

# AORN Position Statement on Care of the Older Adult in Perioperative Settings

## POSITION STATEMENT

Perioperative registered nurses (RNs) provide patient-centered care and develop interventions for older adults by taking into consideration the changes associated with aging and by understanding that age alone puts older adults at risk for perioperative complications.

AORN believes perioperative RNs should

- meet the physiological, cognitive, special communication, cultural,<sup>1,2</sup> psychosocial, and spiritual<sup>1</sup> needs of older adults;
- review and confirm patient, family, and caregiver preferences for goals and treatment during the surgical experience<sup>3</sup>;
- allow older adults to use assistive devices (eg, hearing aids, glasses) in the perioperative setting<sup>3,4</sup>;
- understand chronic disease, comorbidities, and pharmacological interactions<sup>5-7</sup>;
- review medication reconciliation lists with awareness of potential medication interactions and continuance and discontinuance of certain medications<sup>4</sup>;
- be aware of polypharmacological effects on reactions and interactions in this population<sup>3,8</sup>;
- advocate for older adults in the decision-making process, including for decisions regarding advance directives and end-of-life care made by the patient or the patient's family or caregivers<sup>3</sup>;
- be aware of ethical dilemmas when caring for elderly patients, including patients with DNR status undergoing general anesthesia.
- respect the boundaries that protect patients as well as care providers during all interactions with older adult patients and their designated support person(s)<sup>9</sup>;
- use resources (e.g., positioning aids, padding, transfer and transport assistive devices) that address the unique needs of the older adult patient to maintain proper positioning, prevent pressure injuries, and maintain skin integrity<sup>3,10</sup>;
- receive education and undergo competency verification that addresses the specialized knowledge and skills needed for the care of older adults<sup>11</sup>; and
- be aware of health disparities in the older adult, minority racial and ethnic groups, lower socioeconomic groups, and sexual and gender minorities communities.

## RATIONALE

Older adults (ie, people aged 65 years and older) comprised 16% of the US population in 2019, numbering 54.1 million. By the year 2040, it is estimated the older adult population will encompass 21.6% of the population.<sup>12</sup> Older adults account for 40% of inpatient surgery patients and 33% of outpatient surgery patients, and as the older adult population grows, needs for surgical care will continue to rise.<sup>13</sup> The American College of Surgeons and the American Geriatrics Society have developed best practice guidelines for the 65-and-older population to help the perioperative team coordinate complex care and measure their performance using evidence-based standards.<sup>14</sup>

Older adults have an overall decline in physical function and undergo numerous age-related changes in health that are independent of disease. Frail older adults experience declines in multiple psychosocial systems, which can lead to adverse events.<sup>15</sup> Frailty is associated with postoperative complications including increased risk of mortality, prolonged length of stay, admission to the intensive care unit, and stays in residential facilities.<sup>16</sup> Frailty assessments can assist in preoperative and postoperative mitigation strategies to decrease potential complications.<sup>17</sup> While many frailty assessment tools exist, no gold standard tool has been identified.<sup>15</sup>

Postoperative delirium, a potential complication, occurs in 11% to 51% of older adult patients and can negatively affect patient safety. Identifying modifiable risks along with preoperative optimization, may positively affect postoperative delirium outcomes.<sup>18</sup>

Functional status assessments provide information about the patient's ability to perform activities of daily living; patients with functional decline and mobility issues are prone to postoperative complications.<sup>19</sup> A new concept—prehabilitation, consisting of exercises and treatment of modifiable risks prior to surgery—may improve post-surgical outcomes.<sup>20</sup> The American College of Surgeons Strong for Surgery toolkit aims to optimize patients' health prior to surgery. The program includes a prehabilitation checklist that consists of a screening for frailty/physical limitation, cardiac/pulmonary disease, mobility, and endurance.<sup>21</sup> Referrals to appropriate health care providers may optimize the patient's postoperative course.

Health care disparities exist for older adults in minority racial and ethnic groups and lower socioeconomic groups. One in four older adults is a member of a racial or ethnic minority population. One in 10 older adults live below the poverty line; the highest poverty rates are among older Hispanic and African American women who live alone.<sup>12</sup>

Historical biases may cloud professional judgement, leading to inadequate and lower quality care.<sup>22</sup> Biases, prejudice, and stereotyping may consciously or unconsciously influence the provision of care and perpetuate health care disparities.<sup>23</sup>

Health care disparities also exist for older adult members of the sexual and gender minorities community; based on past life experiences, they may withhold information from health care providers. Sensitivity to patients who have gender identity concerns affect the health care screening questions that need to be asked. For example, a man who identifies as a woman may still have a prostate and need screening.<sup>24</sup>

The domains of the Perioperative Patient Focused Model (ie, safety, physiological responses, behavioral responses of the patient and designated support person[s])<sup>25</sup> can be used to guide care and help achieve optimal outcomes for older adults. Following are examples relevant to each domain for perioperative RNs to consider when caring for older adults.

## Safety

- Cognitive decline may limit an older adult's ability to participate in the perioperative process.<sup>6,26</sup>
- Delirium, dementia, and depression have been shown to increase the risk of postoperative complications and mortality.<sup>19</sup>
- Dementia prevalence increases with age and is the strongest independent risk factor for developing postoperative delirium.
- Fragility places older patients at risk for poor outcomes and functional decline.
- Polypharmacy alone is a risk factor for poor outcomes. It is critical to perform a comprehensive medication reconciliation to eliminate duplicate or unneeded medications.
- Musculoskeletal changes, including loss of muscle mass, diminished muscle strength, postural changes, decreased range of motion, and slowed reaction time, contribute to difficulties in maintaining balance or regaining balance, increasing the risk for a fall and for postoperative pain and discomfort from surgical positioning.<sup>10</sup>
- Changes in the integumentary system include risk of skin tears, bruising, and pressure ulcers.<sup>27</sup>
- A decline in functional status may extend recovery needs.<sup>28,29</sup>
- Signs of elder abuse may be observed in a number of manifestations. Signs include but are not limited to bed sores, burns, bruises, and malnutrition. Emotional signs may include agitation or depression. Neglect may be identified because the patient is unbathed or is wearing dirty clothes.<sup>30</sup>

## Physiological Responses

- Pain is a risk factor for delirium, but use of opioids and constipation are also delirium triggers.
- The risk for falls increases as a result of cognitive impairment, frailty, and use of high-risk medications.<sup>29</sup>
- Chronic conditions in the older adult influence the perioperative experience from preoperative assessment to intraoperative care to postoperative recovery.<sup>8,31</sup>
- Difficulty maintaining homeostasis (i.e., a physiological state of equilibrium) increases the risk of hypothermia, hypoglycemia, and anemia.<sup>32</sup>
- Slowing respiratory function, impaired functional reserve of the pulmonary system, and decreased cough reflex increase the risk for aspiration, infection, and bronchospasm. Risk factors include underlying lung disease, smoking history, and undergoing general anesthesia.<sup>33</sup>
- Thinness of the skin and small vessel fragility create an increased risk for bruising and hemorrhaging.<sup>8</sup>

- Osteoporosis is a common skeletal change, and risk for fractures doubles every 5 years after 50 years of age.<sup>8</sup>
- Age-related pathophysiological changes (eg, reduced glomerular filtration rate, reduced total body water, renal senescence [i.e., aging]) predispose older adults to impaired medication excretion and to fluid and electrolyte abnormalities.<sup>30,33,34</sup>
- Some patients will restrict fluids to avoid incontinence issues. Dehydration and fluid imbalance necessitate individual considerations for hydration status while the patient is NPO.<sup>30,33</sup>
- Reduced bladder elasticity and innervation and decreased bladder capacity increase the risk for urgency and urinary tract infections.<sup>33</sup>
- An enlarged prostate increases the risk for injury during bladder catheterization in older adult men.<sup>8,31</sup>
- Decreased appetite is common because older adults have fewer taste receptors.
- Gastric emptying may be delayed, which increases the risk for gastroesophageal reflux disease.<sup>33</sup>
- Thermoregulatory decline places older adults at risk for hypothermia.<sup>33,35</sup>
- Neurological changes may be seen as decreased pain, temperature receptors, or tactile receptors.<sup>8,33</sup>
- Age-related impaired immune response, decreased respiratory activity, reduced ability to expel secretions from the lungs, and a tendency for urinary retention contribute to a higher risk for infections in older adults.<sup>33</sup>
- The high incidence of sepsis in older adults and the failure to show the signs and symptoms of sepsis that lead to delays in diagnosis may increase the risk for morbidity and mortality.<sup>19,36</sup>
- Sensory changes (eg, hearing and visual impairment) may make interaction and communication difficult.<sup>6,30</sup>

### **Behavioral Responses: Patient and Designated Support Person(s)**

- A preoperative baseline mental status assessment with appropriate documentation is crucial for determining perioperative cognitive or mental status deficits.<sup>14</sup>
- Deficits in cognitive processes may make it necessary to include designated support persons in preoperative and postoperative teaching.<sup>29,37</sup>
- 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 and dementia are risk factors for postoperative complications (eg, delirium, cognitive dysfunction, impaired wound healing, increased pain severity).<sup>38</sup> Anesthesia; operative and invasive interventions, particularly cardiac and cancer-related surgeries; vulnerability; and frailty may cause or exacerbate depression.<sup>30,38</sup>

## Glossary

**Polypharmacy:** The concurrent use of multiple medications by a patient to treat a single condition or multiple coexisting conditions, which may result in adverse drug interactions. Commonly defined as the use of five or more medications but can vary from two to 11 or more concurrent medications.<sup>39</sup>

**Prehabilitation:** “A process of improving the functional capability of a patient prior to a surgical procedure so the patient can withstand any postoperative inactivity and associated decline.”<sup>40</sup>

**LGBTQ+:** “An umbrella term to describe the lesbian, gay, bisexual, and transgender community. There is no consensus on sole acronym because there may be others (e.g. LGBTQI) to describe the community.”<sup>24(p36)</sup>

## References

1. Spector RE, Tabloski PA. Cultural diversity. In: Tabloski PA, ed. *Gerontological Nursing*. Boston, MA: Pearson; 2014:75-95.
2. Jett K. Culture, gender, and aging. In: Touhy TA, Jett KF, eds. *Toward Healthy Aging: Human Needs & Nursing Response*. 8th ed. St Louis, MO: Elsevier/Mosby; 2012:62-80.
3. Mohanty S, Rosenthal RA, Russell MM, Neuman MD, Ko CY, Esnaola NF. *Optimal Perioperative Management of the Geriatric Patient: Best Practices Guideline from ACS NSQIP/American Geriatric Society*. 2016. Accessed August 3, 2022. <https://www.facs.org/media/y5efmgox/acs-nsqip-geriatric-2016-guidelines.pdf>
4. Bashaw M, Scott DN. Surgical risk factors in geriatric perioperative patients. *AORN J*. 2012;96(1):58-74.
5. Bettelli G. Preoperative evaluation in geriatric surgery: comorbidity, functional status and pharmacological history. *Minerva Anestesiol*. 2011;77(6):637-646.
6. Shippee-Rice RV, Long JV, Fetzer SJ. Gerioperative assessment. In: Shippee-Rice RV, Fetzer SJ, Long JV, eds. *Gerioperative Nursing Care: Principles and Practices of Surgical Care for the Older Adult*. New York, NY: Springer; 2012:127-148.
7. Shippee-Rice RV, Long JV, Fetzer SJ. Gerioperative medication safety. In: Shippee-Rice RV, Fetzer SJ, Long JV, eds. *Gerioperative Nursing Care: Principles and Practices of Surgical Care for the Older Adult*. New York, NY: Springer; 2012:85-106.
8. Allen SL. Geriatric surgery. In: Rothrock JC, McEwen DR, eds. *Alexander's Care of the Patient in Surgery*. 16th ed. St Louis, MO: Elsevier; 2019:1067-1091.
9. Sofaer S, Schumann MJ. *Fostering Successful Patient and Family Engagement: Nursing's Critical Role*. American Nurses Association. Nursing Alliance for Quality Care. March 15, 2013. Accessed August 3, 2022. [https://www.nursingworld.org/~4aa949/globalassets/naqc/naqc\\_patientengagementwhitepaper.pdf](https://www.nursingworld.org/~4aa949/globalassets/naqc/naqc_patientengagementwhitepaper.pdf)
10. Shippee-Rice RV, Long JV, Fetzer SJ. Musculoskeletal. In: Shippee-Rice RV, Fetzer SJ, Long JV, eds. *Gerioperative Nursing Care: Principles and Practices of Surgical Care for the Older Adult*. New York, NY: Springer; 2012:287-318.
11. *Gerontological Nursing: Scope and Standards of Practice*. Silver Spring, MD: American Nurses Association; 2010.
12. *2020 Profile of Older Americans*. Administration for Community Living. Published May 2021. Accessed August 3, 2022. [https://acl.gov/sites/default/files/Aging%20and%20Disability%20in%20America/2020ProfileOlderAmericans.Final\\_.pdf](https://acl.gov/sites/default/files/Aging%20and%20Disability%20in%20America/2020ProfileOlderAmericans.Final_.pdf)
13. *Optimal Resources for Geriatric Surgery: 2019 Standards*. American College of Surgeons. Accessed August 3, 2022. [https://www.facs.org/media/f10eka54/geriatricsv\\_standards.pdf](https://www.facs.org/media/f10eka54/geriatricsv_standards.pdf)
14. Chow WB, Yo CY, Rosenthal RA, Esnaola NF. *ACS NSQIP/AGS Best Practice Guidelines: Optimal Preoperative Assessment of the Geriatric Surgical Patient*. 2012. American College of Surgeons NSQIP.

- <https://www.facs.org/media/invehw0d/acsnsqipagsgeriatric2012guidelines.pdf>. Accessed August 3, 2022.
15. Bentov I, Kaplan SJ, Pham TN, Reed MJ. Frailty assessment: from clinical to radiological tools. *Br J Anesth*. 2019;123(1):37-50.
  16. Artilis-Armas M, Roque-Castellano C, Conde-Martel A, Marchena-Gómez J. The Comprehensive Complication Index is related to frailty in elderly surgical patients. *J Surg Res*. 2019;244:218-224.
  17. Ibunkunoluwa A, Blitz J. Perioperative frailty: lessons learned and future directions. *Curr Opin Anaesthesiol*. 2021;34(3):373-380.
  18. Baek W, Young MK, Hyangkyu L. Risk factors of postoperative delirium in older adult spine surgery patients: a meta-analysis. *AORN J*. 2020;112(6):650-661.
  19. Kumar C, Salzman B, Colburn JL. Preoperative assessment in older adults: a comprehensive approach. *Am Fam Physician*. 2018;98(4):214-220.
  20. Boudreaux AM, Simmons JW. Prehabilitation and optimization of modifiable patient risk factors: the importance of effective preoperative evaluation to improve surgical outcomes. *AORN J*. 2019;109(4):500-507.
  21. Strong for Surgery Prehabilitation Screening Checklist. American College of Surgeons. Revised June 27, 2018. Accessed August 3, 2022. [https://www.facs.org/media/mnfjp522/prehabilitation\\_checklist.pdf](https://www.facs.org/media/mnfjp522/prehabilitation_checklist.pdf)
  22. Parker LJ, Thorpe RJ, McNabney MK. Cultural Competency and cultural humility in caring for older adults. In: Warshaw GA, Potter JF, Flaherty E, Heflin MT, McNabney MK, Ham RJ, eds. *Ham's Primary Care Geriatrics*. 7th ed. Philadelphia, PA: Elsevier; 2022:54-58.
  23. Marcelin JR, Siraj DS, Victor R, Kotadia S, Maldonado YA. The impact of unconscious bias in healthcare: how to recognize and mitigate it. *J Infect Dis*. 2019;220(Suppl 2):S62-S73.
  24. Burton C, Eskildsen MA. Lesbian, gay, bisexual, transgender medicine in older adults. In: Warshaw GA, Potter JF, Flaherty E, Heflin MT, McNabney MK, Ham RJ, eds. *Ham's Primary Care Geriatrics*. 7th ed. Philadelphia, PA: Elsevier; 2022:35-41.
  25. Benze C, Spruce L, Groah L. Perioperative Nursing: Scope and Standards of Practice. Denver, CO: AORN, Inc; 2021. Accessed August 3, 2022 [Membership required]. <https://www.aorn.org/guidelines/clinical-resources/standards-of-practice>
  26. Long JV, Shippee-Rice RV, Fetzer SJ. Gerioperative informed consent. In: Shippee-Rice RV, Fetzer SJ, Long JV, eds. *Gerioperative Nursing Care: Principles and Practices of Surgical Care for the Older Adult*. New York, NY: Springer; 2012:61-83.
  27. Long JV, Fetzer SJ, Shippee-Rice RV. Skin. In: Shippee-Rice RV, Fetzer SJ, Long JV, eds. *Gerioperative Nursing Care: Principles and Practices of Surgical Care for the Older Adult*. New York, NY: Springer; 2012:319-340.
  28. Shippee-Rice RV, Fetzer SJ, Long JV. Promoting discharge wellness. In: Shippee-Rice RV, Fetzer SJ, Long JV, eds. *Gerioperative Nursing Care: Principles and Practices of Surgical Care for the Older Adult*. New York, NY: Springer; 2012:517-540.
  29. Katz M, Silverstein N, Coll P, et al. Surgical care of the geriatric patient. *Curr Probl Surg*. 2019;56(7):260-329.
  30. Phillips NF, Hornacky A. Perioperative geriatrics. In: *Berry & Kohn's Operating Room Technique*. 14th ed. St Louis, Mo: Elsevier; 2021:153-168.
  31. Doerflinger DM. Older adult surgical patients: presentation and challenges. *AORN J*. 2009;90(2):223-240.
  32. Minkove JF. Think 75 is too old to have surgery? Think again. John Hopkins Medicine. August 2018. Accessed August 3, 2022. <https://www.hopkinsmedicine.org/news/articles/think-75-is-too-old-to-have-surgery-think-again>
  33. Smith CM, Cotter VT, Boltz M. Age-related changes in health. In: Boltz M, ed. *Evidence-Based Geriatric Nursing Protocols for Best Practice*. 4th ed. New York: Springer Pub Co; 2012:23-47.
  34. El-Sharkawy A, Sahota O, Maughan RJ, Lobo DN. The pathophysiology of fluid and electrolyte balance in the older adult surgical patient. *Clin Nutr*. 2014;33(1):6-13.
  35. Shippee-Rice RV, Long JV, Fetzer SJ. Neurological. In: Shippee-Rice RV, Fetzer SJ, Long Jennifer V, eds. *Gerioperative Nursing Care: Principles and Practices of Surgical Care for the Older Adult*. New York, NY: Springer; 2012:265-285.

36. Zenilman ME, Chow WB, Ko CY, et al. New developments in geriatric surgery. *Curr Probl Surg*. 2011;48(10):670-754.
37. Pelletier D, Shippee-Rice RV, Long JV, Fetzer SJ. Gerioperative coaching. In: Shippee-Rice RV, Fetzer SJ, Long Jennifer V, eds. *Gerioperative Nursing Care: Principles and Practices of Surgical Care for the Older Adult*. New York, NY: Springer; 2012:107-126.
38. Shippee-Rice RV, Fetzer SJ, Long JV. Depression and dementia. In: Shippee-Rice RV, Fetzer SJ, Long Jennifer V, eds. *Gerioperative Nursing Care: Principles and Practices of Surgical Care for the Older Adult*. New York, NY: Springer; 2012:423-444.
39. Guideline for care of the patient receiving moderate sedation/analgesia. In: *Guidelines for Perioperative Practice*. Denver, CO: AORN, Inc; 2022:571-602.
40. Strong for Surgery. Prehabilitation. American College of Surgeons. Accessed August 3, 2022. <https://www.facs.org/quality-programs/strong-for-surgery/clinicians/prehabilitation/>
41. Clark GD, Lucas K, & Stephens L. (1994). Ethical dilemmas and decisions concerning the do-not-resuscitate patient undergoing anesthesia. *AANA Journal*, 62(3), 253–256.
42. Hinkle, J. & Cheever, K., (2018) *Lippincott CoursePoint for Brunner & Suddarth's Textbook of Medical-Surgical Nursing, 14<sup>th</sup> ed.* Philadelphia, PA: Wolters Kluver. ( ISBN 978-1496347992)

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