



Dr. Darryl Smith

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## Examining Antibiotic Prescribing Practices

For 30 years, myself and 3 family physician colleagues in rural Alberta have been on the front line for all types of care. The nearest specialist support is far away even by air medical evacuation or ambulance transport. By necessity we learned emergency care. A lack of health care providers and a reactive, rather than preventive, mindset in much of the population has led to providing emergency care on a daily basis.

There has often been debate about whether a toothache can be considered a true emergency. A toothache with pain alone may not qualify, but when coupled with signs of infection, including fever and swelling, it certainly becomes an emergency. In dental school I was taught that it was imperative to treat such infections through incision and drainage first, usually accomplished through tooth extraction or endodontic treatment. Both procedures might require other management techniques, including the use of antibiotics following the initial intervention. We were told that in some cases local anesthetics injected into the infected site might be less effective than desired. To counteract this, we were trained in block anesthesia techniques for the mandible and maxilla occasionally supported by the use of oral sedative medications. My experiences have shown that these techniques usually lead to profound local anesthesia, despite the infection.

How, when and why we prescribe antibiotics may provide insight into many issues that affect the delivery of dental care, both at the clinical and practice management levels.

I offer 2 typical scenarios that I encounter on a regular basis regarding dental infection and antibiotics. In the first case, a patient walks into my office and asks for antibiotics to treat a toothache. The front-end staff discovers, after asking some questions, that the patient has been in pain for a while but it has recently worsened.

She also has other symptoms, including a loose tooth and swelling in the gum. The patient refuses to take an appointment because she thinks that she only needs antibiotics since freezing will not work when her mouth is swollen. When asked why she thinks this, she says that another dentist or doctor told her so.

In the second scenario, the phone awakens me in the middle of the night. The hospital has a patient in excruciating pain with severe swelling of the mouth. I am informed that he was recently prescribed antibiotics for the problem. When I ask the patient if he has ever been on antibiotics for the same problem in the same area, he answers yes.

Cases such as these can disrupt the orderly running of a practice (and a good night's sleep), but dentists must balance these inconveniences with the responsibility to provide appropriate care. *Bugs & Drugs*,<sup>1</sup> a handbook produced in Alberta, describes appropriate treatment protocols and prescribing practices for the types of situations I've described above. I believe this is a must-read book and it confirms that what I learned in dental school is still the standard of care. Other useful publications on many important issues affecting dentistry are produced by health units, colleges and associations across Canada, but unfortunately, they see only limited distribution.

The issue of antibiotic prescribing practices raises many questions. Does the profession have appropriate clinical practice guidelines? Are new practitioners receiving appropriate training? Has the business model replaced professional responsibility? Are we too busy? Do our prescribing practices contribute to antibiotic bacterial resistance? No doubt you can add your own questions to this list.

As dentists, we provide a great standard of care, but there is always room for improvement. A simple extraction can cure a potentially life-threatening infection. Recent deaths in the United States because of untreated dental infections have brought this issue to everyone's attention. It is important for dentists to carefully examine their antibiotic prescribing practices.

### Reference

1. Blondell-Hill E, Fryters S, editors. *Bugs & drugs*. Edmonton. Capital Health; 2006.

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