STrategies to
Reduce
Injuries and
Develop confidence in
Elders

STRIDE

Preventing Falls in Older Adults

Nancy Latham PhD PT
Siobhan McMahon PhD MPH GNP-BC
Fred Ko MD

Overview of the Webinar

1. Review of evidence - Nancy
2. STRIDE Trial Implementation- Siobhan
3. Clinical Tools for preventing falls - Fred

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Session I: Background of Falls Older Adults: Review of the Evidence

Nancy Latham, PhD, PT

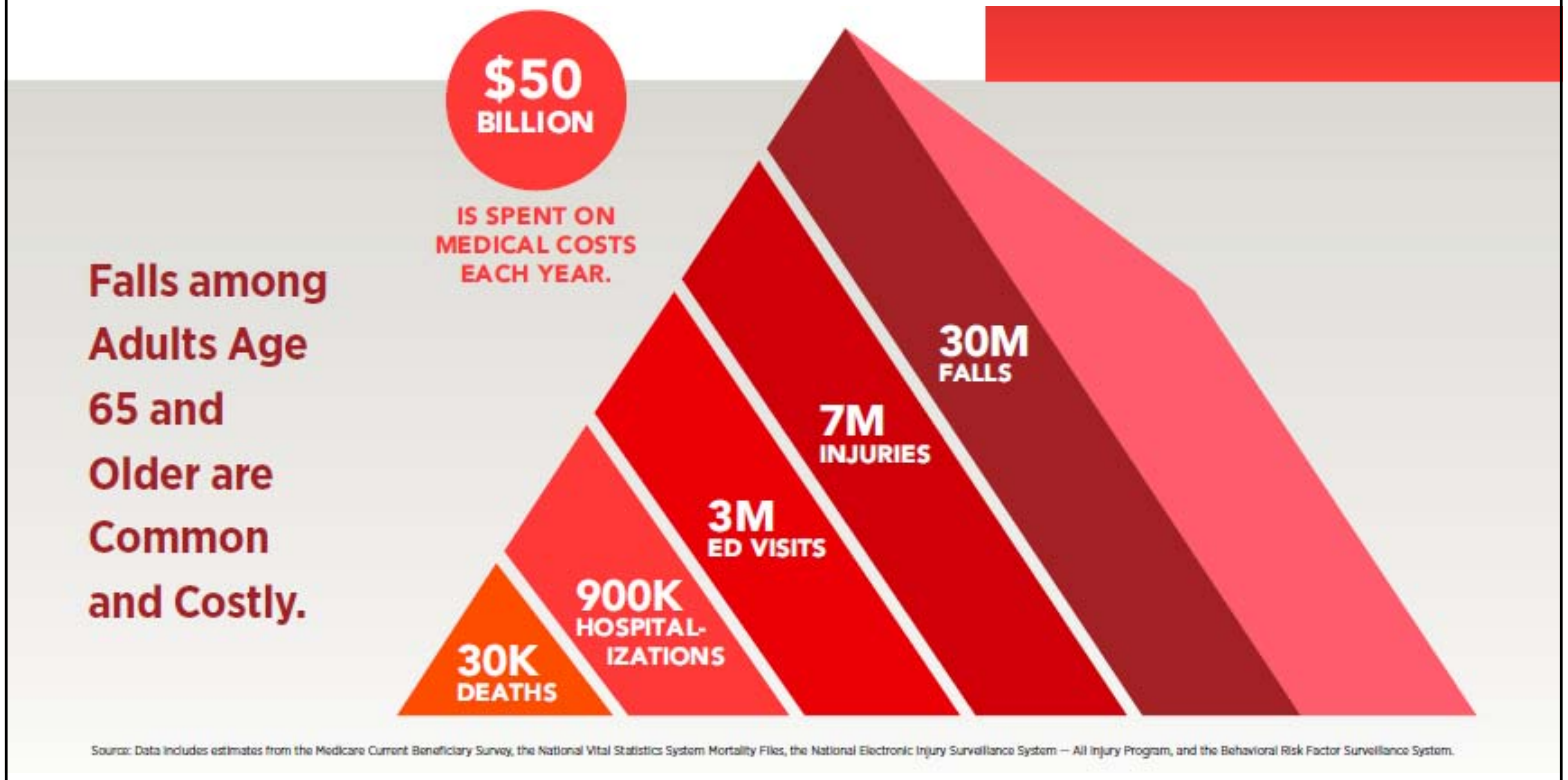
Brigham and Women's Hospital
Boston, MA

BRIGHAM HEALTH
BWH BRIGHAM AND WOMEN'S HOSPITAL

Objectives

- To review the evidence of:
  - The scope of the problem of falls in older adults
  - Risk factors associated with falls and fall-related injuries
  - The effectiveness of interventions to prevent falls

Why Talk about Falls?



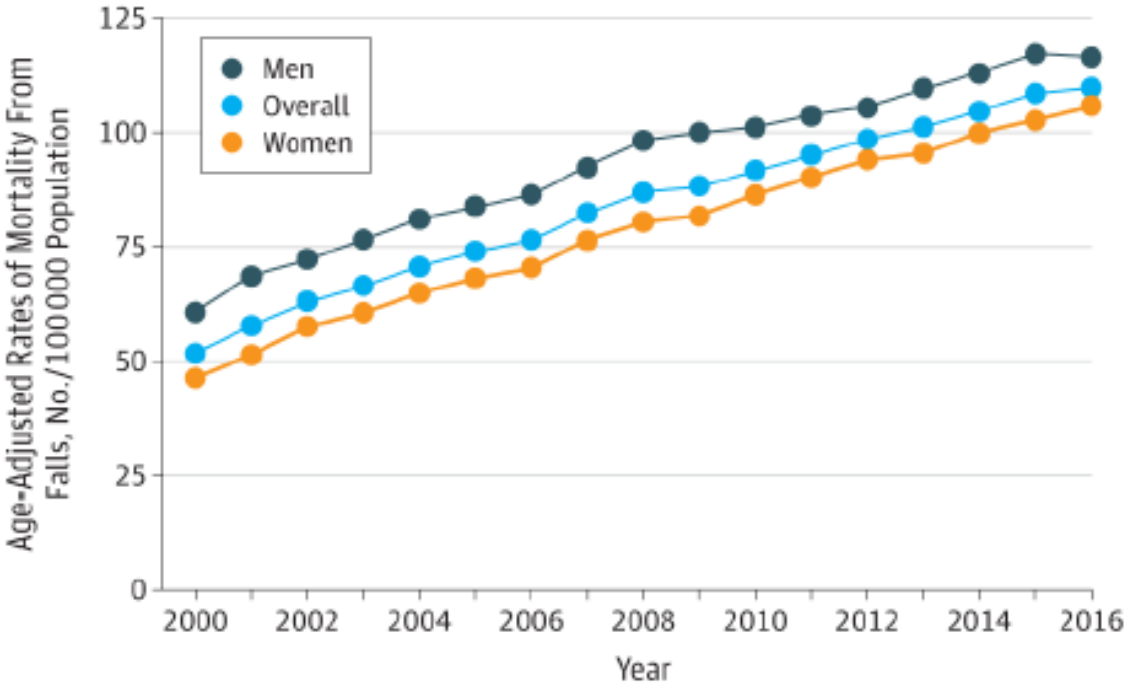
Source: CDC

Falls are a Frequent and Serious Problem for Older Adults

- One-quarter of older Americans fall each year. Of those who fall:
  - 20-30% have moderate to severe injuries (e.g., hip fractures, head trauma, lacerations)
- Leading cause of fatal and nonfatal injuries in older people
- Every 20 minutes, an older person in the US dies as the result of a fall
- **Fewer than 50% of older people discuss their falls with their primary care provider**

NEW CDC Data on Older Adult Falls

Age adjusted fall mortality among U.S. adults aged 75 years and older, 2000 - 2016.



Source: NCOA

[1]Hartholt KA, Lee R, Burns ER, van Beeck EF. Mortality From Falls Among U.S. Adults Aged 75 Years or Older. Journal of the American Medical Association (JAMA). 2019;321(21):2131-2133.

Causes of Falls Among Older Adults

- Falls may occur for a variety of reasons:
  - Intrinsic (e.g., poor balance, weakness, chronic illness, visual or cognitive impairment)
  - Extrinsic (e.g., polypharmacy)
  - Environmental (e.g., poor lighting, thick carpet)
- When falls occur, providers may become aware of additional acute illnesses (e.g., pneumonia, stroke, influenza)

Risk Factors for Falls

- Risk factors:
  - Prior falls*
  - Fear of falling
  - Number of chronic condition pain sites*
  - Parkinson's disease*
  - Pain (any)*
  - Use of walking aid*
  - Gait deficit*
  - Vertigo
  - Anticonvulsants
  - Fall Risk Increasing Drugs (FRIDs)

*Risk more than doubled

5. Reuben, D. B., Herr, K. A., Pacala, J. T., Pollock, B. G., Potter, J. F., & Semla, T. P. (2018). *Geriatrics at your fingertips*. New York: American Geriatrics Society.

Interventions to Reduce Risk of Falls

- Quality improvement strategies can take place at:
  - The **clinic level** (e.g., case management, registries, staff education, electronic health record reminders)
  - The **health system level** (e.g., positive or negative financial incentives for clinicians, changes in reimbursement)
- At the **individual level:**
  - Address risk factors based on the individual's profile and preferences

Falls and Fall-Related Injuries can be Prevented

- Many meta-analyses and guidelines have concluded that falls can be prevented with appropriate interventions
- Fall prevention **exercise programs** that focus on strength and balance are appropriate for all older adults
- For older people at high-risk of falls, **multi-factorial assessment and management** where fall risk factors are identified and treated results in an absolute reduction of 0.53 falls per person per year (Hopewell et al, Cochrane Review, 2018)

Individual-level Interventions to Reduce Risk of Falls

- For older adults at high risk of falling, a multifactorial approach is usually more effective than single interventions
  - Exercise is the only intervention that has been found to reduce injurious falls when used on its own (n=59 trials, Sherrington et al, Cochrane Review, 2019)
  - Fractures are reduced with combined osteoporosis treatment (e.g., bisphosphonates), calcium supplementation and vitamin D reduces the risk of facture (Tricco et al, JAMA, 2017)

American Geriatrics Society and British Geriatrics Society Guidelines, JAGS, 2011

Multi-Factorial Interventions to Reduce Risk of Falls

- Following assessment for fall risk factors, effective individual-level interventions to prevent injurious falls include:
  - Exercise to improve strength, gait and balance
  - Medical assessment and management
    - Manage postural hypotension
    - Manage heart rate and rhythm abnormalities
  - Assessment and treatment of vision problems
    - Encourage cataract surgery
    - Proper lens prescription, minimize bifocal use if possible
  - Manage foot and footwear problems

Interventions to Reduce Risk of Falls

- Medication adjustment
  - Remove or reduce psychotropic medication
  - Osteoporosis therapy and/or Vitamin D and Calcium supplements
- Environmental modification
  - Assess home hazards, remove or modify identified hazards, and install safety devices (e.g., handrails on stairs, grab bars on bathrooms, and improvements in lighting)
  - Referral to an Occupational Therapist when possible, especially for people with low vision
- Education and self-management
  - Education about fall risks and community resources
  - Self-management strategies and approaches such as collaborative goals setting and motivational interviewing to promote behavior change

Falls in SNFs or Long Term Care

- Older people in long term care fall at approximately twice the rate of community dwelling older adults
- Risk factors that were the strongest predictors:
  - previous falls
  - walking aid use
  - moderate disability (Deandrea et al, 2013)
- Reduction of environmental risk factors (e.g. poor lighting, slippery floors) important in these setting
- Cognitive impairment associated with increased risk of falls – restraints do not reduce fall ris

Falls and People with Dementia

- People with dementia at increased risk of falls and serious fall-related injuries in all settings
- Many of the same risk factors (e.g. previous falls)
- Unique risk factors include:
  - verbally disruptive and attention-seeking behavior
  - severity of dementia
  - visual perception
  - caregiver burden

E. Fernando et al, 2017

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Section II:

The Strategies to Reduce Injuries and Develop Confidence in Elders (STRIDE) Study

Siobhan McMahon PhD, MPH, GNP-BC

University of Minnesota
School of Nursing

Outline

- STRIDE study
  - Research question
  - Design
- STRIDE intervention
  - Design
  - Organization and general processes
  - Procedures
  - Supports/ infrastructure

The Strategies to Reduce Injuries and Develop Confidence in Elders (STRIDE) Study

- Principal Investigators:
  - Shalender Bhasin (Brigham and Women's Hospital)
  - Tom Gill (Yale)
  - David Reuben (University of California, Los Angeles)
- Data Coordinating Center: Yale
- Interventionists: Registered Nurses with skills and abilities in care coordination, case management, and care of older adults
- Funders: Patient-Centered Outcomes Research Institute (PCORI) and National Institute on Aging

The Research Question

- Can the systematic implementation of evidence-based fall prevention interventions into primary care practices reduce injurious falls?

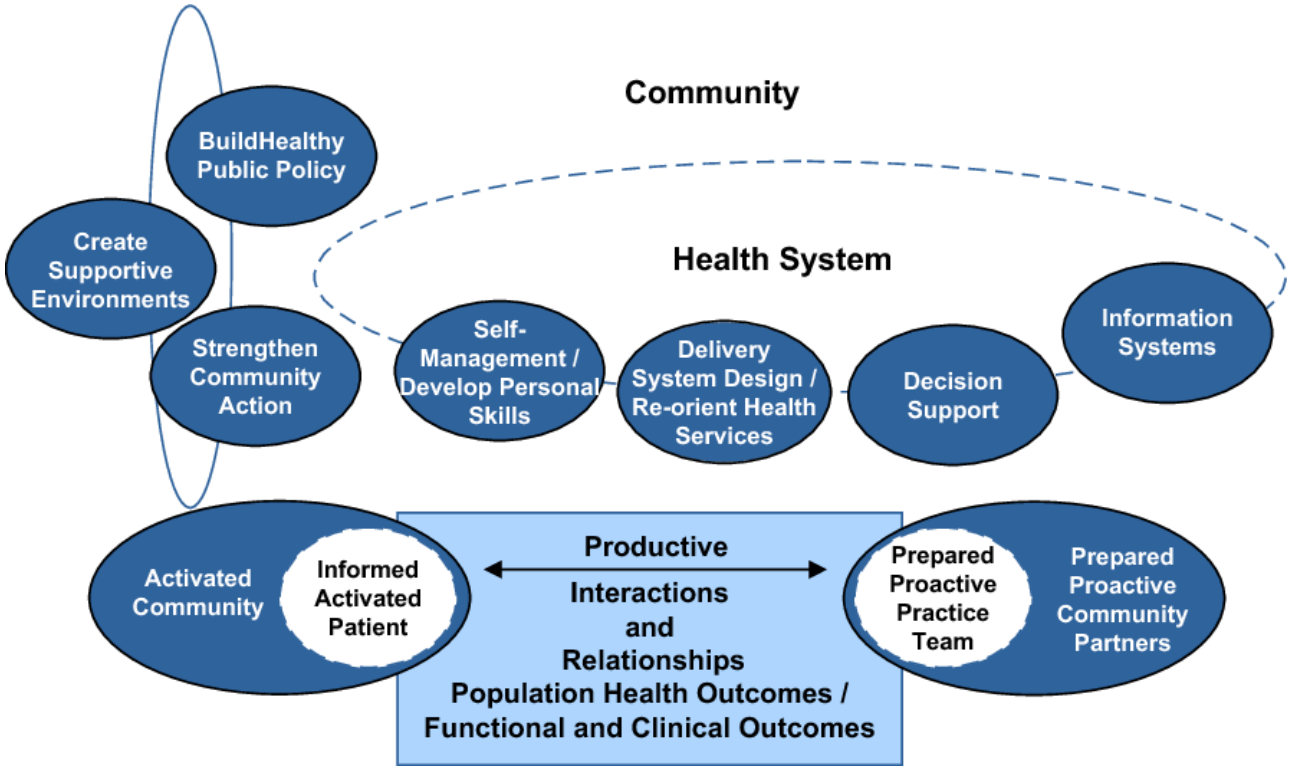
Study Design

- Pragmatic Group Randomized Trial
- 86 Primary Clinics Across 10 U.S. Health Systems (11 states)
  - 5,451 individual participants
- Enrollment criteria:
  - Clinic level
    - Primary care
    - Not currently implementing multifactorial assessment and intervention strategies
  - Individual level
    - 70+ years old
    - One or more risk factors for falls
      - Fallen and hurt self in the past year
      - Fallen 2 or more times in the past year
      - Fear of falling because of balance or gait
- Clinics (and the eligible individuals within each clinic) were randomized to one of two conditions:
  - Falls Care Management (24 to 44 months with1-4 clinic visits)
  - Enhanced fall prevention information (Providers and Patients)

Intervention Design

- Guided by
  - Chronic Care Model
  - The theory of Self-Management
  - Principles and spirit of Motivational Interviewing
  - Co-management concept

Chronic Care Model



Self-management

- Definition: The day to day management of a health condition, including fall risk. Examples include:
  - Engage in fall risk-reducing activities
  - Interact with the healthcare system
  - Monitor self—status of risk
  - Make adjustments to plan as needed, over time

Self-management

Techniques used by RNs and Healthcare team to promote self-management:

- Individualized assessment
- Collaborative goal setting
- Enhancing skills
- Follow up and support
- Overcoming barriers in the healthcare system and elsewhere
- Access to community resources

Motivational Interviewing

- **Definition**: a method for approaching patients who are ambivalent about making a change. It has been shown to be more effective than traditional, “advice-giving” conversations (Rubak, Sandbaek, Lauritzen, & Christensen, 2005).
- **Rationale for use:** Reducing fall risk is dependent on behavior change in 1 or more domains (e.g., increase physical activity, remove hazards in the home)
- **Operationalization of MI in STRIDE:**
  - Training and practice focused on changes relevant to fall risk
    - Processes: Engaging, focusing, evoking and planning
    - Skills: Asking open ended questions, affirming, reflective listening, summarizing, informing and advising

Co-Management

- Two or more health care providers jointly managing an individual's health care to achieve the best quality and outcomes
  - Physician specialist-physician generalist (e.g., oncologist-general internist)
  - Registered nurse- generalist (e.g., falls care manager-primary care provider)
- Evidence shows that a co-management model can double the rates of individuals receiving recommended assessments and care for falls

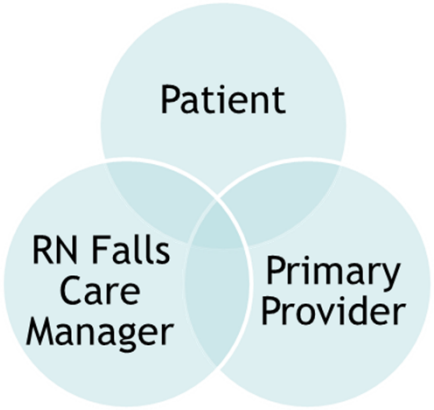
Shaw, R. J., McDuffie, J. R., Hendrix, C. C., Edie, A., Lindsey-Davis, L., Nagi, A., ... & Williams, J. W. (2014). Effects of nurse-managed protocols in the outpatient management of adults with chronic conditions: a systematic review and meta-analysis. *Annals of Internal Medicine*, *161*(2), 113-121.

Ganz, D. A., Koretz, B. K., Bail, J. K., McCreath, H. E., Wenger, N. S., Roth, C. P., & Reuben, D. B. (2010). Nurse practitioner co-management for patients in an academic geriatric practice. *The American journal of managed care*, *16*(12), e343.

Reuben, D. B., Ganz, D. A., Roth, C. P., McCreath, H. E., Ramirez, K. D., & Wenger, N. S. (2013). Effect of nurse practitioner comanagement on the care of geriatric conditions. *Journal of the American Geriatrics Society*, *61*(6), 857-867.

The Resulting Intervention for STRIDE: Falls Care Management

- Content
  - Evidence based falls prevention interventions that are individualized and person-centered
- Organization
  - Co-management of Fall risk in primary care by patient, RN-falls care manager (FCM), and primary provider
  - Led by FCM and clinic/system leaders, in collaboration with additional stakeholders in each clinic and healthcare system
- Processes
  - Engagement
  - Conduct and communicate fall risk
  - Evoke/ Elicit priorities
  - Inform and advise on evidence based information and related community resources
  - Co-create personalized care plan
  - Implement care plan
  - Follow up evaluation, care plan adjustment
    - Initial visit, and then annual and as needed



Falls Care Management

Procedures

- **Pre-visit**
  - Schedule initial visit in the patient's primary clinic
  - Administer pre-visit questionnaire via mail to capture history of factors that contribute to fall risk
  - Call

Falls Care Management

Procedures continued

- **In-person visit**
  - Review the pre-visit questionnaire Brief interview to clarify and/or expand on focused history
  - Physical exam
    - Vital signs and orthostatic BPs
    - Functional strength and balance (SPPB)
    - Blood pressure
    - Foot and footwear exam
    - Discuss how to get up after a fall
  - Finalize and inform patient of assessment results
  - Explore patient perspectives and elicit priorities (which risks are most important to them now)
    - Advise and discuss recommended interventions
      - Co-create falls reduction care plan
      - After-visit summary, including what to do in case of a fall

Falls Care Management

Procedures continued:

- **Post-visit**
  - Communicate assessment and care plan in electronic health record
  - Contact primary provider for care plan review and finalize that if/when they suggest changes, additions
  - Refer according to plan of care
  - Call patient 1-2 weeks after visit to communicate additional information from provider or other team members

My Fall Risk Assessment

Participant Name **Study ID** **Date**

Risk Factor	Why Does It Matter?	Is this a risk for me?	Is this a priority for me?	Comments
Changes in leg strength, balance and/or walking 	People with decreased leg strength and changes in balance and/or gait are more likely to trip, slip and fall.	Yes No	Yes No	"undecided" "active plan in place"
Medications 	Medications that cause lightheadedness or tiredness (e.g., sleeping pills) can increase the likelihood of falling.			
Postural Hypotension 	Postural hypotension, or a drop in blood pressure when a person changes positions, increases the chances of falling.			
Feet Footwear 	Problems with feet, footwear can make it more difficult to walk.			
Home Environmental hazards 	Objects on the floor, loose throw rugs, low lighting, and not having hand rails can increase the likelihood of tripping, slipping, and falling.			
Risk of 	Osteoporosis, or fragile bones, increases the chances			

My Plans for Reducing Fall Risks

Priority: Changes in leg strength, balance and/or walking

My Goal for the next month is:

Why it matters to me (e.g., increased balance will.....)

How will I do this?

When will I do this?

The things that could make it difficult to do this are:

My plan for overcoming these difficulties includes:

Support/Resources my Falls Care Manager will assist me with in order to achieve these goals include:

How will I monitor progress?

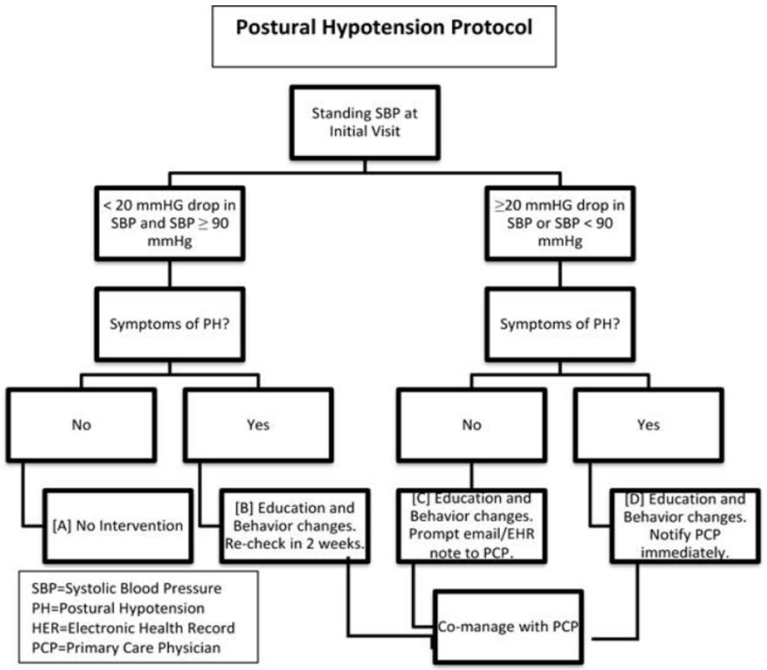
Falls Care Management

- Procedures continued:
  - **Follow-up**
    - Per care plan
    - Follow-up clinic visits as needed and at least annually

Decision Support:
Assessment and Intervention Algorithms

Algorithms:
1.Strength, gait, balance
2.Medication
3.Osteoporosis
4.Feet and Foot-wear
5.Home Safety
6. Postural Hypotension
7. Vitamin D
8. Visual Impairment

Available at https://www.stride-study.org/clinical-protocols/



Reuben, D. B., Gazarian, P. K., Alexander, N., Araujo, K. L., Baker, D., Bean, J. F., ... & Leipzig, R. M. (2017). The STRIDE Intervention: Falls Risk Factor Assessment and Management, Patient Engagement, and Nurse Co-management. *J Am Geriatr Soc*, *65*(12), 2733-2739.

Information Support: By risk factor and intervention

- Education materials for each risk factor
  - Presented in the third portion of our presentation today

System Support: Implementation of Falls Care Management

- IT help to make electronic record use efficient through the integration of notes/ communication templates, smart phrases, smart tools
- Creation of standing orders
- Clinic engagement
  - Primary care providers available to partner with falls care managers, review care plans and provide needed medical orders (e.g., medication changes, tests, referrals)
  - Pharmacists, when available, to review/ provide guidance and follow up for medication de-escalation
  - Physical therapists to assess and treat changes in balance, strength, gait
  - Occupational Therapists to assess and optimize home safety

Community Support: Implementation of Falls Care Management

- Community Resources
  - Physical activity/ exercise programs
  - Home modification services
  - Transportation

Summary

- Many injurious falls are preventable
- The quality of care provided to prevent falls remains poor
- Falls care management, guided by principles of self-management, motivational interviewing, and co-management may improve quality of care provided to prevent falls
- Results of STRIDE study are expected in Spring 2020
- For more information about the STRIDE study and intervention go to: https://www.stride-study.org/

Stay on your feet, it's the place to be **– EB White**

Acknowledgements

- Funding
  - Patient-Centered Outcomes Research Institute (PCORI)
  - National Institute on Aging
- Stakeholder councils including older adults and professionals dedicated to preventing falls in their communities
  - National – Martie Carnie and Cathy Hanson
  - Local (each of the 10 study sites)
- Study participants (Healthcare systems, clinics, patients)

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Section III:
Clinical Tools for Preventing Falls

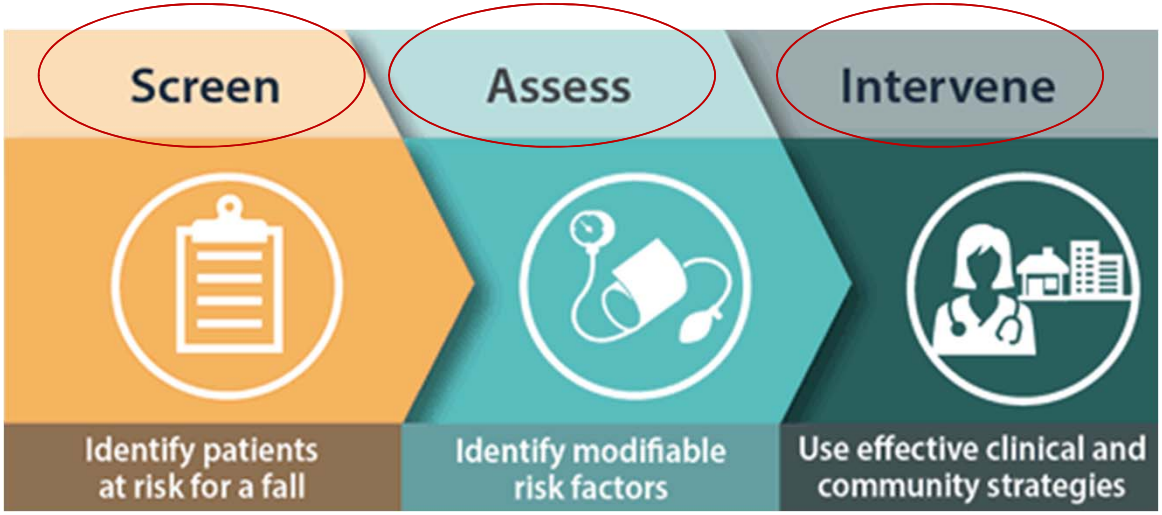
Fred Ko, MD
Associate Professor,
Geriatrics and Palliative Medicine,
Icahn School of Medicine at Mount Sinai

Objectives

- To discuss clinical algorithm and tools to prevent falls in older adults:
  - Community-dwelling: Centers for Disease Control and Prevention (CDC) – Stopping Elderly Accidents, Deaths & Injuries (STEADI)
  - Nursing home: Agency for Healthcare Research and Quality (AHRQ) – The Falls Management Program (FMP)

STEADI Initiative

- STEADI (Stopping Elderly Accidents, Deaths, & Injuries) Initiative (https://www.cdc.gov/steadi/)
- Coordinated approach to implement the American and British Geriatrics Societies' clinical practice guideline for fall prevention



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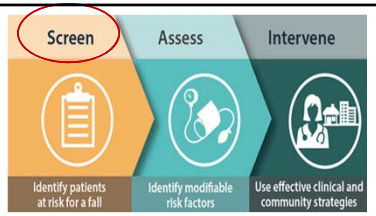


START HERE **1** **SCREEN** for fall risk yearly, or any time patient presents with an acute fall.

Available Fall Risk Screening Tools:

- **Stay Independent: a 12-question tool**
  [at risk if score ≥ 4]
  - **Important:** If score < 4, ask if patient fell in the past year
    (If **YES** → patient is at risk)
- **Three key questions** for patients [at risk if **YES** to any question]
  - Feels unsteady when standing or walking?
  - Worries about falling?
  - Has fallen in past year?
    - » If **YES** ask, "How many times?" "Were you injured?"

SCREENED AT RISK **2** **ASSESS** patient's modifiable risk factors and fall history.

SCREENED NOT AT RISK **PREVENT** future risk by recommending effective prevention strategies.

- Educate patient on fall prevention
- Assess vitamin D intake
  - If deficient, recommend daily vitamin D supplement
- Refer to community exercise or fall prevention program
- Reassess yearly, or any time patient presents with an acute fall

Modified from STEADI provider pocket guide
(https://www.cdc.gov/steadi/pdf/STEADI-PocketGuide-508.pdf)

Stay Independent

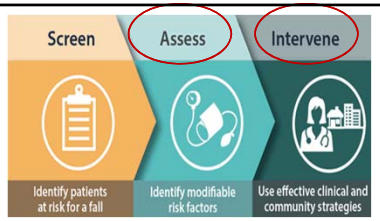
Check Your Risk for Falling

Circle "Yes" or "No" for each statement below		
Yes (2)	No (0)	I have fallen in the past year.
Yes (2)	No (0)	I use or have been advised to use a cane or walker to get around safely.
Yes (1)	No (0)	Sometimes I feel unsteady when I am walking.
Yes (1)	No (0)	I steady myself by holding onto furniture when walking at home.
Yes (1)	No (0)	I am worried about falling.
Yes (1)	No (0)	I need to push with my hands to stand up from a chair.
Yes (1)	No (0)	I have some trouble stepping up onto a curb.
Yes (1)	No (0)	I often have to rush to the toilet.
Yes (1)	No (0)	I have lost some feeling in my feet.
Yes (1)	No (0)	I take medicine that sometimes makes me feel light-headed or more tired than usual.
Yes (1)	No (0)	I take medicine to help me sleep or improve my mood.
Yes (1)	No (0)	I often feel sad or depressed.

- A 12 question validated fall risk self-assessment tool for older adults (Rubenstein et al. J Safety Res; 2011: 42(6)493-9)
- At risk for falling if score ≥4 points

STEADI stay independent brochure (https://www.cdc.gov/steadi/pdf/STEADI-Brochure-StayIndependent-508.pdf)

Assess & Intervene



SCREENED AT RISK

2 ASSESS patient's modifiable risk factors and fall history.

Common ways to assess fall risk factors are listed below:

Evaluate gait, strength, & balance	Common assessments: • Timed Up & Go • 30-Second Chair Stand • 4-Stage Balance Test
Identify medications that increase fall risk	(e.g., Beers Criteria)
Ask about potential home hazards	(e.g., throw rugs, slippery tub floor)
Measure orthostatic blood pressure	(Lying and standing positions)

3 INTERVENE to reduce identified risk factors using effective strategies.

Reduce identified fall risk
- Discuss patient and provider health goals
- Develop an individualized patient care plan (see below)

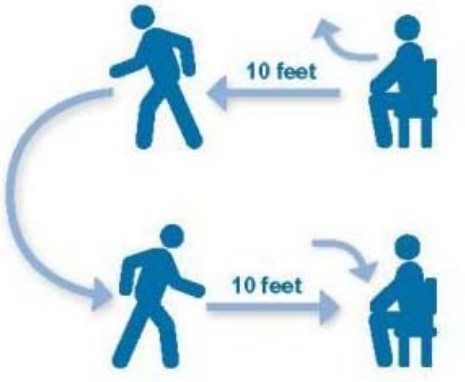
Below are common interventions used to reduce fall risk:

Poor gait, strength, & balance observed	• Refer for physical therapy • Refer to evidence-based exercise or fall prevention program (e.g., Tai Chi)
Medication(s) likely to increase fall risk	• Optimize medications by stopping, switching, or reducing dosage of medications that increase fall risk
Home hazards likely	• Refer to occupational therapist to evaluate home safety
Orthostatic hypotension observed	• Stop, switch, or reduce the dose of medications that increase fall risk • Educate about importance of exercises (e.g., foot pumps) • Establish appropriate blood pressure goal • Encourage adequate hydration • Consider compression stockings

FOLLOW UP with patient in 30-90 days. Discuss ways to improve patient receptiveness to the care plan and address barrier(s)

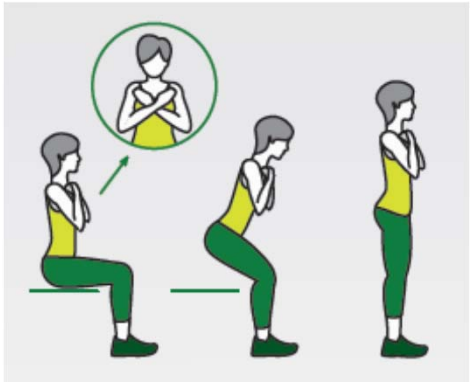
Modified from STEADI provider pocket guide (https://www.cdc.gov/steadi/pdf/STEADI-PocketGuide-508.pdf)

Gait, Strength & Balance

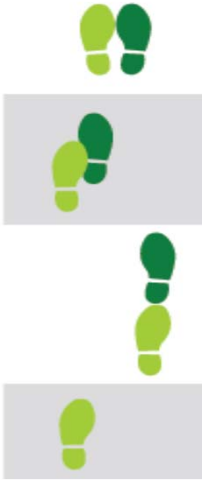


Timed Up & Go (TUG)
- Assesses mobility
- Fall risk: ≥12 sec

Fitness professional online
https://www.fitnessprofessionalonline.com/articles/expert-advice/working-with-the-older-client-part-1/



30-Second Chair Stand
- Assesses leg strength & endurance
- Fall risk: below average score based on age/sex

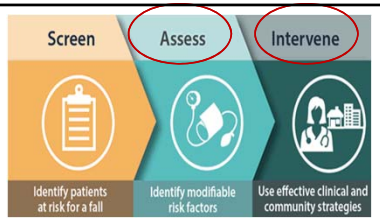


**

4-Stage Balance Test
- Assesses static balance
- Fall risk: full tandem stand** <10 sec

STEADI functional assessments
https://www.cdc.gov/steadi/materials.html

Assess & Intervene



SCREENED AT RISK

2 ASSESS patient's modifiable risk factors and fall history.

Common ways to assess fall risk factors are listed below:

Check visual acuity	Common assessment tool: • Snellen eye test
Assess feet/footwear	
Assess vitamin D intake	
Identify comorbidities	(e.g., depression, osteoporosis)

3 INTERVENE to reduce identified risk factors using effective strategies.

Reduce identified fall risk

- Discuss patient and provider health goals
- Develop an individualized patient care plan (see below)

Below are common interventions used to reduce fall risk:

Visual impairment observed	• Refer to ophthalmologist/optometrist • Stop, switch, or reduce the dose of medication affecting vision (e.g., anticholinergics) • Consider benefits of cataract surgery • Provide education on depth perception and single vs. multifocal lenses
Feet/footwear issues identified	• Provide education on shoe fit, traction, insoles, and heel height • Refer to podiatrist
Vitamin D deficiency observed or likely	• Recommend daily vitamin D supplement
Comorbidities documented	• Optimize treatment of conditions identified • Be mindful of medications that increase fall risk

FOLLOW UP with patient in 30-90 days. Discuss ways to improve patient receptiveness to the care plan and address barrier(s)

Modified from STEADI provider pocket guide (https://www.cdc.gov/steadi/pdf/STEADI-PocketGuide-508.pdf)

Fall Risk Factors Checklist

CHECKLIST

Fall Risk Factors

Fall Risk Factor Identified	Present?	
FALLS HISTORY		
Any falls in past year?	☐ Yes	☐ No
Worries about falling or feels unsteady when standing or walking?	☐ Yes	☐ No
MEDICAL CONDITIONS		
Problems with heart rate and/or arrhythmia	☐ Yes	☐ No
Cognitive impairment	☐ Yes	☐ No
Incontinence	☐ Yes	☐ No
Depression	☐ Yes	☐ No
Foot problems	☐ Yes	☐ No
Other medical problems	☐ Yes	☐ No
MEDICATIONS (PRESCRIPTIONS, OTCs, SUPPLEMENTS)		
Psychoactive medications	☐ Yes	☐ No
Opioids	☐ Yes	☐ No
Medications that can cause sedation or confusion	☐ Yes	☐ No
Medications that can cause hypotension	☐ Yes	☐ No
GAIT, STRENGTH & BALANCE		
Timed Up and Go (TUG) Test ≥12 seconds	☐ Yes	☐ No
30-Second Chair Stand Test: Below average score based on age and gender	☐ Yes	☐ No
4-Stage Balance Test: Full tandem stance <10 seconds	☐ Yes	☐ No
VISION		
Acuity <20/40 OR no eye exam in >1 year	☐ Yes	☐ No
POSTURAL HYPOTENSION		
A decrease in systolic BP ≥20 mm Hg, or a diastolic BP of ≥10 mm Hg, or lightheadedness, or dizziness from lying to standing	☐ Yes	☐ No

Fall risk factors checklist
https://www.cdc.gov/steadi/pdf/STEADI-Form-RiskFactorsCk-508.pdf

AHRQ Falls Management Program

- Agency for Healthcare Research and Quality (AHRQ) – The Falls Management Program (FMP)
  - (https://www.ahrq.gov/patient-safety/settings/long-term-care/resource/injuries/fallspx.html)
- Interdisciplinary quality improvement initiative
- Designed to assist nursing facilities in:
  - Providing individualized, person-centered care
  - Improving fall care processes and outcomes
- Clinical applications:
  - Acute fall
  - Long-term management (i.e. screening at NH admission, quarterly, annually and change of condition)

Falls Assessment, Evaluation & Referral

RISK FACTORS

INTERDISCIPLINARY ASSESSMENTS
- ❑ Primary Care Provider Report faxed
- ❑ Primary Care Provider Orders received
- ❑ Discussed in falls team meeting

Medications
- ❑ Antipsychotics
- ❑ Antidepressants
- ❑ Benzodiazepines
- ❑ Sedative/hypnotics
- ❑ Digoxin
- ❑ N/A

- ❑ Medication review by consultant pharmacist
- ❑ Psychiatric evaluation

Orthostatic Hypotension
- ❑ Reduction of ≥ 20 mm Hg in systolic pressure 1 minute after change in position from sitting to standing

Sitting BP: ___/___ Standing BP: ___/___ ❑ N/A

- ❑ Review cardiovascular medications

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Falls Assessment, Evaluation & Referral

Vision ❑ Stumbles and trips ❑ Difficulty finding objects or detecting changes in floor surfaces ❑ N/A	❑ Optometrist evaluation ❑ Ophthalmologist referral
Mobility ❑ Unsafe during the Get Up and Go Test ❑ Unable to transfer on and off toilet, bed or chair safely ❑ Unsafe wheelchair seating ❑ N/A	❑ OT consultation ❑ PT consultation
Unsafe Behaviors ❑ Tries to stand, transfer or walk alone unsafely ❑ Tries to climb over bed rails or get out of bed alone unsafely ❑ Walks or paces alone when too tired to be safe ❑ Propels or walks alone in unsafe areas ❑ N/A	❑ Behavioral assessment ❑ Evaluation of restraint use

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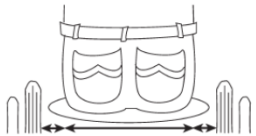
Wheelchair Screen

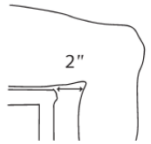
Use the following measurements to determine if the wheelchair seat and armrests are the correct size for the resident.

CORRECT SEAT WIDTH



Hip width + 2 in = _____

CORRECT SEAT DEPTH

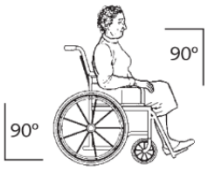


Thigh length – 2 in = _____

CORRECT ARMREST HEIGHT

1 in higher than elbow = _____

After the resident has been seated in the wheelchair for at least 1 hour, compare her position with the pictures to determine if she is seated correctly.



correct position with two 90° angles

sliding down

leaning over

leaning to one side

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Behavior Assessment

- *Five step process to better understand unsafe behavior or residents*
- Step 1: Define the behavior clearly
- Step 2: Do a deep dive about the resident's personal and medical history
- Step 3: Analyze the circumstances of the behavior
  - Time of day, Frequency, Location, Situation, Resident motivation
- Step 4: Analyze past staff approaches and the resident's reaction to them
- Step 5: Develop new individualized interventions

Fall Intervention Plan

RISK FACTOR	SELECTED INTERVENTIONS
Medications	**For changes in psychotropic meds:** ❑ **Monitor and report changes in anxiety, sleep patterns, behavior, or mood** ❑ **Monitor and report drug side effects** ❑ **Behavior management strategies** ❑ **Sleep hygiene measures** ❑ no caffeine after 4 pm ❑ up at night with supervision, ❑ comfort measures ❑ pain management ❑ regular exercise, limit napping ❑ relaxing bed routine ❑ individualized toileting at night ❑ safe bathroom routine **For changes in digoxin:** ❑ **Monitor apical heart rate; if < 50, notify PCP.**
Mobility	❑ **Increase staff assistance** ❑ early morning ❑ to and from toilet ❑ during all transfers ❑ during ambulation ❑ other: _____ ❑ **Correct height of bed, toilet or chair** ❑ Keep bed at correct height as marked on footrest or wall ❑ Use raised toilet seat ❑ Use cushion in lounge chair ❑ Lower lounge chair ❑ **Increase bathroom safety** ❑ Use adequate handrails support ❑ Use easy to manage clothing ❑ **Promote wheelchair safety** ❑ Use individualized, labeled wheelchair ❑ Check brakes and instruct pt on use ❑ **Seating Modifications** ❑ Use all prescribed seating items

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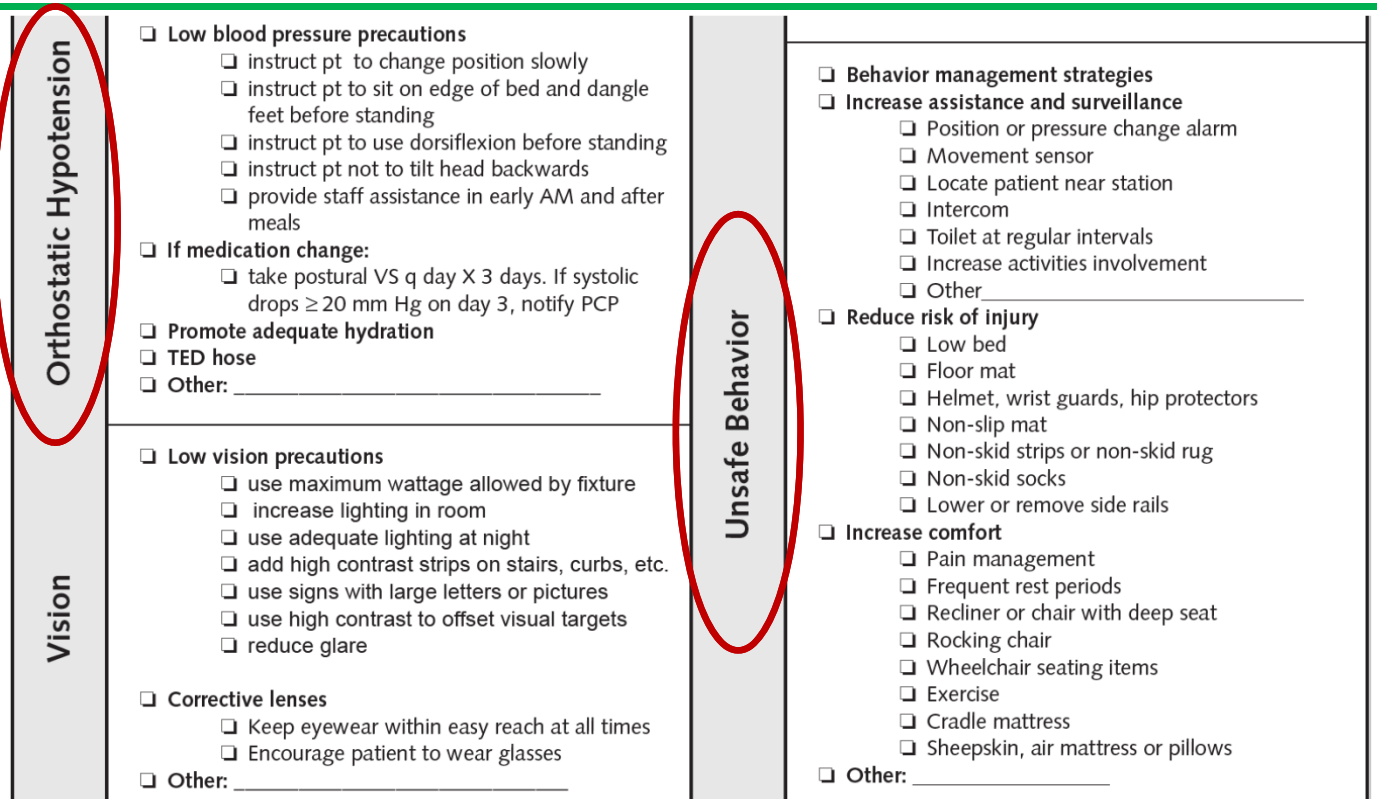
Fall Intervention Plan



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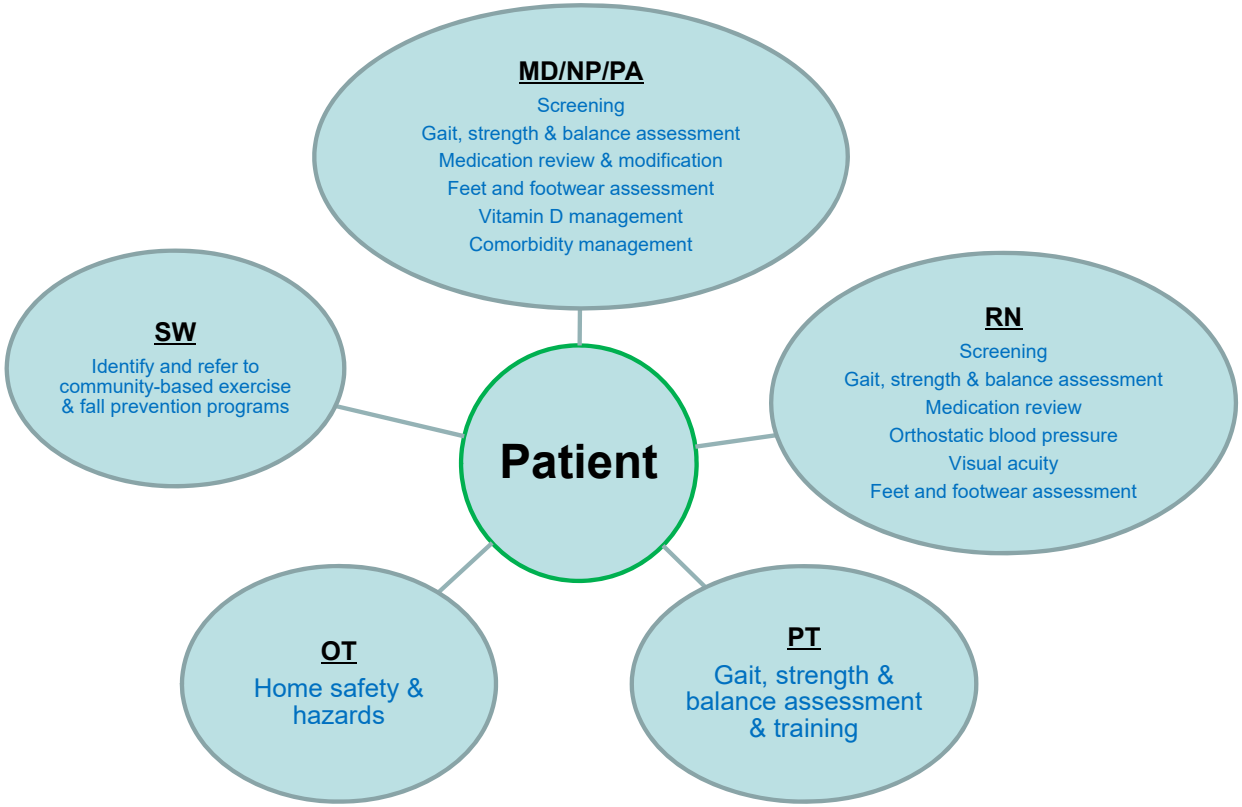
Interdisciplinary Team Approach



Resources

- STEADI
  - Algorithm for fall risk screening, assessment, and intervention
    - (https://www.cdc.gov/steadi/pdf/STEADI-Algorithm-508.pdf)
  - Provider pocket guide
    - (https://www.cdc.gov/steadi/pdf/STEADI-PocketGuide-508.pdf)
  - Fall risk factors checklist – provider checklist for risk of falling
    - (https://www.cdc.gov/steadi/pdf/STEADI-Form-RiskFactorsCk-508.pdf)
  - Stay independent brochure – patient checklist for risk of falling
    - (https://www.cdc.gov/steadi/pdf/STEADI-Brochure-StayIndependent-508.pdf)
  - Functional assessments – handouts and videos
    - (https://www.cdc.gov/steadi/materials.html)
  - Integrating fall prevention into practice – interdisciplinary team responsibilities
    - (https://www.cdc.gov/steadi/pdf/STEADI-Poster-Integrating-508-2019.pdf)
  - Conversations about fall prevention – stages of change model for behavior modifications
    - (https://www.cdc.gov/steadi/pdf/STEADI-FactSheet-TalkingWPatients-508.pdf)

Resources

- STRIDE Study
  - Clinical instruments (e.g. my fall risk assessment)
    - (http://www.stride-study.org/clinical-instruments/)
  - Clinical protocols (e.g., medication risk reduction algorithm)
    - (http://www.stride-study.org/clinical-protocols/)
  - Home exercise video and manual
    - (http://www.stride-study.org/home-excercise/)
- National Council on Aging (NCOA)
  - Fall prevention resources (e.g. evidence-based falls prevention programs, tips for older adults & caregivers)
    - (https://www.ncoa.org/healthy-aging/falls-prevention/)
  - State Falls Prevention Coalition Contacts
    - (https://d2mkcg26uvg1cz.cloudfront.net/wp-content/uploads/State-Coalition-Leads-9.16.2019-1.pdf)
- AHRQ Falls Management Program
    - (https://www.ahrq.gov/patient-safety/settings/long-term-care/resource/injuries/fallspx.html)