ABSTRACTS IN URGENT CARE

- Effectiveness of Chinese Herbs for Influenza
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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.

Chinese Herbs Are as Efficient as Oseltamivir for Shortening Flu Symptoms

Key point: Traditional Chinese herbal therapy resolves fever in influenza as quickly as oseltamivir.

Citation: Wang C, Cao B, Liu Q-Q, et al. Oseltamivir compared with the Chinese traditional therapy maxingshigan-yinqiaosan in the treatment of H1N1 influenza: a randomized trial. *Ann Int Med*. 2011;155(4):217-225.

Researchers studied some 400 adults and adolescents in 11 Chinese hospitals who had uncomplicated 2009 H1N1 influenza A. Patients, who remained in the hospital for quarantine purposes and not the severity of their illness, were randomized to one of four groups: maxingshigan-yinqiaosan, oseltamivir, maxingshigan-yinqiaosan plus oseltamivir, or no treatment. (Maxingshigan-yinqiaosan comprises 12 herbs, including ephedra, which is restricted in the US)

The median time to fever resolution was significantly shorter with oseltamivir (20 hours), maxingshigan-yinqiaosan (16), and combination therapy (15) than with no treatment (26). Symptomatic improvement did not differ among the treatment groups. Two patients using maxingshigan-yinqiaosan had nausea and vomiting.

The authors conclude that the herbal treatment can be used as an alternative when oseltamivir is not available. ■

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Cranberries vs TMP-SMX to Prevent Urinary Tract Infections

Key point: Trimethoprim-sulfamethoxazole was better at preventing UTIs, at the expense of greater antibiotic resistance.

Citations: Beerepoot MA ter Riet G, Nys S, et al. Cranberries vs antibiotics to prevent urinary tract infections: a randomized double-blind noninferiority trial in premenopausal women. *Arch Intern Med*. 2011;171(14):1270-1278.
Gurley BJ. Cranberries as antibiotics? *Arch Intern Med* 2011; 171(14):1279-1280.

Premenopausal women who experience recurrent urinary tract infections (UTIs) are sometimes prescribed low-dose antibiotic prophylaxis. Growing concern about antibiotic resistance, coupled with many patients' desire for non-pharmacologic remedies, has led to renewed interest in cranberry consumption for UTI prophylaxis. The presumed mechanism is prevention of bacterial adhesion to uroepithelial cells by proanthocyanidins, a con-

stituent of cranberries.

In a double-blind study, Dutch investigators randomized 221 women (median age, 35) who reported having a median of 6-7 UTIs in the previous year to receive either cranberry extract (500 mg twice daily) or trimethoprim-sulfamethoxazole (TMP-SMX; 480 mg nightly). During 12 months of treatment, cranberry-extract recipients had a mean of 4 symptomatic UTIs compared with a mean of 1.8 in the TMP-SMX group—a significant difference; the median time to first recurrence was 4 months in the cranberry group and 8 months in the antibiotic group. Adverse events did not differ between groups, but the dropout rate was about 50% in both.

Published in *J Watch Gen Med*. August 4, 2011—Thomas L. Schwenk, MD. ■

Holter Monitoring in Octogenarians with Syncope

Key point: 11% of patients had symptomatic arrhythmias.

Citation: Kuhne M, Schaer B, Sticherling C, Osswald S. Holter monitoring in syncope: diagnostic yield in octogenarians. *J Am Geriatr Soc*. 2011;59(7):1293-1298.

The yield of Holter monitoring in patients with syncope depends on clinical characteristics and patient age, which affect pretest probability of an arrhythmic cause. In this study, Swiss researchers examined the diagnostic yield of 24-hour Holter monitoring in 475 consecutive patients (age, >80; 13% ≥90) with syncope. Patients whose initial evaluations revealed obvious causes of syncope (eg, orthostatic hypotension, diagnostic 12-lead electrocardiogram [ECG] finding) and those with previously implanted pacemakers were excluded. At baseline, half the patients had known structural heart disease.

Holter monitoring was diagnostic (ie, detected an arrhythmic abnormality associated with symptoms) in 11% of patients. Most diagnostic abnormalities were bradyarrhythmias (eg, sinus node dysfunction, atrioventricular block, atrial fibrillation with slow response) and resulted in appropriate pacemaker implantation. In addition, 10% of patients had symptoms while monitoring was normal, presumably ruling out an arrhythmic cause of syncope.

Published in *J Watch Gen Med*. August 11, 2011—Allan S. Brett, MD. ■

New AAP Guidelines for Diagnosis and Management of Febrile UTI in Infants and Young Children

Key point: These recommendations outline a systematic approach to diagnosis and management that minimizes harm, maximizes benefit, and optimizes use of labs and procedures.

Citation: Subcommittee on Urinary Tract Infection. Urinary tract infection: clinical practice guideline for the diagnosis and management of the initial UTI in febrile infants and children 2 to 24 months. *Pediatrics*. [Epub ahead of print.]

Diagnosis and management of urinary tract infection (UTI) in febrile infants are challenging for several reasons: Obtaining a sterile urine sample requires either inserting a urethral catheter or performing a suprapubic aspirate, both the route and duration of antibiotics are not standardized, and follow-up evaluation often includes voiding cystourethrography (VCUG) that involves irradiation of the pelvis. The American Academy of Pediatrics Subcommittee on UTI extensively reviewed studies published during the past 10 years on UTI in young children and developed sensible, updated, evidence-based guidelines to direct practitioners in the diagnosis and management of febrile UTI in children aged 2 to 24 months. The seven key action statements are as follows:

Diagnosis

1. If a febrile patient with no known source of fever is deemed ill enough to require immediate antibiotic therapy, obtain urine culture by either catheterization or suprapubic aspiration before initiating treatment.
2. Assess the likelihood of UTI. Risk factors for UTI are female sex, not being circumcised, no other source of fever, and fever ≥39°C. Additional risk factors in girls are white race, age <12 months, and fever for >2 days. Additional risk factors in boys are nonblack race and fever for ≥24 hours.
   - Low-risk patients can be followed clinically without urine evaluation.
   - In patients who are not low risk, obtain a urine culture by either catheterization or suprapubic aspiration for urinalysis and culture, or obtain a urine specimen for urinalysis followed by culture if positive.
3. Establish UTI diagnosis. Diagnosis requires both abnormal urinalysis (pyuria, bacteriuria, or both) and urine culture with >50,000 CFU/mL of a urinary pathogen.

Management

4. Oral therapy and parenteral therapy are both efficacious, and decisions should be based on practical considerations (eg, the patient's ability to take oral medication). Adjust antibiotics according to sensitivity patterns. Minimal duration of therapy is 7 days. No differences in efficacy have been documented among 7-, 10-, and 14-day regimens.
5. Evaluation after a first febrile UTI should include renal and bladder ultrasound. Increasing evidence indicates that antibiotic prophylaxis for low-grade reflux does not improve outcomes. Therefore, routine VCUG is not recommended after a first UTI.
6. VCUG should be performed in patients with a first UTI *only* if ultrasound suggests high-grade vesicoureteral reflux. VCUG is indicated for recurrent febrile UTI.

7. Following a confirmation of UTI, physicians should instruct parents to seek prompt care for future unexplained febrile illness.

Published in *J Watch Pediatr and Adolesc Med.* September 21, 2011—Peggy Sue Weintrub, MD. ■

Infectious Diseases Groups Issue First Guidelines on Managing Pediatric CAP

Key point: The guidelines comprise 92 specific recommendations on prevention, testing, and treatment.

Citation: Bradley JS, Byington CK, Shah SS, et al. The management of community-acquired pneumonia in infants and children older than 3 months of age: clinical practice guidelines by the Pediatric Infectious Diseases Society and the Infectious Diseases Society of America. *Clin Infect Dis.* 2011. Available at: *http://cid.oxfVoordjournals.org/content/early/2011/08/30/cid.cir531.full*.

The Pediatric Infectious Diseases Society and the Infectious Diseases Society of America have published a comprehensive guideline for the diagnosis, treatment, and management of community-acquired pneumonia (CAP) in otherwise healthy infants and children older than 3 months. The evidenced-based guideline includes detailed recommendations for every aspect of care and explanations for each recommendation. Some notable features are as follows:

Hospitalization
Children who are likely to require hospitalization include those with oxygen saturation <90% or community-acquired methicillin-resistant *Staphylococcus aureus* (MRSA), those who are unable to be followed or to comply with therapy, and those between ages 3 and 6 months.

Testing for respiratory viruses
Children with CAP should be tested for respiratory viruses, particularly influenza. A positive result can decrease antibiotic use and hasten treatment of influenza.

Diagnostic tests in outpatients
Children who are well enough to be managed as outpatients do not require chest x-rays or complete blood cell count; fully immunized children do not require blood cultures.

Treatment in outpatients
Many preschool-age children have viral disease and can be supported without antibiotics. When bacterial disease is suspected, amoxicillin remains the mainstay of therapy. A macrolide can be added when infection caused by an atypical pathogen is suspected.

Treatment in hospitalized patients
Treatment options can range from amoxicillin or penicillin to vancomycin (or clindamycin) and ceftriaxone depending on such factors as suspicion for various pathogens, knowledge of local susceptibility patterns, and concern for MRSA.

Duration of antibiotic therapy
Duration can range from 7 to 10 days for outpatients and patients who respond well to antibiotics. Duration is longer (often 2 to 4 weeks) for patients with MRSA or complicated CAP. Change from intravenous to oral medications when patients can tolerate them.

Management of complicated CAP
The guideline offers suggestions for managing CAP with effusions, loculations, and abscess formation. Surgical consultation is useful for making management decisions in complicated cases.

Follow-up chest x-rays
Routine follow-up x-rays are *not* indicated for children with clinical resolution without complications.

Published in *J Watch Pediatr and Adolesc Med.* September 28, 2011—Peggy Sue Weintrub, MD. ■

Influenza Vaccination in the US, 2011–2012

Key point: The CDC recently released its recommendations for use of this year's vaccine.

Citation: Centers for Disease Control and Prevention (CDC). Prevention and control of influenza with vaccines: recommendations of the Advisory Committee on Immunization Practices (ACIP), 2011. *MMWR Morb Mortal Wkly Rep.* 2011;60(33):1128-1132.

On August 18, the CDC released guidance for use of influenza vaccines for the 2011–2012 influenza season, based on recommendations from the Advisory Committee on Immunization Practices. Vaccination of all individuals in the US aged ≥6 months continues to be recommended. The vaccine virus strains are the same as those for the 2010–2011 season. Nonetheless, for optimal protection against influenza, annual immunization is recommended—even for persons who received the vaccine last year. ■

FDA warns of abnormal heart rhythms with Zofran

Key point: Important warning.

Citation: US Food and Drug Administration (FDA). Zofran (ondansetron): Drug Safety Communication—Risk of Abnormal Heart Rhythms. FDA website. Available at: http://www.fda.gov/Safety/MedWatch/SafetyInformation/Safety

AlertsforHumanMedicalProducts/ucm272041.htm. Accessed October 7, 2011.

The anti-nausea drug ondansetron (marketed as Zofran and in generic forms) should not be used in patients with congenital long QT syndrome, as they are at particular risk for developing torsade de pointes while taking the drug.

Also at increased risk are patients with congestive heart failure or bradyarrhythmias, those predisposed to low potassium and magnesium levels, and those taking other drugs that can lead to QT prolongation. Accordingly, ECG monitoring is now recommended for such patients using ondansetron.

The drug's label is being revised to include this new information. (The label had previously noted the potential for QT prolongation.) The FDA asks clinicians to report incidents to its Adverse Event Reporting Program. ■

Vaccine Protection Against Pertussis May Wane Sooner Than Thought

Key point: There was a recently widely reported study suggesting that the pertussis vaccine loses its effectiveness as early as 3 years after the last shot of the five-dose series

Citation: Study: Whooping cough vaccination fades in 3 years. Boston.com. Available at: *http://articles.boston.com/ 2011-09-19/lifestyle/30176444_1_whooping-cough-booster-shot highly-contagious-bacterial-disease. Accessed October 7, 2011.*

A study, presented at the American Society for Microbiology conference in Chicago, studied some 15,000 children in California, including 132 who developed pertussis in 2010. They found that the risk for pertussis was up to 20-fold higher in children who'd received their last dose of vaccine at least 3 years previously compared with those who'd been vaccinated more recently. Children aged 8 to 12 years were at greatest risk. (The last of the 5 shots is usually given between ages 4 and 6, with a booster dose around age 11 or 12).

More than four-fifths of infected children had been vaccinated fully.

CDC officials acknowledged that the vaccine's protection declines, but they said the agency's own studies show the drop-off is not as pronounced as that observed here. ■

Lab Testing Isn't Helpful in Patients with Chronic Urticaria

Key point: Among 350 patients, 17% of test results were outside the normal range, but only 1.6% led to further evaluation, and only one patient benefited

Tarbox JA, Gutta RC, Radojicic C, Lang DM. Utility of routine laboratory testing in management of chronic urticaria/angioedema. *Ann Allergy Asthma Immunol*. 2011;107(3):239-243.

Even with extensive testing, a cause for chronic urticaria (CU) rarely is established. Although not evidence-based, US practice parameters from 2000 recommend complete blood count (CBC), urinalysis, liver function tests, erythrocyte sedimentation rate (ESR), and thyroid-stimulating hormone (TSH) measurement (*Ann Allergy Asthma Immunol* 2000;85:521). European guidelines recommend only CBC and ESR (*Br J Dermatol* 2001;144:708). Cleveland Clinic researchers conducted a retrospective review of 356 patients (69% women) with CU at their allergy clinic.

Patients underwent a median of six tests (total, 1872), and 17% of studies were abnormal. The most commonly ordered tests were TSH (performed in 74% of patients), CBC (73%), comprehensive or basic metabolic panels (71%), ESR (60%), anti-thyroid antibodies (50%), urinalysis (39%), and antinuclear antibodies (37%); 1.6% of abnormal tests results led to further work-ups, including specialist consultation or additional laboratory testing. Only one patient seemed to benefit from such testing: Her thyroxine dose was increased based on a high TSH result, and her urticaria resolved.

Published in J Watch Gen Med. September 29, 2011—David J. Amrol, MD. ■

Low Back Pain: Tailoring Patients' Treatment Improves Outcomes, Saves Money

Key point: When it comes to managing back pain, assessing patients' risk for persistent disability and tailoring treatment according to that risk improves symptoms and lowers costs

Citation: Hill JC, Whitehurst DGT, Lewis M, et al. Comparison of stratified primary care management for low back pain with current best practice (STarT Back): a randomised controlled trial. *Lancet*. [Epub ahead of print.]

Some 850 UK adults with low back pain completed a 9-item screening questionnaire and then were classified as being at low, medium, or high risk for ongoing disability. In the intervention group, care was tailored to patients' level of risk: low-risk patients had only a baseline clinic visit, medium-risk patients were referred for physiotherapy, and high-risk patients were referred for physiotherapy plus counseling to overcome psychosocial barriers to recovery. In the control group, clinicians were blinded to patients' risk classification and made referrals according to their own judgment.

At 12 months, both disability scores and costs were lower in the intervention group than in the control group.

A commentator calls the results "very promising" but acknowledges that there will be challenges to implementing the approach. ■