



ABSTRACTS IN URGENT CARE

- Sinusitis symptoms vs scans
- Severity of chest pain as predictor of outcome
- ED practice patterns in young children with fever
- Expanded indication for Prevnar 13
- ACP's assessment of wasteful diagnostic testing

■ NAHUM KOVALSKI, BSc, MDCM

Each month, Dr. Nahum Kovalski reviews 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.

Symptoms May Say Sinusitis, But Scans Disagree

Key point: *Infection and even inflammation were not reliably present in the scans of patients with classic sinusitis symptoms.*

Citation: Ferguson BJ, Narita M, Yu VL, et al. Prospective observational study of chronic rhinosinusitis: Environmental triggers and antibiotic implications. *Clin Infect Dis.* 2012;54(1):62-68. (<http://dx.doi.org/10.1093/cid/cir747>)

Chronic sinusitis can be difficult to diagnose precisely and sometimes even more difficult to treat. Increasingly, experts are suggesting that antibiotics may be wildly overprescribed for this condition.

In this prospective study, patients referred to a single sinus expert for classic sinusitis symptoms were methodically evaluated with computed tomography (CT) scans and nasal endoscopy. Of 125 consecutive patients, only 75 (60%) had evidence of sinusitis on CT scan (meatal obstruction, air-fluid levels, or mucosal thickening [one area with >10 mm thickening, or any thickening involving at least 4 sinuses]). A decreased sense of smell predicted an abnormal CT scan, but headache, facial pain and difficulty sleeping were all more common in the patients with a normal scan. Further, the worse the reported fa-

cial pain, the less likely the scan was to show abnormalities.

Purulent secretions were found on endoscopy in only 18 patients, all of whom had abnormal CT scans. Standard pathogens associated with bacterial sinusitis were identified in only five of these patients. No environmental exposures (including alcohol, tobacco, pets, and mold) could distinguish patients with normal scans from the others.

Published in *J Watch Gen Med.* January 31, 2012—Abigail Zuger, MD. ■

Severe Chest Pain Does Not Herald Worse Outcomes

Key point: *In a large study of patients presenting with chest pain, severity of pain did not predict acute myocardial infarction, death, or revascularization.*

Citation: Edwards M, Chang AM, Matsuura AC, et al. Relationship between pain severity and outcomes in patients presenting with potential acute coronary syndromes. *Ann Emerg Med.* 2011;58(6):501-507.

Patients—and textbook authors—often believe that severe chest pain is more likely to indicate heart attack than is milder chest pain. Researchers conducted a secondary analysis of a prospective study of 3306 patients with chest pain who presented to an academic emergency department (ED) in from 2005 through 2009. Severity of chest pain was scored on a scale from 0 (no pain) to 10; scores of 9 to 10 were deemed severe, and scores of 1 to 8 were deemed nonsevere. Outcomes were acute myocardial in-



Nahum Kovalski is an urgent care practitioner and Assistant Medical Director/CIO at Terem Emergency Medical Centers in Jerusalem, Israel. He also sits on the *JUCM* Editorial Board.

farction (MI) diagnosed in the ED and the composite of death, acute MI, or revascularization within 30 days.

Severity of chest pain was not significantly associated with acute MI or the composite outcome, either when patients with severe pain were compared to those with nonsevere pain or when pain score was analyzed as a continuous variable.

Published in *J Watch Emergency Med.* January 6, 2012 — Daniel J. Pallin, MD, MPH. ■

ED Practice Patterns for Children Aged 3 to 36 Months With Fever Without a Source

Key point: *Testing and treatment patterns of young children do not reflect evidence-based guidelines.*

Citation: Simon AE, Lukacs SL, Mendola P. Emergency department laboratory evaluations of fever without source in children aged 3 to 36 months. *Pediatrics.* 2011 Dec;128(6):e1368-1375.

Investigators analyzed data from the 2006–2008 National Hospital Ambulatory Medical Care Survey to describe emergency department (ED) practice patterns in the *Haemophilus influenzae* and pneumococcal vaccine era for children aged 3 to 36 months with fever $\geq 38^{\circ}\text{C}$ without a source (e.g., sore throat, diarrhea). Patients were excluded if they had a discharge diagnosis that would likely preclude diagnostic testing (e.g., croup, bronchiolitis, herpangina).

Among children aged 3 to 36 months, fever without a source accounted for 22% of visits (approximately 1.7 million visits per year), 5% of which resulted in admission. In 59% of visits, no diagnostic tests were ordered. Although girls and patients with temperatures $\geq 39^{\circ}\text{C}$ were significantly more likely than boys and patients with lower temperatures to undergo testing (including urinalysis and complete blood cell count [CBC]), urinalysis was ordered for only 43% of girls aged 3 to 24 months with temperatures $\geq 39^{\circ}\text{C}$. Among children aged 3 to 24 months, CBC was performed in 22% and blood culture in 9%. Antibiotics were prescribed in approximately 25% of visits, including 20% in which no tests were ordered. Patients from zip codes with higher median incomes were significantly more likely to have a CBC or urinalysis ordered (respective odds ratios, 1.17 and 1.12 per US\$10,000 increase).

Published in *J Watch Emerg Med.* January 6, 2012 — Katherine Bakes, MD. ■

FDA Expands Use of Prevnar 13 to Adults Aged 50 and Older

Citation: <http://www.fda.gov/NewsEvents/Newsroom/PressAnnouncements/ucm285431.htm>

Prevnar 13, a 13-valent pneumococcal conjugate vaccine, has been approved for use in adults aged 50 and older to prevent

pneumonia and invasive disease caused by *Streptococcus pneumoniae*. The vaccine was first licensed in 2010 for children aged 6 weeks through 5 years

In randomized, multi-center studies in the United States and Europe, people 50 and older received either Prevnar 13 or Pneumovax 23, a licensed pneumococcal vaccine also approved for use in this age group. The studies showed that for the 12 common serotypes, Prevnar 13 induced antibody levels that were either comparable to or higher than the levels induced by Pneumovax 23.

The safety of Prevnar 13 was evaluated in about 6,000 people ages 50 and older who received Prevnar 13 and who had and had not previously received Pneumovax 23. Common adverse reactions reported with Prevnar 13 were pain, redness, and swelling at the injection site, limitation of movement of the injected arm, fatigue, headache, chills, decreased appetite, generalized muscle pain, and joint pain. Similar reactions were observed in those who received Pneumovax 23.

Prevnar 13 is already approved for use in children ages 6 weeks through 5 years for the prevention of invasive disease caused by 13 different serotypes of the bacterium *Streptococcus pneumoniae* and for the prevention of otitis media caused by seven of the serotypes of the bacterium. ■

Wasteful Diagnostic Testing Situations Listed by ACP

Key point: *An ad hoc group of internists convened by the American College of Physicians has identified a series of clinical situations that frequently lead to wasteful diagnostic tests*

Citation: Qaseem A, Alguire P, Dallas P, et al. Appropriate use of screening and diagnostic tests to foster high-value, cost-conscious care. *Ann Int Med.* 2012;156(2):147-149. <http://www.annals.org/content/156/2/147.abstract>

By consensus, the group identified some 40 situations, which include the following:

- Assessing brain natriuretic peptide in the initial evaluation of typical heart failure findings
- Ordering imaging studies for nonspecific low back pain
- Utilizing MRI instead of mammography to screen for breast cancer in women at average risk
- Conducting serologic testing for suspected early Lyme disease

The *Annals of Internal Medicine's* editor invites readers to comment on or add to the list by taking a survey on the journal's website. She remarks that “unnecessary testing abounds,” and cites a Congressional Budget Office estimate that “up to 5% of the nation's gross national product is spent on tests and procedures that do not improve patient outcomes.” ■