

Infectious Complications: A New Practice Advisory

Infectious complications associated with regional anesthesia and pain medicine may result in devastating morbidity and mortality, including abscess formation, necrotizing fasciitis, meningitis, paralysis, and death. Currently, there is conflicting evidence within the literature on the frequency of such complications. Aromaa and colleagues¹ reported 8 cases of bacterial infection to the spine or central nervous system after 170,000 epidural and 550,000 spinal anesthetics, for an overall frequency of 1.1 per 100,000 blocks. In contrast, Wang et al² estimated the incidence of epidural abscess after epidural anesthesia to be 1 in 1,930, and the risk of persistent neurologic deficit to be 1 in 4,343 catheters. Unfortunately, the frequency of infection associated with peripheral nerve catheters remains even more undefined. Capdevila and colleagues³ recently showed that approximately 29% of peripheral nerve catheters may become colonized, with 3% resulting in localized inflammation. Although sporadic cases of localized infection and/or bacteremia have been reported after continuous peripheral techniques,³⁻⁶ very little information is available regarding the risk factors most commonly associated with infectious complications.

In response to these clinical questions and practical unknowns, the American Society of Regional Anesthesia and Pain Medicine (ASRA) convened a Practice Advisory Panel on the Infectious Complications Associated with Regional Anesthesia and Pain Medicine at its 2004 Annual Spring Meeting in Orlando, FL. Expert panelists from across the country were asked to perform an exhaustive and critical review of the literature to establish guidelines and recommendations, whenever possible, based on the best available evidence. Preliminary data were provided to meeting attendees at that time to solicit critical appraisal and obtain feedback from ASRA membership. The Advisory Panel took this information into consideration when developing the practice guidelines found within this issue of *Regional Anesthesia and Pain Medicine*.⁷⁻¹⁰ After panelists prepared their evidence-based review and considered input from the panel and meeting participants, other members of the Advisory Panel internally reviewed the resulting manuscript, along with its guidelines and recommendations. After the Advisory Panel completed its work, the 4 manuscripts that resulted from its efforts were submitted to *Regional Anesthesia and Pain Medicine*, where they underwent standard peer review by experts who were not part of the Advisory Panel. The Practice Advisory covers 4 distinct areas of regional anesthesia and pain medicine: (1) the importance and implications of aseptic techniques during regional anesthesia, (2) regional anesthesia in the febrile or infected patient, (3) regional anesthesia in the immunocompromised patient, and (4) infectious risk of chronic pain treatments.

The recommendations of the Practice Advisory should be viewed as guidelines that are based on existing literature and expert opinion; they are not meant to be interpreted as standards or to supersede sound medical judgment. The literature from which these guidelines and recommendations were created ranges from well-performed randomized clinical trials to isolated case reports. Although these

recommendations are intended to encourage quality patient care, observing them cannot guarantee any specific patient outcome. Those who use them should ultimately determine their value. The recommendations and guidelines are also subject to timely revision as warranted by the evolution of technology, scientific evidence, and clinical practice.

The Infectious Complications Practice Advisory is but the latest in a series of practice advisories and consensus conferences that have been conceived and sponsored by ASRA over the past decade. Similar endeavors have included the Local Anesthetic Toxicity symposium and 2 conferences on anticoagulation and neuraxial regional anesthesia. Proceedings from the 2005 Practice Advisory on Neurological Complications of Regional Anesthesia and Pain Medicine are scheduled for publication later this year. These educational endeavors result from the expenditure of organizational resources by ASRA and the enormous contributions of expert panelists who are asked to comprehensively review the literature, present their findings to a critical body of colleagues, and ultimately bring their recommendations to publication. Our colleagues, who have made these contributions to our collective desire to improve patient care and safety, have received not a penny for their efforts. On behalf of *Regional Anesthesia and Pain Medicine* and, we suspect, countless grateful readers and patients, we wish to extend our sincere thanks to ASRA and to those dedicated physicians and educators who have made, and will continue to make, the Practice Advisory Panels possible.

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