Fall Prevention:

A Self-Guided Learning Module

# XXXX Surgery Center

## **Introduction and Overview**

The Fall Prevention module provides the nurse with the information necessary for assessing fall risk and maintaining the appropriate prevention protocol for the Surgery Center patient. Also included are fall assessment, care, and documentation.

**Objectives**

At the completion of this packet, the nurse will:

* Identify the elements of fall risk assessment.
* Identify changes of aging, which put the older adult at increased risk.
* Identify the patients who are at increased risk for fall related fractures and other serious injuries.
* Consider basic safety considerations/interventions for all patients.
* Describe fall interventions and preventive strategies.
* Identify the elements of a medication assessment.
* Describe the elements of a fall prevention care plan.
* Demonstrate knowledge of fall risk communication: variance report, chart documentation, tools used: Fall Scale, yellow arm band, nonskid socks
* Demonstrate knowledge of Surgery Center’s fall prevention policy and procedure.
* Post-fall management, documentation and follow-up.

**Who Falls?**

**Working in an Outpatient Surgery Center: What You Need to Know**

People of any age can fall. However, the changes of aging contribute to an increased risk for falling. When an older adult falls at home, the event often goes unreported. Therefore, the true incidence of falls in older adult community is thought to be vastly under reported. When admitting an older adult to the surgery center, we need to prioritize safety from falls.

* Falls are the second leading cause of accidental or unintentional injury deaths worldwide.
* Each year an estimated 424 000 individuals die from falls globally of which over 80% are in low- and middle-income countries.
* Adults older than 65 suffer the greatest number of fatal falls.
* 37.3 million falls that are severe enough to require medical attention, occur each year.
* Prevention strategies should emphasize education, training, creating safer environments, prioritizing fall-related research and establishing effective policies to reduce risk.

**I. Assessment:**

*Approach to older patients presenting with one or more falls or, have abnormalities of gait and/or balance, or who report recurrent falls:*

Older patients who report recurrent falls in the past year or demonstrate abnormalities of gait and/or balance should have a fall evaluation performed. The pre-op nurse will perform this evaluation.

**Complete an assessment that includes the following**: a history of fall

circumstances, medications, acute or chronic medical problems, and mobility levels; an examination of vision, gait and balance, and lower extremity joint function; an examination of basic neurological function, including mental status, muscle strength; and assessment of basic cardiovascular status including heart rate and rhythm, and blood pressure.

**A risk assessment will be conducted at the following times:**

* Upon admission, change in clinical condition, change in medications that may contribute to falls risk, or a status post fall, and prior to discharge from unit; RN will assess the patient using the Fall Scale tool. If the patient has a procedure with an IV, sedation, medication, casts, crutches, etc. during the visit that may change the initial fall assessment score, the entire assessment must be redone prior to discharge or transfer to another level of care, ED, or hospital admission.
* When customizing nursing interventions for patients at moderate to high risk for falls, consider and target potential causes for fall risk.

***The Fall scale predicts patients at risk for anticipated physiological falls.***

The **Fall Scale** contains 8 items:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 1 Point | Dizziness/Vertigo |  | 3 Points | >65 years < 3 years |
| 2 Points | Impaired Mobility includes cane/walker |  | 3 Points | Altered Elimination |
| 2 Points | Visual Impairment |  | 3 Points | Confusion |
| 2 Points | Receiving Sedation |  | 7 Points | History of Falls |

**Based on this assessment, the patient’s “FALL RISK” is identified as:**

1. **“Low Risk” (0-2).** Implement standard precautions.
2. **“Moderate Risk” (3-4 Points).** Implement standard precautions in addition to: “at risk for fall” precautions and give the patient education letter to patient/family.
3. **“High Risk” (5 points or higher).** Implement standard precautions in addition to: “at risk for fall” precautions and give the patient education letter to patient/family.
4. If determined to be at risk for falling, the patient will be identified as at risk for fall based on level of risk, and all members of the interdisciplinary team will be notified. If the patient has a fall risk score of 5 or greater, the patient is placed on “Fall Precautions.”

**Changes in a patient’s status** – (physiological, functional, or cognitive change).

Fall Risk Factors—Assessment Elements

Demographic and history:

* Age - greater than 65 (increase in risk factors associated with aging)
* Age – 3 years and under
* Gender (consider increased risk for injury associated with osteoporosis)
* Physical activity level/disability/immobility
* Lack of physical activity, reduced body mass/strength (lower extremity strength)
* Deficits in ambulation/mobility, ability
* Unsteady gait/balance ability
* Motor deficits (decreased coordination and loss of balance)
* History of fractures
* Use of assistive devices (e.g., wheelchair, cane, walker, etc.)
* History of falls within the past 3 months (especially with injury - fall increases fear of activity and leads to increased inactivity)
* Sensory changes/impairment (e.g., impaired vision, hearing, touch, vibration sense, proprioception)
* Slow reaction time
* Communication/cultural barrier

## Patient diagnosis:

* Mental deficits – dementing illnesses –delirium – depression –alcohol abuse impaired memory/judgment/cognition – confusion – high anxiety
* Acute illness
* Musculoskeletal and neuromuscular conditions – myopathy and deformities
* Abnormal gait or posture due to pain, fatigue, arthritis, osteoporosis, Parkinson’s
* Foot problems/conditions limiting mobility
* TIA – (vertigo, dizziness, fainting)
* Seizures
* Stroke and resulting weakness
* Inner ear/cerebellar disease
* Orthostatic hypotension
* Heart disease and/or arrhythmias
* Congestive heart failure
* Pneumonia
* Primary cancer, clinical depression, HIV
* Within twenty hours after surgery
* Temperature elevation (>101F rectal)
* Urinary frequency and urgency; nocturia and/or incontinence or other altered elimination pattern (including a Foley catheter)
* Fecal incontinence

Changes of aging and diseases:

* Vision-decreased ability to focus, sensitive to glare, colors more washed out, larger print helpful, slower light to dark accommodation, less peripheral vision.
* Vision-some older adults have eye diseases like macular degeneration, which destroys central vision, i.e., patient, cannot see you, but can see around the edges of your figure. Some elders may have glaucoma, where the patient cannot see well in the periphery, but still has central vision. Some have cataracts, which produce steadily more cloudy vision overall.
* Hearing-distortion of normal sounds, inability to hear softer sounds, and the beginning of words, difficulty hearing when background noise present.
* Joint mobility-difficulty climbing stairs, using knobs and handles.
* Muscle strength-difficulty changing position, shuffling gait.
* Nerve conduction-slower response time; less ability to regain balance; altered pain perception.
* Less body insulation-increased risk of hypothermia can lead to confusion.
* Decreased thirst sensation-increased risk of dehydration, which can lead to confusion, dizziness.
* Decreased kidney glomerular filtration rate-more at risk of drug reactions.
* Decreased bladder tone-frequent need for bathroom.
* Decreased cardiac output-decreased exercise tolerance, tires easier with stairs and long hallways.

### II. Interventions and Preventive Strategies:

### General Safety Interventions

### Implement Protocol According to Patient Needs

### Low Risk:

* Instruct patient on proper use of walker, cane, wheelchair, proper footwear (flat/closed toe shoes).
* Evaluate assistive devices: for proper functionality, size, and appropriateness.
* Instruct the patient to wear supplied double sided double sided double sided double sided non-skid socks.
* Maintain bed/chair in lowest position with wheels locked unless required for provision of direct patient care.
* Ensure that the pathway to the restroom is free of obstacles and properly lighted.
* Ensure the hallways are free of obstacles.
* Place assistive devices such as walkers and canes within patient’s reach.
* Ensure patients being transported by stretcher/bed have all side rails in the up position during transport, or if left unattended briefly while awaiting tests or procedures.

\* Exception: *Side rails may be raised per family/patient’s request or when bed is*

*elevated during personal care, tests, and procedures.*

* Consider peak effect for prescribed medications that affect level of consciousness, gait and elimination when planning care.
* Assess the patient’s coordination and balance before assisting with transfer and mobility activities.
* Transfer patient towards stronger side.
* Instruct patients to rise slowly.
* Teach patient use of grab bars in bathroom.
* Instruct patient in all activities prior to initiating.
* Instruct patient to request assistance as needed.
* Instruct patient in medication time/dose, side effects, and interactions with food/medications.
* Orient the patient to the environment, especially the location of the bathroom.
* Individualize equipment specific to patient’s needs.
* Clear instructions to the patient; address any confusion for the patient.
* Patient call bell within reach, with orientation of how to use: demonstrate nurses’ call system.
* Ensure that the presence of any individual in patient care areas is appropriate to the setting and that visitors are known to and approved by the patient/family.
* Provide physically safe environment (i.e., eliminate spills, clutter, electrical cords, and unnecessary equipment). Notify appropriate department of hazardous conditions.

\*After use, place the mobile-monitor cords in the basket off the floor.

\*Crutches and wheelchairs are to be taken to step down unit for patient discharge.

\*Patient’s clothes bag placed under bed or given to the family.

\*Observe environment for potentially unsafe conditions (water on the floor).

* Inform and educate patient/family members regarding plan of care to prevent falls
* All patients will be assisted to vehicle upon discharge.

**Interventions for Patients Assessed “at risk” for fall or injury**

***Moderate to High Risk:***

All the standard interventions including the following:

* Communicate patient’s risk level to all members of the healthcare team who have direct patient contact.
* Do not leave “at risk” patients unattended in diagnostic or treatment areas.
* The pre-operative nurse will document in patient record as a “RISK FOR FALL.”
* Communicate the patient’s “at risk” status during report and with other disciplines as appropriate.
* Instruct patient not to get up without help; reinforce with each transfer.
* Educate patients to get out of bed on the dominant side.
* Collaborate with the patient’s family to provide assistance as needed while maintaining the patient’s independent functioning.
* Include the patient’s family in the development of an individualized safety plan, considering age-specific criteria and patient cognition when planning care.

\* Inform and educate patients and/or family members regarding treatments and

medications.

* Patients who have an IV will either be escorted to and from the restroom or transported via stretcher to the bathroom; helped out of bed and into the bathroom.
* Educate family/patient about patient’s risk for falls and measures for prevention i.e., to prevent hypotension, sit on edge of bed for a minute before rising to stand.
* All patients will be assisted to car upon dressing and discharge.

#### Pediatric Guideline Procedures:

1. All pediatric patients will be assessed and periodically reassessed for risk for falling including potential risks associated with the patient’s medication regime, cognitive impairment from sedation, anesthesia, and disorientation, history of previous falls, inadequate muscle tone or mobility, central nervous system disorders, and other physiological disorders.
2. Age-based interventions to reduce the risks for falls in pediatrics should be implemented as appropriate (based on cognitive and physical development).

For all ages of babies or children:

* Never leave baby/child unattended.
  + Family education regarding safety teaching must be documented.
  + Use family member to monitor child who is at high risk of attempting to get out of bed. All side rails up when baby/child is in bed.
  + Use adequate analgesic/anxiolysis as needed.
  + Place higher risk patients close to PACU nurses’ station for easier observation.
  + Brakes must be set when not transporting, even if the child is mobile.
  + Bumper guards must be placed on the side rails for added protection and to reduce the chance for entrapment between the rails.

Newborns to approximately 6 months (until baby can sit up unsupported):

* Side rails up and bumper guards applied to side rails.
* If baby is propped up with pillows/etc, baby should be nested to prevent falling over.
* Young siblings should not hold or carry the baby.

Approximately 6 months – 2 years:

* Young children able to stand will not be allowed to stand up in the bed.
* Side rails must be all the way up whenever child is in bed (side may be down if parent or other responsible person is sitting at the side of the bed

blocking the open railing).

* Bumper guards are to be placed on side rails.

Approximately 2 years until school-aged:

* When in bed, bed must be in lowest, locked position.
* Side rails are to be up (as applicable).
* Call light accessible (as applicable).
* Education for child and parents about no running in clinical areas.

School-aged children and older:

* Call light accessible.
* Instruct children/families to call for assistance as appropriate.
* Based on child’s maturity level and mobility status: decide when family may assist child out of bed.
* Have personal care items, TV remote (if applicable), eyeglasses, drinking cups, ambulation assist devices, etc., within reach of the bed.

**III. Medications and drug interactions:**

## Each patient will be assessed for medications that contribute to fall risk

* Polypharmacy (especially four or more meds)
* Diuretics and laxatives
* Antihypertensive drugs
* Sedatives, tranquilizers
* Psychotropic drugs
* Antidepressants
* Medications that might alter balance or increase risk for injury including antiarrhythmics and anticoagulants.

\*Side effects rather than the medication itself may be more important (e.g.

medications that cause sedation, impair postural stability, produce

Parkinson-like effects, cause hypotension or hypoglycemia, affect

vestibular function, result in neuropathy, hypothermia, or confusion.

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| **Medication Assessment: Drugs and the Older Adult** | | |
| **Pharmacokinetics**  **Pharmacodynamics** | **Age-Related Changes**  **in Older Adults** | **Drug Implications** |
| **Absorption** | Possible change due to age-related delay in gastric emptying and reduced blood flow to the GE tract | * May decrease the rate of absorption for some OTC agents, such as antacids and laxatives |
| **Distribution** | Increase in fat stores  Decrease in lean body mass  Decrease in total body water  Decrease in concentration of serum albumin | * Increase effect of lipid-soluble drugs and increase the risk of drug toxicity * Increase drug effects due to higher plasma concentration * Change the onset and duration of action of highly tissue-bound (e.g., digoxin), water-bound drugs (morphine) and protein-bound drugs (warfarin, phenytoin, sulfa antibiotics, NSAIDs) |
| **Metabolism** | Change in the capacity of the liver to metabolize certain drugs due to decreased hepatic blood flow and liver mass  Decrease in the breakdown of enzymes | * Inhibit oxidative reactions and prolong effects of some drugs (e.g., benzodiazepine, alprazolam) * Increase plasma concentration of some drugs (e.g., amitriptyline, imipramine, theophylline) |
| **Excretion** | Reduced renal clearance of drugs due to reduced renal mass, glomerular filtration rate, tubular secretion | * Decreased excretion of drugs (e.g., digoxin, ASA, cimetidine, ranitidine, aminoglycoside, diltiazem, indomethacin, flurazepam |

**Question the following and review with Pharmacist/MD:**

* Consider the use of non-drug alternatives to current meds when possible.
* Consider alternate drug choices, with less fall risk potential.
* Consider that a new symptom may be an adverse reaction to a medication.
* Assess if the treatment is greater in “cost” i.e., side effects than the therapeutic benefit.
* Consider that a lower dose of a current medication may be appropriate given kidney, liver function and side effects.

**IV. Fall Prevention Plan**

Most falls do not lead to serious injury; however, moderate to severe injuries reduce mobility and independence and increase the risk for premature death. The most common fall-related injuries are osteopathic fractures of the hip, spine or forearm. Of all fall-related fractures, hip fractures are the most serious and lead to the greatest number of health problems and death. Patients who fall once during their outpatient stay are more likely to fall again, increasing the risk for more injury. Most elders fall on a level surface; most children fall from heights.

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| **Fall Prevention Plan: Specific Strategies** | | | |
| **Intervention** | **Description** | **Rationale** | **Potential Risks** |
| Pain management, pain consult PRN | Analgesics, heat/cold treatment, imagery | Provide comfort, reduce agitation if due to pain | Side effects may contribute to fall |
| Diagnostics | Check labs, tests, VS’s for increasing fall risk: infection, anemia, respiratory or circulatory impairment | Appropriate nursing care assessment and plan to address abnormal findings |  |
| Sleep hygiene | Soft music, snack, minimal noise | Reduce agitation and restlessness |  |
| Provide eyeglasses and hearing aids | Keep at bedside; utilize when patient awake after surgery | Reduce sensory impairments that may lead to falls; decrease confusion | Eyeglasses and hearing aids must be placed in containers when not in use; label w/patient name |
| Toileting program | Toilet every 2 hours, and as needed | Falls often involve patients’ c/o urinary urgency and attempt to use bathroom quickly |  |
| Assistive device evaluation | Provide proper instruction to staff/patient re: mobility, balance, assistive device |  |  |
| Double Sided Non-skid socks |  | Reduce risks of fall during out- patient stay |  |
| Bedpan or urinal | Use when access to bathroom not practical | Allows comfort, convenience for toileting, esp., with urgency; reduces risk for falling | Patient must be instructed to call for assist when needed |
| Safety rounds | Rounds on pts at risk for fall frequently | Patients benefit from re-orientation, repositioning and safety checks |  |
| Allow family member at bedside |  | One on one interaction may be calming for patient and reduce anxiety |  |

**V. Post-fall--whenever a fall occurs:**

1. If a fall occurs, the patient should first be assessed for injury.
2. Notify surgeon/medical director/anesthesiologist.
3. A variance will be completed for each patient fall episode and given to the risk manager. The variance form will include: patient appearance at time of discovery, patient response to event, evidence of injury, location, and notification of nurse manager/surgeon/medical director/anesthesiologist.
4. Assess all factors contributing to the fall event such as environment, equipment, medication factors and which interventions were in place at the time of the fall.
5. Recommend interventions and changes to plan of care to prevent repeat fall. Reassessment of the patient may necessitate a change to a higher level of risk category with additional interventions and precautions.
6. Document and communicate results of interventions.
7. Enter detailed progress note in chart.
8. Communicate to all staff participating in patient’s care that patient has fallen.

Patients experiencing a fall with:

No head trauma or loss of consciousness:

* Determine vital signs to include blood pressure, respirations, O2 saturation, and pulse.
* If diabetic, check blood glucose.
* Observe for possible injuries (limb reflex, joint range of motion, weight bearing etc.).
* Determine mental status changes.
* Determine circumstances leading to a fall with corrections.
* All falls will be reported to the medical director or attending anesthesiologist, nurse manager and risk manager.
* If restrictions in mobility appear warranted due to the fall, alert surgeon, medical director, or anesthesiologist of findings.

Minor head Trauma:

* Use the same protocol outlined above, in addition, perform an initial neuro-check and then every two hours thereafter (if applicable), and alert surgeon and anesthesiologist for any changes.
* Alert surgeon, medical director, or anesthesiologist for all falls with head trauma in patients receiving anticoagulants.

**VI. Patient/family education:**

* Orient patient/family to unit and falls prevention protocol.
* Instruct patient to call for assistance.
* Educate patient/family to their responsibilities in fall prevention.
* Include fall prevention sheet in patient packet.
* Enlist family participation to support interventions and alert staff to patient changes and increased risk for falls.
* Consider patient’s culture in determining interventions (in some cultures asking for help is not acceptable; be sure the patient understands the language).
* Provide skills training as appropriate.

\* Transfer skills.

\* Ambulation skills.

\* Use of assistive devices.

\* Gait training, balance, strength training.

\* Older adults can be reminded to take their medications to their physicians

or pharmacists for review.

\* Older patients can be told that if they feel dizzy, extremely tired, confused or

do not “feel right” after taking medication, they should consult with their

physician or pharmacist.

\* If appropriate, remind patients that sharing medications with others can lead to

Serious consequences.

\* The use of “herbals” and certain vitamins may interact with prescription

medications and should be reported to physician or pharmacist.