

Falling in Old Age

A PERSONAL AND PUBLIC HEALTH CRISIS

It may be hard to believe that falls are the leading cause of accidental injury and death for people over 65. Falls result in 250,000 hip fractures and nearly 20,000 deaths annually in this age group. For people in the 65-69 age group, the prevalence of falls is 13% for males and 30% for females. This increases to 33% for males and 44% for females in the 80-84 age group.

Even with this high incidence of reported falls, many older adults do not accurately remember or report falls. A 1989 study interviewed 304 ambulatory community-based seniors regarding their memory of falls in the previous 12 months. They found that 13-32% of these individuals did not remember falling, although falls were documented by family members or medical records. This was particularly true of seniors with memory or cognitive impairment.

The cost of health care, rehabilitation, and custodial care for treatment and disability from falls to both individuals and society is enormous. And the personal price paid by those with chronic impairment is often high. A recent study on hip fracture patients showed that 25% died within six months, 30% were permanently confined to a nursing home, 20% lost some mobility and only 25% recovered completely after a hip fracture.

Fortunately, death and disability from falls can be reduced by decreasing the incidence of falling in older adults. First, it is necessary to identify the risk factors for falling and then to implement strategies to reduce those factors.

The physiology of aging causes a number of manifestations which increase the risk of falling. Some of these more important physical changes include:

- Gait and balance impairment
- Decreased visual acuity
- Impaired mental status
- Chronic debilitating illness
- Use of sedating medications
- Neurological impairment

There are also environmental factors which contribute to falls. These include:

- Stairs, particularly without handrails
- Inadequate lighting
- Obstacles in walkways
- Throw rugs over hard or carpeted floors
- Bathrooms and tubs, particularly without rails

There is also a strong correlation between fear of falling and the incidence of actually falling. Several studies have shown that elders who verbalize a fear of falling and even restrict their activities because of this fear have a history of falls and high likelihood of repeated falls. Also, individuals who use an assistive device such as a cane or a walker are at higher risk of falling than those who do not require a walking aid.

THE INCIDENCE CAN BE REDUCED

Fortunately, it is possible to decrease the risk and the incidence of falling in the elderly, with resulting decrease in individual and societal cost and trauma. The geriatric care manager has an important role in identifying risk factors specific to each client, developing strategies to eliminate or decrease these risks, and gaining the client's cooperation in implementing these strategies.

By conducting a health history and review of systems, the care manager can identify health concerns which contribute to an increased risk of falling. It is particularly important to determine whether an individual is experiencing fall-provoking side effects from medications, such as dizziness or blood pressure fluctuations. Also, because individuals using canes or walkers are at highest risk of falling, gait evaluation is essential. Administration of the Neurobehavioral Cognitive Status Exam will identify cognitive impairments which predispose people to falls.

A thorough assessment of the environment is required to ensure adequate lighting and removal of obstacles in walkways such as throw rugs, scattered objects or furniture. Also important is ensuring that all stairs have handrails and that the bathroom is "fall-proofed" by installation of rails, rubber tub mat or shower chair, and elimination of slick surfaces.

Identifying risk factors is the first step in eliminating or reducing them; however, securing the elder's agreement to make behavioral or environmental changes can be challenging. A study of 100 elders found that only 53% of them took action to reduce recognized environmental hazards. To obtain the desired changes to reduce the risk of falls, the care manager must educate each elder client about the high incidence and severity of falls in older adults, the risk factors for falling, and the benefit of making small behavioral and environmental changes.



Q. Why did so many older people die in Chicago and other cities during the recent heat wave?

A. Older adults are less able to tolerate extremes of hot and cold temperature than are younger people.

In hot conditions, sweating is the body's temperature regulation mechanism. Elderly people have an increased body temperature threshold before sweating begins, as well as a decreased sweating rate. In addition, older people's level of thirst does not match their need for fluids, so they easily become dehydrated. People who have heart disease, respiratory disease or poor nutrition are particularly vulnerable. Also, older adults may fail to use their fans or air conditioners due to high actual or perceived energy costs. Due to fear of crime they may be afraid to leave windows open for ventilation.

Hypothermia, or body temperature below 96° F, occurs in older adults at temperatures that do not affect younger people. The internal thermostat of older people may result in hypothermia even when wearing enough clothes and in moderate environmental temperature. Also, older people may not feel cold and may not shiver readily, so they do not take steps to warm their bodies. Reluctance to use sufficient heat due to high perceived or real cost has resulted in dramatically increased death rates from hypothermia in the United States since 1977 as fuel prices have increased.