Health policy and the dental implant practitioner

By Arun Garg, DMD

In 2007, when the American Heart Association changed the recommendations for antibiotic prophylaxis for routine dental care in patients with valvular heart disease, some dentists scoffed, others rejoiced. The policy change was the first of its kind since the organization began recommending prophylaxis for routine dental procedures 50 years earlier.

Considering the fact that an estimated 2 percent of the U.S. population carries the diagnosis of mitral valve prolapse, a relatively benign heart-valve disorder that had, until 2007, required administration of antibiotics in advance of any dental procedure (including routine cleaning), this was indeed a noteworthy change.

The use of antibiotics for the intended prevention of endocarditis in individuals at higher risk (those with valvular pathology) had far-reaching effects on antibiotic resistance rates, the cost of medical and dental care, the number of emergency visits for allergic reactions to medications, even overall compliance with routine teeth cleaning visits.

Some dentists chose to ignore the revised recommendations, responding that the risks of bacterial endocarditis were outweighed by the benefits of antimicrobial administration, regardless of population effects. Other dentists were not aware that the recommendations had even been changed. Most have complied with the current recommendations and do not insist on antibiotic prophylaxis unless so indicated by evidence-based research.

Health policy has, in many ways, changed the way that dentists and dental implant practitioners practice. The influences of various medical societies will continue to have an impact for dental implant practitioners in the years to come given the expanding use of electronic health records, the institution of government-driven health reform programs and the paradigm shift from practitioner instinct to evidence-based decision making.

These policy changes are intended for the betterment of societal health care as a whole, however, they do not always reflect a consensus among medical and dental societies nor are they always readily applicable to the patient directly in front of us.

A hotly contested topic between orthopedic surgeons, dentists and infectious disease experts involves the extent to which antibiotic prophylaxis for specific dental procedures is required to prevent bacterial seeding of the joint in patients who have received total joint replacements.

Previously, the three groups aligned and supported antibiotic prophylaxis for individuals who had had joints replaced within two years and those at higher risk due to medical conditions, however, a more recent publication from the American Association of Orthopaedic Surgeons (AAOS), put forth in February 2009 and revised in June 2010, states that all patients with total joint replacements should be given antibiotic prophylaxis for specific medical and dental procedures for the rest of their lives.

The impetus, consequences and controversy of this change are still being widely debated. In response to the AAOS statement, the American Academy of Oral Medicine issued a pointed rebuttal debunking the reasoning behind the AAOS statement and reminded practitioners to make their own clinical decisions.
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Yet will that seemingly harmless decision undermine antimicrobial compliance improvement efforts elsewhere?

Hospitals and other large health-care facilities are initiating programs known as “antibiotic stewardship programs” to facilitate responsible and appropriate antimicrobial use in a particular health care institution. And while these programs are most often undertaken in larger health-care settings, the reality is that application of certain principles at the micro level will enhance antibiotic effectiveness in the general population provided all practitioners (and patients) use antimicrobial agents appropriately.

The relevance of antimicrobial stewardship at the hospital level does trickle down to the individual provider in the dental implant practice. Every antibiotic prescribed conveys a risk of allergic reaction, drug-drug interaction, antibiotic-associated diarrheal illness, decreased population effectiveness and increased cost to the health-care system.

Nonetheless, when indicated, a single dose of preoperative antibiotic or a course administered for a wound infection is absolutely essential.

Limiting antibiotic use to those cases supported by evidence-based practice (and espoused by consensus statements from multiple organizations) will help reduce the amount of antibiotic resistance within the population. Individual practitioners will ultimately be the ones responsible for effecting change at the population level.