ABSTRACTS IN URGENT CARE

- Aging and risk of heart disease
- Otorrhea from tympanostomy tubes
- Atopic dematitis guidelines
- Antibiotics for pediatric pneumonia
- Bleach solution for staph
- Stethoscopes and infection control

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Each Month the Urgent Care College of Physicians (UCCOP) provides a handful of abstracts from or related to urgent care practices or practitioners. Sean McNeeley, MD, leads this effort.

Signs of aging and risk of heart disease

Key point: Some outward signs of aging may correlate with increased risk of heart disease including MI.

Citation: Christoffersen M, Frikke-Schmidt R, Schnohr P, et al. Visible age-related signs and risk of ischemic heart disease in the general population: A prospective cohort study. *Circulation*. 2014;4l128(9):990-998.

Investigators in Denmark in this 35-year prospective trial attempted to see if outward signs of aging (frontoparietal baldness, crown top baldness, earlobe crease, xanthelasmata, grey hair and wrinkles) were able to predict ischemic heart disease (IHD) independent of age and risk factors. The investigators followed 10,855 patients aged 20 to 80 from 1976-78 to 2011.Patients received a questionnaire, exam, and blood tests and were followed for IHD, myocardial infarction (MI), and death. Risk factors including age, cholesterol and triglyceride levels, body mass index, hypertension, diabetes, and smoking were among the factors that were eliminated statistically.

The authors concluded that signs of aging including male pattern baldness, earlobe crease, and xanthelasmata increase the risk of IHD, MI, and death. The more signs of aging present the greater the risk of IHD. From an urgent care perspective, none of these factors are likely to change treatment, but they may be another piece of the puzzle. Also, the population studied in this article was exclusively Western European, so the results may not apply to all patients. ■

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Treating otorrhea from tympanostomy tubes

Key point: A combination of antibiotics and steroids proved best at clearing otitis media in patients with tympanostomy tubes.

Citation: van Dongen TM, van der Heijden GJ, Venekamp RP, et al. A trial of treatment for acute otorrhea in children with tympanostomy tubes. *N Engl J Med*. 2014;370(8):723-733.

Investigators in this small study attempted to find the best method to treat patients with otorrhea from tympanostomy tubes. A total of 230 children aged 1 to 10 years were treated with either hydrocortisone–bacitracin–colistin eardrops, amoxicillin–clavulanate suspension or observation. End points included presence of otorrhea at 2 weeks as well as duration of symptoms, recurrence over 6 months, quality of life, and complications. Ear drops performed best at 2 weeks with 5% still present at 2 weeks, compared with 44% for oral antibiotics and 55% for observation. Other end points were similar except duration, which was 12 days for observation and 4 and 5 days for topical and oral treatments, respectively. The authors concluded that drops were most effective. It should be noted the drops used are not FDA-approved for this purpose. A combination of ciprofloxin and dexamethasone is available. ■

New guidelines for atopic dermatitis

Key point: Atopic dermatitis is a clinical diagnosis based on history, location, and morphology.

Citation: Eichenfield LF, Tom WL, Chamlin SL, et al. Guidelines of care for the management of atopic dermatitis: section 1. Diagnosis and assessment of atopic dermatitis. *J Am Acad Dermatol*. 2014;70(2):338-351.

The American Academy of Dermatology has released new

guidelines for the diagnosis of atopic dermatitis (AD). This disease afflicts 25% of children and 2% to 3% of adults. The current article discusses diagnosis and assessment of the disease process. This guideline replaces the previous guideline from 2004. The Strength of Recommendation

Taxonomy (SORT) was used to classify evidence in this article. The authors discuss several diagnostic criteria, which they found to be difficult to use clinically. They do create a modified criteria but it has yet to be studied prospectively. Their SORT level for the criteria is C, III. Currently available tests such as IgE and eosinophil counts are not sufficiently sensitive or specific for disease diagnosis. (SORT B,II) From an urgent care perspective, this is all that will likely apply from section 1. However, it should give acute care providers more comfort to diagnose AD without specific labs. ■

Duration of antibiotics for pediatric pneumonia

Key point: Five days of antibiotics for pediatric pneumonia may be as effective as 10 days.

Citation: Greenberg D, Givon-Lavi N, Sadaka Y, et al. Short-course antibiotic treatment for community-acquired alveolar pneumonia in ambulatory children: A double-blind, randomized, placebo-controlled trial. *Pediatr Infect Dis J*. 2014;33(2):136-142.

Most providers will treat community-acquired pneumonia with 10 days of antibiotics. Anyone who has tried to give a child an antibiotic knows that the shorter the course the better the compliance. Investigators in Israel attempted to see if a 3- or 5-day course of antibiotics was equivalent to a 10-day course.

This study was a randomized double-blind placebo-controlled trial with two arms (3 day vs. 10 day and 5 days vs. 10 days). The study included children under 5 in an area mostly served by one hospital. Investigators used amoxicillin 80 mg/kg divided into 3 doses. Of interest the pneumonia vaccine was not available in this area. Pneumonia was defined by presence on a chest x-ray, fever, and elevated white blood cell (WBC) count. The primary outcome was absence of treatment failure in 30 days. Secondary outcomes included temperature, difficulty breathing, restlessness, coughing, loss of appetite, and sleep disturbances assessed daily by the parents and laboratory tests including complete WBC counts and c-reactive protein at days 5 to 7 and 10 to 14. The 3-day arm was stopped due to failures, which also led to the second (5-day) arm. A total of 140 children were enrolled, although in a complicated manner because of the treatment failures in the first arm of the study. The only treatment failures were in the 3-day arm. This study is a good start in comparing treatment duration, but the sample size is likely too small to justify changes in current treatment. It is hoped that a larger study will be able to replicate these results. ■

Bleach solution for staph

Key point: Dilute bleach solution bath may reduce recurrence of staph infections but the difference may not be clinically significant in children.

Citation: Kaplan SL, Forbes A, Hammerman WA, et al. Randomized trial of "bleach baths" plus routine hygienic measures vs routine hygienic measures alone for prevention of recurrent infections. *Clin Infect Dis*. 2014;58(5):679-682.

Most acute care providers have seen patients frustrated with recurrence of soft tissue infections. The investigators in this article attempted to see if dilute bleach baths would work for this problem. In this randomized single-blind, controlled trial, the authors attempted to compare routine hygiene and "bleach baths" for 3 months in 987 children between 3 months and 18 years with a previously suspected community-acquired methicillin-resistant *Staphylococcus aureus* (ca-mrsa) infection. Patients were followed for a year for recurrence that needed medical care. No statistical difference was noted between the groups (bleach 17%, just hygiene 20.9%). The authors concluded that their study was limited in power due to its small size. From an acute care perspective, the small and statistically insignificant difference may not be worth the risk of error with use of bleach baths. ■

Stethoscopes and infection control

Key point: Consider cleaning your stethoscope between patients to avoid transferring infection.

Citation: Longtin Y, Schneider A, Tschopp C, et al. Contamination of stethoscopes and physicians' hands after a physical examination. *Mayo Clin Proc*. 2014;89(3):291-299.

Swiss investigators attempted to compare the total level of bacteria and the level of Methicillin-Resistant *Staphylococcus Aureus* (MRSA) on physician's dominant hands and stethoscopes after a standard physical exam of 81 patients at a teaching hospital. Fingertips, thenar eminence, hypothenar eminence, hand dorsum, stethoscope diaphragm and tube were the sites sampled. When considering total bacteria, the physician's fingertips were by far the most contaminated, followed by the stethoscope bell. Evaluating for MRSA, the stethoscope bell was similar to a physician's fingertips. Although this is a small study in a limited environment, it should provoke some thought about cleaning the stethoscope bell between patients. ■

CORRECTION

One of the abstracts in the Abstracts in Urgent Care department in the April issue contained two errors. The headline and key point for the otitis study on page 33 should have mentioned otitis externa, *not otitis* media. *We regret the errors.*