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Dowden Health Media, Inc,  
110 Summit Avenue, Montvale, NJ  
07645. Telephone: (201) 391-9100

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## “Can you call in a Z-Pak for me?”

Before you do, advise your patients that most acute respiratory infections don't resolve in a week

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Frank is a high school history teacher who reads *The Wall Street Journal* and *The New York Times* every morning. So I was a bit taken aback when, just as we stepped onto the court for Sunday morning doubles last month, he asked, “Say John, can you call in a Z-Pak to Walgreens for me today?” Being a typical nice-guy family doc, I said with only slight hesitation, “Why sure, Frank. Which Walgreens?”

Because I'd recently written an editorial about the overuse of antibiotics for respiratory infections,<sup>1</sup> I felt obliged to lay on a few facts about the dubious value of antibiotics for acute bronchitis, the illness he clearly had, judging from the hacking cough.

“You know, Frank,” I said, “you'll probably get better just as fast without the Z-Pak.”

To which he replied, “The Walgreens on the corner of Lake Park and 55th.”

Okay, I didn't win that round. But I have been keeping score for the last 2 weeks. I am batting .800 at the office; 4 of the last 5 patients with a variety of upper respiratory infections have walked out of the office without an antibiotic prescription. In the spirit of full disclosure, however, I should tell you that one patient was pregnant and another gentleman said that his symptoms were already clearing up since he made the appointment for a cough lasting 2

weeks. I could not resist pulling out the pad, however, for a woman with mild depression, hypertension, and chronic back pain (which was flaring), who complained that she'd “been blowing green stuff out of [her] nose for the past three days” and wanted an antibiotic.

### Just say no

The science, of course, does not back up this practice and is the reason for the “just say no to antibiotics for acute respiratory infections” campaign being waged by the Centers for Disease Control and Prevention. For years we've known that viral upper respiratory infections do not respond to antibiotics. Research during the past 5 years has demonstrated repeatedly and convincingly that acute sinusitis, acute bronchitis, and most cases of pharyngitis and otitis media resolve as rapidly or nearly as rapidly without antibiotics, as well.

Why is this so? These syndromes, too, are predominately viral in origin, and even those caused by bacterial infection resolve nearly as rapidly without an antibiotic. For example, the duration of strep pharyngitis is shortened by only 1 to 2 days with antibiotic treatment, and complications of strep pharyngitis are now rare in the US. It's reasonable to treat mildly symptomatic cases with supportive care; in fact, that's the official, evidence-based recommendation in the

Netherlands. Nonetheless, despite strong evidence of the limited effectiveness of antibiotics for acute respiratory infections, a recent study shows that 65% of upper respiratory infections, 78% of acute bronchitis, 65% of acute pharyngitis, and 81% of acute sinusitis episodes in primary care are treated with an antibiotic.<sup>2</sup>

### Techniques for turning the tide

How are we to improve our prescribing for acute respiratory infections? First, it's important to put 1 simple fact on the table: Most acute respiratory infections do not resolve in 1 week. The sad truth is that most acute respiratory infections for which patients consult a physician run their course in 10 to 21 days. Knowing this fact allows me to tell patients who present during the first week of illness that I am not at all surprised they are not yet well.

Next, I tell patients they do not need an antibiotic and that they will recover as rapidly without one. Sometimes this does the trick. For patients who insist that they need an antibiotic, the "wait and see" prescription reduces antibiotic use by about 50%.<sup>3</sup> In this approach, one gives the patient a prescription but tells him to fill it only if symptoms do not improve in the next few days.

Two studies published recently in the *Annals of Family Medicine* provide new evidence for additional approaches. A study of patients' expectations for treatment of their sore throat revealed that patients' main purpose in consulting a physician was not to obtain a prescription but to find out the cause of the sore throat and to get pain relief.<sup>4</sup> This suggests that aggressive treatment of throat pain might satisfy many patients more than a worthless antibiotic that might cause diarrhea and other adverse effects.

In the second study, researchers performed a secondary analysis of data from an earlier randomized controlled trial and attempted to identify clinical features of acute sinusitis that might predict a good response to antibiotic treatment.<sup>5</sup>

In the original randomized clinical trial, patients treated with amoxicillin did not improve more rapidly than those treated with placebo.<sup>6</sup> In the recent analysis, the investigators found that even the classic symptoms of purulent nasal discharge and facial pain did not predict which patient would improve more rapidly with an antibiotic. This study prompted me to reflect on the futility of giving any patient with sinusitis symptoms an antibiotic, save for those who appear significantly ill or who are at risk for complications. But change comes slowly.

Yesterday I was driving home from Sunday tennis doubles with Frank, my friend who'd requested the Z-Pak, and a fellow player Jerry. We were shooting the breeze when the topic of the high cost of health care came up. After my short treatise on the waste we create with over-testing and over-treatment, Frank piped up, "You know, John, I don't think that Z-Pak did me any good."

I had not won the first round with Frank, but I had sowed the seeds of doubt. ■

#### Disclosure

No potential conflict of interest relevant to this article was reported.

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### FAST TRACK

**The "wait and see" prescription reduces antibiotic use by about 50%**