ABSTRACTS IN URGENT CARE

- The Return of Measles
- Treating *Fusobacterium necrophorum* in Adolescents
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- Does Varicella Zoster Virus Cause Giant Cell Arteritis?
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SEAN M. McNEELEY, MD

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.

The Return of Measles

Key point: Measles is back, so watch for it among your patients.

Citation: Centers for Disease Control and Prevention. Measles (rubeola). Atlanta, GA: Centers for Disease Control and Prevention [updated February 12, 2015; cited February 18, 2015]. Available from: http://www.cdc.gov/measles/hcp/index.html

Unfortunately measles is making a comeback. Most likely because of decisions to delay or avoid immunizations, a measles outbreak began in California in December 2014 and has spread to many other states. No matter your beliefs on the decision to avoid immunization, it is important to consider the possibility of measles in those patients at risk.

Measles is uncommon these days, so a review of the Centers for Disease Control and Prevention (CDC) website is a good idea for all urgent care providers. The following are highlights from the CDC:

- Signs and symptoms include fever as high as 105°F, malaise, cough, coryza, and conjunctivitis, followed by maculopapular rash.
- Koplick spots, which present in the mouth, are pathognomonic.
- The incubation period is 7 to 21 days, and patients are contagious 4 days before and after the rash.
- Of every 1000 patients with measles, 1 to 2 will have life-threatening neurologic or respiratory complications.
- There is no specific treatment, other than observation, for secondary bacterial infections such as otitis media or pneumonia.

From an urgent care perspective, it is wise to consider the possibility of measles and to be aware of its signs and symptoms during an outbreak like this one. ■

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 founding board member of UCCOP and vice chair of the Board of Certification of Urgent Care Medicine. He also sits on the *JUCM* editorial board.

Treating *Fusobacterium necrophorum* in Adolescents

Key point: There is another potential cause of pharyngitis.

Citation: Centor RM, Atkinson TP, Ratliff AE, et al. The clinical presentation of *Fusobacterium*-positive and streptococcal-positive pharyngitis in a university health clinic: a cross-sectional study. *Ann Intern Med*. 2015;162:241–247.

Recent data from Europe have shown that pharyngitis in adolescents may be caused by bacteria other than group A *Streptococcus*, including *Fusobacterium necrophorum*, which is known to be the most common cause of peritonsilar abscess in this age group. It also is the most common cause of Lemierre syndrome, which is more common than rheumatic fever in adolescents and young adults, includes suppurative internal jugular thrombophlebitis, and may infect the lungs, brain, or joints. This study assessed 312 patients with pharyngitis and 180 healthy volunteers between the ages of 15 and 30 years to determine the prevalence of *F. necrophorum* compared with the

prevalence of group A *Streptococcus*, group C and G *Streptococcus*, and mycoplasma. Patients were evaluated by polymerase chain reaction shown on throat swab cultures as well as by Centor score. Results were complex and showed a prevalence of group A *Streptococcus* of 10% in symptomatic patients and 1% in study volunteers. *F. necrophorum* was present in 20% of symptomatic patients as well as in 10% of volunteers. The authors also reported that a Centor score of ≥2 correlated with a 40% risk of one of these bacterial infections, and that a score of 4 correlated with a 70% risk.

Unfortunately *F. necrophorum* does not grow on standard throat cultures, and there is no a commercial test for it available at this time. The study's findings require further confirmation, especially to prove causation. For urgent care providers, the take-home message is that *F. necrophorum* is sensitive to penicillins and first-generation cephalosporins but not to macrolides, tetracyclines, or fluoroquinolones. If you are going to treat a patient of this age, using antibiotics that cover *F. necrophorum* should be a consideration. ■

Giving Epinephrine for Food Allergies Without a Physician's Diagnosis

Key point: Chicago schools now have epinephrine for use in allergic reactions to foods.

Citation: DeSantiago-Cardenas L, Rivkina V, Whyte SA, et al. Emergency epinephrine use for food allergy reactions in Chicago public schools. *Am J Prev Med*. 2015;48:170–173.

This article describes the experience in Chicago public schools with undesignated epinephrine injectors and food-induced allergic reactions. In the past, epinephrine was available to patients only with prior prescriptions on file at the schools, and school staff members were not permitted to use injectors not prescribed for a particular patient even when the patient was known to have an allergy. The new option was used to assist 38 students and staff members. More than half of these cases involved first-time reactions. No negative results were reported. From an urgent care perspective, it is important to determine whether a patient presenting with an allergic reaction has already received epinephrine without a physician's diagnosis. ■

Does Varicella Zoster Virus Cause Giant Cell Arteritis?

Key point: Another problem potentially caused by zoster virus.

Citation: Gilden D, White T, Khmeleva N, et al. Prevalence and distribution of VZV in temporal arteries of patients with giant cell arteritis. *Neurology*. 2015 Feb 18. doi: 10.1212/wnl.0000000000000014. [Epub ahead of print.]

Giant cell arteritis (GCA) is an uncommon but important diagnosis in the acute-care setting. The authors of this study attempted to determine whether the varicella zoster virus (VZV), believed to cause several other syndromes such as Bell palsy, might cause GCA as well. Specimens from patients with biopsy-proven GCA as well as specimens from 13 cadavers of people who died after age 50 years were reviewed to determine the presence of VZV. The authors found that 61 of 82 GCA specimens (74%) contained VZV, whereas only 1 of 13 cadaver specimens of the temporal artery had VZV. Although the authors proposed treating these patients with antivirals, they presented no evidence of any benefit, only speculating that long-term use of steroids may suppress a patient's ability to clear the virus. These findings are very preliminary and do not prove causation. However, urgent care providers should watch for further research that will provide information on potential benefits from antivirals and on appropriate doses. ■

"For urgent care providers, the take-home message is that F. necrophorum *is sensitive to penicillins and first-generation cephalosporins but not to macrolides, tetracyclines, or fluoroquinolones."*

New Pregnancy and Lactation Labeling for Medications

Key point: Federal changes to labels for medications will help physicians with risk-to-benefit assessment when prescribing for pregnant and lactating women.

Citation: Pregnancy and lactation labeling final rule. Silver Spring, MD: U.S. Food and Drug Administration [updated 2014 December 4; cited 2015 February 11]. Available from: http://www.fda.gov/Drugs/DevelopmentApprovalProcess/DevelopmentResources/Labeling/ucm093307.htm

The U.S. Food and Drug Administration (FDA) has published new labeling requirements for medications prescribed to pregnant and lactating. Before this ruling, the FDA used a five-letter system (A, B, C, D, and X) to rate medications according to several parameters. The labeling revisions, which will take effect on June 30, 2015, came about because of feedback provided to the FDA that the letter system was confusing and simplistic. The new labeling will have information for contacting relevant pregnancy drug-exposure registries. A sample of the sections to be used under the new labeling system can be found at http://www.fda.gov/ucm/groups/fdagov-public/documents/image/ucm425205.png. The ruling does not mandate label changes for over-the-counter medications. In the urgent care setting, the new labeling should help make it easier for clinicians to weigh risks and benefits when prescribing for this population of women. ■