A Fall Prevention Toolkit for Healthcare Providers

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Gerontological Society of America
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Introduction

• 30-35% of people 65+ fall each year\(^1\)
• Those who fall are 2-3 times more likely to fall again\(^2\)
• 1 in 5 falls causes a serious injury\(^3\)

\(^3\) Sterling, *J Trauma-Inj Infection & Critical Care*, 2001
Leading Causes of Unintentional Injury Death Among People 65+, 2008

- Total = 39,400 deaths

- Falls 50% (N=19,700)
- M.V. 16%
- Unspecified 12%
- Suffocation 8%
- Other 7%
- Poisoning
- Drowning 1%
- Fire/Burn 3%

NCHS, Vital Records, 2008
Trends in **Age-Adjusted Fall Death Rates**
**Men & Women 65+, 2000-2008**

NCHS, Vital Records, 2008
Leading Causes of Nonfatal Injuries Among People 65+, 2009

- **Falls**: 64%  
  - N=2.2 million

**Total** = 3.4 million injuries

- **Unknown**: 2%
- **Other transport**: 2%
- **Poisoning**: 2%
- **Bite/sting**: 2%
- **Cut/pierce**: 4%
- **Overexertion**: 5%
- **MV Occupant**: 5%
- **Struck by/Against**: 7%

**NEISS-AIP, 2009**
Nonfatal Fall Injury Rates by Sex & Age, 2009

NEISS-AIP, 2009
Fall Risk Factors

- Intrinsic
- Extrinsic
Intrinsic Factors

- Older age
- Female
- Chronic diseases
- Mentally impaired
- Medication side-effects
- Muscle weakness
- Gait & balance problems
- Poor vision
- Postural dizziness
Extrinsic Factors

- Clutter & tripping hazards
- No stair railings or grab bars
- Dim lighting
# Leading Fall Risk Factors

<table>
<thead>
<tr>
<th>Risk Factor</th>
<th>Relative Risk</th>
</tr>
</thead>
<tbody>
<tr>
<td>Muscle weakness</td>
<td>4.9</td>
</tr>
<tr>
<td>Balance problems</td>
<td>3.2</td>
</tr>
<tr>
<td>Gait problems</td>
<td>3.0</td>
</tr>
<tr>
<td>Poor vision</td>
<td>2.8</td>
</tr>
<tr>
<td>Limited mobility</td>
<td>2.5</td>
</tr>
<tr>
<td>Cognitive impairment</td>
<td>2.4</td>
</tr>
<tr>
<td>Functional limitations</td>
<td>2.0</td>
</tr>
<tr>
<td>Postural hypotension</td>
<td>1.9</td>
</tr>
</tbody>
</table>

Rubenstei, *Age & Aging*, 2006
Effective Fall Prevention

Clinical assessment, treatment, referral & follow-up

Gillespie, Cochrane Database Systematic Review, 2003
AGS, Clinical Practice Guidelines, 2010
Initial Interviews

90 min interviews w 18 providers

- 6 Geriatricians
- 6 Primary Care Providers
- 3 Registered Nurses
- 3 Nurse Practitioners
Interview Results

• Recognize falls are a threat for their older patients

• Lack information about standardized assessment methods & evidence-based prevention strategies

• Tend to be reactive rather than proactive in addressing falls
Interview Results (cont)

• Time was the biggest barrier
• Need to address multiple health problems
• Asked for materials that were direct, concise & easy to read
• Preferred checklists, one-pagers & on-line information
Focus Groups

- Primary care providers
- Geriatricians
- Nurses
- Nurse practitioners
- Physician assistants
Preventing Falls in Older Patients
A Provider Toolkit

STEADI
Stopping Elderly Accidents, Deaths & Injuries

Centers for Disease Control and Prevention
National Center for Injury Prevention and Control
Overview of Falls Risk Assessment & Interventions

1. Waiting room: Complete Stay Independent brochure
   - Identify main fall risk factors

2. Clinical visit – Identify patients at risk
   - Fell in past year
   - Feels unsteady when standing or walking
   - Worries about falling
   - Scored 4+ on Stay Independent brochure

3. Evaluate gait & balance
   - Timed Up and Go
   - 30-Sec Chair Stand
   - 4 Stage Balance Test

4. Gait or balance problem
   - No to all
     - Patient education
     - Refer to community exercise, balance, fitness or fall prevention program
   - No gait or balance problems

5. Conduct multifactorial risk assessment
   - Falls history
   - Physical exam
   - Postural dizziness/ postural hypotension
   - Cognitive screening
   - Medication review
   - Feet & footwear
   - Use of mobility aids
   - Visual acuity check

6. Implement key fall interventions
   - Patient educ & awareness
   - Enhance strength & balance
   - Improve functional mobility
   - Manage & monitor hypotension
   - Manage medications
   - Address foot problems
   - Vitamin D +/- calcium
   - Optimize vision
   - Optimize home safety

7. Determine circumstances of latest fall
   - 2+ falls or a fall injury

8. Determine circumstances of fall
   - 1 fall in past year
   - 0 falls in past year

9. Patient follow-up
   - Review patient education
   - Assess & encourage adherence with recommendations
   - Discuss & address barriers to adherence

Adapted from AGS, Clinical Practice Guidelines, 2010
Overview of Toolkit Content

• Provider resources
• Training materials
• Patient education

www.cdc.gov/injury/STEADI
Provider Resources

• Fact sheets
• 3.5”x 5.5” Pocket Guide
• Chart – Integrating Falls Assessment & Interventions Into Practice
• Assessment tools
• Management tools
Fact Sheets

Falls are a Major Threat for Your Patients

- One-third of people 65 and older fall each year.
- Less than half of the Medicare beneficiaries who fall in the prior year talked to their healthcare provider about it.
- Every 29 minutes an older adult dies from a fall.
- 1 out of 5 falls causes a serious injury such as a head trauma or fracture.
- Over 2 million older adults are treated in emergency departments for nonfatal fall injuries yearly.
- Direct medical care for fall injuries total over $26 billion annually. Hospital costs account for one-third of the total.

The good news—as a provider, your efforts can prevent many of these injuries!

For more information, go to: www.cdc.gov/injury/STEADI

Risk Factors For Falls

Research has identified many risk factors that contribute to falling—some are fixed while others are modifiable. Most falls are caused by the interaction of multiple risk factors. The more risk factors a person has, the greater their chances of falling. Health care providers can help reduce a person’s risk by reducing or minimizing that individual’s risk factors.

To prevent falls, providers should focus FIRST on these modifiable risk factors:

- Lower body weakness
- Difficulties with gait and balance
- Use of psychoactive medications
- Postural dizziness

Fall risk factors are categorized as intrinsic or extrinsic.

<table>
<thead>
<tr>
<th>Intrinsic</th>
<th>Extrinsic</th>
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</thead>
<tbody>
<tr>
<td>Advanced age</td>
<td>Lack of stair railings</td>
</tr>
<tr>
<td>Previous falls</td>
<td>Poor stair design</td>
</tr>
<tr>
<td>Muscle weakness</td>
<td>Lack of bathroom grab bars</td>
</tr>
<tr>
<td>Gait &amp; balance problems</td>
<td>Dim lighting or glare</td>
</tr>
<tr>
<td>Poor vision</td>
<td>Obstacles &amp; tripping hazards</td>
</tr>
<tr>
<td>Postural hypotension</td>
<td>Slippery or uneven surfaces</td>
</tr>
<tr>
<td>Chronic conditions including arthritis, diabetes, stroke, Parkinson’s, incontinence, dementia</td>
<td>Psychoactive medications</td>
</tr>
<tr>
<td>Fear of falling</td>
<td>Improper use of assistive device</td>
</tr>
</tbody>
</table>

For more information, go to: www.cdc.gov/injury/STEADI

Medications Linked to Falls

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

Medication management involves:

- Eliminating medications if there is no active indication
- Reducing doses of necessary medications if a non-inferior alternative to the lowest effective dose is available
- Avoiding prescribing medications for an older person when the risk from side effects outweighs the benefits (e.g., statins, muscle relaxants)

The MOST important intervention is to reduce or eliminate:

- Psychoactive drugs, especially any benzodiazepines
- Any medications that have anticholinergic side effects
- Statins (other than Pravastatin which does not interact with SSRI)

For more information about medications, go to: www.cdc.gov/injury/STEADI
# Pocket Guide

## Talking with your Patient about Falls

<table>
<thead>
<tr>
<th>Patient</th>
<th>Provider</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Precontemplation Stage</strong></td>
<td></td>
</tr>
</tbody>
</table>
Falling is just a matter of bad luck.  
As we age, falls are more likely for many reasons, including changes in our balance and how we walk. |
| **Contemplation Stage** |  
My friend down the street fell and ended up in a nursing home.  
Preventing falls can prevent broken hips & help you stay independent. |
| **Preparation Stage** |  
I'm worried about falling. Do you think there's anything I can do to keep from falling?  
Let's look at some factors that may make you likely to fall & talk about what you could do about one or two of them. |
| **Action Stage** |  
I know a fall can be serious. What can I do to keep from falling and stay independent?  
I'm going to fill out a referral form for a specialist who can help you improve your balance. |

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### Preventing Falls in Older Patients Pocket Guide

#### Key Facts about Falls:
- 1/3 of older adults (age 65 plus) fall each year.
- Many patients who have fallen do not talk about it.
- Falls cause >19,000 deaths & cost >$22 billion.

**RITUAL:**
- Review self-assessment brochure
- Identify risk factors
- Test gait & balance
- Undertake multifactorial assessment
- Apply interventions
- Later, follow-up

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For more information, go to: [www.cdc.gov/Injury/STEADI](http://www.cdc.gov/Injury/STEADI)

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

Key Steps for Fall Prevention
1. Be proactive—ask all patients 65+ if they’ve fallen in the past year.
2. Identify & address fall risk factors:
   - Lower body weakness
   - Gait and balance problems
   - Psychoactive medications
   - Postural dizziness
   - Poor vision
   - Problems with feet and/or shoes
   - Home safety
3. Refer as needed to specialists or community programs.
4. Follow-up with patient within 30 days.

Key Falls Interventions
- Patient education
- Enhance strength & balance
- Manage medications
- Manage hypotension
- Supplement vitamin D & calcium
- Address foot problems
- Maximize vision
- Enhance home safety

Overview of Falls Risk Assessment & Interventions
Integrating Fall Prevention into Practice

Organize practice so fall risk assessment and management occurs routinely.
Assessment Tools

• *Stay Independent* brochure for self-risk assessment

• Instructions for
  ‣ 3 standardized gait & balance tests
  ‣ orthostatic blood pressure measurement

• Fall Risk Checklist for summarizing risk assessment findings
Stay Independent Brochure

“It’s not the broken hip, it’s the nursing home I don’t want. I need to be independent, so I take Tai Chi.”
Leonard Jones, age 74

“People who use canes are brave. They can be more independent and enjoy their lives.”
Shirley Warner, age 79

Stay Independent
Falls are the main reason why older people lose their independence.
Are you at risk?

Contact your local community or senior center for information on exercise, fall prevention programs, or options for improving home safety.
For more information on falls and fall prevention please visit:
www.cdc.gov/injury
www.stopfalls.org

This brochure was produced in collaboration with the following organizations:

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

STEADI
Stopping Elderly Accidents, Deaths & Injuries
# Stay Independent Brochure

## Check Your Risk for Falling

<table>
<thead>
<tr>
<th>Check Your Risk for Falling</th>
<th>Facts About Falls</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes (2)</td>
<td>I have fallen in the last 6 months. People who have fallen once are likely to fall again.</td>
</tr>
<tr>
<td>Yes (2)</td>
<td>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.</td>
</tr>
<tr>
<td>Yes (1)</td>
<td>Sometimes I feel unsteady when I am walking. Unsteadiness or needing support while walking are signs of poor balance.</td>
</tr>
<tr>
<td>Yes (1)</td>
<td>I steady myself by holding onto furniture when walking at home. This is also a sign of poor balance.</td>
</tr>
<tr>
<td>Yes (1)</td>
<td>I am worried about falling. People who are worried about falling are more likely to fall.</td>
</tr>
<tr>
<td>Yes (1)</td>
<td>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.</td>
</tr>
<tr>
<td>Yes (1)</td>
<td>I have some trouble stepping up onto a curb. This is also a sign of weak leg muscles.</td>
</tr>
<tr>
<td>Yes (1)</td>
<td>I often have to rush to the toilet. Rushing to the bathroom, especially at night, increases your chance of falling.</td>
</tr>
<tr>
<td>Yes (1)</td>
<td>I have lost some feeling in my feet. Numbness in your feet can cause stumbles and lead to falls.</td>
</tr>
<tr>
<td>Yes (1)</td>
<td>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.</td>
</tr>
<tr>
<td>Yes (1)</td>
<td>I take medicine to help me sleep or improve my mood. These medicines can sometimes increase your chance of falling.</td>
</tr>
<tr>
<td>Yes (1)</td>
<td>I often feel sad or depressed. Symptoms of depression, such as not feeling well or feeling slowed down, are linked to falls.</td>
</tr>
</tbody>
</table>

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.

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## What you can do to protect yourself from falling:

- Improve leg strength and balance by finding an exercise program that’s right for you.
- Ask your doctor or pharmacist to review your medicines.
- Get annual eye check-ups and update your eyeglasses.
- Create a safe home environment by having:
  - Railings on all stairs and adding grab bars in the bathroom.
  - Good home lighting, especially on stairs.

## Your doctor may suggest:

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

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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)). Adapted with permission of the authors.
Gait And Balance

The Timed Up and Go Test

Purpose: To assess mobility
Equipment: A stopwatch

Instructions to the patient:
1. Stand up from the chair.
2. Walk to the line on the floor at your normal speed.
3. Turn.
4. Walk back to the chair at your normal speed.
5. Sit down again.

On the word “Go,” begin timing. Stop timing after patient has sat back down.

Time: _______ seconds.

An older adult who takes more than 10 seconds to TUG is at high risk for falling.

Circle all that apply:
- Gone to far away
- Lost balance
- Walked too far
- Walked too fast

Notes:

The 30-Second Chair Stand Test

Purpose: To test leg strength and endurance
Equipment:
- A chair with a straight back without arm rests (seat 17")
- A stopwatch

Instructions to the patient:
1. Sit in the middle of the chair.
2. Place your hands on the opposite shoulder and cross your ankles at the ankles.
3. Keep your feet flat on the floor.
4. Keep your back straight and keep your arms against your chest.
5. On “Go,” rise to a full standing position and then sit back down again.
6. Repeat this for 30 seconds.

On “Go,” begin timing. If the patient must use his/her arms to stand, stop Record “0” for the number and score.

Count the number of times the patient comes to position in 30 seconds.

If the patient is over halfway to a standing position in 30 seconds, count it as a stand. Record the number of times the patient stands.

Number: _______ Score (See chart on back) _______

A below average score indicates a high risk

Notes:

The 4-Stage Balance Test

Purpose: To assess static balance
Equipment: A stopwatch

Instructions to the patient:
1. Stand and face forward.
2. Place one foot on the floor and keep the other foot forward.
3. Keep your hands on the hips.
4. Count to 30.
5. Return to starting position.

For each stage, say “Ready, begin” and begin timing. After 10 seconds, say “Stop.”

See back page for detailed patient instructions and illustrations of the four positions.

Notes:
Orthostatic Hypotension

How to Measure Orthostatic Blood Pressure

1. Have the patient lie down for 5 minutes.
2. Measure blood pressure and pulse rate.
3. Have the patient stand.
4. Repeat blood pressure and pulse rate measurements after standing 1 and 3 minutes.

A decrease in systolic blood pressure of ≥20 mm Hg or experiencing symptoms of lightheadedness or dizziness is considered abnormal.

<table>
<thead>
<tr>
<th>Position</th>
<th>Time</th>
<th>BP</th>
<th>Associated Symptoms</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lying Down</td>
<td>5 Minutes</td>
<td>BP <em><strong>/</strong></em></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>HR <em><strong>/</strong></em></td>
<td></td>
</tr>
<tr>
<td>Standing</td>
<td>1 Minute</td>
<td>BP <em><strong>/</strong></em></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>HR <em><strong>/</strong></em></td>
<td></td>
</tr>
<tr>
<td>Standing</td>
<td>3 Minutes</td>
<td>BP <em><strong>/</strong></em></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>HR <em><strong>/</strong></em></td>
<td></td>
</tr>
</tbody>
</table>
## Fall Risk Checklist

**Patient:**

**Date:**

**Time:** AM/PM

### Fall Risk Factor Identified

<table>
<thead>
<tr>
<th>Factor Present?</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>No</td>
</tr>
</tbody>
</table>

### Falls History

- Any falls in past year?
- Worries about falling or feels unsteady when standing or walking?

### Medical Conditions

- Problems with heart rate and/or rhythm
- Cognitive impairment
- Incontinence
- Depression
- Foot problems
- Other medical conditions (Specify)

### Medications

- Any psychoactive medications, medications with anticholinergic side effects, and/or sedating OTCs? (e.g., Benadryl, TYLENOL PM)

### Gait, Balance & Strength

- Timed Up and Go (TUG) Test >14 seconds
- 4-Stage Balance Test Full tandem stance <10 seconds
- 30-Second Chair Stand Test Below average score (See table on back)

### Vision

- Acuity <20/40 OR no eye exam in >1 year

### 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?

### Other Risk Factors (Specify)

- Yes
- No
Management Tools

- Fall Prevention Referral Form
- Recommended Fall Prevention Classes
# Fall Prevention Patient Referral Form

<table>
<thead>
<tr>
<th>Health Provider Organization Street</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>City, State, Zip</td>
<td>--</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Patient:</th>
<th>Referred to:</th>
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</table>

<table>
<thead>
<tr>
<th>Sex:</th>
<th>DOB:</th>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Address:</th>
<th>Address:</th>
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<table>
<thead>
<tr>
<th>Phone:</th>
<th>Phone:</th>
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<table>
<thead>
<tr>
<th>Email:</th>
<th>Email:</th>
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<table>
<thead>
<tr>
<th>Diagnosis:</th>
<th></th>
</tr>
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</table>

## Type of Referral

<table>
<thead>
<tr>
<th>Specialist</th>
<th>Type (See back of form):</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall prevention class</td>
<td>See nurse for class options</td>
</tr>
</tbody>
</table>

## Reason for Referral

<table>
<thead>
<tr>
<th>Gait or mobility problems</th>
<th>Medication review &amp; consultation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Balance difficulties</td>
<td>Inadequate or improper footwear</td>
</tr>
<tr>
<td>Lower body weakness</td>
<td>Foot abnormalities</td>
</tr>
<tr>
<td>Postural hypotension</td>
<td>Vision &lt;20/40 in R, L, Both</td>
</tr>
<tr>
<td>Suspected neurological condition (e.g., Parkinson's disease, dementia)</td>
<td>Home safety evaluation</td>
</tr>
<tr>
<td>Other</td>
<td>Other relevant information:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Referrer signature:</th>
<th>Date:</th>
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**Centers for Disease Control and Prevention**
**National Center for Injury Prevention and Control**

**STEADI**
**Stopping Elderly Accidents, Deaths & Injuries**
Fall Prevention Classes

Recommended Fall Prevention Classes

Health Provider Organization
Street
City, State, Zip

<table>
<thead>
<tr>
<th>Class</th>
<th>Location</th>
<th>Day &amp; Time</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
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Notes:
Research shows that to reduce falls, the exercises MUST focus on improving balance and strength, be progressive (get more challenging over time) and be practiced for at least 50 hours.

The National Institute on Aging has created an exercise book and DVD for healthy older adults to use at home. You can order these by going to: www.nia.nih.gov/HealthInformation/Publications/ExerciseGuide.
Training Materials

- Case studies illustrating 3 levels of fall risk
- Talking about Fall Prevention with Your Patients
Case Studies

CASE STUDY 1
Mrs. Booker is a 66 year old African American woman who lives in her own home. She has been referred for a wellness visit.

History
When asked, Mrs. Booker reports that her husband died earlier this year and since then she has been feeling lonely and isolated from her neighborhood. She feels unsafe outside her home and rarely goes out of doors. She tries to avoid walking on the cracked sidewalk where she lives, fearing it may be unstable.

Mrs. Booker reports that she frequently trips and falls when trying to navigate the cracks in the sidewalk. Playing tennis was her only form of exercise before her husband passed away.

Medical Problem List
Seizure disorder
Schizoaffective disorder
Chronic kidney disease stage 4
Hypothyroidism

Medications
1. Depakote 250 mg twice daily
2. Zyprexa 2.5 mg daily
3. Ativan 0.25 mg twice daily
4. Levothyroxine 75 mcg daily
5. Colace 250 mg daily
6. TYLENOL 500 mg 4 times daily

Review of Systems
A 14-point review of systems is completed:
- Urinary incontinence, and
- Other

CASE STUDY 2
Mr. Ying is an 84 year old Asian man who has lived in his own home for 40 years. He was referred to the clinic visit by his son, who observed Mr. Ying being markedly more outgoing and sociable during his weekly visits to his son's office. This change in behavior was limiting his outside activities.

History of Current Problem
Mr. Ying stated that for the past year he has been feeling more nervous and tired after sitting or lying down and that his level of activity had decreased. He has become more aware of his balance and walking performance. He denies experiencing dizzy spells or any other symptoms.

Mr. Ying now reported that he had developed a new habit of walking in the mornings before his usual activities. He stated that he had started using a cane but doesn’t like it.

When asked about his past medical history, Mr. Ying relates that he has had several falls in the past year and often feels unsteady on his feet when walking. He has noticed some changes in his vision and hearing.

Mr. Ying’s blood pressure was noted to be elevated and he was referred for further medical evaluation.

Medications
1. Depakote 250 mg twice daily
2. Zyprexa 2.5 mg daily
3. Ativan 0.25 mg twice daily
4. Levothyroxine 75 mcg daily
5. Colace 250 mg daily
6. TYLENOL 500 mg 4 times daily

Review of Systems
A 14-point review of systems is completed:
- Urinary incontinence, and
- Other

CASE STUDY 3
Mrs. White is an outgoing 79 year old white woman who lives in an assisted living facility. She has come in with her son for a routine follow-up visit. Her son reports that she was seen in the hospital emergency room a week ago because she fell when she was getting out of the shower. She fell backwards and bumped the back of her head against the wall.

Her son remarks that in the past year his mother has had “too many falls to count”. Mrs. White agrees that she falls a lot but she’s fatalistic. “Old people fall, that’s just how it is”, she says.

Mrs. White has a history of hypertension, hyperlipidemia, diabetes, coronary artery disease, and congestive heart failure.

History
Mrs. White reports that she used to walk “just fine,” but about two years ago she began falling for no apparent reason. Sometimes she’ll trip on a carpet, other times she just loses her balance when she’s walking or turning. Once she fell off a chair face first into a wall. Another time she rolled out of bed.

Mrs. White usually falls indoors and has fallen during the day and at night. Sometimes she falls at night when she gets up to void. She sleeps deeply but is restless, so for the past eight years has been taking Clonazepam to help her sleep.

For the past two years, she has been using a rollerator walker. Before that she had a front-wheeled walker but couldn’t get used to it. She used to go to the Silver Sneakers exercise classes at her local gym but stopped going about five years ago when she developed numbness in her feet and knee pain. She used to enjoy walking but reports that she hardly ever goes outside now because she’s so afraid of falling and breaking her hip.
Talking about Fall Prevention with Your Patients

Many fall prevention strategies require patients to change their behaviors by:
- Attending a fall prevention program
- Doing prescribed exercises at home
- Changing their home environment

We know that behavior change is difficult. Traditional advice and patient education often does not work.

Our understanding of the change process, based on research in smoking cessation and alcohol abuse, depicts patients as being in a process of change.

The Stages of Change model has been validated and applied to a variety of behaviors including:
- Smoking cessation
- Contraceptive use
- Exercise behavior
- Dietary behavior

The Stages of Change model illustrates behavior change as a gradual process. The patient moves from being uninterested, unaware or unwilling to make a change (precontemplation); to considering a change (contemplation); to deciding and preparing to make a change (preparation and action).

<table>
<thead>
<tr>
<th>Stage of Change</th>
<th>Patient behavior</th>
</tr>
</thead>
<tbody>
<tr>
<td>Precontemplation</td>
<td>Does not think about change; is resigned or fatalistic. Does not believe in or downplays personal susceptibility. Displaces blame.</td>
</tr>
<tr>
<td>Contemplation</td>
<td>Weighs benefits vs costs of proposed behavior change.</td>
</tr>
<tr>
<td>Preparation</td>
<td>Experiments with small changes.</td>
</tr>
<tr>
<td>Action</td>
<td>Takes definitive action to change.</td>
</tr>
<tr>
<td>Maintenance</td>
<td>Maintains new behavior over time.</td>
</tr>
<tr>
<td>Relapse</td>
<td>Experiences normal part of process of change. Usually feels demoralized.</td>
</tr>
</tbody>
</table>


Examples of Conversations about Fall Prevention

<table>
<thead>
<tr>
<th>Precontemplation Stage</th>
<th>Patient</th>
<th>Provider</th>
</tr>
</thead>
<tbody>
<tr>
<td>The patient doesn’t view him or herself as being at risk of falling. Goal: The patient will begin thinking about change.</td>
<td>What can I do? Falls just happen when you get old.</td>
<td>It’s true that falling is very common. About a third of all seniors fall each year. But falling is not inevitable. There are specific reasons why people tend to fall as they get older.</td>
</tr>
<tr>
<td>Falling is just a matter of bad luck.</td>
<td>I just slipped. That could have happened to anybody.</td>
<td>As we age, falls are more likely for many reasons, including changes in our balance and how we walk.</td>
</tr>
<tr>
<td>My 92 year old mother is the one I’m worried about, not myself.</td>
<td></td>
<td>Taking steps to prevent yourself from falling sooner rather than later can help you stay independent.</td>
</tr>
<tr>
<td>It was an accident. It won’t happen again because I’m being more careful.</td>
<td></td>
<td>Being careful is always a good idea but it’s usually not enough to keep you from falling. There are many things that you can do to reduce your risk of falling.</td>
</tr>
<tr>
<td>I took a Tai Chi class but it was too hard to remember the forms.</td>
<td></td>
<td>Maybe you’d enjoy taking a balance class instead.</td>
</tr>
</tbody>
</table>
# Training Materials

<table>
<thead>
<tr>
<th>Contemplation Stage</th>
<th>Patient</th>
<th>Provider</th>
</tr>
</thead>
<tbody>
<tr>
<td>The patient is considering the possibility that he or she may be at risk of falling.</td>
<td>I'd like to exercise but I don't because I'm afraid I'll get too tired.</td>
<td>To prevent falls, it's important to do strength and balance exercises at least 3 times a week. You can do these exercises at home or I can recommend some fall prevention classes.</td>
</tr>
<tr>
<td>Goal: Patient will examine benefits and barriers to change.</td>
<td>My friend down the street fell and ended up in a nursing home.</td>
<td>Preventing falls can prevent broken hips and help you stay independent.</td>
</tr>
<tr>
<td></td>
<td>I have so many other medical appointments already.</td>
<td>I have patients very much like you who do these exercises to prevent falls. These types of exercises only take a few minutes a day.</td>
</tr>
<tr>
<td></td>
<td>I already walk for exercise.</td>
<td>Walking is terrific exercise for keeping your heart and lungs in good condition, but it may not prevent you from falling.</td>
</tr>
<tr>
<td></td>
<td>I don't want to ask my daughter to drive me to the exercise class. Getting to the senior center is so hard now that I don't drive.</td>
<td>There are quite a few simple exercises you can do to keep yourself from falling. They don't take a lot of time and you don't have to rely on other people. You don't even have to leave your own home.</td>
</tr>
<tr>
<td></td>
<td>I have to take care of my husband. I don't have time for this.</td>
<td></td>
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</table>

* The National Institute on Aging has created an exercise book and DVD for healthy older adults to use at home. Go to: www.nia.nih.gov/HealthInformation/Publications/ExerciseGuide.

<table>
<thead>
<tr>
<th>Preparation Stage</th>
<th>Patient</th>
<th>Provider</th>
</tr>
</thead>
<tbody>
<tr>
<td>The patient considers him or herself to be at risk of falling and is thinking about doing something about it.</td>
<td>I'm worried about falling. Do you think there's anything I can do to keep from falling?</td>
<td>Let's look at some factors that may make you likely to fall and talk about what you could do about one or two of them.</td>
</tr>
<tr>
<td>Goal: Patient will begin to consider specific changes.</td>
<td>I read that some medicines can make you dizzy. Do you think any of mine might be a problem?</td>
<td>Many seniors say they'd prefer to take fewer medicines. Let's go over yours and see if we can reduce or eliminate any of them.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Action Stage</th>
<th>Patient</th>
<th>Provider</th>
</tr>
</thead>
<tbody>
<tr>
<td>The patient considers him or herself to be at risk of falling and is ready to do something about it.</td>
<td>I know a fall can be serious. What can I do to keep from falling and stay independent?</td>
<td>You have several factors that may make you likely to fall. I'm going to fill out a referral form for a specialist who can help you (increase your balance; improve your vision; find shoes that make walking easier). Someone from the office will call you in about a month to see how you're doing.</td>
</tr>
<tr>
<td>Goal: Patient will take definite action to change.</td>
<td>I want to take a fall prevention class. What do you recommend?</td>
<td></td>
</tr>
<tr>
<td></td>
<td>I know I'd feel safer if I had grab bars put in my shower.</td>
<td></td>
</tr>
</tbody>
</table>

Patient Education

- 2 CDC brochures (*What YOU Can Do to Prevent Falls, Check for Safety*)
- *Postural hypotension: What it is & how to manage it*
- Instructions for Chair Stand exercise
Patient Education

- Postural Hypotension
  What it is and how to manage it
- What YOU Can Do
  To Prevent Falls
- Check for Safety
  A Home Fall Prevention Checklist for Older Adults
Patient Education

Chair Rise Exercise

What it does: Strengthens the muscles in your thighs & buttocks.
Goal: To do this exercise without using your hands as you become stronger.

How to do it:
1. Sit toward the front of a sturdy chair with your knees bent & feet flat on the floor, shoulder-width apart.
2. Rest your hands lightly on the seat on either side of you, keeping your back & neck straight & chest slightly forward.
3. Breathe in slowly.
4. Lean forward & feel your weight on the front of your feet.
5. Breathe out & slowly stand up, using your hands as little as possible.
6. Pause for a full breath in & out.
7. Breathe in as you slowly sit down. Do not let yourself collapse back down into the chair. Rather, control your lowering as much as possible.
8. Breathe out.
9. Repeat 10-15 times. If this number is too hard for you when you first start practicing this exercise, begin with fewer & work up to this number.
10. Rest for a minute & then do another set of 10-15.

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

STEADI: Stopping Elderly Accidents, Deaths & Injuries
Next Steps with

• Introduce providers to the toolkit
• Link to community programs
Thank You!

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