

ABSTRACTS IN URGENT CARE

- Inhaled Steroids Do Not Reduce Growth in Children with Asthma
- Don't Just Sit There All Day—Get Up and Move Often
- E-cigarettes Are Unsafe for Adolescents
- Diverticulitis Is More Common Than Once Thought, Especially in Younger Patients
- Lyme Disease Is Spreading to the U.S. Southeast

- Self-Collection of Samples Eases
 Women's Anxiety in Testing for Sexually
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- Clarithromycin May Not Be the Best Choice, Because of Increased Cardiovascular Risks

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ach 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.

Inhaled Steroids Do Not Reduce Growth in Children with Asthma

Key point: Inhaled steroids did not reduce growth velocity in a 1-year study.

Citation: Wardenier NR, Klok T, de Groot EP, Brand PL. Height growth in children with asthma treated with guidelinerecommended dosages of fluticasone and electronically assessed adherence. *Arch Dis Child*. 2015 December 7. doi: 10.1136/archdischild-2015-309654.

Adherence to therapy is important for children with asthma. Many factors, including fear of adverse effects, influence adherence. It has been postulated that the growth reduction seen only for the first year goes away because of decreased adherence rather than because of adjustment to the medication. This study looked at 99 children with asthma who took inhaled fluticasone over 1 year, for a minimum of 3 months, to see if adherence was related to reduction of growth. Adherence was monitored by electronic devices. The relationship between cumulative fluticasone dose and height growth velocity over



Sean M. McNeeley, MD, is an urgent care practitioner and Network Medical Director at University Hospitals of Cleveland, home of the first fellowship in urgent care medicine. Dr. McNeeley is a board member of UCAOA, UCCOP, and the Board of Certification in Urgent Care Medicine. He also sits on the *JUCM* editorial board. 1 year was analyzed. Mean adherence was 84%. Significant growth velocity reduction was not noted. For the urgent care provider, this is one more piece of information to relay when attempting to ensure adherence to medication therapy for asthma in children. However, this was a small study, so further research to confirm these results would be helpful.

Don't Just Sit There All Day—Get Up and Move Often

Key point: Get up and move.

Citation: Henson J, Davies MJ, Bodicoat DH, et al. Breaking up prolonged sitting with standing or walking attenuates the postprandial metabolic response in postmenopausal women: a randomized acute study. *Diabetes Care*. 2016;39:130–138.

Several recent studies have shown that just getting moving has a positive effect on metabolism. This small study of 22 postmenopausal obese women at risk for type 2 diabetes attempted to determine whether short periods (5 minutes) of standing or walking had an effect on glucose or triglyceride levels in comparison with prolonged sitting. Patients participated in all three types of behavior: prolonged sitting (7.5 hours); sitting for 7.5 hours, broken up by standing for 5 minutes every 30 minutes; and sitting for 7.5 hours, broken up by light walking for 5 minutes every 30 minutes. The participants' diet was controlled. Postprandial glucose levels were reduced in both the standing and light-walking groups. This is a good reminder for both urgent care providers and their patients that standing or walking even for short periods will improve glucose control.

E-cigarettes Are Unsafe for Adolescents

Key point: Electronic cigarettes have adverse effects on adolescents.

Citation: Wang MP, Ho SY, Leung LT, Lam TH, et al. Electronic cigarette use and respiratory symptoms in Chinese adolescents in Hong Kong. *JAMA Pediatr.* 2016;170:89–91.

Although electronic cigarettes (e-cigarettes) may have fewer chemicals than traditional cigarettes do, there still are risks involved. This study anonymously surveyed 45,128 students in sixth and seventh grades regarding use of e-cigarettes and respiratory symptoms such as cough and phlegm production. Status as a previous or current smoker was also surveyed. All types of users (nonsmokers, current smokers, past smokers) of e-cigarettes showed significantly more respiratory symptoms. The odds ratio was as high as 2 for never-smokers and 1.28 for all. Although these findings are nonspecific, they are good information to pass to all adolescents who think e-cigarettes are safe. Good times for urgent care providers to mention this information are during visits to treat upper respiratory infections and visits for sports physical examinations.

Diverticulitis Is More Common Than Once Thought, Especially in Younger Patients

Key point: Keep a lookout for diverticulitis. Citation: Bharucha AE, Parthasarathy G, Ditah I, et al. Temporal trends in the incidence and natural history of diverticulitis: a population-based study. *Am J Gastroenterol*. 2015;110:1589–1596.

Diverticulitis shows up at urgent care centers particularly early in the course of the disease. Most data on the occurrence of diverticulitis are hospital-based and, per the study's authors, greatly underestimate the actual incidence of diverticulitis because most patients with it are treated as outpatients. This study was a retrospective review of diverticulitis diagnoses from 1980 to 2007. Results showed a 50% increase in diverticulitis since 2000. The disease is now being diagnosed more often in younger patients, but with more recurrences of milder disease. The authors also questioned the number of surgeries after complicated diverticulitis bouts because the rates of recurrence and severe bouts were not significantly increased by a severe occurrence. The applicability of these findings is limited because the study was from a single area, but its size and scope were large. For the urgent care provider, these findings should cause more careful consideration of the diagnosis in younger patients with mild but consistent symptoms and perhaps questioning whether options such as surgery after severe disease should be recommended.

Lyme Disease Is Spreading to the U.S. Southeast

Key point: Could it be Lyme disease?

Citation: Lantos PM, Nigrovic LE, Auwaerter PG, et al. Geographic expansion of Lyme disease in the southeastern United States, 2000–2014. *Open Forum Infect Dis*. 2015;2: ofv143. doi: 10.1093/ofid/ofv143.

Lyme disease is a significant cause of tick-borne disease, especially in the northeastern United States. In the past, the majority of cases of Lyme disease were found from northern Virginia and up to the New England states. This study's authors reviewed cases of Lyme disease in Virginia and North Carolina and found a significant spread of Lyme disease in Virginia, particularly since 2007, with appearances also being noted in southern Virginia in the mountain areas. Although North Carolina did not have a significant disease presence, the current changes are concerning for spread to this area. The authors do note that the disease process itself is under-reported by as much as 90%, and thus tracking cases can be difficult. Particularly for urgent care providers in the Northeast, Minnesota, and Wisconsin, it makes sense to maintain a high index of suspicion for this disease. Also, it is important to keep in mind that these areas are frequent vacation destinations in the summer, so patients who travel to these areas may present with symptoms on their return. [Editor's note: For more on tick-borne diseases, see the article "Urgent Care Diagnosis and Management of Tick-Borne Diseases" in our January 2016 issue, at www.jucm.com/urgent-care-diagnosis-andmanagement-of-tick-borne-diseases/.]

Self-Collection of Samples Eases Women's Anxiety in Testing for Sexually Transmitted Infections

Key point: Here is another method for diagnosing sexually transmitted infections.

Citation: Arias M, Jang D, Gilchrist J, et al. Ease, comfort, and performance of the HerSwab vaginal self-sampling device for the detection of *Chlamydia trachomatis* and *Neisseria* gonorrhoeae. Sex Transm Dis. 2016;43:125–129.

One of the greatest challenges of diagnosis and then treatment of sexually transmitted infections is patient anxiety about discussing the issue and getting the testing performed. Although there are quick and simple tests for diagnosis especially for women, the tests can be uncomfortable and embarrassing. A total of 189 women participated in this study comparing physician-collected vaginal swabs and swabs that patients self-collected with the HerSwab device. All participants underwent both kinds of sample collection, with test order randomized by computer. For self-collection, women reported an ease of 97.1%, a comfort level of 88.3%, and a

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preference for the method of 80%. Overall agreement was 85% for chlamydia and 98% for gonorrhea, including 7 more patients with positive results in the self-collection part of the study. For the urgent care provider, these findings point to another option for ensuring proper diagnosis and treatment of sexually transmitted infections.

Antibiotics for Upper Respiratory Tract Infections Are Usually Unnecessary

Key point: New guidelines reinforce the need to think twice before prescribing antibiotics for upper respiratory tract infections.

Citation: Harris AM, Hicks LA, Qaseen A; High Value Care Task Force of the American College of Physicians and for the Centers for Disease Control and Prevention. Appropriate antibiotic use for acute respiratory tract infection in adults: advice for high-value care from the American College of Physicians and the Centers for Disease Control and Prevention. *Ann Intern Med.* 2016 January 19. doi: 10.7326/M15-1840. [Epub ahead of print.]

This article from the American College of Physicians and the Centers for Disease Control and Prevention is a narrative literature review of the use of antibiotics for acute upper respiratory infections in adults. The authors used guidelines from professional societies, meta-analyses, systematic reviews, and randomized clinical trials. Best practices are presented, including these:

- No testing or antibiotics should be initiated in bronchitis unless pneumonia is a possibility.
- Treatment for group A streptococcal pharyngitis should be based on the results of a rapid strep test and/or culture.
- Bacterial sinusitis should only be diagnosed and treated after 10 days of symptoms, onset of severe symptoms, or signs that include high fever, facial pain, or purulent drainage or after onset of worsening symptoms after 5 days of diminishing illness.
- No antibiotics should be given for the common cold.

Clarithromycin May Not Be the Best Choice, Because of Increased Cardiovascular Risks

Key point: Patients may be at increased cardiovascular risk when taking clarithromycin.

Citation: Wong AY, Root A, Douglas IJ, et al. Cardiovascular outcomes associated with use of clarithromycin: population based study. *BMJ*. 2016;352:h6926. doi: 10.1136/bmj.h6926.

In this 5-year study in Hong Kong, more than 300,000 adults prescribed clarithromycin were compared with more than 100,000 who were prescribed amoxicillin. During treatment, the risk of myocardial infarction was much greater for those taking clarithromycin than for those taking amoxicillin (44/1000 vs. 19/1000). Unfortunately the clarithromycin cohort was older and more likely to have chronic obstructive pulmonary disease or type 2 diabetes, so the results might not be completely generalizable. For the urgent care provider, this is one more study that questions the risk of antibiotic use. The findings may help guide the choice of antibiotics when these two medications are considered.

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