

Geriatric Syndromes and Their Impact on Patient Safety for Older Adults

Lessons Learned From My Mother

By Richard Kundravi, BS[◇]

Good news: We are all living longer. In 2018, 15.6% of the United States population was comprised of adults age 65 and older. It is estimated that by 2030 the number of U.S. citizens age 65 and older will grow to 20%, with the 65-or-older segment of the population outnumbering citizens who are age 5 or younger.¹ For individuals 85 and over, the population count is estimated to double between 1995 and 2030, and this growth will increase fivefold by 2050.¹

The bad news is that the longer people live, the more likely they are to develop geriatric syndromes, such as falls, delirium, dementia, sleep disorders, osteoporosis, bladder control, and weight loss. Older adults face many challenges, including problems with functionality and activities of daily living, especially in a healthcare setting. My mother was the perfect example of how having a knowledge of geriatric syndromes that emphasizes the unique features of the common health conditions in older adults will allow us to provide safer care to older adult patients. The way in which my mother lived her life demonstrated the interrelationship between these challenges she experienced and the ways we found to navigate through them from day to day.

Geriatric syndromes are multifactorial conditions that are prevalent in older adults. These common conditions hold substantial implications for functionality and life satisfaction. Geriatric syndromes are believed to develop when an individual experiences accumulated impairments in multiple systems. Besides leading to increased mortality and disability, decreased financial and personal resources, and longer hospitalizations, these conditions can substantially diminish an older adult's quality of life.² Once the quality of a person's life is diminished, a person's close relationships and social interactions can be negatively impacted. My mother knew that maintaining close relationships and social interactions with family and friends allowed her to stay alert and independent, which in turn allowed her to address the other predictors of a long life, such as exercise, diet, and routine visits to her physicians.

Another common explanation of a geriatric syndrome is a disorder experienced by older adults that occurs sporadically, rather than on a constant basis or as a single event, that may be brought about by a serious occurrence often associated with functional decline.³ More recently, geriatric syndromes have been defined as conditions in which symptoms are assumed to result not solely from discrete diseases, but rather from accumulated impairments in multiple systems⁴ and develop when the accumulated effect of these impairments in multiple systems compromises an individual's ability to adjust.⁵

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Both definitions are a significant departure from the traditional use of the word syndrome. Traditionally, a syndrome includes a spectrum of symptoms or signs that result from numerous disruptions, rather than a single disruption.⁶ In geriatric syndromes, multiple abnormalities come together to cause a single circumstance.⁶

Since there is no specific abnormality for the care provider to identify, and potentially treat, a practitioner may conclude that a geriatric syndrome is a routine component of aging.⁷ This can be a frustrating and disheartening experience for the patient, who is left with no clear treatment or likelihood of improvement. In this situation, the care provider may miss the important point that in multifactorial health conditions of older adults, there are usually multiple opportunities to intervene to improve the symptomatic issue of the patient.⁶ Older patients are at a particular risk of experiencing a patient safety event. Studies in the inpatient setting that have evaluated the effect of age on the rate of error have determined that older patients experience more adverse events than younger patients.⁸

The presence of multiple chronic conditions further increases the risk of adverse events and introduces the potential for complications associated with polypharmacy.⁹ The Centers for Disease Control and Prevention (CDC), for example, estimates that older adults visit the emergency department as a result of an adverse drug reaction more than twice as often as those individuals under the age of 65.¹⁰ Further, the natural progression of aging, including decreasing bone density, decreasing muscle strength, and increasingly fragile skin, predisposes older patients to be less resilient to the side effects of procedures and medications such as infections and delirium.¹¹

Increased frailty further complicates the management of risk for older patients.¹²⁻¹³ An individual's frailty status can have a dramatic impact on their healthcare utilization and outcome.¹²⁻¹³ Frail, older patients are defined as those patients meeting three out of five criteria that indicate compromised energy levels. The five criteria are decreased grip strength, slowed walking speed, decreased physical activity, low energy, and unintentional weight loss. In frail individuals, the physiological decline typically seen in the aging process is accelerated.¹⁴⁻¹⁶ My mother never played the role of a helpless, frail, elderly person and I believe that her approach to living a full and active life created a positive attitude that in turn motivated her and everyone around her. She spent most of her day communicating with friends and acquaintances and was totally engaged in current events and what was going on around her.

The hazards of hospitalization and overtreatment are well known to geriatricians. Bed rest, hospitalization, and the testing and treatment that patients receive come with a number of risks for older adults that can result in an adverse event.¹⁷ Patients 65 and older are nearly seven times more likely than patients under the age of 65 to be hospitalized following an emergency room visit.¹⁸

It goes without saying that the best way to avoid experiencing a hospital-acquired condition (HAC) or a safety event is to avoid being admitted to the hospital, and my mother was obsessed with maintaining her daily routine with that goal in mind. Older adults are at an increased risk of experiencing a HAC or safety event.¹³ For example, bed rest can lead to muscle atrophy and the increased risk of a fall. However, the severity of the risk to older adults and their ability to recover can be associated with their status prior to the event. Individuals who are frail are much more vulnerable to physiological and psychological stressors, which places them at a

Geriatric syndromes are multifactorial conditions that are prevalent in older adults.

Geriatric syndromes are believed to develop when an individual experiences accumulated impairments in multiple systems that compromise their compensatory ability.*

*Source: American Society of Clinical Oncology Educational Book https://ascopubs.org/doi/full/10.1200/EDBK_237641

higher risk of experiencing negative health outcomes, including incident-related disability and mortality.¹⁸

In the case of prolonged bed rest involving an individual who is already frail, additional muscle atrophy can have a much more harmful impact on the patient.¹⁸ Coupled with limited mobility and low bone density associated with frailty, there is an increased risk of experiencing a fall, as well as the more serious outcomes of a fall, such as a fracture, an extended hospitalization, or additional physical decline. In frail adults, a fall can be the precipitating event before the long-term physical decline.¹⁷

Luckily, there are many ways to help promote independence and quality of life while caring for someone with a geriatric syndrome. Addressing geriatric syndromes may be challenging, but it is possible.

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Tips for Healthcare Providers

Falls

As co-facilitator of the Hospital and Healthsystem Association of Pennsylvania (HAP) and Hospital Improvement and Innovation Network (HIIN) Reducing Injury From Falls and Immobility project, I was acutely aware that in both the home environment as well as in the healthcare setting, falls were a leading cause of injury and death in older adults. However, falls are preventable by addressing mobility problems, the side effects of medications, and decreased visual acuity.¹⁹

Delirium

Delirium is a common and serious complication in older adults described as a significant disturbance in mental abilities that results in confused thinking and reduced awareness of surroundings. Caregivers can help reduce the risk of delirium by helping orient the patient while in the hospital and by assuring that items that help older adults see, hear, and eat better are available.¹⁹

Dementia

Alzheimer's disease is the most common form of dementia but there are many types of this memory-afflicting condition. Not a specific disease, dementia is a group of conditions characterized by impairment of at least two brain functions, such as memory and judgment. While there is no cure for most types of dementia, several treatments can address symptoms and behavior problems, including medication, occupational therapy, modification of the environment, and modifying tasks.¹⁹

Sleep Disorders

Scientists have linked poor sleep to an increased risk of mortality. The reduction of sleep in older adults is often due to sleep disturbances. However, the decreased ability is less a function of age and more a function of other factors that accompany aging, such as medical and psychological illness and increased medication use.¹⁹

According to WebMD's "10 Tips to Beat Insomnia," steps can be taken to change behaviors and lifestyles to address sleeplessness, such as waking up at the same time each day; staying active by exercising regularly (but not before bedtime); limiting naps; and making the sleep environment conducive to falling and staying asleep by controlling the temperature, lighting, and noise level.²⁰

Osteoporosis

Osteoporosis is a bone disease in which the bones become brittle and fragile from the loss of tissue, typically as a result of hormonal changes or a deficiency of calcium or vitamin D. Caregivers can help safeguard the bone health of older adults through increased calcium and vitamin D intake, medication, weight-bearing exercises, and strength-training exercises.¹⁹

Bladder Control Problems

More than half of older adults suffer from incontinence, according to the CDC, and while incontinence increases with age, experts are quick to point out that it should not be considered an inevitable part of the aging process. There are several treatments available to help address incontinence, such as exercise, medication, medical devices, and surgical procedures.¹⁹

Weight Loss

It is ironic that many people spend much of their lives trying to lose weight but unwanted weight loss is a common condition in older adults that can lead to weakness and bone disorders. At each physical, the patient should be weighed to check for changes. When a decrease in weight is observed, caregivers can prevent future weight loss in older adults by making their food more appetizing, increasing the patient's exercise to boost their appetite, checking to make sure that the patient's medications are not causing the patient to be nauseated, and verifying that the patient does not have dry mouth or difficulty swallowing. Sadly, many older adults eat alone, but the simple solution of joining them for a meal can make it more enjoyable and appetizing for them.¹⁹

Lessons I Learned From My Mother

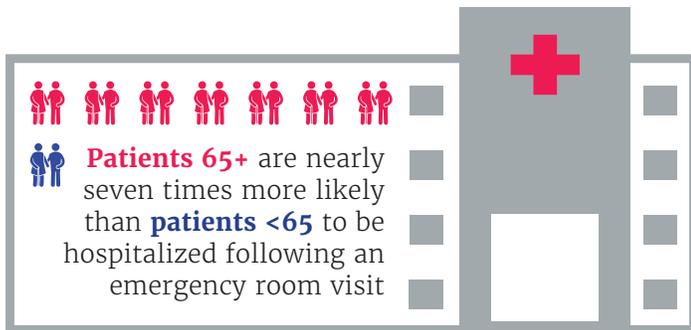
As the son of a fiercely independent woman who lived well into her 10th decade, I had the privilege of observing firsthand how important managing these common conditions was for her staying self-sufficient. I am especially grateful for the lessons my mother taught me for staying healthy and happy. My mom did not have a technical term for her approach to staying healthy but rather a focus that I classify as "My Mom's 5 Ms for Staying Healthy," which, in no particular order, are medication management, meal maintenance, mobility, mentation, and moisture monitoring.

My mother had a quarterly appointment scheduled with her family physician that she never missed because she was taking several prescribed medications and many more over-the-counter supplements to help with her vision and calcium deficiency. She made it a point to know the name and dosage of every medication or supplement that she was taking, the potential side effects, and most importantly why she was taking them and if the medication could impact her ability to get a good night's sleep.

My mother also realized the importance of being well nourished by eating a balanced diet, which is very difficult to achieve when you live alone as she did for almost 30 years. During the initial stages of the COVID pandemic, I volunteered to do her shopping and I was immediately impressed with the way she managed her dietary needs to promote a healthy lifestyle by avoiding foods with a high percentage of sodium and cholesterol, and with too many calories and saturated fats.

My mother's focus on maintaining a healthy diet was what gave her the energy to stay active and mobile. She used her treadmill every day well into her 80s to stay physically and aerobically fit, and when she was no longer able to use her treadmill, she would do fast-paced laps around the first floor of her home before and after each meal to maintain her strength, balance, and mobility.

I believe that maintaining her physical training schedule helped her stay mentally fit as well. She was an avid reader and, as such, took good care of her eyes with drops and supplements so that she could enjoy her favorite pastime. When she was not able to visit her local bookstore to replenish her current stock of reading material, she would order books online to keep her mind active and alert.



Lastly, staying active by doing pelvic exercises, avoiding caffeine, and wearing absorbent undergarments helped my mother avoid the moisture issues that arise with urinary incontinence. As the advertisements on television continuously point out, urinary incontinence tangentially leads to problems like falls, depression, and isolation, which my mother was also able to avoid.

Conclusion

As a medically complex patient population, older adults can be challenging to treat without causing harm. Considering the age-related medical conditions discussed in this article, older adult patients are often the first to experience the effects of a healthcare-related harm event. This makes it necessary to have preventative patient safety practices directed at these patients. Geriatric syndromes are difficult to understand due to the complex nature of the multiple factors involved. They are highly prevalent in older adults, especially frail older adults.²¹ The problems that emerge with aging should be dealt with as a whole, and a comprehensive geriatric evaluation should be used when assessing the older adult from a treatment and prevention perspective.

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