

Antibiotic Prophylaxis for Dental Procedures

In England, cessation of antibiotic prophylaxis for dental procedures was not associated with a significant increase in the incidence of infective endocarditis.

The long-standing practice of antibiotic prophylaxis before dental procedures in patients at risk for infective endocarditis (IE) was recently challenged. Consequently, in March 2008, the National Institute for Health and Clinical Excellence (NICE) issued a guideline recommending the cessation of such prophylaxis in the U.K. Now, researchers have quantified the effect of this guideline.

National monthly prescribing data were examined for all relevant prescriptions issued in England between January 2004 and April 2010. National data on inpatient hospital activity were used to determine the rates of IE and deaths from IE. Rates were compared between two 12-month periods: immediately before guideline implementation and 14–25 months afterward.

Between the two periods, prescriptions for prophylactic doses of amoxicillin or clindamycin dropped by 78.6%. Before guideline implementation, the rates of IE and IE-related deaths were trending upward. These general upward trends showed no significant increase (defined as >15% over the expected number) after introduction of the guideline. In addition, the upward trend in the number of IE cases caused by oral streptococci (the pathogens for which dental prophylaxis was administered before the 2008 NICE guideline) showed no significant change.

Comment: One can only be happily amazed at the compliance — primarily by dentists — with the NICE guideline. As the authors point out, these findings do not exclude the possibility that antibiotic prophylaxis might benefit some high-risk patients (e.g., those with prosthetic valves, congenital heart disease, or a history of IE, for whom prophylaxis is still recommended in Europe and the U.S.). Nor can they prove that some cases of IE might have been avoided. However, in the war against antibiotic overuse, these findings offer some rare good news.

— [Stephen G. Baum, MD](#)

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