

1.15 PERIOPERATIVE MEDICINE

Perioperative medicine refers to the medical evaluation and management of patients before, during, and after surgical intervention. Hospitalists perform general medical consultation preoperatively and provide postoperative medical management. During perioperative consultation, internists and hospitalists often identify conditions related to surgical outcomes and make relevant recommendations, such as delaying surgery so the patient's medical condition can be optimized.^{1,2} In orthopedic surgery patients, for example, the hospitalist care model may be associated with shortened time to surgery, decreased length of stay, and lower hospital costs.^{3,4} Optimal care for the surgical patient is realized with a team approach that coordinates the expertise of the hospitalist and the surgical team. Hospitalists apply practice guidelines to medical consultation and lead initiatives to improve the quality of care and patient safety in the perioperative period.

KNOWLEDGE

Hospitalists should be able to:

- Explain the physiologic effects of anesthesia and surgery.
- Describe the goals, components, and role of cardiovascular preoperative risk assessment.
- Describe the goals, components, and role of pulmonary preoperative risk assessment.
- Describe risk factors for perioperative cardiovascular, pulmonary, infectious, hematologic, neurologic, venous thromboembolic, and other complications.
- Identify pharmacologic therapies that may need to be modified or held before surgery including analgesics, antihypertensive agents, immunosuppressive therapy, anticoagulants, and complementary/alternative medicines.
- List widely accepted risk assessment tools and explain their value and limitations in patients undergoing nonvascular surgery.
- Describe the evidence surrounding prophylactic perioperative interventions such as β -blockade or incentive spirometry.

SKILLS

Hospitalists should be able to:

- Elicit a thorough history, review the medical record, and inquire about functional capacity in patients undergoing surgery.
- Perform a targeted physical examination focused on the cardiovascular and pulmonary systems and other systems on the basis of patient history.
- Assess pain levels in perioperative patients and make recommendations for pain management when indicated.
- Perform a directed and cost-effective diagnostic evaluation on the basis of the patient's relevant history and physical examination findings.
- Use published algorithms and validated clinical scoring

systems, when available, to assess and risk stratify patients.

- Assess the urgency of the requested evaluation and provide feedback and evaluation in an appropriate timeframe.
- Identify medical conditions that increase risk for perioperative complications and make specific evidence-based recommendations to optimize outcomes in the perioperative period.
- Determine the perioperative medical management strategies required to address specific disease states.
- Develop a comprehensive perioperative plan.
- Initiate indicated perioperative preventive strategies.
- Reassess patients for postoperative complications and make medical recommendations as indicated.
- Communicate with patients and families to explain the hospitalist's role in perioperative medical care, any indicated preoperative testing related to their medical conditions or risk assessment, and any adjustment of pharmacologic therapies.
- Communicate with patients and families to explain any indicated perioperative prophylactic measures.
- Facilitate discharge planning early in the hospitalization, including communicating with the primary care provider and presenting the patient and family with contact information for follow-up care.

ATTITUDES

Hospitalists should be able to:

- Follow evidence-based recommendations for the evaluation and treatment of patients in the perioperative period.
- Serve as an advocate for patients.
- Promote a collaborative relationship with surgical services, which includes effective communication.

SYSTEM ORGANIZATION AND IMPROVEMENT

To improve efficiency and quality within their organizations, hospitalists should:

- Lead, coordinate, and/or participate in multidisciplinary efforts to develop clinical guidelines, protocols, and pathways to improve the timing and quality of perioperative care from initial preoperative evaluation through all care transitions.
- Lead, coordinate, and/or participate in efforts to improve the efficiency and quality of care through innovative models, which may include comanagement of surgical patients in the perioperative period.
- Lead, coordinate, and/or participate in multidisciplinary initiatives to promote patient safety and optimize diagnostic and management strategies for surgical patients requiring medical evaluation.
- Lead, coordinate, and/or participate in multidisciplinary protocols to promote the rapid identification, triage, and expeditious evaluation of patients requiring urgent operations.

References

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3. Batsis JA, Phy MP, Melton LJ 3rd, Schleck CD, Larson DR, Huddlestone PM, Huddlestone JM. Effects of a hospitalist care model on mortality of elderly patients with hip fractures. *J Hosp Med.* 2007;2(4):219-225.
4. Roy A, Heckman MG, Roy V. Associations between the hospitalist model of care and quality-of-care-related outcomes in patients undergoing hip fracture surgery. *Mayo Clin Proc.* 2006;81(1):28-31.