

Perioperative Assessment of the Older Adult

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WHY: America's older adults comprise the fastest growing segment of the U.S. population. They account for 55% of all operative procedures performed in the U.S. and may increase as much as 600% by 2030 (AORN, 2015). Advanced age alone does not preclude surgical interventions aimed at improving function or quality of life. However, a decrease in physiological reserves, the presence of multiple chronic conditions, and functional impairments have all been associated with increased risk for adverse surgical complications (GNRS5, 2016; Lim & Slater, 2016; Smith & Cotter, 2016).

BEST PRACTICE APPROACH: The primary aims of the perioperative care of the older adult are to: 1) promote patient safety through adaptation of the physical environment, communication approaches, and therapeutic interventions, including medication adjustments, to accommodate age-related changes; 2) prevent injury and adverse events (i.e. falls, pressure injuries, infections, post operative complications); and 3) attain the best surgical outcome to restore maximal functioning, prevent delirium and provide adequate pain management.

The perioperative period comprises three distinct time frames: 1) the pre-operative period which begins with the decision to have a surgical procedure and ends with the patient's transfer to the operating room; 2) the intraoperative period which commences with the patient's arrival in the operating room, includes the operative period and ends with transfer to the Post Anesthesia Care Unit (PACU); and 3) the stay in the PACU and transition to the home or another location.

TARGET POPULATION: Older adults over the age of 65 years or persons under 65 who have multiple, complex, chronic conditions and whose health status necessitates a surgical intervention.

VALIDITY AND RELIABILITY: Psychometric testing has not been done.

STRENGTHS AND LIMITATIONS: Though psychometric testing has not been done, this approach represents best practice endorsed by the American Association of Operating Room Nurses (AORN) and The Joint Commission (TJC).

FOLLOW UP: Ensure continuity of care throughout all perioperative periods and transition to home or another location.

MORE ON THE TOPIC:

Best practice information on care of older adults: <https://consultgeri.org>.

Association of periOperative Registered Nurses [AORN]. (2011). Perioperative Nursing Data Set [PNDS] (3rd ed) and AORN SYNTEGRITY Standardized Perioperative Framework [SPF]. Denver, CO.

Association of periOperative Registered Nurses [AORN]. (2015). Position Statement on Care of the Older Adult in Perioperative Settings. Denver, CO.

Association of periOperative Registered Nurses [AORN]. (2017). Guidelines for Perioperative Practice. *Guideline for Positioning the Patient*. Denver, CO.

Association of periOperative Registered Nurses [AORN]. (2017). Guidelines for Perioperative Practice. *Guideline for Prevention of Unplanned Patient Hypothermia*. Denver, CO.

Joint Commission for Accreditation of Hospitals and Organizations (JCAHO). (2017). Universal Protocol for the Prevention of Wrong Site, Wrong Procedure, and Wrong Person Surgery. Accessed April 27, 2018 from http://jointcommission.org/standards_information/up.aspx.

Lim, F., & Slater, L. Z. (2016). Perioperative care of the older adult. In M. Boltz, E. Capezuti, T. Fulmer, & D. Zwicker (Eds.). *Evidenced-based geriatric nursing protocols for best practice* (5th ed., chapter 32). New York: Springer Publishing Company, Inc.

Resnick, B. (Ed.) (2016). *Geriatric nursing review syllabus (GNRS5): A core curriculum in advanced practice geriatric nursing*. New York: American Geriatrics Society (AGS).

Smith, C.M., & Cotter, V.T. (2016). Age-related changes in health. In M. Boltz, E. Capezuti, T. Fulmer, & D. Zwicker (Eds.). *Evidenced-based geriatric nursing protocols for best practice* (5th ed., chapter 3). New York: Springer Publishing Company, Inc.

Guidelines for the Perioperative Care of Older Adults Perioperative Period

1. Interview the patient and family members upon admission to the perioperative area. (For patients with dementia, see suggested communication strategies in *Try This*.[®] Issue D7: Communication Difficulties).
2. Allow the patient to use assistive devices (glasses, hearing aids) to enhance communication.
3. Verify correct patient identification using a minimum of 2 separate sources (i.e., have the patient acknowledge his/her name, and birth date when addressed, and check the name on the patient's identification bracelet).
4. Assess the patient's cognitive status (See *Try This*.[®] Issues 3 and 3.2: Mental Status Assessment).
5. Assess the patient's understanding. Using "teach back" methodology, request that the patient explain the procedure to be performed, the risks and benefits, and expected outcomes of the planned procedure.
6. Review the medical record for:
Past Medical History: The presence of chronic diseases including dementia or other cognitive impairment;
Medication history: Prescription (pay special attention to medications that thin the blood-warfarin, low molecular weight heparin, or direct oral anticoagulants), and over the counter medications (laxatives, herbs, vitamins and supplements), medications taken the day of the procedure, and those withheld until after the procedure;
Allergies: Medications, including antibiotics, foods, iodine, dyes, latex, and tape;
Past Surgical History: Prior surgeries, any prosthetics or implantable electronic devices, reactions to anesthetics, prior blood transfusions, any complications;
Social History: Use of alcohol, illicit drugs and tobacco products; social support systems and aftercare arrangements; and assessment of frailty (See *Try This*.[®] Issue 34: The Frailty Index for Elders (FIFE) as well as baseline functional status (See *Try This*.[®] Issue 2: Katz Activities of Daily Living and Issue 23: Lawton Instrumental Activities of Daily Living).
7. Verify and mark the correct surgical site for the procedure (IJC, 2017).
8. Physical exam: Include blood pressure, pulse, respirations, pulse oximetry; Review available lab and diagnostic tests--Complete blood count with differential, complete metabolic panel (electrolytes, glucose, renal function, albumin, liver function tests), urinalysis, electrocardiogram, prothrombin time (PT) and International Normalized Ratio (INR), platelets, chest x-ray, type and cross-match.
9. Complete a preoperative nursing assessment for risk factors associated with hypothermia (advanced age, female gender, low BMI, long procedural and anesthesia duration) and institute preoperative warming if indicated.
10. Review post-operative care instructions; have the patient demonstrate appropriate coughing, deep breathing, etc.
11. Ensure advanced directives and contact information for proxy decision makers are included in the chart.
12. Perform quality handoff between operative areas through use of a structured handoff tool and use of closed feedback loop to confirm accurate transfer of patient information.

Intraoperative Period

1. Assess the skin for: Color, capillary return, circulation, temperature, and any areas of breakdown or areas at risk to prevent pressure injuries.
2. Ensure patient comfort, privacy, and safety through proper positioning and correct anatomical alignment on the operating room (OR) table--Have a minimum of four people assist with lateral transfers; use assistive technology (slider board, friction-reducing sheet, or mechanical device); pick up the patient; do not slide or pull the patient (the friction and shearing force may result in skin breakdown); do not leave the patient unattended on the OR table; use safety belts to prevent falls; pad bony prominences--back of the head, elbows, knees, sacrum, heels (AORN, 2017); ensure proper placement of electrical grounds.
3. Take a "Time Out" before beginning the procedure to verify the correct person, procedure, and site (IJC, 2017).
4. Monitor vital signs, intake and output: Monitor and record intake of intravenous (IV) fluids and blood products, urinary output, and blood loss.
5. Measure and monitor the patient's temperature throughout the intraoperative period.
6. Prevent heat loss: Increase the temperature in the OR; apply warm blankets; utilize warm infusion and irrigation fluids; minimize exposed skin areas (AORN, 2010).
7. Perform quality handoff between operative areas through use of a structured handoff tool and use of closed feedback loop to confirm accurate transfer of patient information.

Postoperative Period

1. Assess airway, breathing and circulation (ABCs).
2. Monitor vital signs, urinary output, blood loss; Note any signs and symptoms of hypovolemia, bradycardia/tachycardia/arrhythmias, signs of cardiac ischemia; ability to clear secretions, return of the gag reflex.
3. Assess mental status, including screening for delirium (See *Try This*.[®] Issues 3 and 3.2: Mental Status Assessment, Issue 13: Confusion Assessment Method and Issue D8: Assessing Delirium in Patients with Dementia).
4. Assess and manage pain (See *Try This*.[®] Issue 7: Assessing Pain in Older Adults and Issue D2: Assessing Pain in Patients with Dementia).
5. Continue assessment of and interventions to prevent complications, skin breakdown, falls and injury, medication errors, deep vein thrombosis, and aspiration.
6. Prior to discharge, the patient's vital signs must be stable without a fever. The patient must have a dry dressing and adequate urinary output, void on their own, without bladder distention.
7. Verify understanding of postoperative instructions with the patient and family/caregiver through "teach back" methodology.
8. Assess understanding of follow up appointments, effective pain management, schedule for analgesia, any dietary or activity restrictions and when to notify the provider.
9. Perform quality handoff for transition to another hospital area, nursing care facility, home health agency, or primary care office through use of a structured handoff tool and use of closed feedback loop to confirm accurate transfer of patient information.

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