The Top 10 Pitfalls to Avoid When Caring for the Older Adult: Part I

Author: Joan Somes, PhD, RN-BC, CEN, CPEN, FAEN, NRP, St. Paul, MN
Section Editors: Nancy Stephens Donatelli, MS, RN, CEN, NE-BC, FAEN, and Joan Somes, PhD, RN-BC, CEN, CPEN, FAEN, NRP

CE Earn Up to 5.5 Hours. See page 590.

Aging adult physiology creates interesting challenges—and potential pitfalls—relating to the provision of care. Over the years, this column has attempted to increase awareness of changes associated with aging that affect care for the older adult, thus helping nurses recognize and avoid practice pitfalls. This is the first in a series of Geriatric Update Section articles to appear in *JEN* that aim to review and provide a synopsis of 10 pitfalls associated with caring for an older adult.

Who should be considered an "older adult"? Some persons argue that aging starts the day we are born. Various sources use age 65 years and older to categorize the "older adult."[1,2] Physiological changes related to aging start as early as 30 years, and individuals age differently.[2] By age 40 years, bodily functions start to decline steadily,[3] thus creating challenges and pitfalls related to assessment and care.[3]

Pitfall 1: Assuming the Fall Was "Minor"

There is no such thing as a "minor fall" in an older adult. One of every 4 persons older than 65 years will fall, and falling once doubles the risk of falling again.[4] Age-related factors that increase fall risk include lower body weakness, balance and walking problems, balance problems caused by medications (eg, tranquilizers, antidepressants, and sleep aids), vision issues, foot pain, trip hazards in the home, and fear of falling.[4-7] Falls are the most common reason for trauma admissions and are a leading cause of trauma-related deaths in older adults.[5] Every 11 seconds an older adult presents to the emergency department as the result of a fall, and more than 27,000 die each year.[5] The most commonly seen injuries involve the hip, wrist, or head; death often is delayed and results from complications that occur as a consequence of the fall.[6] Examples of these complications include, but are not limited to, intracranial bleeding, pneumonia, surgical complications, and hospital-acquired infections (such as catheter-associated urinary tract infections, sepsis, and *Clostridium difficile*).[6] After falling, up to 30% of older adults experience a decline in functionality and die within a year.[7] Therefore, ensuring that an appropriate fall risk assessment occurs during a patient's ED visit can be a life-saving intervention.

Pitfall 2: Failing to Consider How Physiological Changes Affect Ability to Compensate

Failing to recognize and adjust plans of care based on changes in older adult physiology creates the potential for multiple pitfalls and can contribute to mortality.[6] Although each body system has its own set of pitfalls to avoid, various physiological age-related changes intertwine within the systems, which can exacerbate a multitude of conditions. The risk of pitfalls further increases if a patient has co-morbidities and/or underlying medical conditions.[1,2] For example, as the patient ages, fatty deposits, atherosclerosis, and muscle atrophy affect the cardiovascular system.[8] Atrial fibrillation becomes a common underlying rhythm because as little as 10% of the cardiac pacing system remains intact.[8] When the aging heart increases its rate in an attempt to compensate during low-volume episodes, the patient can experience atrial fibrillation with very rapid ventricular response or supraventricular tachycardia, which further diminishes cardiac output.[8]

Aside from these physiological changes, "holiday heart syndrome"[9]—the dehydration effects of drinking alcohol—also can lead to supraventricular tachycardia, poor cardiac output, and weakness in the geriatric population. Blood loss, vomiting, diarrhea, and diuretics with or without a "holiday heart" also can lead to low-volume episodes and tachycardic rhythms.[9-13] In addition to these reasons for fluid loss, older adults often do not have the fluid reserves typically stored in fat cells, putting them at risk of a low-volume state or dehydration.[10,11] Normally, fluid can be shifted from intracellular fat cells to the

Joan Somes, *Member, Greater Twin Cities Chapter*, is Critical Care Educator, Regions Hospital EMS, St. Paul, MN.

For correspondence, write: Joan Somes, PhD, RN-BC, CEN, CPEN, FAEN, NRP; E-mail: someswasblackhole@gmail.com.

J Emerg Nurs 2019;45:576-8.
0099-1767

https://doi.org/10.1016/j.jen.2019.06.006

intravascular space to maintain volume and perfusion, but loss of fat cells associated with aging leads to loss of these reserves.[11]

These cardiovascular system changes create the potential for pitfalls to occur. Attempting to correct the compensatory rapid heart rate caused by low volume through the administration of cardiac drugs alone or electrical therapy is one such pitfall. Unless the underlying volume problem is also corrected, success will be limited.[12,13] However, indiscriminate administration of IV fluids to correct hypovolemia also has pitfalls. As people age, blood vessels become atherosclerotic and "stiff." The aging heart has difficulty pushing blood into these high resistant/stiff blood vessels; thus fluids back up into the lungs and pulmonary edema develops.[4] Atherosclerosis also hampers ability of the vessels to vasoconstrict to improve blood pressure when the older adult is hypotensive.[4] Medications taken to prevent increased heart rate and/or vasoconstriction decrease the body's ability to compensate for low-perfusion states.[4] The challenge for clinicians is to determine the best approach to correct hypotensive and tachycardic states while taking into account how the aging body will respond to these therapies.

In addition to fluid reserve storage, loss of body fat in the older adult affects other compensatory mechanisms. Typically a layer of subcutaneous fat under the skin keeps the body warm and tamponades the spread of blood in the subcutaneous tissue. With aging, these protective mechanisms are lost as the skin and subcutaneous tissue thins.[2,14] Bruising in older adults can result in substantially more blood loss and hematoma development, compared to younger individuals. Blood loss combined with decreased ability to maintain body heat can affect coagulation processes.[2,14]

Further complicating blood loss, lower hemoglobin levels, which commonly are seen in older adults, lead to a decreased capacity to carry oxygen to the cells, along with hypoxemia and acidosis.[14,15] Patients taking anticoagulant or antiplatelet drugs easily can experience life-threatening blood loss resulting from fractures, head injuries, significant bruising, and/or gastrointestinal losses.[2,14,16] Other aging attributes that can diminish circulatory volume include nutritional challenges related to poorly fitting or missing teeth, loss of taste buds, swallowing issues, and lack of funds for food.[2] In addition to circulatory challenges, decreased eosinophils and antiviral response lead to a decreased ability to fight infection and increase the risk of sepsis.[2,6] In turn, risks associated with immobility—either intentional to allow healing of fractures or unintentional because "it hurts less if I don't move it" can lead to atrophy of muscle, worsening of arthritis, calcified joints, and risks of additional falls, as well as pressure ulcers, pneumonias, pulmonary emboli, and death.[13]

Awareness and understanding of the older adult's physiological changes and compensatory mechanisms are important because care must be adjusted based on this information. Recognizing the potential for fluid overload, low volume, and shock situations combined with knowledge about the causes of underlying symptomatology, the patient's medication regime, nutritional status, and mobility challenges, along with attentiveness to the potential for infection risks, are key in caring for this population. Teaching about and encouraging early mobility, as well as asking for referrals for physical therapy, may help prevent further falls or issues associated with immobility. Transforming the evidence to the "stretcher side," keeping the patient hydrated and warm while monitoring for not-so-obvious blood loss, maintaining adequate oxygenation, and diminishing the potential for infection are care delivery strategies aimed at helping emergency nurses avoid the pitfalls associated with the physiological changes related to aging.[2-16]

Pitfall 3: Working Up Every "Abnormal Finding"

Assessment findings considered "significant" in younger patients (those younger than 65 years) are often actually "normal" for the older adult with a common chronic condition. Time, energy, and testing resources can be spent evaluating findings that are associated with a common chronic condition in the older adult, but unrelated to the acute, presenting problem. Common chronic assessment findings include wide complex tachycardia, atrial fibrillation, bradycardia and heart blocks, hypertension and hypotension, crackles in the lung fields (due to atelectasis or pulmonary disease), paresthesias, diminished peripheral circulation, unequal pupils, visual field cuts, abnormal laboratory values (especially blood urea nitrogen and creatinine), chronic confusion, and orthostatic changes.[1-3] Oxygenation saturations in the 92% to 96% range on room air may be considered "normal" for an older adult.[16] Focusing on the reason the patient is requesting care rather than on the abnormal findings will help avoid this pitfall. Reviewing assessment findings and history and eliciting the patient's story prior to diving in to a full diagnostic work-up of abnormal findings unrelated to the acute, presenting problem will assist the nurse in advocating for safe and cost-effective care.[2]

A different pitfall related to gathering of history can be seen in triage. Although it is important to obtain sufficient information to assign triage acuity, the process of being overly thorough in triage can delay seeing the provider, which is the reason the patient has presented to the emergency department. I have witnessed occasions when triage nurses spent 20 to 25 minutes gathering data from older

adults while the provider waited for the patient to be shown to a room. This delay frustrates patients, who have to repeat their story to the provider, as well as the provider, who must wait to see the patient. Taking the opportunity, when possible, to collaborate on history taking and assessments may lead to more efficient and patient-friendly interactions and avoid the pitfall of delaying provider interaction.

Having increased knowledge about changes associated with physiological aging in the older adult, understanding the risks to this special population, and working to keep them safe by recognizing and avoiding pitfalls during care is imperative for emergency nurses. Watch for our next article, which will identify more pitfalls to avoid when caring for older adults.

REFERENCES

1. Besdine R. Introduction to geriatrics. In: Merck Manual, Professional Version. https://www.merckmanuals.com/professional/geriatrics/approach-to-the-geriatric-patient/introduction-to-geriatrics. Reviewed/revised April2019. Accessed June 24, 2019.
2. Emergency Nurses Association. Special populations: the geriatric trauma patient. In: *Trauma Nursing Core Course, 8th ed*. Burlington, MA: Jones and Bartlett Learning. 2020:262-277.
3. Besdine R. Physical changes with aging. Merck Manual Professional Version. https://www.merckmanuals.com/professional/geriatrics/approach-to-the-geriatric-patient/physical-changes-with-aging. Reviewed/revised April2019. Accessed June 24, 2019.
4. Centers for Disease Control and Prevention. Home and recreational safety: important facts about falls. https://www.cdc.gov/homeandrecreationalsafety/falls/adultfalls.html. Reviewed February 10, 2017. Accessed June 24, 2019.
5. National Council on Aging. Falls prevention facts. https://www.ncoa.org/news/resources-for-reporters/get-the-facts/falls-prevention-facts/. Accessed June 24, 2019.
6. Botek A-M. Why are falls so dangerous for seniors? https://www.agingcare.com/articles/falls-prove-fatal-for-elderly-patient-149687.htm. Accessed June 24, 2019.
7. Liu S, Obermeyer Z, Chang Y, Shanker K. Frequency of ED revisits and death among older adults after a fall. *Am J Emerg Med*. 2015;33(8):1012-1018. https://doi.org/10.1016/j.ajem.2015.04.0238.
8. Strait J, Lakatta E. Aging-associated cardiovascular changes and their relationship to heart failure. *Heart Fail Clin*. 2011;8(1):143-164. https://doi.org/10.1016/j.hfc.2011.08.011.
9. Somes J, Stephens Donatelli N. Syndrome of holiday heart. *J Emerg Nurs*. 2011;37(6):577-579. https://doi.org/10.1016/j.jen.2011.09.005.
10. Lewis III JL. Volume depletion. Merck Manual, Professional Version. https://www.merckmanuals.com/professional/endocrine-and-metabolic-disorders/fluid-metabolism/volume-depletion. Reviewed/revised September; 2018. Accessed June 24, 2019.
11. Lewis III JL. Water and sodium balance. Merck Manual, Professional Version. https://www.merckmanuals.com/professional/endocrine-and-metabolic-disorders/fluid-metabolism/water-and-sodium-balance. Reviewed/revised September; 2018. Accessed June 24, 2019.
12. Chelazzi C, Villa G, Gaudio A. Postoperative atrial fibrillation. *ISRN Cardiol*. 2011;2011:203179. https://doi.org/10.5402/2011/203179.
13. American Heart Association. Tachycardia. In: *ACLS for Experienced Providers: Manual and Resource Text*. Dallas, TX: American Heart Association; 2017:145-155.
14. Somes J, Vernell M, Stephens Donatelli N. Excess bleeding: not really due to "blood thinners. *J Emerg Nurs*. 2013;39(1):72-75. https://doi.org/10.1016/j.jen.2012.10.001.
15. Beasley R, Chien J, Douglas J, et al. Target oxygen saturation range: 92–96% versus 94–98. *Respirology*. 2017;22(1):200-202. https://doi.org/10.1111/resp.12879.
16. Goodnough L, Schrier S. Evaluation and management of anemia in the elderly. *Am J Hematol*. 2014;89(1):88-96. https://doi.org/10.1002/ajh.23598.

Submissions for this column are encouraged and may be sent to **Joan Somes, PhD, RN-BC, CEN, CPEN, FAEN, NRP**
someswasblackhole@gmail.com