Prescribing antibiotics

by Dianne Glasscoe Watterson, RDH, BS, MBA
dglasscoe@northstate.net

Dear Dianne,

The doctor I work with uses the former premedication guidelines, which require a post-treatment dosage, typically six hours after treatment. A recent example was a patient who had a total knee replacement last year. The premedication given was erythromycin 500 mg with a dosage of two tablets one hour before dental treatment, and then one tablet six hours later. I actually had a copy of the most current guidelines and showed the doctor, but he seemed unconcerned and did not comment. I know he is aware of the new guidelines.

Another premedication dilemma is when a physician mandates a premedication protocol that is outside the guidelines. An example is a physician in our city who recommends antibiotic premedication for dental procedures after breast implant surgery for one year following placement of implants. Does he have any basis for this protocol? A cardiologist in our city follows the former guidelines requiring a post-treatment dosage. What's with that?

I feel stuck in the middle.

I'm just an employee, so I'm not calling the shots. But I'm smart enough to know that we are supposed to follow the current guidelines regarding premedication.

How should I respond, and is there any liability risk?

Concerned hygienist

Dear Concerned,

It is true that current premedication guidelines for the prevention of infections in artificial joints do not require any post-treatment dosages of antibiotics. This information is taken directly from the American Academy of Orthopaedic Surgeons/American Association of Orthopaedic Surgeons document regarding suitable premedication options: (Pre-Medication Guidelines for Joint/Orthopedic Patients, Feb. 2009, http://www.aaos.org/).

Interestingly, the AAOS revised its guidelines in February 2009 to state that any patient with a full replacement should have *lifetime* premedication coverage before dental procedures. The former guidelines mandated premedication antibiotics for a two-year period following placement. (You can read the full document at http://www.aaos.org/about/papers/advistmt/1033.asp). At a time when most epidemiologists feel we should be curtailing the use of antibiotics because of resistant strains of disease-causing organisms, the actions of the AAOS are surprising. Two years ago, the American Heart Association modified its guidelines for people with various heart conditions and discontinued premedication antibiotics for several conditions that were previously indicated. The actions of the AHA were in response to the increasing emergence of drug-resistant pathogens, such as MRSA and C-difficile.

If a doctor chooses to follow an antibiotic regimen that is different from the guidelines, he or she is not adhering to the current standards of care (which are stipulated in the guidelines). The danger is if the patient has an untoward reaction, the doctor who did the pre-

Suggested antibiotic prophylaxis regimens*

Patients not allergic to penicillin:
cephalexin, cephradine, or amoxicillin 2 grams orally 1 hour prior to dental procedure.

Patients not allergic to penicillin and unable to take oral medications:
cefazolin 1 gram or ampicillin 2 grams IM/IV 1 hour prior to the procedure.

Patients allergic to penicillin:
clindamycin 600 mg orally 1 hour prior to the dental procedure.

Patients allergic to penicillin and unable to take oral medications:
clindamycin 600 mg IV 1 hour prior to the procedure.

**No second doses are recommended for any of these dosing regimens.*

scribing will be liable. The liability risk is greater if the doctor does not follow the most current guidelines. The other danger is resistance issues. No one should be prescribing antibiotics above what is necessary for a minimum effective dosage. The post-treatment dose is not warranted or recommended.

It seems that some physicians make up their own guidelines or follow previous guidelines. In cases where the patient has been advised contrary to the established guidelines, it is in the dentist's best interest to require the *physician* to do the prescribing. If a dentist agrees to become a party to practices outside the standard of care, that dentist risks liability through complicity.

It is my contention (and many others who study liability issues in dentistry) that dentists should get out of the premedication business — period. If a patient has a physical condition that warrants premedication, let the physician who diagnosed the condition be responsible for premedication antibiotics and any associated risks. If a dentist prescribes a premedication antibiotic for a patient and that patient has an untoward reaction or succumbs to anaphylaxis, the prescribing dentist is liable. Dentists should stick to prescribing antibiotics for *dental* conditions, such as infections, abscesses, etc. This lessens the possibility of liability related to untoward reactions.

Unfortunately, there can be exceptions to most rules. Such is the case in patients who are severely immunocompromised. In a recent court case, a dentist opted to extract an abscessed tooth from a woman with poorly controlled diabetes without giving her a pre-extraction antibiotic. The patient developed a serious infection and died after spending 20 months on life support. Her spouse sued the dentist and won a $2.6 million jury verdict (which is under appeal). According to the report, the key issue was whether the patient should have been given an antibiotic prior to the extraction. An ADA recommendation states that dentists "consider systemic antibiotics for uncontrolled diabetic patients who have frequent infections or heal poorly." Numerous studies have found that infection is a risk for diabetic patients and can make it more difficult to control blood glucose levels. A 2000 study published in the *Journal of the American Dental Association* concluded that, because insulin-dependent diabetics are particularly susceptible to infections, "antibiotic coverage for invasive dental procedures is recommended in patients with poorly controlled or uncontrolled diabetes" (JADA, March 2000, Vol. 131:3, pp. 366-374).

As a hygienist, it is your duty to document the facts. You are not liable for the actions of another person, such as if the doctor chooses to practice outside the standards of care. While any departure from the established guidelines is risky, it is your job to document what was prescribed and advisement of current guidelines. If a physician uses a nonstandard protocol, have that physician fax a copy of the premedication prescription to keep in your patient's chart.

Best wishes,
Dianne