This PowerPoint file is a supplement to the video presentation. Some of the educational content of this program is not available solely through the PowerPoint file. Participants should use all materials to enhance the value of this continuing education program.

Prevention of Falls in Older Adults

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Goals

- To increase healthcare professional knowledge about falls-related issues and prevention interventions among older adults
- To increase the number of healthcare professionals who educate older adults about fall prevention

Background

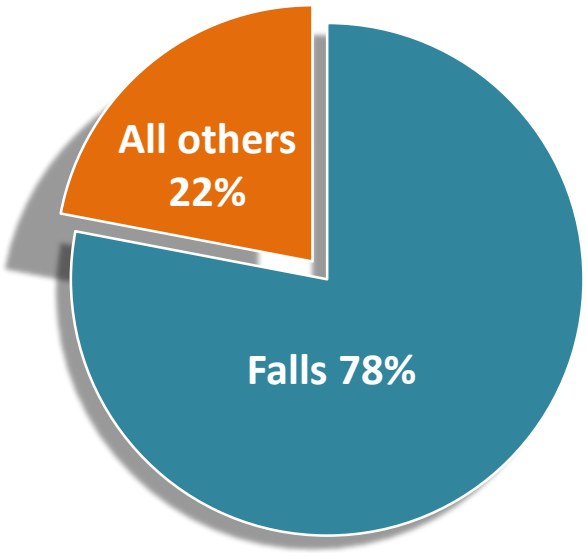
- Despite long-term and widespread attention to fall prevention, patients continue to fall, and many of these falls result in injury
- It is estimated that between 700,000 and 1,000,000 people fall in U.S. hospitals each year
- From 30-35% of those patients sustain an injury as a result of the fall, and approximately 11,000 falls are fatal
- Injuries related to falls can result in an additional 6.3 hospital days with the cost for a serious fall with injury averaging $14,056 per patient
- Falls have been identified by the Centers for Medicare and Medicaid Services (CMS) as a preventable event that should never occur

Top Contributing Factors of Patient Falls

- The top 10 contributing factors—conditions identified most frequently by hospitals—for falls and falls with injury were grouped into six categories:
  1. fall risk assessment issues
  2. handoff communication issues
  3. toileting issues
  4. call light issues
  5. education and organizational culture issues
  6. medication issues

Leading Causes of Death in 65+ Aged People

1. Heart disease
2. Cancer
3. Stroke
4. COPD/pulmonary disease
5. UNINTENTIONAL INJURIES
   - falls
   - suicide
   - motor vehicle accidents



Scope of the Problem

- Of those who fall, 20% to 30% suffer moderate to severe injuries such as hip fractures or head traumas that reduce mobility and independence, and increase the risk of premature death
- As many as 50% of older patients requiring hospitalization after a fall die within one year
- In 2003, nearly 13,820 people ages 65 and older died from fall-related injuries
  - approximately 50% were age 85 and older
- Falls among older adults is a serious public health problem
  - there is a great need to educate and advocate for interventions that will reduce the incidence of falls and falls-related injuries and fatalities

Definition of a Fall

- A fall is defined as an unintentional loss of balance that leads to failure of postural stability
- Recurrent fallers are those that have fallen 2 or more times in either 6 or 12 months
- In healthcare, a fall is a sudden and unexpected change in position, usually resulting in landing on the floor
- Finding a patient on the floor or lowering or assisting a person to the floor is considered a fall and needs to be documented as such

Key Concepts Regarding Falls

- ***Fall***
  - a sudden, ***unintentional*** descent, with or without injury to the patient, which resulted in the patient coming to rest on the floor, on or against some other surface, another person, or on an object
- ***Intentional*** falls
  - in which the patient descends to or comes to rest on the floor, another surface, or object within his or her control
- ***Injury*** defined using the NDNQI definitions and classifications

NDNQI Definitions and Classifications

- ***No injury (0)*** - fall resulted in no signs or symptoms of injury as determined by post-fall evaluation
- ***Minor injury (1)*** - fall resulted in application of ice or dressing, cleaning of a wound, limb elevation, topical medication, pain, bruise or abrasion
- ***Moderate injury (3)*** - fall resulted in suturing, application of Steri-Strips or skin glue, splinting or muscle/joint strain
- ***Major injury (4)*** - fall resulted in surgery, casting, traction, bone fracture or consultation for neurological injury or internal injury
- ***Death (5)*** - the patient died as a result of injuries sustained from the fall (not from physiologic events causing the fall)

Falls Myths vs. Facts

- Myths
  - due to carelessness
  - a normal process of aging
  - they “just happen”
  - cannot be predicted or anticipated
- Facts
  - 1/3 of community dwelling older adults fall annually: 50-100% in nursing homes
  - 95% of hip fractures result from a fall
  - of those who fall, 25% suffer injuries that reduce mobility and independence
  - 50% of those who sustain injury from a fall can no longer live independently

Facts About Falls

- 6-2.9 falls per bed annually in hospitals
- 14% of discharged patients fall the first month after discharge
- Falls are the BEST predictor of nursing home placement
- 40% of nursing home placements due in some way related to a fall

Costs of Falls

- 8% age 70+ visit emergency departments annually for a fall
- 1/3 of these are hospitalized
- 5.3% of hospitalizations of those over 65 are directly due to falls
- Fall-related injuries in the U.S. cost more than $20 billion each year
- By 2020, the total annual cost of these injuries is expected to reach $32.4 million
- Falls in nursing homes once again make up the largest number of claims against nursing homes

Cost of Falls Among Older Adults

- Adverse outcomes go well beyond the injuries sustained as a result of a fall
- The cost of fall-related injuries is often expressed in terms of direct costs
  - out-of-pocket expenses such as hospital and nursing home care
  - physician and other professional services
  - Rehabilitation
  - community-based services
  - use of medical equipment
  - prescription drugs
  - local rehabilitation
  - home modifications
  - insurance administration
- Direct costs do not account for the long-term consequences of these injuries, such as disability, decreased productivity, or reduced quality of life

Challenges to be Met

- Between 2000 and 2030, the older adult population (65+) is projected to grow from 35 million (12.4% of the population) to over 70 million (20% of the population)
- The U.S. public health service estimates that 66 percent (2/3) of deaths related to fall are preventable
- How do we go about reducing falls and fall-related injuries among older adults?
  - *proactive fall prevention programs are needed to prevent injurious falls and help maintain or improve the quality of life of the fast growing older adult population*

Where do people fall?

- For those age 65+
  - 60% happen at home
  - 30% occur in public places
  - **10% in healthcare institutions**

Why do people fall?

- Accident/environment – 31%
- Gait/balance problem – 17%
- Dizziness/vertigo – 10%
- Confusion – 4%
- Postural hypotension – 3%
- Vision – 3%
- Other and unknown – 20%

Physiology of Normal Aging and Falls Risk

- Heart and arteries
- Lungs
- Brain
- Postural Instability
- Bladder
- Body weight and body fat
- Muscular-skeletal
- Sight and hearing

Facts About Hip Fractures

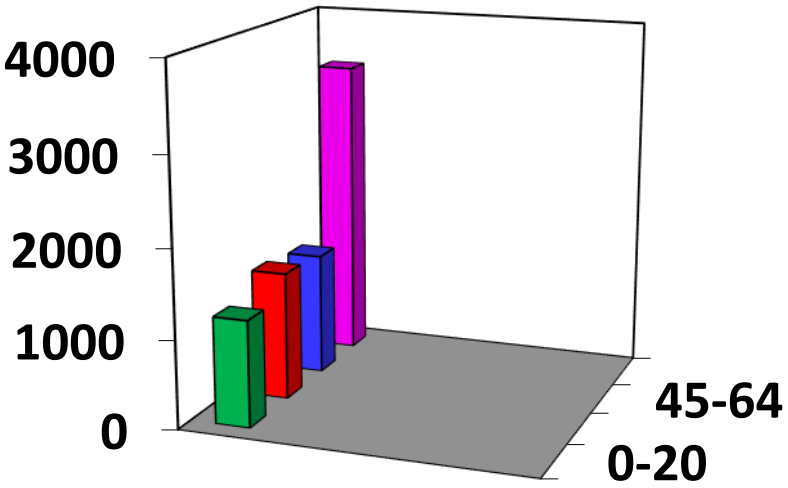
- 1 in 7 women will break hip
- 25% will regain full functional ability
- 50% will end up in nursing home
- 25% will die within one year
- Risk of dying from osteoporosis = Risk of dying from breast cancer

Internal and External Risk Factors

- Let's now look at the most commonly cited risk factors for falls among older adults
- They are part of two main categories:
  - ***internal*** risk factors are defined as being *"integral to the patient's system, many of which are associated with age-related changes"*
  - ***external*** risk factors are defined as being *"external to the system and relating to the physical environment"*

Acute and Chronic Conditions and Falls Risk

- Arthritis
- Stroke
- Parkinson's
- Dementia
- Neuropathy
- Cardiac
- Osteoporosis



Hospitalizations due to unintentional injuries by age

Risk Factors for Falls

- Impairments in:
  - cognition
  - vision or hearing
  - feet
  - lower extremity strength
  - balance or gait
  - postural hypo-tension
  - syncope and arrhythmia

Risk Factors for Falls

- Medication use (4+ and/or)
  - sedatives: confusion, motor dysfunction
  - anti-psychotics: hypotension
  - anti-depressants: hypotension
  - anti-hypertensives: postural hypotension
  - anti-anxiety: confusion
  - diuretics: urinary urgency

Other Risk Factors

- Other risk factors for falls include:
  - alcohol intake
  - dehydration
  - poor nutrition

Primary Internal Risk Factors Categories

- History of falls (previous falls)
- Medication use (polypharmacy)
- Balance, gait, and muscle strength (lack of physical exercises)
- Vision impairment
- Podiatric problems

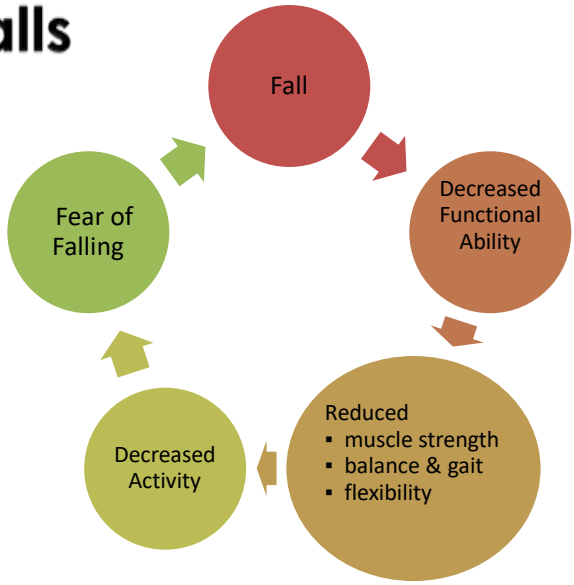
History of Falls (Previous Falls)

- As previously mentioned, a combination of factors affect older adults' risk for falls (internal and external risk factors)
- Many studies have cited a history of falls as a significant factor associated with patients being more likely to fall again
- Older adults who have previously fallen or who stumble frequently are two to three times more likely to fall within the next year
- We also know that previous falls often leads to fear of falling, which may lead to inactivity and loss of self-confidence

History of Falls (Previous Falls)

- Previous falls can often lead to a fear of falling
- In itself, fear of falling predisposes older adults to a downward cyclic pattern that induces a decrease in physical activity, decreasing muscle strength, balance and gait, and flexibility
  - physical and functional ability then decreases, resulting in a larger risk of falling
- By reducing physical activity by fear of falling, older adults are doing the exact opposite to what is required to protect themselves from falling – exercise to stand strong!
  - *If we cannot modify older adults' fear of falling, where and what can we intervene on to reduce their fear of falling and risk for falls?*

Cycle of Fall-Prone Individuals Leading to More Falls



Visual Impairment

- The most basic visual problem that increases with age is poor visual acuity
- Older adults experience decreased night vision, altered depth perception, decline in peripheral vision, and glare intolerance
- Be aware of old or new prescription glasses, as they can alter a person's visual field and cause falls
- When considering these factors, it is easy to understand that stairs, carpets with patterns, and curbs, for example, are risk factors for older adults with decline in depth perception
- The person may have difficulty estimating the height of the step or of the curb, and therefore misplace the foot

Visual Impairment

- Or, the person may think that the carpet or sidewalk is uneven and alter balance and gait to accommodate the misperception

If we cannot modify older adults' visual condition, where and what can we intervene on to reduce the risk for falls? ***Remember, nearly one-half of older adults who fall do so in and around their home. What can be done in their homes?***

Medication Use (Polypharmacy)

- Medications that affect the central nervous system, especially psychoactive medicines such as sedatives, tranquilizers, and benzodiazepines, are risk factors for falls
- The number of administered or prescribed medications taken (polypharmacy) also acts as a risk factor for falls
- The rule of thumb is that four or more medications is a risk factor
- It is also important to consider the number and types of over-the-counter medication that an older adult takes

think about where in the process and how could we intervene to minimize the risk of falls related to medication use

Lack of Physical Activity

- Balance, gait, and muscle strength
  - despite the significant benefits of physical activity, a national survey shows that older adults tend to avoid physical activity, particularly at older ages with less than 25% of older adults exercising regularly
  - the effects of lack of physical activity, combined with naturally occurring loss of muscular strength and flexibility, increase the risk of falls among older adults
  - by age 65, a 20% decrease in strength usually occurs
  - losses in muscular strength are even greater after age 70 with declines of approximately 15% in the 6th and 7th decade and about 30% after
  - flexibility has been shown to deteriorate by 20% to 30% between 20 and 70 years, with further reductions occurring by the age of 80
  - lower body weakness is associated with an impaired ability to walk and an increased risk of falls

Podiatric Conditions

- Nearly 75% of older adults have some type of foot and ankle problems varying from:
  - toenail disorders
  - lesser toe deformities
  - corns and calluses
  - bunions
  - signs of fungal infection, cracks/fissures, or maceration between toes
- Foot pain can increase the risk for falls
  - *What can be done to reduce older adults' feet problems and, therefore, decrease their risk for falls?*

Podiatric Conditions

- Internal risk factors affecting falls in and out of hospital are similar:
  - *study results show nearly 50% of falls are elimination related*
  - *other researchers identified factors such as mental status, history of falls, medications, special toileting needs, attachment to equipment (IV, oxygen, etc.), postural hypotension, vision, decreased peripheral sensation, and poor mobility as risk factors for falls among patients*
- Another risk factor that may potentially increase the risk for falls is decreased sensation in the feet
- Another study showed that the presence of specific foot conditions impaired performance in a balance test and in some functional tests
- In particular, older people with foot pain performed worse in a leaning balance test, stair ascent and descent, an alternate step-up test, and a timed six-meter walk

Environmental Risk Factors

- In the home
  - poor lighting
  - uneven or slippery surfaces
  - loose rugs
  - steep stairs
  - clutter and/or pets in pathway
  - lack of handrails (bathroom included)
  - furniture wrong height
  - long bathrobe

Environmental Risk Factors

- In the hospital
  - recent admission
  - furniture placement
  - slick and/or hard floors
  - unsupervised activities
  - nurse/patient ratio
  - meal times
  - absent handrails
  - poor lighting

Risk Factors

- Risk factors in the hospitalized patient include:
  - postural hypotension
  - lowest weight percentile
  - medication intake of 4+ drugs or sedatives
  - history of a previous fall
  - impaired arm strength or range of motion
  - uneven gait
  - unable to move from bed to bath without assistance

External Risk Factors

- External factors are included in four main categories:
  - unsafe home environment
  - inadequate footwear
  - unsafe outdoor environment
  - unsafe ED, hospital, or facility environment
- *Which is easier for older adults?*
  - *Making home modifications and wearing adequate shoes?*
  - *Making ED/hospital/senior living facility modifications and outdoor environment modifications?*

Unsafe Home Environment

- As previously mentioned, nearly one-half of all falls among older adults occur in or around their homes
- It is therefore important to reduce older adults' exposure to the following risk factors:
  - slippery flooring and carpeting
  - use of throw rugs
  - inadequate furnishing design and position
  - poor lighting
  - lack of equipment in bathroom and bathtub
  - lack of or structurally unsecured handrails
  - clutter/cluttered stairs and steps
  - improper use of and inadequate assistive devices

Inadequate Footwear

- In addition to checking older adults' feet, it is important to assess their footwear because improper shoes can:
  - lead to painful mobility
  - can increase potential for feet problems
  - can prevent older adults from staying active
  - increase the risk for falls
- While selecting appropriate footwear, it is important to consider the following factors:
  - pattern and slipperiness of the soles
  - financial ability to own more than one pair of shoes
  - swelling of feet
  - length and wideness of feet
  - cushioning of the soles
  - height of heels

Unsafe Outdoor Environment

- Outdoor risk factors are:
  - uneven sidewalks, terrain, or curbs
  - lack of or structurally unsecured handrails
  - hazardous materials (e.g., snow, ice, water, mud, oil spills)
  - poor lighting
- Interventions to reduce outdoor risk factors can vary in scope (shoveling snow to major sidewalk/curb repairs, etc.)
- A common feature of these interventions is that they often require tapping into community resources (social capital)

Unsafe Emergency Department, Hospital, and Facility Environment

- Although in-hospital falls is not the main focus of this program, their contributing risk factors need to be briefly discussed
- There is very limited evidence-based information to support any particular in-hospital or facility intervention
- Studies conducted among skilled nursing facilities patients show that mechanical restraints were associated with continued, and perhaps increased, occurrence of serious fall-related injuries

Unsafe Emergency Department, Hospital, and Facility Environment

- Based on research, the most commonly identified external risk factors are:
  - transfer to or from a bed or chair (most common)
  - height of bed
  - attachment to equipment (IV, oxygen)
  - slippery floors
  - lack of assistive devices
  - clutter, tripping hazard
  - unreachable bell, side table
  - improper lighting
  - mechanical restraints

How Can You Prevent Falls from Occurring?

- By now, you have a good idea the goal of a fall prevention program is to reduce the number of risk factors for falls
- As we have just reviewed, falls among older adults are usually not the result of a single factor but rather a combination of both internal and external factors
- Therefore, the most effective interventions to prevent falls incorporate multiple elements that address a combination of risk factors
- In the next section we will look at specific activities or interventions that can be done to reduce the risk for falls both in the community and in the emergency department/hospital/senior living community settings

Community Fall Reduction

- Fall prevention interventions can be implemented in the community at senior living communities, churches, and nursing homes
- Fall intervention models are implemented through live presentations, by a healthcare professional or health educator, to an audience of older adults at their place of residence, or where they gather to socialize or worship

Emergency Department, Hospital, and Senior Living Facility Fall Reduction

- Fall prevention interventions can also be implemented in emergency departments, hospitals, senior living communities, nursing homes, adult day care centers, etc.
- Interventions are internally implemented by institutions and conducted by all healthcare professionals at that institution
- Falls prevention protocols are developed (e.g., routine falls-risk assessment, vision and feet checkup, medication review, and education on home safety, footwear check, and physical activity) and environmental changes (e.g., lower beds, bed alarms) may be required to reduce the risk of falls among older adults
- Intervention strategies, activities that address them, and sequence of events will vary in the different settings

Assessing for Risk of Falls

- Falls risk assessments are completed by nurses in the emergency department and upon admission to the hospital
- Nurses will initiate care plans if patient is identified to be at-risk for falls and initiate institutional safety initiatives specifically designed to communicate the increased risk for falls of identified patients

History and Physical Fall Risk Assessment

- Elder abuse
- Alcohol abuse
- Medication review
- Falls in preceding months
- Hydration status
- Malnutrition
- Eye exams in past year
- Gait, strength, and balance
- Environmental hazards

Validated Falls Risk Assessment Tools

- Morse
  - the Morse Fall Scale (MFS) is a rapid and simple method of assessing a patient's likelihood of falling
  - a large majority of nurses (82.9%) rate the scale as "quick and easy to use," and 54% estimated that it took less than 3 minutes to rate a patient
  - the MFS is used widely in acute care settings, both in the hospital and long term care inpatient settings
  - the Morse Scale can be downloaded from the internet https://www.ahrq.gov/professionals/systems/hospital/fallpxtoolkit/fallpxtk-tool3h.html

Validated Falls Risk Assessment Tools

- Hendrich II Scale
  - intended to be used in the acute care and the skilled nursing environment, including emergency department, rehabilitation, and behavioral care areas, to identify adults at risk for falls
  - it is quick to administer and provides a determination of risk for falling based on mental status, emotional status, symptoms of dizziness, gender, and is inclusive of categories of known increased risk medications
  - this assessment tool can be retrieved from the Hartford Institute for Geriatric Nursing website at https://consultgeri.org/try-this/general-assessment/issue-8.pdf

Validated Falls Risk Assessment Tools

- Lack of activity, polypharmacy, and many other factors combined together increase older adults' risk for falls
- It is recommended to assess older adults' physiological risk for falls using assessment tools such as the Morse Fall Scale, the Falls Risk Assessment Tool, or the Hendrich II Fall Risk Scale
- If you already use a fall-risk assessment tool, simply evaluate which one is most effective
- Use of well validated assessment tools demonstrating improved outcomes represent best practice

Falls Risk Assessment for Previous Falls

- **Community assessment**
  - all older adults' individual risk for falls should be determined
  - older adults who score medium or high risk for falls should make appointments with a:
    - primary care physician for vision check, medication review, feet condition, and overall medication review
    - pharmacist for medication review
    - physical therapist for gait and balance assessment

Falls Risk Assessment for Previous Falls

- **Emergency department and hospital assessment**
  - all older adults' individual risk for falls should be determined when appropriate for the particular setting (i.e., triage, admission, move-in)
  - older adults who score medium or high risk for falls are referred for further assessments by a primary care physician, a physical therapist, or any member of your multidisciplinary team of healthcare professionals who are involved in falls prevention

Examination for Visual Impairment

- Because of the frequent visual impairment problems experienced by older adults, it is recommended to:
  - educate them about the importance of having regular eye examinations
  - refer and encourage them to get their vision checked
- These recommendations are applicable in all settings

Medication Review for Polypharmacy

- Polypharmacy is a frequent problem among older adults and older adults taking four or more medications are at greater risk for falls
  - the number of over-the-counter medications taken can cause interactions possibly increasing risks for falls
  - educate older adults, family members, and friends about the risks of taking many medications (greater risks associated with taking psychoactive medication)
- A physician's or pharmacist's review of both prescription and over-the-counter medications can be helpful in reducing falls, as it may possibly reduce side effects and interactions by decreasing the number of medications
  - frequently, eliminating a medication, altering the dosage, or switching to alternative medications without compromising patient care can markedly affect the risk of falling

Physical Activity Assessment for Reduced Balance, Gait, and Muscle Strength

- In all settings, it is important to educate older adults about the benefits of exercising
- Remember, today's older generation was raised thinking that as you age, you must slow down: *"You shouldn't climb stairs or do any strenuous activities"*
- Today, we know that staying active in older age is beneficial in many ways
- Factors influencing older adults' motivation to stay physically active include:
  - physical and emotional benefits of physical activity
  - successful performance
  - individualized care
  - social support
  - appropriate environment

Physical Activity Assessment for Reduced Balance, Gait, and Muscle Strength

- Health calendars can also be effective in increasing older adults' self-confidence and skill level in accomplishing specific and realistic health goals
- It is recommended to educate older adults about the benefits of physical activities
- Many older patients are reluctant to participate in a regular exercise program, and all should check with their physicians first
- As with all adults, some may have an aversion to group activities, as others look for guidance and companionship
- The end results need to be encouraged and stressed

Examples of Physical Activities to Improve Balance, Gait, and Muscle Strength

- There are multiple types of exercises
  - enough to respond to everyone's preferences and needs
- Physical exercises do not only refer to structured exercises in a gym, but also includes routine activities such as walking, sweeping, gardening, Tai Chi, Yoga, or personal care activities
  - Tai Chi has been shown to reduce fear of falling and cut the risk of multiple falls nearly in half
  - *older adults who engage in regular physical activity increase the likelihood they will extend years of active independent life, reduce disability, and improve quality of life in midlife and beyond*

Examples of Physical Activities to Improve Balance, Gait, and Muscle Strength

- The American College of Sports Medicine, the Centers for Disease Control and Prevention, and the National Institutes of Health recommend that older adults accumulate 30 minutes of moderate physical activity most days of the week
- This activity should incorporate aerobic activity (such as walking, dancing, swimming, biking), resistance training, balance, and flexibility
- Other examples of physical activities include gardening and yoga

In-Home Safety Assessment for Unsafe Home Environment

- It is important to reduce older adults' exposure to risk factors like
  - slippery flooring and carpeting, use of throw rugs
  - inadequate furnishing design and position
  - poor lighting
  - lack of equipment in bathroom and bathtub
  - lack of handrails, clutter, cluttered stairs and steps
  - inappropriate type of footwear
  - improper use of and inadequate assistive devices
- In an attempt to reduce home hazards, the Centers for Disease Control and Prevention (CDC) developed a brochure entitled ***Check for Safety: A Home Fall Prevention Checklist for Older Adults***

In-Home Safety Assessment for Unsafe Home Environment

- Home modifications are adaptations to the living environment intended to increase:
  - ease of use
  - safety
  - security
  - Independence
- Modifications can include:
  - changes or additions to the structure (e.g., widening doorways, adding a first floor bathroom, or a ramp)
  - installing special equipment (e.g., grab bars and handrails)
  - adjusting the location of items (e.g., moving furniture)

In-Home Safety Assessment for Unsafe Home Environment

- Home modifications overlap considerably with assistive devices (e.g., bath benches, walkers) which tend to be more mobile in nature and not attached to the structure of the house
- In addition, home modifications are often accompanied by repairs (e.g., fixing worn-out stairs) to ensure their usefulness
- Addressing environmental hazards at home can be an effective way to reduce falls since more than half of the falls occur in or around the home and most fall-related injuries are due to tripping while walking, as opposed to falling down a flight of stairs
- Many of these seem only basic precautions, but for many elderly it will entail changing some aspects of their home environment
- Railings and grab bars are thought of only for people who “need” them
- By convincing people it is better to have and use but not need will help maintain their independence by avoiding needless injuries

In-Home Safety Assessment for Unsafe Home Environment

- Inside the home, moving furniture generally is not recommended unless it poses a definite fall-risk hazard
- We have “cognitive maps” of our environment
- We are able to maneuver in our home environment with our eyes closed
- Do not recommend that older adults rearrange furniture unless absolutely necessary
- This is because when furniture is moved, it takes time to develop a new cognitive map

Feet and Footwear

- Check for podiatric problems and inadequate footwear
- It is important to educate older adults and family members on the importance of foot and footwear check and on purchasing adequate footwear
- Reinforce the importance to complete regular foot and footwear checks

Assess Footwear for Adequacy

- **Adequate**
  - proper fit
  - non slippery soles
  - low heels
- **Inadequate**
  - floppy slippers
  - loose fitting
  - wearing socks only

Assess Footwear for Adequacy

- Important criteria to be considered in selecting appropriate footwear includes:
  - the pattern and slipperiness of the soles
  - financial ability to own more than one pair of shoes
  - swelling of feet
  - length and wideness of feet
  - cushioning of the soles
  - height of heels

Devices Used to Reduce Falls

- Cane
- Walker
- Hip protectors
- Grip bars
- Shower chair
- Raised toilet seat
- We promote use of assistive devices by older adults at greater risk for falls
- For example, there is evidence hip protectors contribute to reduction in hip fracture incidence among older adults
- Hip protectors act similarly to bicycle helmets, only for the hips
- Assistive devices have not scientifically shown to reduce falls, but as we have just mentioned, they have shown to reduce the severity of injuries when falls occur

Devices Used to Reduce Falls

- Despite the general consensus on the advantages of using assistive devices to maintain independence and autonomy, many older adults who are at high risk for falls do not express the need to use such devices
  - to use a walker is like telling the whole world that you are old or frail
- It is recommended we educate older adults about the importance of assistive devices in the prevention of falls and falls-related injuries
  - strong social stigmas associated with the use of such devices needs to be considered in the discussion
- It is recommended we educate older adults about the importance of assistive devices in the prevention of falls and falls-related injuries
  - strong social stigmas associated with the use of such devices needs to be considered in the discussion
- It may be a good idea to think about ways to make the use of assistive devices a fun, and at the same time safe, habit
  - some individuals personalize their cane or walker

Community Services and Referrals

- It is possible that some of the older adults at medium and high risk for falls will not have access to a primary care physician or other needed services
- This is when knowing about the different community and home health services available in your community becomes very helpful
- Different types of home health services exist for older adults
  - gait training
  - ADL retraining
  - therapeutic exercise for strengthening and endurance
  - cardiac status management
  - blood pressure checks

Community Services and Referrals

- Examples
  - home care service agencies
  - personal trainer or exercise program dedicated to older adults
  - social services
  - day care
  - meals on wheels

These connections may lead you to interesting people, organizations, and services that offer important services right in your community

Organizational Strategies

- Due to the multitude of factors that play a role in patient falls and falls with injury, most successful fall reduction programs have implemented multiple strategies such as:
  - improving the fall risk assessment process
  - using visual cues or systems to alert staff to patients at high risk for falls
  - improving communication among staff regarding fall risk status
  - ensuring safe patient transfers while toileting
  - using equipment such as low beds and mats
  - improving staff and patient education

Interventions for High Risk Patients

- Patient alerts communicating risk to other staff
  - ID bracelets
  - yellow gown
  - yellow socks
  - magnet on doorframe
  - sticker on chart
- Use of bed alarms
- Special slip resistant flooring
- Hip protectors
- “Toileting rounds” at least hourly
- Avoid terry slippers
- Motion sensing lights
- Work with physical therapists for muscle strengthening
- Place patient closer to nursing station

Important Interventions to Decrease Fall Risk

Change	Behaviors
Manage	Medications
Ensure	Proper Nutrition
Modify	Home Environment

Educating Patients, Caregivers, and Families

- Videos: in-house and at home
  - "sit and be fit"
- Written materials
- Community referrals
  - BMD screening
  - pharmacists
- "Call before you fall"
- Physical activity support
  - strength
  - balance
  - fear of falling
  - osteoporosis
  - arthritis
  - CHD
  - DM

Organizational Contributing Factors and Solutions

- Different organizations require different solution sets based on measurement and analysis of the contributing factors at their organization
- The measurement of the contributing factors is critical to implementing sustainable solutions

Fall Risk Assessment Issues

- Risk assessment tool is not a valid predictor of actual fall risk
  - implement a "validated" fall risk assessment tool
  - implement a standardized cognitive assessment tool and integrate into fall risk assessment tool if cognitive assessment is not included in current fall risk assessment
- Inconsistency in ratings by different caregivers
  - standardize assessment tools used between nursing staff and ancillary staff (e.g., physical therapy); allow both service areas to access each other's charting detail in the electronic medical record (EMR)
  - ensure staff is adequately trained on the fall risk assessment tool and test inter-rater reliability between different caregivers on staff

Handoff Communication Issues

- Inconsistent or incomplete communication of patient risk for falls between caregivers
  - use a “ticket to ride” for when patient is moved throughout hospital indicating that patient is a fall risk and identify protocol for activating bed/chair alarms upon patient return to room
  - utilize white boards to communicate patient fall risks to all staff
  - incorporate alerts into EMR that alert staff to which patients are at risk for a fall and effectively translate fall risk information into useful tasks, reports and prompts
  - initiate bedside shift report with patient that includes focus on fall risk concerns

Toileting Issues

- Patient did not seek help and fell while toileting
  - implement hourly rounding with proactive toileting for all patients and track and monitor to ensure success
  - implement scheduled toileting for high-risk patients: get patient up for toileting on a regular schedule; track and monitor to ensure success
- Medications that increase the risk of falls combined with toileting
  - educate patients on medication side effects and increased risk for falls
  - schedule medication administration for at least two hours prior to “bedtime”

Call Light Issues

- Patient did not know, forgot, or chose not to use call light
  - have patients sign an agreement indicating they understand why they are a fall risk and what they can do to ensure their safety (e.g., use a call light)
  - educate patient on the use of and indications for using the call light
  - educate family on the need for using the call light for assistance at all times, especially when getting into and out of bed
  - have protocol in place to address extra precautions needed for patients with dementia or other diseases that affect memory

Education and Organizational Culture Issues

- Lack of standardization of practice and application of interventions
  - implement organization-wide culture messaging around fall safety for all patients
  - ensure strong organizational leadership and support from medical staff for preventing falls
- Patient awareness and acknowledgment of their risk for falls
  - implement a patient agreement form to use call light for all ambulation
  - emphasize risk factors during education and signing of patient agreement
- Fall prevention education for patient and family is not used or is inconsistently used
  - revise patient and family fall precaution education packet and process; education should be targeted and individualized to patient-specific fall risks
  - ensure all patients receive fall prevention education
  - standardize ongoing staff education and ensure staff are providing it correctly and adequately enough
  - ensure process in place for training new staff on fall precautions and protocols

Medication Issues

- Patient on one or more medications that increase the risk of falls (e.g., diuretics, laxatives, narcotics, antipsychotics or anti-hypertensives)
  - educate patients on medication side effects and increased risk for falls
  - schedule medication administration for at least two hours prior to “bedtime”

Key to Successful Fall Prevention Initiatives

- It is imperative to have support for the initiative from leadership and staff
  - governing body
  - medical staff
  - patient and family advisory council
- Having support from leadership and key hospital groups will help ensure a strong fall prevention culture and will help raise expectations for fall prevention
- Healthcare organizations must develop a culture of “zero falls” among all leadership and staff, from the CEO to the housekeeping staff and maintenance crews

Key to Successful Fall Prevention Initiatives

- Successful organizations demonstrate a culture of pride and ownership about having zero falls, and preventing falls becomes a mission that resonated on each participating unit or throughout the entire hospital
- Change management tools and approaches are critical to supporting the culture changes
- In addition, engaging and partnering with patient and families is important to adopting an organization-wide commitment to improving safety and preventing falls

Conclusion

- Patient injuries related to falls continue to be an issue in hospitals even though many organizations have implemented projects or initiatives to try and address this problem
- The contributing factors to falls are both varied and complex
- While the solutions appear logical on the surface and many are thought already to be in practice, organizations found that common practices were not implemented consistently
- Healthcare organizations with leadership support is critical to success, especially ensuring that those involved in the project have the dedicated time to collect data

Prevention of Falls in Older Adults

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