ABSTRACTS IN URGENT CARE

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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.

When Accuracy Is a Must, Go for Central Thermometers

Key point: Peripheral thermometers are not nearly as accurate as central thermometers.

Citation: Niven DJ, Gaudet JE, Laupland KB, et al. Accuracy of peripheral thermometers for estimating temperature: a systematic review and meta-analysis. *Ann Intern Med*. 2015; 163:768–777.

Temperature measurement is performed at most visits to urgent care centers. Although the data are not always important in clinical decision-making, sometimes they are at the center of treatment decisions. This study, using pooled data from 75 studies (42 studies of adults, 32 studies of children, 1 study of both), assessed the accuracy of peripheral temperature (oral, temporal, tympanic, and axillary) readings versus central temperature (rectal, esophageal, urinary bladder, and pulmonary artery) readings, focusing on the limits of agreement of these measures. Initial findings showed concordance between central measures. For peripheral methods, temperatures detected in the febrile and hypothermic range were as far off as 1 or 2 degrees. The authors concluded that peripheral thermometers are not accurate enough to make important clinical decisions. From the urgent care perspective, this raises several questions. It is obviously impractical to get rectal or bladder temperatures for every patient. However, perhaps in those such as the very young or immunocompromised, using other methods to obtain temperature readings may be necessary if the result changes the indications for therapy. ■

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Inhaled Steroids Increase the Risk of Pneumonia

Key point: Think twice about prescribing inhaled steroids.

Citation: Suissa S, Coulombe J, Ernst P. Discontinuation of inhaled corticosteroids in COPD and the risk reduction of pneumonia. *Chest*. 2015;148:1177–1183.

Inhaled corticosteroids are a frequent treatment for chronic obstructive pulmonary disease. However, concerns about an increased risk of pneumonia with use of these inhalers have been documented. This study attempted to determine whether stopping these medications reduced the risk of serious pneumonia. The data for the study were obtained from the Québec

Health Insurance database for more than 100,000 patients new to the use of inhaled steroids. Discontinuation of steroids, particularly fluticasone, was noted to decrease the risk of serious pneumonia by 37%. Considering that 14,000 patients had a pneumonia event, this finding was significant. It is unlikely that urgent care providers will stop prescribing these medications, because they are beneficial, but we must remain aware of the risk of pneumonia that they also present. ■

Azithromycin May Cut Risk of Lower Respiratory Infection in Young Children

Key point: Early use azithromycin may help prevent lower respiratory infection in some children at high risk of such illness.

Citation: Bacharier LB, Guilbert TW, Mauger DT, et al; National Heart, Lung, and Blood Institute's AsthmaNet. Early administration of azithromycin and prevention of severe lower respiratory tract illnesses in preschool children with a history of such illnesses. *JAMA*. 2015;314:2034–2044.

Some preschool children have recurrent lower respiratory tract infections (LRTIs). Although many of these are viral infections, some are bacterial. This study attempted to discover whether early treatment with antibiotics could reduce the progression to more serious disease. This study, which was randomized, double-blinded, and placebo-controlled, took place at nine academic medical centers in the United States between April 2011 and December 2014. Over 600 patients between the ages of 12 and 71 months participated, receiving either 12 mg/kg of azithromycin for 5 days or a placebo when illness occurred. Azithromycin did reduce the occurrence of severe LRTIs. The number needed to treat to prevent LRTIs decreased on the basis of the number of LRTIs treated per patient, varying from 33 for one LRTI to 7 for four LRTIs. From the perspective of the urgent care provider, these findings are early and the subject needs further study, but they are another part of the puzzle. The number needed to treat was surprisingly small for multiple treated infections. ■

Aging Makes It Harder to Recover from Upper Respiratory Infections

Key point: Upper respiratory infections are harder on patients older than 60 years than on younger patients.

Citation: Gorse GJ, Donovan MM, Patel GB, et al. Coronavirus and other respiratory illnesses comparing older with young adults. *Am J Med*. 2015;128:1251.e11–11251.e20.

Upper respiratory infections are a common diagnosis in urgent care patients. A 2-year study of 100 adults older than age 60 years with heart or lung disease compared them with 101 younger, healthier patients, using illness diaries and virus tests. As expected, illnesses were more common in quarter 4 through quarter 2 of each year. Dyspnea was more common in the older adults, and severity was rated as worse in that group on two scores. Symptoms were also present longer in older adults than in younger adults. Although these findings are not surprising, they show that older patients experience a larger burden from viral illnesses than younger patients do. Of interest is the finding that the older patients also received more steroids and antibiotics. Further studies may help determine whether such prescriptions are necessary. ■

Neisseria Gonorrhoeae Shows Increasing Resistance to Cefixime

Key point: Cefixime may be a poor choice for treatment in some populations.

Citation: Kirkcaldy RD, Hook EW, Olesegun OS, et al. Trends in *Neisseria gonorrhoeae* susceptibility to cephalosporins in the United States, 2006–2014. *JAMA*. 2015;314:1869–1871.

This report describes new trends in resistance patterns of *Neisseria gonorrhoeae* in relationship to cefixime, determined from the study of a large sample volume (51,144) representing data collected by the U.S. Centers for Disease Control and Prevention. With the study population originating from 31 cities, cefixime resistance varied from 0.2% to 4%. Much greater resistance was found in men who had sex with other men. From an urgent care perspective, continued use of intramuscular ceftriaxone combined with oral azithromycin appears to be the best treatment, particularly for certain populations. ■

New Thinking on Diverticulitis Treatment Merits Review by Urgent Care Providers

Key point: Health-care providers should review the new guidelines on diverticulitis.

Citation: Strate LL, Peery AF, Neumann I. American Gastroenterological Association Institute technical review on the management of acute diverticulitis. *Gastroenterology*. 2015; 149:1950–1976.

The new guidelines from the American Gastroenterological Association Institute provide evidence-based answers for 11 clinical questions. Of those, the following are relevant to the urgent care setting:

- Are antibiotics needed in acute uncomplicated diverticulitis?
- Should a high-fiber diet be advised?
- Should avoidance of corn, popcorn, and nuts be advised?
- Should aspirin be avoided?
- Should nonaspirin nonsteroidal anti-inflammatory drugs be avoided?
- Should probiotics be advised?
- Should exercise be advised?

Unfortunately the answers to these questions are complex

and too long to discuss here. In addition, most answers are not firm, but the information behind them is valuable, so clinicians should review the new guidelines carefully.

Bacteriuria: In Most Cases, If There Are No Symptoms, There Should Be No Treatment

Key point: Treatment of asymptomatic bacteriuria may be harmful.

Citation: Cai T, Nesi G, Mazzoli S, et al. Asymptomatic bacteriuria treatment is associated with a higher prevalence of antibiotic resistant strains in women with urinary tract infections. *Clin Infect Dis*. 2015;61:1655–1661.

Recurrent urinary tract infections are common in women. This article reports on a study of the possible consequences of treating women with recurrent urinary tract infections and asymptomatic bacteriuria. Researchers assigned 550 patients into two groups: those who were treated with antibiotics, and those who were not, and then compared samples from the groups for resistance patterns. The infection recurrence rate for the treated group was 69.6%, versus 37.7% for the untreated group, findings that are somewhat counterintuitive but are likely explained by the resistance patterns noted. Isolated *Escherichia coli* from the treated group showed higher resistance to amoxicillin-clavulanic acid, trimethoprim-sulfamethoxazole, and ciprofloxacin than did *E. coli* from the untreated group. For the acute-care provider, these findings reinforce the importance of treating only symptomatic disease in most patients. However, pregnant patients might not belong to this group. ■

Evidence Increases That Influenza Vaccines Are Safe in Pregnant Women

Key point: Researchers find more evidence of the safety of influenza vaccine in pregnant women.

Citation: Ludvigsson JF, Ström P, Lundholm C, et al. Maternal vaccination against H1N1 influenza and offspring mortality: population based cohort study and sibling design. *BMJ*. 2015;351:h5585.

A study from Sweden of 41,183 pregnant patients exposed to influenza vaccine A(H1N1)pdm09 (Pandemrix) at any stage of pregnancy compared their birth statistics and mortality with those for a cohort of 234,317 unvaccinated patients. The researchers found a nonsignificant reduction in neonatal mortality in the vaccinated women. Although this finding may not exactly line up with results found for the vaccine given at U.S. centers, it does add to the evidence pool regarding risk of fetal mortality with influenza vaccination. ■

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