

## You Gotta Have Heart

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It would not be a HIPAA violation if I shared a personal health problem with you, or at least I don't think that it would be. As a child, I had rheumatic fever and remember the time spent in bed, and the antibiotics mixed in applesauce that I took (or sometimes spit out when my parents were not looking). A lingering heart murmur, which is heard variably depending on the physician and day, is the residual defect that accompanied this childhood malady. It was clear I required antibiotics prior to dental procedures that involved potential for bleeding and bacteremia.

As I grew, I followed the regimens of the American Heart Association and premedicated myself for cleanings, extractions and sometimes fillings, even before I became a dentist and had better understanding of the need to do so. The antibiotic selections and doses have changed significantly in the past 50 years. The most recent recommendations have radically altered the way we need to treat our patients, and ourselves, based on the best science available.

I remember fondly, well, not so fondly, my classmates practicing intramuscular injections into normally clothed parts of me (what was I thinking?) prior to a dental cleaning. With relief, and with greater need for compliance, came the two days before and two days after oral medication sequence that was less painful but more difficult to follow. As clinical experience matured, the regimens were made simpler by easing the requirements for oral penicillin to one hour prior to a procedure



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followed by two days after for additional protection. Ultimately, the medication of choice changed to amoxicillin with one dose of 3 grams prior to dental treatment then one-half of the initial dose six hours later. The iteration prior to the current standards, called for 2 grams (still four large capsules that are difficult to swallow but improvement nonetheless) with no follow-up dosing required.

What should be obvious from my personal history is the gradual but definite trend to decreasing doses of antibiotics required to provide prophylaxis against infective endocarditis in a subset of patients and procedures that increase risk. This, too, causes some confusion. The categorization of who is at risk and for which procedures in the previous guidelines became complex. The most recent publication supports that which might have been obvious from the start—most patients do not need antibiotic prophylaxis to prevent cardiac infection. New protocols recommend that only the highest-risk patients need medication prior to procedures that are likely to produce bacterial loading of the bloodstream. So why did I need so many antibiotics for so long when there is no evidence to show

that it was efficacious?

Patients are confused about the new regimens. It is difficult to educate a patient, who is used to taking antibiotics prior to dental procedures, that this may not always be necessary. The fear of patients contracting a cardiac infection is difficult to overcome by dentists' counseling since they have been conditioned to take the medication. The comfort level of our colleagues in discussing this with their patients also may be variable.

Physicians are confused about the new regimens. While generally it is not necessary to discuss premedication by AHA protocols for those patients who require such, some of our colleagues consult regularly about this with the treating physicians. On occasions when I have the opportunity to speak with internists and cardiologists about their patients, I have been surprised at their reactions. Some have told me that they have never accepted the established protocols and used what they believed to be better drug sequences with their patients. Others have proffered they did not accept the new guidelines and still recommend premedication for invasive dental procedures. Rumor is, and it is strictly rumor at this

time, that a significant group of cardiologists is unhappy with the guidelines as written and that the occasional overmedication of some patients was preferable to allowing even a small segment of patients to be at risk for a potentially fatal disease. Regrettably, there are a handful of physicians who did not even know the recommendations have changed.

What's a dentist to do? How do we deal with the confusion surrounding what appears to be a radical departure from what has been comfortable for so long? We need to go with the science. While the American Heart Association states their recommendations are only guidelines, they become de facto standards of care. Anyone who has spent any time analyzing the literature and evaluating scientific evidence understands that a literature review or consensus conference of panels of experts inherently is not scientific validation of fact. But when that is the best evidence that is available or when the retrospective studies support the latest approaches to the use of medications, it is the best that we have and has value.

As a profession, we need to be vigilant in our understanding of contemporary treatment protocols for patients with heart problems meriting antibiotic prophylaxis. The indiscriminate use of antibiotics—something that dentistry tends to do with some regularity—is not of value to our patients. We need to be aware of indications and contraindications for antibiotic usage under all circumstances and not be spurious in the use of potentially harmful drugs. This is a difficult concept for many of us to accept.

So where does that leave me? I had my teeth cleaned last week. I did not premedicate. Free at last. ■■■■

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