



On Antibiotic-Seeking, Predicting Prognosis in Rhinosinusitis and Mortality in Head Injuries, and When to Use Antibiotics in Conjunctivitis

■ NAHUM KOVALSKI, BSC, MDCM

Each month, Dr. Nahum Kovalski will review a handful of abstracts from, or relevant to, urgent care practices and practitioners. For the full reports, go to the source cited under each title.

Are Sore Throat Patients Who Hope for Antibiotics Actually Asking for Pain Relief?

Citation: van Driel ML, De Sutter A, Deveugele M, et al. *Ann Fam Med*. 2006;4:484-485.

URL: <http://www.annfammed.org/cgi/content/full/4/6/494>

Key point: The desire for pain relief is a strong predictor of the hope to receive a prescription for antibiotics.

Antibiotics are still overprescribed for self-limiting upper respiratory tract infections such as acute sore throat; physicians point to patients' desire for antibiotics as a driving force. The authors studied patients' concerns when visiting their family physician for acute sore throat, more specifically the importance they attach to antibiotic treatment and pain relief.

Family physicians in six peer groups in Belgium participated in an observational postvisit questionnaire survey. Patients aged 12 years and older making an office visit for acute sore throat were invited to indicate the importance of different reasons for the visit. Sixty-eight family physicians provided data from 298 patients.

The three most frequently endorsed reasons for visiting

the physician were:

- examination to establish the cause of the symptoms
- pain relief
- information on the course of the disease.

Hopes for an antibiotic ranked 11th of 13 items. Patients who considered antibiotics "very/rather important" valued pain relief significantly more than patients who considered them "little/not important" ($P < .001$). Patients who hoped for antibiotics felt more unwell ($P < .001$), had more faith in antibiotics to speed recovery ($P < .001$), and were less convinced that sore throat was self-limiting ($P < .012$). The desire for pain relief is a strong predictor of the hope to receive a prescription for antibiotics.

This study suggests that patients with acute sore throat and who hope for antibiotics may in fact want treatment for pain.

Comment: This raises the question of whether a physician could "nullify" the request for antibiotics by simply saying "antibiotics do not stop the pain. NSAIDs do!" Of course, what this paper also shows is the mixed messages that are shared by physician and patient. Until we understand why a patient has come for care, it will be much harder to treat the real problem. ■



Nahum Kovalski is an urgent care practitioner and assistant medical director/CIO at Terem Immediate Medical Care in Jerusalem, Israel.

Predicting Prognosis and Effect of Antibiotic Treatment in Rhinosinusitis

Citation: De Sutter A, Lemiengre M, Van Maele G, et al. *Ann Fam Med*. 2006;4:486-493.

URL: <http://www.annfammed.org/cgi/reprint/4/6/486>

Key point: Antibiotics don't affect the course of rhinosinusitis and abnormal radiographs don't provide any information about its prognosis.

Researchers performed a secondary analysis of data from a randomized, placebo-controlled trial of amoxicillin in patients who were at least 12-years-old and presented to family physicians with respiratory tract infections and purulent rhinorrhea. For this analysis, they included 300 patients who additionally had at least one symptom indicating acute rhinosinusitis.

Patients' general feeling of illness and reduced productivity at visit were independently associated with a longer course of illness; however, neither abnormal radiographs nor typical sinusitis signs and symptoms were of prognostic value. Amoxicillin failed to affect patients' prognosis, regardless of their baseline symptoms.

"The best policy for patients with suspected rhinosinusitis—but without signs of complications or severe infection (high fever and bad pain)—is to wait for spontaneous recovery," the authors concluded. ■

Early Prediction of Mortality in Isolated Head Injury Patients: A New Predictive Model

Citation: Demetriades D, Kuncir E, Brown CV, et al. *J Trauma*. 2006;61:868-872.

URL: http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&list_uids=17033553&dopt=Abstract

Key point: The proposed model has better predictive power than other extensively used scoring systems.

The purpose of this study was to construct a predictive model of survival in isolated head injury patients on the basis of easily available parameters that are independent risk factors for survival outcome. This was a trauma registry-based study of head injury patients who had no other major extracranial injuries and who were not hypotensive at admission. The study included 7,191 patients with head trauma.

The overall correct classification rate of the proposed predictive model was 94.2% as compared with 89.0% of the admission GCS score ($p < 0.05$) and 92.8% of the head AIS ($p < 0.05$). The correct classification rate of the predictive model developed for the severe head trauma (GCS score 4-8) patients was 79.9%, as compared with 72.6% using the admission GCS score alone or 75.1% ($p < 0.05$). A one-page, easy-to-use table summarizing the predicted mortality on the basis of GCS score, head AIS, mechanism of injury, and age was developed.

The proposed model has a significantly better predictive power, especially in severe head trauma, than the extensively used GCS and head AIS. A simple table on the probability of death of a particular patient based on admission GCS score, head AIS, mechanism of injury, and age of patient can provide instant information. ■

Antibiotics for Conjunctivitis: OK to Delay?

Review by Kristi L. Koenig, MD, FACEP

URL: <http://emergency-medicine.jwatch.org/cgi/content/citation/2006/901/4>

Citation: Everitt HA, Little PS, Smith DW. A randomized controlled trial of management strategies for acute infective conjunctivitis in general practice. *BMJ*. 2006;333:321-324.

Citation: Rietveld RP, Bindels PJ, ter Riet G, et al. Antibiotics for upper respiratory tract infections and conjunctivitis in primary care. *BMJ*. 2006;333:311-312.

Key point: Benefit from antibiotics is questionable, at best.

Topical antibiotics are prescribed commonly for acute infective conjunctivitis, but are they really necessary? Researchers randomized a convenience sample of 307 patients aged 1 year or older from 30 general practices to receive one of three treatments: immediate antibiotics (chloramphenicol drops), delayed antibiotics (prescription for chloramphenicol drops provided after three days), or no antibiotics. Patients were also randomized to receive an informational leaflet, or not, and then further randomized to provide an eye swab, or not.

Antibiotics were actually used by 99% of the immediate-antibiotic group, 53% of the delayed-antibiotic group, and 30% of controls. Severity of symptoms one to three days after presentation was similar among the three treatment groups. However, duration of moderate symptoms was shorter in the immediate- and delayed-antibiotic groups compared with controls (3.3 and 3.9 vs. 4.8 days, respectively). Patients in the immediate-antibiotic group were more likely than controls to believe that antibiotics were effective and to state that they would seek medical care again for a new episode. Patients in the delayed-antibiotic group were less likely than controls to return to the clinic within two weeks (odds ratio, 0.3). An informational leaflet or eye swab had no significant effect on any outcomes, but satisfaction was greater among patients who received leaflets.

An accompanying editorial reminds us of the potentially harmful effects (such as drug resistance and adverse events) of prescribing antibiotics that might not be needed for minor self-limiting illnesses.

Comment: This study of a management approach for a disease that is often self-limiting was too small to detect a difference in complication rates among treatment groups. In addition, it is very unlikely that antibiotics initiated on day 3 were responsible for the delayed-treatment group's achieving resolution similar to that in the early-treatment group. Most conjunctivitis is viral, and even topical antibiotics carry some risk to the individual (e.g., sensitization) and population (e.g., resistance). These data should cause us to reconsider whether antibiotics are truly indicated for this common, self-limiting disease. ■