The Antibiotic Prophylaxis Guideline for Prosthetic Joints: Trying to Do the Right Thing

In 1997, the American Dental Association (ADA) and the American Academy of Orthopaedic Surgeons (AAOS) published the first advisory statement on antibiotic prophylaxis (AP) for dental patients with prosthetic joints.1 This advisory statement was updated in 2003 with new information and concluded that AP is not routinely indicated for most patients with total joint arthroplasty who undergo dental procedures, and that, although bacteremia can cause hematogenous seeding of total joints, there is no evidence linking dental procedures to prosthetic joint infection (PJI).2 These advisory statements were fairly specific concerning which patient populations the clinician might choose to give AP, including the period of time following joint implantation (ie, 2 years following placement), dental procedures of concern, antibiotic protocols, and alternatives, and there was discussion of the benefits and risks from this practice.2 In 2009, the AAOS released a new statement: “Given the potential adverse outcomes and cost of treating an infected joint replacement (PJI),”3 recommendation 1 in the guideline, which states, “The practitioner might consider discontinuing the practice of routinely prescribing prophylactic antibiotics for patients undergoing dental procedures,” is based largely on the only published case-control study to address this question, although this study found no relationship between dental procedures and PJI.6 This study was graded as being of moderate strength and, hence, this recommendation received a “limited” rating.5 Some published clinical studies citing a lack of a relationship between dental procedures and joint infections but employing surrogate measures as outcomes (eg, bacteremia) were not included in the AAOS-ADA CPG.5 Therefore, the first recommendation is based primarily on a single case-control study that found no relationship between dental procedures and PJI.5 Rather than be prescriptive with regard to which patients should be covered with AP—and because there are no other prospective clinical trials evaluating the use of AP to prevent PJI following dental procedures—the AAOS-ADA CPG work group was unable to make a stronger
specificity is due to the limitations of
treatment and clinical judgment, as well as on
akers' bureau or has made paid presentations on behalf of Zimmer, Medtronic, and Convatec. Dr. Sackett, who serves as a paid
serves as a paid consultant to DePuy; has stock or stock options held in Pivot Medical and Biomimedic; and serves as a board member, owner, officer, or committee member of the American Board of Orthopaedic Surgery, and the American Academy of Orthopedic Surgery. Neither Dr. Lockhart nor any immediate family member has received anything of value from or has stock or stock options held in a commercial company or institution related directly or indirectly to the subject of this article.

References


