

Editorial

Decreasing Fall, Mortality Rates in the Elderly with Multiple Chronic Health Conditions

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Our nation is faced with a generation of “baby boomers” who are not only living longer (beyond the age of 70) but are living with an array of multiple chronic health conditions. Although effective management of these conditions has been made possible through technological and medical advancements, there still remains the challenge for our healthcare systems to maintain and/or improve the current health status of our aging population and improve quality of life as our seniors continue to advance into those “golden years”. One such area in need of attention is that of fall mortality rates among the elderly with multiple chronic health conditions. According to research, there has been an increase in disability and even death among our elderly with chronic health conditions and those who have experienced injurious falls. Although prevalent and costly, chronic health conditions and fall-related injuries in the elderly are preventable. Nevertheless, careful consideration must be given to the establishment of community-based fall prevention programs that target modifiable risk factors in these individuals.

Chronic health conditions can be defined as, “conditions that last a year or more and require ongoing medical attention and/or limit activities of daily living” [1]. As of the year 2012, it was estimated that 117 million American adults, approximately 50% the American adult population, lived with one or more chronic health conditions [2]. In fact, this statistic is expected to increase to 157 million Americans of all ages by the year 2020 [3]. According to research, conditions such as heart disease, cancer, stroke, COPD, diabetes, arthritis, pneumonia, and influenza are the leading causes of death and disability in U.S. adults, particularly among the elderly aged 65 years of age and older [1]. An injury remains a frequent cause of death in this age group, and with advancement in age comes an increased risk of fall-related deaths. According to research, the rates and counts of fall-related deaths by age and gender for the year 2000 were the highest among the elderly aged 85+. The fall death rates for these individuals were 236.7 females and 305.1 males per 100,000 people in a population, while the fall death counts were 137 for females and 80 for males, totaling 217 deaths related to falls [4]. Based on data from 2000, the total annual estimated costs for fall-related deaths across healthcare community settings were estimated to be \$170 million [5,6].

As rising healthcare costs can be problematic, healthcare

professionals must seek to initiate strategies to decrease the rising costs, as well as lower the mortality rates, from fall-related injuries in the elderly with multiple chronic health conditions.

Healthcare professionals must strongly evaluate the types of services that are provided to our seniors. The delivery of high-quality, preventive care services for adults with chronic health conditions must be made available, accessible, and affordable for the prevention and management of chronic diseases in community and clinical settings. Preventive care and management should include fall injury and disease prevention, self-management education and counseling, fall-risk screening, comprehensive history and physical exams, medication review and consultation, balance and gait testing, and community-based resources. A comprehensive exercise program, such as Tai Chi, is also a critical component of a preventive care program. The delivery of such services can promote the early detection of health problems, prevent the progression of disease and disease-related complications, and identify individuals at increased risk for falls [7].

The media, as well as health communications, can be utilized to build public awareness of the prevention and management of the elderly with chronic health conditions. To enhance patient-centered skills and cultural competences of the providers, training programs can be established, and collaboration must be fostered among community and faith-based organizations, businesses, and clinicians to identify populations at-risk, identify the underserved, and address social factors of health in high-priority, vulnerable communities [7]. Community programs must be multimodal and involve an interdisciplinary team that includes, but is not limited to, key stakeholders, such as nurse practitioners, physicians, audiologists, physical therapists, occupational therapists, and community social workers. These individuals serve as advocates to promote healthy and safe environments for our elderly. Promoting awareness on a national level can support the falls-free initiative, as well. “Falls Prevention Awareness Day,” a nationwide event sponsored by the National Council on Aging, was held on September 23, 2014, and was attended by 48 states and the District of Columbia. The event provided education, falls risk screenings, evidence-based fall prevention programs, and patient advocacy. Participants were educated on how to spread the message of fall prevention, initiate comprehensive fall prevention programs in their own communities, and expand their target audience of older adults [8].

The establishment of falls and balance clinics to identify major modifiable risk factors in the elderly has a potential for a clinical-based solution to decreasing fall-related deaths in adults with chronic health conditions. There is a positive correlation between the number of risk factors an individual possesses and fall risk [9]. In fact, a personal history of falls and balance or gait difficulties increases the risk of falling threefold and muscle weakness of the lower extremities,

the primary indicator of fall risk, and fourfold [9]. Advancing age, particularly aged 80 years and over; assistive device use; visual deficits; and chronic health conditions such as arthritis, depression, cognitive impairment, and the aforementioned health conditions are high-risk factors that can increase fall risk. The use of multiple (> 4) medications and certain classifications of medications (e.g., psychotropic, cardiac, diuretics, and anti-seizure medications) have also been associated with increased falls. Prevention and management programs that provide multi-factorial fall risk assessments and interventions have been supported by research to prevent fall-related injuries and deaths among older adults [9].

As healthcare professionals strive to maintain the health and quality of life of our aging population of seniors living with multiple chronic health conditions, there remains a critical need to reduce fall mortality rates in these individuals. The evaluation of current fall prevention services based on evidence-based best practices is crucial in order to treat individuals with an increased risk for falls and fall-related deaths. A multi-component, interdisciplinary program can provide effective services that include fall prevention education; fall risk assessments; medication reviews; comprehensive exercise programs for muscle strength, balance, and gait training; home safety assessments; and treatments of chronic health conditions. Healthcare professionals must become advocates of fall injury prevention, all the while encouraging the elderly to become active participants in fall preventive care.

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