Postoperative Pain Management: Clinical Practice Guidelines

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OVER THE PAST 2 decades, there has been an increased emphasis on the need for effective management of acute pain. The focus on pain management was sharpened when the Joint Commission on Accreditation of Healthcare Organizations integrated the requirement for pain assessment and management into their standards in 2000.[1] Acute postoperative pain, however, continues to be inadequately controlled. Among patients who have had surgical procedures, 80% experience postoperative pain and 75% or more of them report pain that is at a moderate, severe, or extreme level.[2] Inadequately treated acute pain is associated with the risk for the development of persistent postsurgical pain.[3,4] Poor pain control has significant physiological consequences that can ultimately result in impaired recovery, decreased function, and reduced quality of life.[2,5]

In recent years, the number and types of pharmacologic, interventional, and nonpharmacological options to treat acute postoperative pain have expanded. Many professional organizations, including the American Society of PeriAnesthesia Nurses and American Society for Pain Management Nursing have published guidelines and other documents related to the management of acute pain. The American Society of Anesthesiologists (ASA) published guidelines for perioperative pain management in 2012.[6] In 2016, the American Pain Society (APS), with input from the ASA, and review and approval by the American Society of Regional Anesthesia and Pain Medicine, published guidelines for the management of postoperative pain. These guidelines are somewhat unique because, in addition to recommendations for pharmacological and nonpharmacological pain interventions, they include recommendations for preoperative education, perioperative pain management planning, organizational policies and procedures, and transition to outpatient care.[7] This article summarizes the development of the guidelines and highlights key recommendations with nursing practice implications for the care of patients with acute postsurgical pain.

Methodology for Guideline Development

A guideline panel was selected by the APS, with input from the ASA, and consisted of 23 multidisciplinary experts representing specialists from fields that included anesthesia, pain management, surgery, hospital medicine, nursing, obstetrics and gynecology, psychology, primary care, and physical therapy. The panel was charged with the tasks of reviewing the evidence related to postoperative pain management and formulating recommendations for evidence-based, effective, safer postsurgical pain management for adults and children.[7] The Oregon Evidence-Based Practice Center conducted an evidence review that included literature searches through December 2015.[7,8] Upon completion of the literature search, there were 107 systematic reviews and an additional 858 primary studies in the final evidence report.[8] The quality of randomized trials was assessed using criteria adapted by the Cochrane Back Review Group.[7,8] Two reviewers from the Oregon Health Sciences Evidence center independently reviewed and ranked the strength (strong or weak) and quality of the evidence (high, moderate, or low) using methods adapted from the Grading of Recommendations Assessment, Development, and Evaluation Working Group and the Agency for Healthcare Research and Quality (AHRQ) Methods Guide for Effectiveness and Comparative Effectiveness Reviews.[7,8] A strong recommendation indicates the reviewers' assessment that the potential benefits of following the recommendation clearly outweigh potential

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harms and burdens. A weak recommendation indicates the reviewers' assessment that benefits of following the recommendation outweigh the potential harms and burdens, but the benefits to harms or burdens balance is smaller or evidence is weaker.[7] The grade of the quality of evidence (high, moderate, low) reflects the confidence level of the reviewers that the evidence reflects the true effect and the likelihood that further research would change the confidence in the estimate of effect.[8] The grading of evidence and recommendations is further detailed in the published guidelines. Following the evidence review, the guideline panel drafted recommendations and engaged in a multistage Delphi process to rank and revise the series of the draft recommendation statements.[7] Unanimous or near-unanimous consensus was achieved for all recommendations.[7] Subsequently, 20 external peer reviewers provided additional comments on the draft guidelines, which underwent an additional revision and panel approval process.[7] The finalized guidelines were approved by the APS Board of Directors; the ASA's Committee on Regional Anesthesia, Executive Committee, and Administrative Council; and the American Society of Regional Anesthesia Board of Directors in 2015 and published in early 2016.[7]

Key Recommendations

Preoperative Education and Perioperative Pain Management Planning

The panel recommends:

1. Clinicians should provide patient- and family-centered, individually tailored education to the patient (and/or responsible caregiver), including information on treatment options for management of postoperative pain, and document the plan and goals for postoperative pain management (strong recommendation, low-quality evidence).
2. Parents (or other adult caregivers) of children who undergo surgery receive instruction in developmentally appropriate methods for assessing pain and counseling on appropriate administration of analgesics and modalities (strong recommendation, low-quality evidence).
3. Clinicians conduct a preoperative evaluation including assessment of medical and psychiatric comorbidities, concomitant medications, history of chronic pain, substance abuse, and previous postoperative treatment regimes and responses, to guide the perioperative pain management plan (strong recommendation, low-quality evidence).
4. Clinicians adjust the pain management plan on the basis of adequacy of pain relief and presence of adverse events (strong recommendation, low-quality evidence).

Methods of Assessment

The panel recommends:

5. Clinicians use a validated pain assessment tool to track responses to postoperative pain treatments and adjust treatment plans accordingly (strong recommendation, low-quality evidence).

General Principles Regarding the Use of Multimodal Therapies

The panel recommends:

6. Clinicians offer multimodal analgesia or the use of a variety of analgesic medications and techniques combined with nonpharmacological interventions for the treatment of postoperative pain in children and adults (strong recommendation, high-quality evidence).

Use of Physical Modalities

The panel recommends:

7. Clinicians consider transcutaneous electrical nerve stimulation (TENS) as an adjunct to other postoperative pain treatments (weak recommendation, moderate-quality evidence).

The panel:

8. Neither recommends nor discourages acupuncture, massage, or cold therapy as adjuncts to other postoperative pain treatments (insufficient evidence).