Fall Prevention in the PACE Environment

Robin Corsetto PT, MHA, CPHQ
Element Care
References


Objectives

- to define the impact of falls on the elderly and describe the unique challenges to and opportunities of the PACE environment
- to describe the importance of a collaborative, interdisciplinary approach to assessment/re-assessment of fall risk factors and individualized interventions
- to recommend focus for data collection and tracking/trending of falls
Negative Effects of Falls

- INJURIES / DISABILITIES
- LOSS OF INDEPENDENCE
- HIGH COST
- DEATH
- NURSING HOME PLACEMENT
- POOR QUALITY OF LIFE
Prevention is Key

- Falls are multi-factorial and complex
- Major geriatric public health problem
- Where do we start?
PACE Model

• Opportunities
  – Population
  – Settings
  – Time

• Challenges
  – Self reports
  – Settings
  – Time
Research-Based: Japan

- 65% of falls occur during ambulation or when getting up from a chair or bed
- Best screening tool in frail older people to predict risk of falls
  - Setting was similar to PACE
  - Non-ambulatory persons excluded
  - Feasibility & Validity
Research-Based: Japan

• 6 meter walking speed at a comfortable pace (CWS) — best feasibility
• 6 meter walking speed at maximum pace (MWS)
• Tandem walking test (TWT) – best independent predictor; low practicability
• Grip strength (GS)
• Mental status questionnaire (MSQ)
• Timed up-and-go test (TUG)
• Chair stand tests (CST)
• One leg standing test (OLS)
• Functional reach test (FRT)
Japanese Study Conclusion

• Multi-factorial causes of falls
• Single mobility-related screening tool is an unrealistic goal for this population of community-based frail elders
• More research needed
Falls Assessments

• Johns Hopkins
• Morse Falls Scale
• MAHC 10
• Balance Assessments
• Mobility Assessments
The KEY to fall prevention is addressing each risk factor for each participant.
Fall Risk Factors: Comorbidities

- Diabetes / diabetic foot ulcer
- Parkinson’s disease
- Stroke
- Syncope
- Alzheimer’s disease
- Anemia
- Vitamin D deficiency (and with low creatinine clearance)
- Recent LE amputation
Fall Risk Factors: Visual Acuity

- Legally blind
- Lack of / not using glasses
- Glaucoma
- Cataracts
Fall Risk Factors: Environmental Hazards

• Trip hazards
  – Rugs
  – Cords
  – Pets
  – Poorly placed furniture

• Slip hazards
  – Ice/snow
  – Water on floor
  – Tub/shower
Fall Risk Factors: Weakness & Balance

- Gait problems
- Impaired sensation
- New medical issues
- Postural hypotension
- Inability to perform ADLs
- Poor sitting/standing posture
- ROM impairment
- Decreased muscular strength
Fall Risk Factors:
Mobility & Assistive Devices

• Lack of use
• Inappropriate use of
• Prosthesis
• Special shoes
• walker, cane, crutches, wheelchair
Fall Risk Factors: Cognitive/Behavioral

- Cognitive
  - Confusion
  - Impaired orientation
  - Misperception of functional ability

- Behavioral
  - Reckless wheelchair use
  - Poor compliance
  - Unable to adapt to changing environment
  - Fear of falling
Fall Risk Factors: Medications/Polypharmacy

- Use of 4 or more prescription medications
- Use of any benzodiazepine or sedative-hypnotics
- Use of diuretics in hospital setting
Census-Based Research: India

• Clinical Exam with statistically relevant higher incidence of falls

• Medical factors with statistically relevant higher incidence of falls

• Factors that increased risk

• Significant association with use of antidepressants (sedative properties)
Research-Based: Germany

- Osteoporotic elderly men & women with a low creatinine clearance of <65 ml/min
- Significantly poorer performance in muscle and balance tests
- More falls and fractures
- More prone to be frequent fallers
Team Approach

- Medical Providers (MD/NP)
  - Acute illness
  - Diagnoses
  - Medication effects
- Nursing
  - Change in condition
- Rehab (PT/OT)
  - Increasing weakness
  - Gait disorder; need for DME
  - Home Safety
- Social Worker/Behavioral Health
  - Substance abuse
  - Alcohol use
  - Assistance in the community
  - Poor decision making
Safety / Falls Care Planning

Tailor the participant’s plan with consideration of:

- vitamin D supplementation
- Balance, strength and gait training
- Medication assessment
- TARGET issues involving any identified risk factors
Why Report Fall Events?

Tracking and trending allows us to recognize:

• Care differences
• Commonalities of culture/behavior
• Comparison with benchmarks
What may be useful for tracking & trending in PACE?

- Standardize definition of fall
- Standardize definition of injury levels
- Track/trend
  - Location of Fall
  - Root Cause of Falls by categories
  - Repeat vs. One time fall
- Connect Outcomes/Cost
Location & Details

• Facilities
  – Assisted Living Facility
  – Skilled Nursing LTC vs. STC
    • Time of day (relevant to shift/meals)

• Private Home

• Elderly Housing

• Community
  • # Self-reported
Root Cause of Fall

- Cognitive impairment
- Poor decision making
- Syncope
- Medical (orthostatic/ post dialysis fatigue/ hypo-hyperglycemia/ low H&H)
- Mechanical slip/trip (weather related?)
- Drug / Alcohol
- Acute Illness
- Medication-related
- End-of-Life decline
Outcomes / Cost

• No injury
• Minor injury
  – Requires monitoring (bruising/abrasions)
  – Requires first aid / treatment done in-house
• Moderate injury
  – Sent out for diagnostics (x-ray/CT) with no findings
  – ER visit required (sutures)
• Major injury
  – Fractures / head injury
  – Hospitalization
  – Level II
Actions Taken

• Home Safety Evaluation with/without modified environment
• Diagnostics
• PT/OT evaluation with/without increased services or equipment
• Medication evaluation with/without change
• RN assessment/monitoring
• MD/NP assessment
• Psych assessment
• Increased home services
• Admitted to skilled facility STR