

Prevention of Falls in the Elderly

Facts:

- * More than 1/3 of persons 65 yrs of age or older fall each year (1/2 of those will be recurrent); rates for falls and the prevalence of risk factors for falling increase steeply after the age of 70 (1)
- * Approximately 1 in 10 falls results in a serious injury (1)
- * Risk factors associated with falling in the elderly include: arthritis, depression, orthostasis; impaired cognition, vision, balance, gait, or muscle strength; and the use of four or more prescriptive medications (polypharmacy) (1)
- * Medications with the strongest link to falls: Tricyclic antidepressants, neuroleptic agents, benzodiazepines, anticonvulsants, serotonin- reuptake inhibitors, and class IA antiarrhythmic medications (1)
- * Fall related medical conditions result in direct medical costs of greater than \$6 billion per year in the U.S. alone (2)
- * Other factors such as acute illness with fever and dehydration, polypharmacy affecting blood plasma volumes and/or reaction time to floor covering have been linked to increased risk of falling (3)

Strategy:

- * U.S. Preventative Services Task Force recommends that all persons 75 yrs of age or older, as well as those 70 to 74 yrs of age with known risk factors, be counseled about specific measures to prevent falls (1).
- * Single-intervention strategies: (limited results) professionally supervised balance and gait training and muscle strengthening exercise; gradual discontinuation of psychotropic medications; modification of hazards in home (1)
- * Multifactorial strategy: (shown to reduce the risk of falls 25-39 percent) review and possible reduction of medications; specific balance and gait training and muscle strengthening; evaluation of postural blood pressure, followed by strategies to reduce any decreases in postural blood pressure; home-hazard modifications; and targeted medical and cardiovascular assessments and treatments. (1)

Simple Solutions:

- Review of medications
- In Home: removal of loose rugs, use of nightlights, non-slip bathmats, grab bars in bathroom, stair rails, move furniture so walking paths are open
- Avoidance of multifocal glasses while walking
- Wearing shoes with a low heel and thin sole
- Referral to physician and then physical therapy for intervention

Specific to working with people with Dementia and suspected falls:

- * Often times is difficult to determine if a person has had a fall if person is a poor historian
- * May need to look at other variables when suspecting a fall:
 - * History of behaviors and risk factors prior to incident
 - * Assess vital signs
 - * Level of consciousness
 - * Ability to walk and balance
 - * Skin integrity
 - * Musculoskeletal system assessment: sprain, strain, fracture
 - * Interview person, roommate or family, and staff that may have been present
- * Look for non-verbal cues: failure to eat or drink, holding a body part, any decreased mobility
- * If a fall is suspected for an individual with dementia time is of the essence to treat any underlying conditions that may be present (4)

References:

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- 2.) Carroll NV, Slatum PW, Cox FM. The cost of falls among the community-dwelling elderly. *J Manag Care Pharm.* 2005 May; 11(4):307-16
- 3.) Daal JO, van Lieshout JJ. Falls and medications in the elderly. *Netherlands J Med.* 2005 March; 63(3): 91-96
- 4.) Miceli D. Falls associated with dementia: How can you tell? *Geriatric Nursing.* 2005; 26(2):106-110.