status	◆ Assess patient for conditions that impair vision (e.g., cataracts, glaucoma, macular degeneration). ◆ Assess for sensory deficits, including peripheral neuropathies. ◆ Assess muscle strength, lower extremity peripheral nerves, proprioception, reflexes, motor and cerebellar function.	◆ Reassess visual and auditory impairments. ◆ Assess new or progressive neurological impairments.
Psychological factors	◆ Review for impaired cognition, judgment, memory, safety awareness, and decision-making capacity.	◆ Reassess as indicated for significant changes in cognition, safety awareness, and decision-making capacity.
Environmental factors	◆ Assess presence of environmental factors that could cause or contribute to falls. ◆ Assess whether patient's footwear may be contributing to fall risk.	◆ Review and modify environmental factors that could have caused or contributed to fall.

Post Fall Management

- Immediate assessment is performed by licensed healthcare provider
- If life threatening can call code team or rapid response team
- Seek appropriate assistance and equipment to get the patient off the floor
- Diabetics may want to check glucose
- Assess and document if patient denies striking head and there is not visible head trauma

Post Fall Management

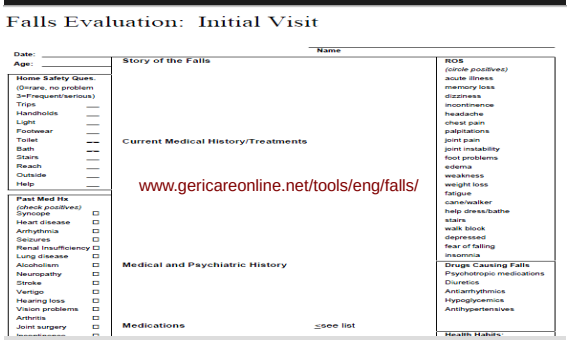
- Observe for 24 hours with VS and neuro checks every four hours, observe for restrictions in mobility and notify physician
- Determine in policy how often vital signs are to be done
  - Q 30 minutes X4, Q 1 hours x4, Q 4 hours X24 post fall
- Can differ depending on extent of injury or fall

Post Fall Management

Minor Head Trauma-(No loss of consciousness or change in mental status. Example: headache, small laceration/contusion):

- Follow interventions listed above
- Perform neuro-checks every two hours for the first 12 hours, and every 4 hours for the following 24 hours
- Notify physician of fall and any assessment findings and charge nurse/manager
- Specifically make physician aware if patient is on **anticoagulant therapy**

3 Page Fall Evaluation Form



Falls Evaluation: Initial Visit

Name

Date:
Age:

Home Safety Ques.
(0=rare, no problem; 3=Frequent/serious)
Trips
Handholds
Light
Footwear
Toilet
Bath
Stairs
Reach
Outside
Help

Past Med Hx
(check positives)
Syncope
Heart disease
Arrhythmia
Seizures
Renal Insufficiency
Lung disease
Alcoholism
Neuropathy
Stroke
Vertigo
Hearing loss
Vision problems
Arthritis
Joint surgery

Story of the Falls

Current Medical History/Treatments

www.gericareonline.net/tools/eng/falls/

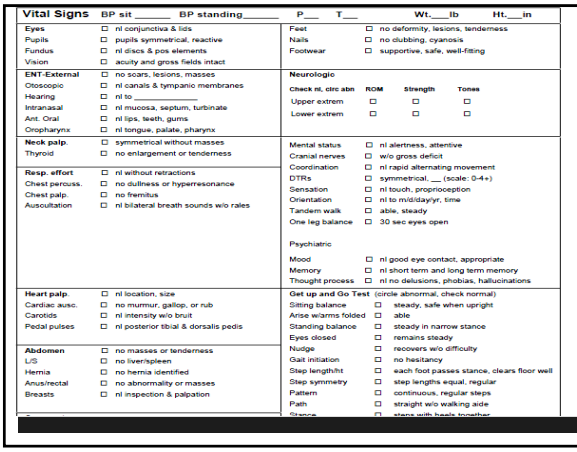
Medical and Psychiatric History

Medications <see list

ROS
(circle positives)
acute illness
memory loss
dizziness
incontinence
headache
chest pain
palpitations
joint pain
joint instability
foot problems
edema
weakness
weight loss
fatigue
cane/walker
help dress/bathe
stairs
walk block
depressed
fear of falling
insomnia

Drugs Causing Falls
Psychotropic medications
Diuretics
Antiarrhythmics
Hypoglycemics
Antihypertensives

Health Habits:



Vital Signs BP sit _____ BP standing_____ P___ T___ Wt.___lb Ht.___in

Eyes
- ☐ nl conjunctiva & lids
- ☐ pupils symmetrical, reactive
- ☐ nl discs & pos elements
- ☐ acuity and gross fields intact

ENT-External
- ☐ no scars, lesions, masses
- ☐ nl canals & tympanic membranes
- ☐ nl to _____
- ☐ nl mucosa, septum, turbinate
- ☐ nl lips, teeth, gums
- ☐ nl tongue, palate, pharynx

Neck palp.
- ☐ symmetrical without masses
- ☐ no enlargement or tenderness

Resp. effort
- ☐ nl without retractions

Chest percuss.
- ☐ no dullness or hyperresonance

Chest palp.
- ☐ no fremitus

Auscultation
- ☐ nl bilateral breath sounds w/o rales

Heart palp.
- ☐ nl location, size

Cardiac ausc.
- ☐ no murmur, gallop, or rub

Carotids
- ☐ nl intensity w/o bruit

Pedal pulses
- ☐ nl posterior tibial & dorsalis pedis

Abdomen
- ☐ no masses or tenderness

L/S
- ☐ no liver/spleen

Hernia
- ☐ no hernia identified

Anus/rectal
- ☐ no abnormality or masses

Breasts
- ☐ nl inspection & palpation

Feet
- ☐ no deformity, lesions, tenderness

Nails
- ☐ no clubbing, cyanosis

Footwear
- ☐ supportive, safe, well-fitting

Neurologic

Check nl, circ abn	ROM	Strength	Tones
Upper extrem	☐	☐	☐
Lower extrem	☐	☐	☐

Mental status
- ☐ nl alertness, attentive

Cranial nerves
- ☐ w/o gross deficit

Coordination
- ☐ nl rapid alternating movement

DTRs
- ☐ symmetrical, __ (scale: 0-4+)

Sensation
- ☐ nl touch, proprioception

Orientation
- ☐ nl to m/d/day/yr, time

Tandem walk
- ☐ able, steady

One leg balance
- ☐ 30 sec eyes open

Psychiatric

Mood
- ☐ nl good eye contact, appropriate

Memory
- ☐ nl short term and long term memory

Thought process
- ☐ nl no delusions, phobias, hallucinations

Get up and Go Test (circle abnormal, check normal)

Sitting balance
- ☐ steady, safe when upright

Arise w/arms folded
- ☐ able

Standing balance
- ☐ steady in narrow stance

Eyes closed
- ☐ remains steady

Nudge
- ☐ recovers w/o difficulty

Gait initiation
- ☐ no hesitancy

Step length/ht
- ☐ each foot passes stance, clears floor well

Step symmetry
- ☐ step lengths equal, regular

Pattern
- ☐ continuous, regular steps

Path
- ☐ straight w/o walking aide

Stance
- ☐ steps with heels together

Fall Incident Report

- Know your facility's P&P on incident report process
- Include: date, time
- Location or place of fall
- Date of admission to the unit
- Description of the fall
- If pictures were taken
- Intrinsic and extrinsic factors
- If assessment was done as per policy

Fall Incident Report

- Previously implemented strategies
- Equipment in use at the time of the fall (cane, stretcher, bed, walker, WC, unavailable grab bars)
- Factors that contributed to fall (floor wet, lighting poor)
- New intervention and revision of plan of care

Preventing Falls in Older Patients

- One third of Americans over 65 fall each year
- 10-20% have moderate to severe injuries
- Guideline updated 2010 and 2011 from American Geriatric Society (AGS)
- Looked at new evidence available
- Ask if has fallen in past year, frequency, and if experiences difficulty walking or with balance (unsteady when they walk)
- If risk of falling then need assessment of home and interventions to eliminate fall risk factors
- Updates guidelines from American Academy of Orthopedic Surgeons published in 2001 and endorsed by many organizations (ACEP, AMA, AOTA (American Occupational Therapy Association), American PT Association)

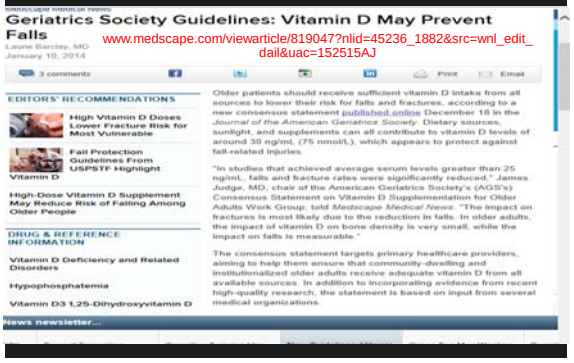
Preventing Falls in Older Patients

- All healthcare practices for older adults should include:
  - Falls screening and preventions
  - Assessment of feet and foot wear
  - Fear of falling
  - Ability to carry out daily activities
- All interventions include an exercise component including starting tai chi and reducing medications
- Those with recurrent falls or gait problems undergo comprehensive fall risk assessment
- *Journal of the American Geriatrics Society*, Jan. 13, 2011

Recommendations

- Daily Vitamin D supplement (800 IU)
- Boosting low blood pressure and manage heart rate abnormalities
- Cataract surgery should be performed when needed
- Medication reduction or withdrawal is recommended especially for sedatives, antidepressants, and drugs affecting the CNS
- Environmental adaptation by healthcare professional to reduce factors in the home etc.

Vitamin D May Help Prevent Falls 2014


Geriatrics Society Guidelines: Vitamin D May Prevent Falls

www.medscape.com/viewarticle/819047?nlid=45236_1882&src=wnl_edit_dail&uac=152515AJ

SORT: KEY RECOMMENDATIONS FOR PRACTICE

www.aafp.org/afp/2011/1201/p1267.htm

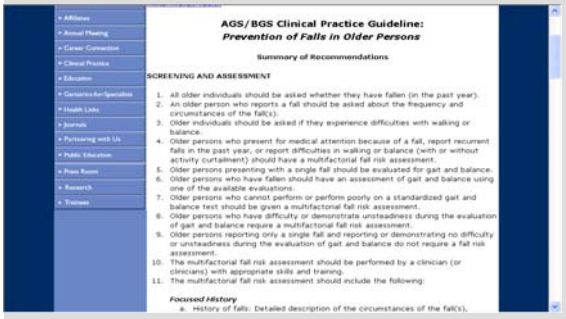
Clinical recommendation	*Evidence rating*	*References*
Community-dwelling older persons at risk of falls should receive multifactorial risk assessment and interventions tailored to their needs.	A	18,20
Nursing home residents at risk of falls should receive multifactorial risk assessment and interventions administered by a multidisciplinary team.	B	18,23
Older persons at risk of falls who have been hospitalized for an extended time in a subacute setting should receive multifactorial risk assessment and interventions tailored to their needs.	B	23
The following components should be included in multifactorial interventions for falls:		18,20
• Exercise, particularly balance, strength, and gait training	A	
• Adaptation or modification of home environment for older adults who have fallen or who have visual impairment	B	
• Withdrawal or minimization of psychoactive medications	B	
• Withdrawal or minimization of other medications	B	
• Management of postural hypotension	B	
• Management of foot problems and footwear	B	
The health care professional or team conducting the fall risk assessment should directly implement the interventions or should ensure that other qualified health care professionals carry out the interventions.	C	1,18
All older persons with proven vitamin D deficiency living in the community	A	18,20,23,37

Preventing Falls

- The most effective trials for preventing falls in older people looked at multiple interventions rather than just one; previous studies have indicated that it is more effective to focus on one intervention, but because we looked at not only what recommendations were given, but also which carried out, we're confident that multifactorial interventions is the best course of action”
- Dr Mary Tinetti Yale U. School of Medicine

Physician Office

www.americangeriatrics.org/education/summ_of_rec.shtml



AGS/BGS Clinical Practice Guideline:
Prevention of Falls in Older Persons

Summary of Recommendations

SCREENING AND ASSESSMENT

1. All older individuals should be asked whether they have fallen (in the past year).
2. An older person who reports a fall should be asked about the frequency and circumstances of the fall(s).
3. Older individuals should be asked if they experience difficulties with walking or balance.
4. Older persons who present for medical attention because of a fall, report recurrent falls in the past year, or report difficulties in walking or balance (with or without activity curtailment) should have a multifactorial fall risk assessment.
5. Older persons presenting with a single fall should be evaluated for gait and balance.
6. Older persons who have fallen should have an assessment of gait and balance using one of the available evaluations.
7. Older persons who cannot perform or perform poorly on a standardized gait and balance test should be given a multifactorial fall risk assessment.
8. Older persons who have difficulty or demonstrate unsteadiness during the evaluation of gait and balance require a multifactorial fall risk assessment.
9. Older persons reporting only a single fall and reporting or demonstrating no difficulty or unsteadiness during the evaluation of gait and balance do not require a fall risk assessment.
10. The multifactorial fall risk assessment should be performed by a clinician (or clinicians) with appropriate skills and training.
11. The multifactorial fall risk assessment should include the following:

Focused History

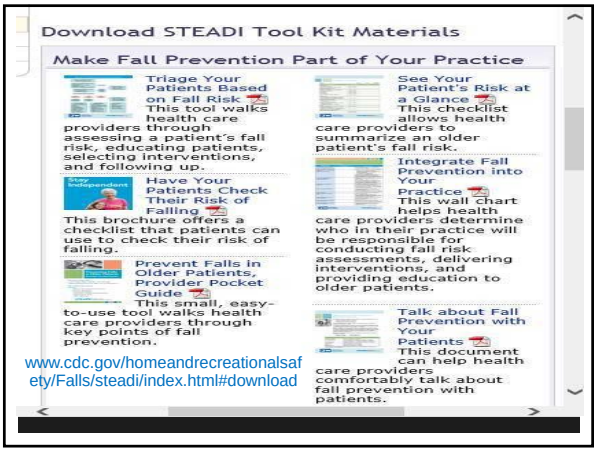
a. History of falls: Detailed description of the circumstances of the fall(s),

INTERVENTIONS

OLDER PERSONS LIVING IN THE COMMUNITY

12. The multifactorial fall risk assessment should be followed by direct interventions tailored to the identified risk factors, coupled with an appropriate exercise program. [A]
13. A strategy to reduce the risk of falls should include multifactorial assessment of known fall risk factors and management of the risk factors identified.[A]
14. The components most commonly included in efficacious interventions were:
    a. Adaptation or modification of home environment [A]
    b. Withdrawal or minimization of psychoactive medications [B]
    c. Withdrawal or minimization of other medications [C]
    d. Management of postural hypotension [C]
    e. Management of foot problems and footwear [C]
    f. Exercise, particularly balance, strength, and gait training [A]
15. All older adults who are at risk of falling should be offered an exercise program incorporating balance, gait, and strength training. Flexibility and endurance training should also be offered, but not as sole components of the program. [A]
16. Multifactorial/multicomponent intervention should include an education component complementing and addressing issues specific to the intervention being provided, tailored to individual cognitive function and language. [C]
17. The health professional or team conducting the fall risk assessment should directly implement the interventions or should assure that the interventions are carried out by other qualified healthcare professionals. [A]
18. Psychoactive medications (including sedative hypnotics, anxiolytics, antidepressants) and antipsychotics (including new antidepressants or antipsychotics) should be minimized or withdrawn, with appropriate tapering if indicated. [B]
19. A reduction in the total number of medications or dose of individual medications should be pursued. All medications should be reviewed, and minimized or withdrawn. [B]
20. Exercise should be included as a component of multifactorial interventions for fall prevention in community-residing older persons. [A]
21. An exercise program that targets strength, gait and balance, such as Tai Chi or physical therapy, is recommended as an effective intervention to reduce falls [A]
22. Exercise may be performed in groups or as individual (home) exercises, as both are

Physician Office Toolkit STEADI



www.cdc.gov/homeandrecreationalsafety/Falls/steadi/index.html#download

CDC Fall Risk Checklist

Fall Risk Checklist

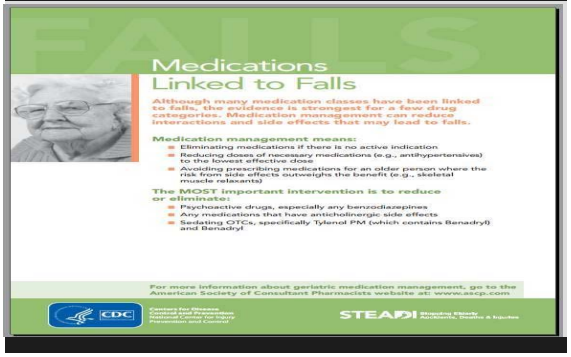
Patient: Date: Time: AM/PM

Fall Risk Factor Identified	Factor Present?	Notes
Falls History		
Any falls in past year?	☐ Yes ☐ No	
Worries about falling or feels unsteady when standing or walking?	☐ Yes ☐ No	
Medical Conditions		
Problems with heart rate and/or rhythm	☐ Yes ☐ No	
Cognitive impairment	☐ Yes ☐ No	
Incontinence	☐ Yes ☐ No	
Depression	☐ Yes ☐ No	
Foot problems	☐ Yes ☐ No	
Other medical conditions (Specify)	☐ Yes ☐ No	
Medications		
Any psychoactive medications, medications with anticholinergic effects, and/or sedating OTCs? (e.g., Benadryl, Tylenol PM)	☐ Yes ☐ No	
Gait, Strength & Balance		
Timed Up and Go (TUG) Test >12 seconds	☐ Yes ☐ No	
30-Second Chair Stand Test Below average score (See table on back)	☐ Yes ☐ No	
4-Stage Balance Test Full tandem stance <10 seconds	☐ Yes ☐ No	
Vision		
Acuity <20/40 OR no eye exam in >1 year	☐ Yes ☐ No	
Postural Hypotension		
A decrease in systolic BP ≥20 mm Hg or a diastolic bp of ≥10 mm Hg or lightheadedness or dizziness from lying to standing?	☐ Yes ☐ No	
Other Risk Factors (Specify)		
	☐ Yes ☐ No	
	☐ Yes ☐ No	

Centers for Disease Control and Prevention National Center for Injury Prevention and Control

STEADI Stopping Elderly Accidents, Deaths & Injuries

CDC Medications Linked to Falls



FALLS

Medications Linked to Falls

Although many medication classes have been linked to falls, the evidence is strongest for a few drug categories. Medication management can reduce interactions and side effects that may lead to falls.

Medication management means:

- Eliminating medications if there is no active indication
- Reducing doses of necessary medications (e.g., antihypertensives) to the lowest effective dose
- Avoiding prescribing medications for an older person where the risk from side effects outweighs the benefit (e.g., skeletal muscle relaxants)

The MOST important intervention is to reduce or eliminate:

- Psychoactive drugs, especially any benzodiazepines
- Any medications that have anticholinergic side effects
- Sedating OTCs, specifically Tylenol PM (which contains Benadryl) and Benadryl

For more information about geriatric medication management, go to the American Society of Consultant Pharmacists website at: www.ascp.com

Centers for Disease Control and Prevention National Center for Injury Prevention and Control

STEADI Stopping Elderly Accidents, Deaths & Injuries

Free Pocket Guide for Physicians

Talking with your Patient about Falls

Preventing Falls in Older Patients

Provider Pocket Guide

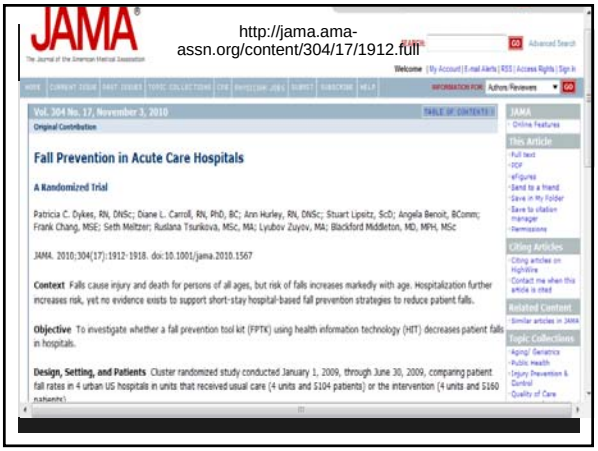
Key Steps for Fall Prevention

Key Fall Interventions

Algorithm for Fall Risk Assessment & Interventions

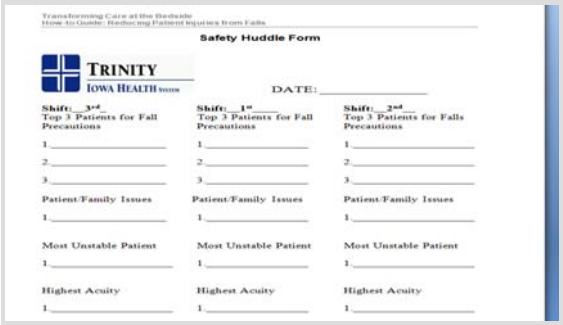
Use Technology To Reduce Falls

- November 2010 JAMA article found that using health information technology reduced falls in patients over 65 by 25%
- Nurse entered risk assessment into the computer
- Computer printed out interventions to follow for the patient
- Printed out education material for the patient and family
- Printed out a fall plan of care and signs



http://jama.ama-assn.org/content/304/17/1912.full

Have a Safety Huddle Before & After the Fall


Transforming Care at the Bedside
How-to Guide: Reducing Patient Injuries from Falls

Safety Huddle Form

TRINITY IOWA HEALTH System

DATE: _____

Shift: 3rd	Shift: 1st	Shift: 2nd
Top 3 Patients for Fall Precautions	Top 3 Patients for Fall Precautions	Top 3 Patients for Falls Precautions
1 _____	1 _____	1 _____
2. _____	2. _____	2. _____
3. _____	3. _____	3. _____
Patient/Family Issues	Patient/Family Issues	Patient/Family Issues
1 _____	1 _____	1 _____
Most Unstable Patient	Most Unstable Patient	Most Unstable Patient
1 _____	1 _____	1 _____
Highest Acuity	Highest Acuity	Highest Acuity
1 _____	1 _____	1 _____

The End! Questions?

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More resources follow
Can you pass the test?

AHRQ Toolkit Has a Test

Fall Knowledge Test
Each question may have more than one option as the correct answer.

Please circle the letters that correspond to the correct answers.

1. Which of the following statements is *correct*?
   a. Falls have multifactorial etiology, so fall prevention programs should comprise multifaceted interventions.
   b. Regular review of medication can help to prevent patient falls.
   c. The risk of falling will be lessened when a patient's toileting needs are met.
   d. The use of antipsychotic medications is associated with an increased risk of falls in older adults.
2. A multifaceted intervention program should include:
   a. Individually-tailored fall prevention strategies
   b. Education to patient/family and health care workers
   c. Environmental safety
   d. Safe patient handling
3. Risk factors for falls in the acute hospital include all of the following *except*:
   a. Dizziness/vertigo
   b. Previous fall history
   c. Antibiotic usage
   d. Impaired mobility from stroke disease
4. Which of the following statements is *true*?

AHRQ Toolkit Has a Test

4. Which of the following statements is *true*?
   a. The cause of a fall is often an interaction between patient's risk, the environment, and patient risk behavior.
   b. Increase in hazardous environments increases the risk of falls.
   c. The use of a patient identifier (e.g., identification bracelet) helps to highlight to staff those patients at risk for falls.
   d. A fall risk assessment should include review of history of falls, mobility problems, medications, mental status, continence, and other patient risks.
5. Patients with impaired mobility should be:
   a. Confined to bed
   b. Encouraged to mobilize with assistance
   c. Assisted with transfers
   d. Referred for exercise program or prescription of walking aids as appropriate

6. The management of the acutely confused patient should include all of the following *except*:

   a. Moving patients away from the nursing station
   b. Involving family members to sit with the patient
   c. Orienting patients to the hospital environment
   d. Reinforcing activity limits to patients and their families

7. Which of the following statements is *false*?

   a. Fall prevention efforts are solely the nurses' responsibility.
   b. A patient who is taking four or more oral medications is at risk for falling.
   c. A patient who is taking psychotropic medication is at higher risk for falling.
   d. Testing or treatment for osteoporosis should be considered in patients who are at high risk for falls and fractures.

8. In hospital settings, intervention programs should include:

   a. Staff education on fall precautions
   b. Provision and maintenance of mobility aids
   c. Postfall analysis and problem-solving strategy
   d. Bed alarms for all patients, regardless of risk

9. When assessing patients, which of the following statements is *false*?

   a. All patients should be assessed for fall risk factors at admission, at a change in status, after a fall, and at regular intervals.
   b. Medication review should be included in the assessment.
   c. All patients should have their activities of daily living and mobility assessed.
   d. Environmental assessment is not important in the hospital as it is all standardized.

ICSI Prevention of Falls Updated 2012

www.icsi.org/guidelines_and_more/gl_os_prot

ICSI
INSTITUTE FOR CLINICAL SYSTEMS IMPROVEMENT

Health Care Protocol
Prevention of Falls (Acute Care)

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Falls Protocol ICSI 2012

Protocol

Perform risk assessment to identify risk factors *(Annotation #3)*

- Test for cognitive dysfunction (dementia, delirium)
- Assess gait and mobility function
- Identify potential medication factors
- Perform an environmental safety assessment

Communicate risk factors *(Annotation #4)*

- Use visual communication tools
- Inform patient and family of risks
  - Describe organization's falls prevention program – discuss how patient/family can assist with falls prevention and when/how to contact staff when necessary
  - Patient education
- Communicate patient falls risk to all members of the health care team

Perform risk factor interventions *(Annotation #5)*

- Establish universal falls interventions for all patients
- Implement behavioral interventions
- Implement impaired mobility interventions
- Perform environmental rounds

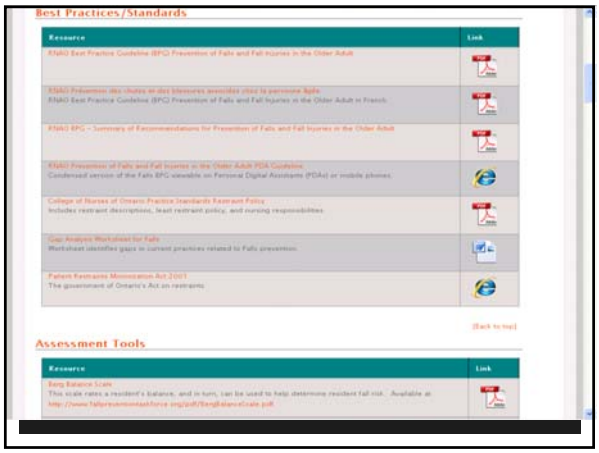
3 Excellent Falls Resources

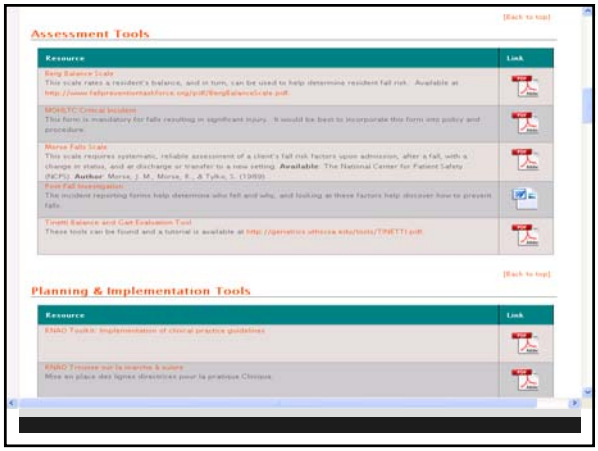
- VHA National Center for Patient Safety Falls Toolkit http://www.patientsafety.gov/SafetyTopics/fallstoolkit/index.html
- Institute for Clinical Systems Improvement Prevention of Falls (Acute Care) Protocol https://www.icsi.org/_asset/dcn15z/Falls-Interactive0412.pdf
- IHI Transforming Care at the Bedside How-to Guide: Reducing Patient Injuries from Falls http://www.ihi.org/knowledge/Pages/Tools/TCABHowToGuideReducingPatientInjuriesfromFalls.aspx

Resources

- Pennsylvania Patient Safety Advisory http://patientsafetyauthority.org/pages/bbtresults.aspx?Filter1Field=Event&Filter1Value=Fall

http://ltctoolkit.rnao.ca/resources/falls





Administration of the Tinetti Gait & Balance Instrument

The Tinetti Gait and Balance Instrument is designed to determine an elders risk for falls within the next year. It takes about 8-10 minutes to complete. The evaluator should review the questions prior to evaluation of the patient and ask any questions regarding the Instrument prior to beginning. The patient is asked to complete the gait portion first with the evaluator walking close behind the elder and evaluating gait steppage and diff. The patient is then asked to complete the balance portion with the evaluator again standing close by the patient (towards the right and in front). The patient is then asked to sit and the score is then totaled.

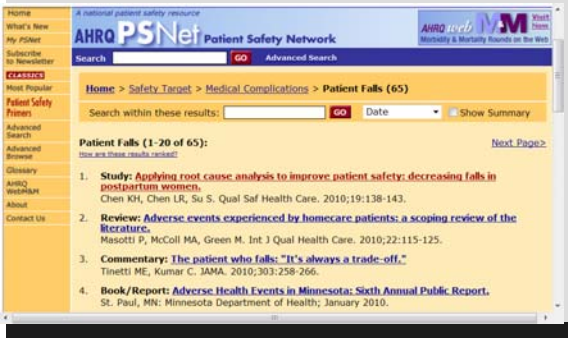
Scoring— The higher the score, the better the performance. Scoring is done on a three point scale with a range on each item of 0-2 with 0 representing the most impairment. Individual scores are then combined to form three scales: a Gait Scale, a Balance Scale and then and overall Gait and Balance score. The maximum score for gait is 12 points while the maximum for Balance is 16 points with a total maximum for the overall Tinetti Instrument of 28 points.

Score Interpretation
<19 High Risk for Falls
19-24 Risk for Falls

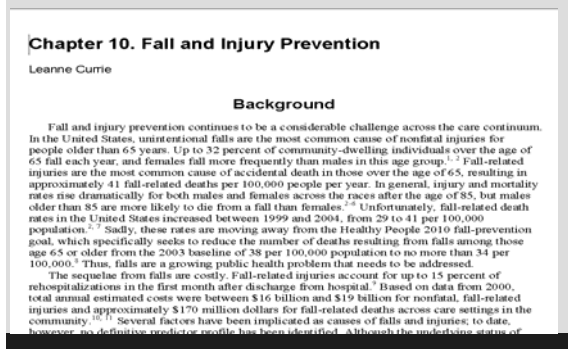
Not Clear on What Steppage Is?—Evaluators usually have the most questions about steppage. For a complete tutorial on gait analysis click below.

Gait Analysis Tutorial

http://psnet.ahrq.gov/content.aspx?taxonomyID=450



http://www.ahrq.gov/qual/nurseshdbk/



Chapter 10. Fall and Injury Prevention

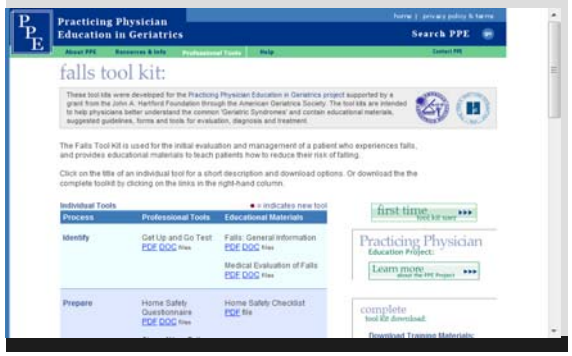
Leanne Currie

Background

Fall and injury prevention continues to be a considerable challenge across the care continuum. In the United States, unintentional falls are the most common cause of nonfatal injuries for people older than 65 years. Up to 32 percent of community-dwelling individuals over the age of 65 fall each year, and females fall more frequently than males in this age group.[1, 2] Fall-related injuries are the most common cause of accidental death in those over the age of 65, resulting in approximately 41 fall-related deaths per 100,000 people per year. In general, injury and mortality rates rise dramatically for both males and females across the races after the age of 85, but males older than 85 are more likely to die from a fall than females.[2-4] Unfortunately, fall-related death rates in the United States increased between 1999 and 2004, from 29 to 41 per 100,000 population.[2-7] Sadly, these rates are moving away from the Healthy People 2010 fall-prevention goal, which specifically seeks to reduce the number of deaths resulting from falls among those age 65 or older from the 2003 baseline of 38 per 100,000 population to no more than 34 per 100,000.[8] Thus, falls are a growing public health problem that needs to be addressed.

The sequelae from falls are costly. Fall-related injuries account for up to 15 percent of rehospitalizations in the first month after discharge from hospital.[9] Based on data from 2000, total annual estimated costs were between $16 billion and $19 billion for nonfatal, fall-related injuries and approximately $170 million dollars for fall-related deaths across care settings in the community.[10, 11] Several factors have been implicated as causes of falls and injuries; to date, however, no definitive predictor profile has been identified. Although the underlying status of

http://www.gericareonline.net/tools/eng/falls/



http://ir.hillenbrand.com/eventdetail2.cfm?eventid=42963

Get Up and Go Test

Get Up and Go Test

The "Get Up and Go Test" is an assessment that should be conducted as part of a routine evaluation when dealing with older persons. Its purpose is to detect "fallers" and to identify those who need evaluation.

The staff should be trained to perform the "Get Up and Go Test" at check-in and query those with gait or balance problems for falls.

INITIAL CHECK

All older persons who report a single fall should be observed as they:

- From a sitting position, stand without using their arms for support.
- Walk several paces, turn, and return to the chair.
- Sit back in the chair without using their arms for support.

Individuals who have difficulty or demonstrate unsteadiness performing this test require further assessment.

FOLLOW-UP ASSESSMENT

In the follow-up assessment, ask the person to:

- Sit.
- Stand without using their arms for support.
- Close their eyes for a few seconds, while standing in place.
- Stand with eyes closed, while you push gently on his or her sternum.
- Walk a short distance and come to a complete stop.

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Thanks for attending!

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