



ABSTRACTS IN URGENT CARE

On IDSA's New Guidelines, Probiotics for GI Complaints, Ruling Out DVT, Cutaneous Abscesses, Imaging for Low Back Pain, and Antimicrobials for Acute Otitis Media

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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.

Not All Infectious Diseases Society of America Practice Guidelines Are Created Equal

Key point: More than 1/2 of recommendations in guidelines from the Infectious Diseases Society of America rely on low-quality evidence.

Citation: Lee DH, Vilemeyer O. Analysis of overall level of evidence behind Infectious Diseases Society of America practice guidelines. *Arch Intern Med.* 2011;171(1):18-22.

Researchers examined 41 guidelines published by the Infectious Diseases Society of America (IDSA) since 1994. Of the 4,200 individual recommendations in those guidelines, 55% were supported by level III quality of evidence (e.g., expert opinions), while only 14% were guided by level I evidence (e.g., randomized controlled trials).

Five guidelines were updated during the study interval. In these updates, the number of recommendations increased between 20% and 400%, but only two updates saw an increase in the number of recommendations based on high-quality evidence.

An editorialist said that one of the main take-home messages of this study "is to be wary of falling into the trap of 'cookbook medicine.' The existence of guidelines is probably better than no guidelines, but guidelines will never replace critical thinking in patient care." ■



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Are Probiotics a Panacea for Gastrointestinal Complaints?

Key point: Probiotics are helpful agents for a growing number of indications.

Citation: Francavilla R, Miniello V, Magistà AM, et al. A randomized controlled trial of *Lactobacillus* GG in children with functional abdominal pain. *Pediatrics.* 2010;126:e1445-31452.

In this randomized clinical trial, 141 children (mean age: 6 years) in Italy with irritable bowel syndrome (IBS) or functional abdominal pain (FAP) received either *Lactobacillus rhamnosus* GG (LGG) or placebo in double-blind fashion for eight weeks.

Although the probiotic group had a significant reduction in the overall frequency of episodes and severity of pain (assessed on a visual analog scale and the Faces Pain Scale), the effect was confined to the 83 children with IBS. Significantly more children in the probiotic group than in the placebo group achieved treatment success (i.e., at least 50% reduction in the number and intensity of pain episodes) at the end of therapy (82% vs. 45%) and after an additional eight weeks of follow-up (87% vs. 50%).

In a related clinical report, the American Academy of Pediatrics Committee on Nutrition reviewed the health benefits of probiotics in children for treatment of acute infectious and antibiotic-associated diarrhea; prevention and treatment of atopic disease, colic, and allergy; and treatment of ulcerative colitis, Crohn disease, and IBS. They conclude that probiotics might be beneficial in children with IBS. This clinical trial supports their conclusion.

Published in *J Watch Pediatr Adolesc Med*, January 5, 2011—Howard Bauchner, MD. ■

Which Guideline Rules for Ruling Out DVT?

Key point: In primary care, DVT can be ruled out using either of two rules in combination with D-dimer testing on site.

Citation: van der Velde EF, Toll DB, Ten Cate-Hoek AJ, et al. Comparing the diagnostic performance of two clinical decision rules to rule out deep vein thrombosis in primary care patients. *Ann Fam Med.* 2011;9(1):31-36.

The Wells rule is widely used for clinical assessment of patients with suspected deep vein thrombosis (DVT), especially in the secondary care setting. Recently, a new clinical decision rule for primary care patients (the primary care rule) has been proposed because the Wells rule is not sufficient to rule out DVT in this setting. The objective was to compare the ability of both rules to safely rule out DVT and to efficiently reduce the number of referrals for leg ultrasound investigation that would result in a negative finding.

Family physicians collected data on 1,086 patients to calculate the scores for both decision rules before leg ultrasonography was performed. In all patients, D-dimer testing was performed using a rapid point-of-care assay.

A venous thromboembolic event occurred during follow-up in seven patients with a low score and negative D-dimer finding, both with the Wells rule and the primary care rule.

Using the Wells rule, 45% of patients would not need referral for further testing compared with 49% of patients when using the primary care rule (McNemar $P < .001$).

In primary care, suspected DVT can safely be ruled out using either of the two rules in combination with a point-of-care D-dimer test. Both rules can reduce unnecessary referrals for compression ultrasonography by about 50%. ■

No Concurrence in Identifying Cutaneous Abscesses

Key point: Physician agreement on the presence of abscess and the need for drainage was only fair to moderate.

Citation: Marin JR, Bilker W, Lautenbach E, et al. Reliability of clinical examinations for pediatric skin and soft-tissue infections. *Pediatrics.* 2010;126:925-930.

Most cutaneous abscesses require incision and drainage but not systemic antibiotics. By contrast, patients with cellulitis need systemic antibiotics, but incision and drainage are unnecessary and sometimes harmful. Distinguishing between these two disorders, therefore, is important.

In this study from an emergency department in an urban, tertiary care, pediatric hospital, 349 immunocompetent children with 394 lesions affecting the abdomen, legs, buttocks, or arms were evaluated for presence of an abscess and for the necessity for drainage.

Agreement among the physicians was assessed by kappa statistic (poor, <0.0 ; slight, $0.0-0.20$; fair, $0.21-0.40$; moderate,

$0.41-0.60$; substantial, $0.61-0.8$; nearly perfect, $0.81-1.00$). The kappa value for agreement was 0.39 on the presence of an abscess (fair) and 0.43 on the necessity for drainage (moderate). More-experienced examiner pairs did not have better agreement than less seasoned physicians.

This study demonstrates a substantial and disturbing lack of agreement among clinicians about fundamental issues in children with apparent skin infections—namely, whether a cutaneous abscess was present and whether drainage was required.

Published in *J Watch Dermatol*, January 7, 2011—Jan V. Hirschmann, MD. ■

Diagnostic Imaging Should Not Be Automatic for Low Back Pain

Key point: Routine diagnostic imaging for low back pain doesn't improve outcomes and only increases complications and costs.

Citation: Chou R, Oaseem A, Owens DK, et al. Diagnostic imaging for low back pain: Advice for high-value health care from the American College of Physicians. *Ann Int Med.* 2011;154(3):181-189.

The authors revisit the guidelines issued by the American College of Physicians and the American Pain Society in 2007 and add evidence from a meta-analysis of six clinical trials. Here are their principal recommendations:

Use an initial trial of therapy rather than immediate imaging. However, imaging is warranted when the patient has major risk factors for cancer or shows severe or progressive neurologic deficits.

Risk factors or signs of vertebral infection or the cauda equina syndrome, although rare, also warrant more immediate imaging.

The authors state that routine imaging “cannot be cost-effective” and conclude that “efforts to reduce use of imaging should be multifocal and address clinician behaviors, patient expectations, and financial incentives.”

A Placebo-Controlled Trial of Antimicrobial Treatment for Acute Otitis Media

Key point: Children with acute otitis media benefit from antimicrobial treatment as compared with placebo. There is an advantage to treatment less evident in time to initial resolution of symptoms but more evident in failure rate

Citation: Tähtinen PA, Laine MD, Huovinen P, et al. A placebo-controlled trial of antimicrobial treatment for acute otitis media. *N Engl J Med.* 2011;364:116-126.

In this randomized, double-blind trial, children 6 to 35 months of age with acute otitis media, diagnosed with the use of strict criteria, received amoxicillin-clavulanate (161 children) or placebo (158 children) for seven days. The primary outcome was the time to treatment failure from the first dose until the end-

of-treatment visit on day 8. The definition of treatment failure was based on the overall condition of the child (including adverse events) and otoscopic signs of acute otitis media.

Treatment failure occurred in 18.6% of the children who received amoxicillin–clavulanate, as compared with 44.9% of the children who received placebo. The difference between the groups was already apparent at the first scheduled visit (day 3), at which time 13.7% of the children who received amoxicillin–clavulanate, as compared with 25.3% of those who received placebo, had treatment failure.

Overall, amoxicillin–clavulanate reduced the progression to treatment failure by 62% and the need for rescue treatment by 81% (6.8% vs. 33.5%).

Analgesic or antipyretic agents were given to 84.2% and 85.9% of the children in the amoxicillin–clavulanate and placebo groups, respectively.

Adverse events were significantly more common in the amoxicillin–clavulanate group than in the placebo group. A total of 47.8% of the children in the amoxicillin–clavulanate group had diarrhea, as compared with 26.6% in the placebo group; 8.7% and 3.2% of the children in the respective groups had eczema.

Children with acute otitis media benefit from antimicrobial treatment as compared with placebo, although they have more side effects. Future studies should identify patients who may derive the greatest benefit, in order to minimize unnecessary antimicrobial treatment and the development of bacterial resistance. ■

Recession Leads to Historically Low Health Spending

Key point: *Healthcare spending is growing at a slower pace than that of the overall economy.*

Martin A, Lassman D, Whittle L, et al. *Health Affairs*. 2011;30(1):11-22.

In 2009, U.S. healthcare spending grew 4%—a historically low rate of annual increase—to \$2.5 trillion, or \$8,086 per person. Despite the slower growth, the share of the gross domestic product devoted to health spending increased to 17.6% in 2009 from 16.6% in 2008.

The growth rate of health spending continued to outpace the growth of the overall economy, which experienced its largest drop since 1938. The recession contributed to slower growth in private health insurance spending and out-of-pocket spending by consumers, as well as a reduction in capital investments by healthcare providers.

The recession also placed increased burdens on households, businesses, and governments, which meant that fewer financial resources were available to pay for healthcare. Declining federal revenues and strong growth in federal health spending increased the health spending share of total federal revenue from 37.6% in 2008 to 54.2% in 2009. ■

“If in doubt, it is better to splint a suspected fracture in a child.”

splint with side slabs (**Figure 10**); displaced fractures should be splinted with a long leg splint all the way up the thigh to prevent rotation of the fracture. The knee should be slightly bent, and the patient should be sent home non weight-bearing on crutches and be told to elevate the leg until follow-up with an orthopedist.

Morbidity is increased with poorly placed splints. Care must be applied to take pressure off of the heel.

Conclusion

Nearly 20% of children coming to the urgent care with an injury will have a fracture. It is important to remember that physeal injuries are very common and may present with no radiographic findings.

Occult injuries are also possible in the shaft of the bone in children. If in doubt, it is still better than not to splint a suspected fracture in a child.

If a fracture displaces, a physeal arrest may occur.

A thorough history and exam, adequate radiographs, and a good splint with care to avoid pressure over bony prominences will help patients and their families get through the healing process with minimal discomfort.

Typically, children heal quickly and usually return to full preinjury activity level. ■

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