

Updated guidelines recommend antibiotic prophylaxis for fewer dental patients

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By Jennifer Garvin

Dallas—The American Heart Association announced today that it no longer considers antibiotic prophylaxis the best way to prevent infective endocarditis in certain dental patients.

According to a revised set of AHA guidelines, "only people who are at the greatest risk of bad outcomes from infective endocarditis" need to receive preventive antibiotics before dental procedures, the AHA said in a news release.

The ADA Council on Scientific Affairs assisted the AHA in developing the new guidelines and the June issue of *The Journal of the American Dental Association* will contain the portions of the recommendations pertaining to dental patients. [The recommendations are posted on ADA.org](#) and there is also [information for patients in the Antibiotics and Your Heart oral health topic](#) explaining the changes from the previous IE recommendations.

Those individuals that the AHA and ADA still advise to take antibiotics before dental procedures are people with artificial heart valves, a previous history of endocarditis, certain congenital heart conditions and heart transplant patients who develop problems with a heart valve.

The guidelines no longer recommend antibiotic use for the following conditions: mitral valve prolapse, rheumatic heart disease, bicuspid valve disease, calcified aortic stenosis, or congenital heart conditions such as ventricular septal defect, atrial septal defect and hypertrophic cardiomyopathy.

"There was a major effort over the last three years to be more evidence-based," said Dr. Peter Lockhart, chair of oral medicine at the Carolinas Medical Center in Charlotte, N.C., and a member of the AHA Rheumatic Fever, Endocarditis and Kawasaki Disease committee that authored the guidelines. "These new recommendations are going to make it easier for dentists to identify patients who might be at risk and to determine the procedures that might put them at risk."

For dentists, these updated guidelines apply to many dental procedures, including teeth cleaning and extractions. The updated recommendations emphasize that maintaining optimal oral health and practicing daily oral hygiene are more important in reducing the risk of IE than taking preventive antibiotics before a dental visit.

"There are few clinical studies or very limited well-controlled research that can be assessed appropriately through a comprehensive systematic review process," said Dr. Daniel Meyer, associate executive director, ADA Division of Science. "The strategy in creating these clinically relevant guidelines was to conduct a comprehensive review of the peer-reviewed literature without subjecting it to a statistical meta-analysis, as would be done normally in scientific, evidence-based analyses. Consequently, these guidelines are based on more of a qualitative rather than quantitative systematic review of the clinically relevant scientific literature."

This is the first time the AHA has updated its guidelines on the treatment of dental patients using antibiotic prophylaxis since 1997. The new AHA guidelines appear in print the April issue of *Circulation*, the AHA journal, and the ADA version will appear in print in the June issue of *JADA* along with a patient page that dentists can give to their patients to explain the changes.

The new recommendations are based on "a comprehensive review of published studies that suggest IE is more likely to occur from bacteria entering the bloodstream as a result of everyday activities than from a dental procedure," the release said.

"We've concluded that if giving prophylactic antibiotics prior to a dental procedure works at all—and there's no evidence that it does work—we should reserve that preventive treatment only for those people who would have the worst outcomes if they get IE," said Walter R. Wilson, M.D., chair of the AHA writing group and a Mayo Clinic professor of medicine.

Since the guidelines first appeared in 1955, millions of patients with mild heart conditions—other than those listed as exceptions—have taken antibiotics prior to routine dental procedures such as extractions.

"These new recommendations are a major change that has evolved over nearly 50 years," said Michael Gewitz, M.D., a professor of pediatrics at New York Medical College and a co-author of the guidelines. "Over this time, patients with common heart conditions were told they needed to take antibiotics prior to a dental procedure. Now, they'll be told they no longer need them. This will likely cause anxiety and concern in patients and health providers."

Dr. Gewitz added that he believes the new recommendations will cause confusion among dentists and physicians, especially since patients with congenital heart disease can have "complicated circumstances" and that they should check with a patient's cardiologist if they have any questions."

In addition to the ADA, the guidelines are also endorsed by the Infectious Diseases Society of America and by the Pediatric Infectious Diseases Society.