Evidence does not support antibiotics for dental patients with joint replacements

By Jean Williams, ADA News staff

Following a collaborative systematic review of scientific evidence, the ADA and the American Academy of Orthopaedic Surgeons last month released a co-developed guideline that does not support routine prescription of antibiotic prophylaxis for joint replacement patients undergoing dental procedures.

In developing "Prevention of Orthopaedic Implant Infection in Patients Undergoing Dental Procedures," an AAOS-ADA work group conducted a systematic review of existing clinical research published in peer-reviewed journals to determine the correlation between dental procedures and prosthetic joint infection (PJI).

"This guideline was based primarily on clinical research which examined a large group of patients, all having a prosthetic hip or knee and half with an infected prosthetic joint. The research showed that invasive dental procedures, with or without antibiotics, did not increase the odds of developing a prosthetic joint infection," said Dr. Elliot Abt in a Dec. 18 press release. Dr. Abt, a member of the ADA Council on Scientific Affairs, served on the AAOS-ADA work group on behalf of the ADA.

Said David Jevsevar, M.D., M.B.A., chair of the AAOS Evidence Based Practice Committee that oversees the development of clinical practice guidelines, "As clinicians, we want what is in the best interest of our patients, so this clinical practice guideline is not meant to be a stand-alone document. Instead it should be used as an educational tool to guide clinicians through treatment decisions with their patients in an effort to improve quality and effectiveness of care.

"It has been long debated that patients with orthopaedic implants, primarily hip and knee replacements, are prone to implant infections from routine dental procedures," added Dr. Jevsevar who also is an orthopaedic surgeon in St. George, Utah. "What we found in this analysis is that there is no conclusive evidence that demonstrates a need to routinely administer antibiotics to patients with an orthopaedic implant who undergo dental procedures."

The new ADA and AAOS guideline has three recommendations and replaces the previous AAOS Information Statement "Antibiotic Prophylaxis for Bacteremia in Patients with Joint Replacement."

The full guideline, supporting documentation and work group disclosures are posted on ADA.org. Supporting documentation includes commentary on the guideline development and results as well as a tool on how to balance clinical information and treatment options with patient preferences.

The Jan. 7 issue of ADA News also features a commentary on the new guideline written by Drs. Abt and Jevsevar.