UPPER RESPIRATORY tract infections (URIs), the most expensive and widespread malady in the United States, represent 9% of the practice of the average family physician or pediatrician. They are the most common infectious conditions of children, with the average child having 5 to 8 infections per year. The associated health care costs include 23 million lost workdays and 26 million lost school days. In the United States colds account for 21 million visits and 12 million antibiotic prescriptions annually, at an estimated cost in 1994 of $37.5 million for antibiotics alone. Personal cost to the patient is decreased quality of life for the duration of the cold and worry to the parents of the sick child. Thus, we in the health care industry are forever seeking improved management for these usually self-limited URIs.

Of course sick adults and parents of sick children want relief from the runny nose, cough, sore throat, fever, or fussiness that accompanies a URI. Many expect antibiotics, even believe they work! We physicians have overwhelming evidence that our array of routine oral antibiotics do not work, antihistamines work minimally to decrease nasal discharge, and that most cough medicines do not work, yet prescribe and recommend them in quantities, in some way wanting to “do something” for our miserable patients.

The study by Braun and Fowles questions patients (and parents of sick children) as to their expectations of their health care providers regarding prescriptions for antibiotics for cold symptom relief and their reasons for that expectation. In addition, respondents were surveyed regarding URI-related beliefs, why they contacted the health care system, work-related needs, and importantly, their previous experiences with colds and their care. A better understanding of what patients want from the health care system and why may then help target educational efforts appropriately to change these expectations to more appropriate care. Participation rate of 90% to 94% was excellent. Patients of internists, family physicians, and pediatricians were included. Exclusion criteria of asthma, significantly sore throat, ear pain, duration of longer than 14 days, patients aged 65 years or older, and patients in generally poor health were appropriate to define a population in which infections were most likely limited to a URI.

The population studied was virtually fully insured (97.4%) and highly educated. These characteristics may make the results a little less generalizable to a more indigent, less educated population, but we have no reason to believe that more educated people would be more likely to want antibiotics, a request contrary to factual knowledge regarding URIs. Eighty-three percent were employed and 78% were female—70% of the symptomatic adults and 85% of the parent responders.

Results did not support our common belief in URI care, that the vast majority of patients once in the office for a common cold want antibiotics; only 30% of parents and 50% of symptomatic adults wanted such a prescription. Multiple studies in the United States show that antibiotics are prescribed about 45% to 63% of the time for URIs, but at often variable rates among the different physicians of a single practice. We have overwhelming evidence they are ineffective, yet continue to be prescribed. This study provides 4 ways physicians might approach patients to provide the patient satisfaction both parties (physician and patient) wish, yet provide care that does not contradict good medical practice

1. The vast majority (85.5%) believed colds resolved on their own, ie, are self-limited. Supporting that belief is important. Reminding patients that antibiotics do not shorten the course of this viral infection supports the patient or parent in his or her current knowledge base, a positive feedback loop.

2. Agreeing with the 57.4% who know that antibiotics are not helpful already reduces the population that need to be educated about their ineffectiveness to less than half of our patients.

3. More than 80% of parents or adult patients primarily wanted reassurance that this infection was just a cold and not something worse. This may still be the key to our success—the importance of the physician-patient relation and the educational component that reassures the patient they will soon be better.

4. Only 7.3% of the respondents in this study needed a back-to-work note from their physicians. This seemed surprisingly low as many physicians believe a work note is often the precipitating factor for a patient visit for a
self-limited illness. We may need to reeducate our own belief system and realize our reassurance is of greater value than our pen.

Another factor that physicians might keep in mind in educating patients is the increase in drag resistance of some of our common bacterial pathogens. Since this topic has attention in the media, our task has been made easier. We can take advantage of this! Arason et al looked at the prevalence of nasopharyngeal carriage (in Iceland) of penicillin-resistant pneumococci in 919 children in relation to antibiotic use, 52.7% of children carried pneumococci; 9.7% of isolates were resistant to penicillin or multiresistant. Age younger than 2 years (in whom highest rates of antibiotics were prescribed), geographical areas of highest antibiotic use, and individual antibiotic use were predictive of carriage of penicillin-resistant pneumococci.

Patient satisfaction deserves our attention. It seems the common bottom line is that physicians still choose to give antibiotics when they believe patients expect them, to keep them happy with the visit. A part of this behavior may be that, though the physician does not believe they are effective for the common cold, he or she believes their use is probably not harmful to the child or adult. We are learning that it is, indeed, harmful. Can patient satisfaction be achieved when we do not do what the patient wants on arrival in our office examination rooms? The following studies support that it can. Hamm et al asked patients (or parents) with a URI to participate in a study of expectations and beliefs prior to the office visit and knowledge of the illness and satisfaction with the visit afterward (2 separate questionnaires). Physicians were queried after the visit regarding whether they believed patients wanted antibiotics, the diagnosis, and whether an antibiotic was prescribed. Sixty-five percent of patients expected antibiotics, but meeting this expectation was not associated with patient satisfaction! There was also a large degree of inaccuracy in the physicians’ perceptions of the patients’ desire for antibiotics. These same authors queried separately in a telephone interview 7 to 10 days later whether the patient was feeling better, whether more calls or office visits were needed, their satisfaction with the encounter, and importantly, their plans for care if they have a similar illness in the future. Receiving antibiotics had no effect on whether patients felt better. Twelve percent called and 7% returned to the office for a second visit. Receipt of antibiotics was unrelated to either of these sequelae. Satisfaction was related to satisfaction immediately after seeing the physician. However, 66% of the patients expected an antibiotic for a similar illness in the future: this belief system had not been changed! The survey by Cowan of patients for satisfaction after an office visit for the common cold showed no significant difference in satisfaction between patients receiving prescription medica-

tion, recommendation for nonprescription medications, or advice/reassurance only. Dissatisfied patients were equally dissatisfied because of not receiving a wanted prescription or receiving an unwanted prescription when reassurance was all they wanted. So our message remains:

1. Establish what our patients know about URIs. Fill in accurately, in language appropriate to their understanding, the unknown facts: for example that antibiotics do not work for colds. These infections get better over time.

2. Say a few words about the harmful effects of overuse of antibiotics, how it has created significant management problems for previously easily treatable infections.

3. Reassure patient or parent that the infection has not spread to the lungs or the ears and does not present like a true sinus infection.

4. Do not prescribe antibiotics inappropriately. Also do not prescribe or recommend ineffective antihistamines, cough medications, or other medications that have never been proven effective in URI management.

5. Support patient or parent in their preferred mode(s) of family or cultural management for such infections.

6. Congratulate patients on their increased knowledge and skill to now be able to safely manage upper respiratory infections themselves, with calls to you or office visits when concern is present for more serious infection, not limited to runny nose, cough and sore throat.

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REFERENCES


5. Hamm RM, Hicks RJ, Bemben DA. Antibiotics and respiratory infections: are patients more satisfied when expectations are met? J Fam Pract. 1996;43:56-62.
