DEVELOPING AN INTERDISCIPLINARY EVIDENCE-BASED PROTOCOL
FOR FALL PREVENTION IN ADULT DAY HEALTH CARE

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Background/Significance: Fall-related injuries are the fifth leading cause of death in the older population. Over two-thirds of older adults who fall sustain major injuries, often resulting in hospitalization. Fall-related injuries have a deleterious impact on the health, independence, and overall well being of the older adult, often with long-term physical and psychological effects. Individuals in Adult Day Health Care (ADHC) are often older and possibly at risk for falls. Identifying risk for this population is one step in the prevention of falls.

Purpose: The aim of this project was to identify, or develop, an effective evidence-based fall risk screening tool for individuals in ADHC. A fall risk screening tool addressing the unique needs of this population will assist nurses in identifying individuals at risk for falls and fall-related injury, direct assessment, and guide appropriate interventions.

Framework: Iowa Model of Evidence-Based Practice to Promote Quality Care.

Sample: The literature review focused on community-dwelling older adults and ADHC.

Setting: Adult Day Health Care within an academic Federal medical center.

Method: The systematic review process was used for identifying any published fall risk tools in ADHC. The literature was searched and results limited to English language, years 1990 to 2012, and all adults. Only research papers, practice guidelines, and literature reviews were evaluated. During this time, two systematic reviews were published and included in the review. Key words and subject headings included: Fall risk assessment, fall risk assessment tool, accidental fall, fall prevention, and community-dwelling. CINAHL and Medline databases were used. References of retrieved papers were reviewed for additional evidence.

Results/Outcomes: From all searches, 238 citations resulted; all titles were reviewed with abstract review as necessary. A final set of 13 papers were abstracted onto an evidence table by team members and a final review conducted by a doctorally prepared researcher. No fall risk screening or assessment tool was identified for ADHC. The evidence synthesis was used to develop a fall prevention protocol including an initial screening and multifactorial assessment with targeted interventions.

Conclusions/Implications: Many current fall risk screening tools are available for use in the acute care setting, but none were identified that target community-dwelling older adults attending ADHC. An effective fall prevention protocol will identify and address fall risks as well as reduce fall-related injuries for ADHC participants. Embedding this protocol into the electronic medical record with clinical decision support will promote best practice and enable data retrieval for outcome measurement.
Developing an Interdisciplinary Evidence-Based Protocol for Fall Prevention in Adult Day Health Care

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Disclosure:
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Project Team

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Objectives

• Define the Adult Day Health Care (ADHC) population and fall risk identification as one step in prevention of fall-related injury
• Describe the reasons for developing the fall prevention protocol
• Explain the fall risk protocol and the practice implications
Background

- Fall-related injuries are the 5th leading cause of death in older adults
- Societal and financial implications of fall-related injuries
  - $55 billion annually
  - Require rehabilitation and long term care
- Risk Identification is one step in the prevention of falls and fall-related injury
- Evidence-based fall-risk assessment tool is needed
Purpose

• Identify an effective, evidence-based fall risk screening tool for ADHC

• An effective tool will:
  – Identify individuals at risk for falls and fall-related injury
  – Direct assessment
  – Guide appropriate interventions
  – Prevent falls and fall-related injury
Framework

• Iowa Model of Evidence-Based Practice to Promote Quality Care

Titler et al., 2001
ADHC Population

• Individuals in ADHC, ages 60 and older
• Community-dwelling at home, group home, or assisted living
• Typical primary diagnoses include dementia, TBI, diabetes, stroke
• Spend 1-5 days per week with ADHC
• ADHC goals
  – Maintain/improve quality of life
  – Promote health/independence at home
Literature Search

• Team formed to identify fall-risk screening tool for ADHC

• CINAHL and Medline databases
  □ Limits: English language, all adults, 2000-2012
  □ Only research papers, practice guidelines, and literature reviews were included
  □ Key words and subject headings:
    □ Fall risk assessment, fall risk assessment tool, accidental fall, fall prevention, and community-dwelling
Results

• 238 citations identified in search
• 106 references retained and reviewed
• 49 articles retrieved
• 18 papers abstracted onto 2 evidence tables
  – Evidence table for fall risk assessment
  – Evidence table of fall prevention interventions for at-risk individuals
Evidence Synthesis

• No appropriate fall risk screening tool identified
• Evidence synthesis used to adapt fall prevention algorithm
  – Panel on Prevention of Falls in Older Individual, 2011
Screen for Falls

- Admit to ADHC

**Screen for falls (A)**
- Two or more falls in past 12 months?
- Fall in past 30 days?
- Difficulty with walking or balance based on Timed Up and Go (TUG)?

Information obtained from Veteran, family, and/or caregiver
Evidence

• A positive answer to one or more screening questions places the Veteran at risk for falling or fall-related injuries and necessitates assessment
  – Panel on Prevention of Falls in Older Persons, 2011
  – Salsbury-Lyons, 2005

• All Veterans attending ADHC should be evaluated for fall risk at least every three months or as needed
  – VHA Handbook 1141.03, 2009
Fall risk screen

• Subjective screening
  – Two or more falls in past 12 months?
  – Fall in past 30 days?
  – Difficulty with walking or balance based on Timed Up and Go (TUG)
Timed Up and Go (TUG)

• Objective reliable indicator of fall risk
• Simple and quick to administer and record
• Requires watch and arm chair
• Client score > 14 seconds = increased risk for falling
Evidence for assessment

• Assess *multifactorial fall risk*. A multifactorial fall risk assessment identifies factors placing an individual at risk for falling. When followed by individualized interventions, the individual’s risk for falls and fall-related injury is reduced.

  • Panel on Prevention of Falls in Older Persons, 2011
Multifactorial Fall Risk Assessment

- Fall history
- Medications
- Relevant medical history
- Visual acuity
- Heart rate and rhythm
- **Feet and footwear**
- Cognitive status
- Vitamin D level
Fall Risk Assessment

• Feet and footwear

Related Interventions

• Improve fit and safety of footwear – RN / Podiatry PRN
• Consult for foot care – RN/ LIP
• Provide education and information to patient and/or family as appropriate – RN

Evidence:
Currie, 2008
Fabre, 2010
Panel on Prevention of Falls in Older Persons, 2011
Outcomes

• Monthly monitoring of fall rate / injuries in ADHC
• Goal: 0 injuries as a result of falling
Conclusions

• No published evidence for a fall risk assessment tool for adult day health care patients
  – Conducted literature review and synthesis
  – Focused on ‘community dwelling’ population

• Published systematic reviews with fall prevention algorithm
  – Adapted for adult day health care
Implications

• Standardized fall prevention protocol
  – Evidence-based
  – Sustained
  – Patient centered: individualized interventions based on assessment

• Embed into electronic medical record
  – Data retrieval, analysis, and outcome measurement