

Care of the Older Adult in Perioperative Settings

POSITION STATEMENT

Perioperative registered nurses should recognize the physiological, cognitive/psychological, and sociological changes associated with aging and understand that age alone puts older adults at risk for complications.

- 1. Perioperative registered nurses should provide patient-centered care that takes into consideration the unique needs of older adults.
- 2. Staff education competencies should be developed, initiated, and evaluated to assure perioperative registered nurses are proficient in addressing the needs of older adults.
- 3. Human and physical resources (eg, positioning aids, padding, transfer and transport assistive devices) should be available to address the unique needs of older adults.

RATIONALE

Between 2005 and 2007, people age 65 and older (ie, older adults) made up approximately 12.5% of the population in the United States. The U.S. Census Bureau has predicted that the number of older adults will increase from 36.3 million in 2004 to 86.7 million in 2050, which is projected to be 21% of the total population. This correlates to a 147% increase in the number of older adults between 2000 and 2050 compared to a 49% increase in the total population for the same period. In addition, the number of people aged 85 and older (ie, old old) was approximately 4.2 million in 2000 and is expected to increase to 5.7 million in 2010, a 36% increase.

Older adults have an overall decline in physical function and undergo myriad changes in health that are age-related and independent of disease. The most pronounced changes occur in the old old.⁴ (P431, 447-453)

The domains of the Perioperative Patient-Focused Model (ie, safety, physiological response, behavioral responses: family and individuals)⁵ can be used to guide care to achieve optimal outcomes for the older adult. Following are examples, relevant to each domain, for perioperative registered nurses to consider when caring for older adults.

Safety

- Cognitive decline may limit older adults' ability to participate in informed consent and the identification verification processes.⁴(^p443-444)
- Slowed motor skills, limited range of motion, and a decline in strength and coordination increase the risk for injury from falls or positioning. 4(P441-444)



- Changes in the integumentary system put older adults at greater risk for chemical or thermal burns and pressure ulcers.^{6, 7}(P199-204), 8(P363-365)
- Decline in functional status may affect discharge planning and recovery needs. 4(P431-458)
- The aging process may affect pharmacokinetics and pharmacodynamics (eg, absorption, distribution, metabolism, excretion), putting older adults at risk for adverse drug events. 4(P434,438), 9,10

Physiological Response

- Overall decline in organ function decreases older adults' ability to maintain homeostasis during times of stress.⁴(P431)
- Decreased cardiac reserve puts older adults at risk for decreased cardiac output, especially during times of stress, resulting in fatigue, shortness of breath, tachycardia, and arrhythmias.⁴(P432)
- Dehydration can contribute to decreased cardiac reserve necessitating individual considerations for hydration status while NPO.⁴(P433)
- Decreased respiratory muscle strength and decreased cough reflex put older adults at greater risk for atalectasis.⁴(P434)
- Decreased renal function increases the risk for fluid and electrolyte imbalance.⁴(P436)
- Decreased bladder capacity increases the risk for urgency, incontinence, and urinary tract infections.⁴(P437-8)
- Enlarged prostate increases the risk for injury during bladder catheterization in older adult males. 11 (P83), 12
- Gastric emptying is delayed, which increases the risk for reflux and indigestion. 4(P439)
- Thermoregulatory decline places older adults at risk for hypothermia. 4(P443)
- Neurological changes lead to blunted febrile response during infection.⁴(P443)
- Altered antigen-antibody response, decreased respiratory activity, reduced ability to expel secretions from the lungs, and tendency for urinary retention are among the factors that contribute to a higher risk for infections in older adults.⁸(P376,459,461)
- Cognitive, neurological, or communication deficits may challenge pain assessment and management. ¹³(P8-9), ^{14,15}(P1577)
- Sensory changes may make interaction and communication difficult.⁸(^p332-345),¹¹(^p79-82)

Behavioral Responses: Family and Individuals

- A preoperative baseline mental status assessment with appropriate documentation is a key to patient advocacy and is critical to determine cognitive or mental status deficits postoperatively.
- Changes in cognitive processes may make it necessary to include designated support persons in preoperative and postoperative teaching.
- Independence and performance of activities of daily living may be affected during the
 postoperative recovery, requiring short- or long-term assistance from designated support
 persons or professional assistive services.
- Depression in older adults is often unrecognized, underdiagnosed, and undertreated.¹⁶
 Stressors, life changes, and operative or other invasive interventions may cause or
 exacerbate depression.



Advances in geriatric care and minimally invasive techniques have increased opportunities for older adults to safely undergo operative and other invasive procedures. ⁸(P452) Professional and community groups also have advocated for nursing competence in the care of older adults. ¹⁷

GLOSSARY

Older adult: those age 65 and older; further subdivided into the following: Young old: those age 65 to 74

Middle old: those age 75 to 84

Old old: those age 85 and older¹⁸

Pharmacokinetics: the study of the movement and action of a medication in the body. ⁹(^p296)

Pharmacodynamics: the physiological processes between a medication and the body (ie, the interaction between receptors and chemicals that are introduced into the body). ⁹(P301)

REFERENCES

- 1. United States American community survey demographic and housing estimates: 2006-2008. U.S. Census Bureau. http://factfinder.census.gov/servlet/ADPTable?_bm=y&-geo_id=01000US&-qr_name=ACS_2008_3YR_G00_DP3YR5&-ds_name=ACS_2008_3YR_G00_&-_lang=en&-_sse=on. Accessed November 10, 2009.
- 2. Longley R. Census offers statistics on older Americans. About.com: US Government Info. http://usgovinfo.about.com/od/censusandstatistics/a/olderstats.htm. Accessed November 9, 2009.
- 3. Administration on Aging. A profile of older Americans: 2008. Washington, DC: US Department of Health and Human Services. http://www.aoa.gov/AoARoot/Aging_Statistics/Profile/2008/docs/2008profile.pdf. Accessed November 9, 2009.
- 4. Smith CM, Cotter VT. Age-related changes in health. In: Capezuti, L, ed. Evidence-based geriatric nursing protocols for best practice. 3rd ed. New York, NY: Springer Pub.; 2008:431-458.
- 5. Standards of perioperative nursing. In: Perioperative Standards and Recommended Practices. Denver, CO: AORN, Inc; 2010. In press.
- 6. Fisher A, Wells G, Harrison M. Factors associated with pressure ulcers in adults in acute care hospitals. Holistic Nurs Pract. 2004;18(5):242-253.
- 7. Heineman J, Hamrick-King J, Sewell B. Review of the aging of physiological systems. In: Mauk, K, ed. Gerontological nursing: competencies for care. 2nd ed. Sudbury, MA: Jones and Bartlett Publishers; 2010:128-231.
- 8. Eliopoulos C. Gerontological nursing. 7th ed. Philadelphia, PA: Wolters Kluwer Health/Lippincott Williams & Wilkins; 2010: 332-345, 363-365, 376, 452, 459, 461.
- 9. Gulick G, Jett K. Geropharmacology. In: Ebersole P, Hess P, Touhy T, Jett K, Schmidt Luggen A, eds. Toward Healthy Aging: Human Needs and Nursing Response. 7th ed. St Louis, MO: Mosby; 2008:294-302, 304-305.



- 10. Charles C, Lehman C. Medications and laboratory values. In: Mauk, K, ed. Gerontological nursing: competencies for care. 2nd ed. Sudbury, MA: Jones and Bartlett Publishers; 2010:260-263.
- 11. Jett K. Physiological changes with aging. In: Ebersole P, Hess P, Touhy T, Jett K, Schmidt Luggen A, eds. Toward Healthy Aging: Human Needs and Nursing Response. 7th ed. St Louis, MO: Mosby; 2008:79-83.
- 12. Mauk K, Hanson P. Management of common illnesses, diseases, and health conditions. In: Mauk, K, ed. Gerontological nursing: competencies for care. 2nd ed. Sudbury, MA: Jones and Bartlett Publishers; 2010:416-7.
- 13. Ardery G, Herr K, Titler M, Sorofman B, Schmitt M. Assessing and managing acute pain in older adults: a research base to guide practice. MedSurg Nurs. 2003;12(1):7-18.
- 14. McDonald D, Freeland M, Thomas G, Moore J. Testing pre-operative pain management intervention for elders. Res Nurs and Health. 2001;24:402-409.
- 15. Practice guidelines for acute pain management in the perioperative setting: an updated report by the American Society of Anesthesiologists Task Force on Acute Pain Management. Anesthesiology. 2004;100(6):1573-1581.
- 16. Touhy T. Emotional health in late life. In: Ebersole P, Hess P, Touhy T, Jett K, Schmidt Luggen A, eds. Toward Healthy Aging: Human Needs and Nursing Response. 7th ed. St Louis, MO: Mosby; 2008:609-611.
- 17. The Hartford Institute for Geriatric Nursing. ConsultGeriRN.org. http://consultgerirn.org/about/Hartford Institute/. Accessed November 9, 2009.
- 18. St Pierre J, Conley D. Introduction to gerontological nursing. In: Mauk, K, ed. Gerontological nursing: competencies for care. 2nd ed. Sudbury, MA: Jones and Bartlett Publishers; 2010:9.

RESOURCES

Brady M, Kinn S, Stuart P. Preoperative fasting for adults to prevent perioperative complications. Cochrane Database Syst Rev. 2003;(4)(4):CD004423.

Evans D, Hodgkinson B, Lanbert L, Wood J. Falls risk factors in the hospital setting: a systematic review. Int J Nurs Pract. 2001;7(1):38-45.

Hodgkinson B, Evans D, Wood J. Maintaining oral hydration in oral adults: a systematic review. Int J Nurs Pract. 2003;9(3):S19-S28.

Tabloski, P. Gerontological Nursing. 2nd ed. Upper Saddle River, NJ: Pearson; 2010.

Original approved by the House of Delegates, Denver, March 2010 Sunset review: March 2015