



ABSTRACTS IN URGENT CARE

- Changing Patterns of Hep A Transmissions
- Transporting Stroke Patients
- Readmission Rates for Syncope
- Weighing Options for IBS Symptoms
- An Algorithm for Antibiotic Choice in Staph Bacteremia

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Each month the College of Urgent Care Medicine (CUCM) provides a handful of abstracts from or related to urgent care practices or practitioners. Glenn Harnett, MD leads this effort.

From ID Week: Outbreak-Related Hep A Infections Are on the Rise

Key point: Hepatitis A infection may be evolving from common-source exposure to outbreak exposure. Urgent care clinicians can influence this phenomenon by recommending that at-risk adults receive immunization.

Citation: Foster M, Hofmeister M, Yin S, et al. Changing epidemiology of hepatitis A virus infections—United States, 2009–2017. Oral Abstract Session. ID Week 2018. Available at: <https://idsa.confex.com/idsa/2018/webprogram/Paper74176.html>. Accessed October 8, 2018.

Between 2007 and 2017, the incidence of hepatitis A attributed to outbreaks, as opposed to common-source exposure, increased steadily—so much so that by 2017 43% of hep A infections were associated with outbreaks. For context, only 5% were associated with outbreaks between 2007 and 2011. Previously, large community outbreaks were most likely to be associated with asymptomatic children who would pass the virus on to adults, who would then proceed to infect other adults. That dynamic started to change when the Centers for Disease Control and Prevention issued a recommendation that all children receive the hep A vaccine. Given the timing of the CDC recommendation, and the fact that it was specific to children, there is a relatively large population of adults who are not immune to hepatitis A. In a presentation at ID Week, Monique Foster, MD,

of the CDC in Atlanta, noted that high-risk adults (eg, travelers, men who have sex with men, and persons who use illicit drugs) have been slow to get the vaccine. In fact, there is still no universal recommendation that adults be immunized against hepatitis A infection. Foster, et al stressed the importance of “decreasing the susceptible population through adherence to childhood vaccination recommendations and targeted vaccination of recommended at-risk groups” in order to “prevent future hepatitis A outbreaks of any transmission pattern.” ■

Considerations When Transporting Patients with Suspected Acute Ischemic Stroke

Key point: Distance to a facility and that facility’s capability to administer thrombolysis quickly are both essential considerations when transferring patients presenting with suspected acute ischemic stroke.

Citation: Holodinsky JK, Williamson TS, Demchuk AM, et al. Modeling stroke patient transport for all patients with suspected large-vessel occlusion. *JAMA Neurol.* September 4, 2018. [Epub ahead of publication]

When patients present to urgent care with symptoms that could be attributed to acute ischemic stroke, time is of the essence. It may be necessary to weigh the relative merits of transferring the patient to one facility vs another. The authors of this study set out to answer a basic but essential question: In suspected acute ischemic stroke with large-vessel occlusion, should thrombolysis-capable stroke centers be bypassed in favor of direct transfer to endovascular-capable stroke centers? In weighing those options, they determined that the “correct” answer depended on several factors, chief among them the patient’s distance from a location and the speed with which the destina-



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tion would be prepared to provide the right care. “If treatment times are slow at the thrombolysis center, bypass should be considered when the centers are 60 minutes or less apart; with greater transport times between centers, bypass is not always favorable,” they wrote. Using a theoretical, conditional probability model employing existing data from clinical trials of stroke treatment, they determined that travel time from both thrombolysis and endovascular therapy centers; speed of treatment; and positive predictive value of the screening tool affect whether the “drip-and-ship” or “mothership” strategy would effect the best outcomes. Both options could facilitate similar outcomes within the optimal treatment window, which they deemed as follows:

- Door-to-needle time: 30 minutes
- Door-in-door-out time: 50 minutes
- Door-to-groin-puncture time: 60 minutes (mothership) or 30 minutes (drip and ship)

They found that outcomes would be similar if the centers are ≤60 minutes apart. However, at 90–120 minutes apart, drip-and-ship would be favored “if the patient would have to travel past the thrombolysis center to reach the endovascular therapy center or if the patient would arrive outside the alteplase treatment time window in the mothership scenario.” All things considered, the study suggests that decision is context-specific, and that delivery of treatment should be regionally centralized in order to have the greatest chance for positive outcomes. When transferring a patient with symptoms of acute stroke, urgent care providers should alert EMS that they should go to a stroke center for consideration of thrombolysis, and not just to the closest ED. ■

Red Flags for Readmission of Patients with Syncope

Key point: *Vigilance for characteristics common among syncope patients who have been readmitted to the hospital may help urgent care clinicians prevent further rehospitalization.*

Citation: Kadri AN, Abuamsha H, Nusairat L, et al. Characteristics associated with causes and predictors of 30-day readmission in patients with syncope/collapse: a nationwide cohort study. *J Am Heart Assoc.* 2018;7:e009746. Available at: <https://www.ahajournals.org/doi/pdf/10.1161/JAHA.118.009746>. Accessed October 8, 2018.

Syncope accounts for 3% of all emergency room visits and up to 1.5% of hospitalizations in the United States annually. The 30-day readmission rate, however, was 9.3% in this study of 323,250 encounters with a primary diagnosis of syncope/collapse in the 2013–2014 Nationwide Readmissions Database. While the most common cause of readmission was a repeat episode of syncope/collapse, certain other characteristics were more easily identifiable and, therefore, could alert the clinician

that recurrence and readmission may be more likely among some patients. Characteristics most often associated with 30-day readmissions were:

1. Age ≥65 years (odds ratio [OR] 0.7)
2. Female sex (OR 0.9)
3. Congestive heart failure (OR 1.5)
4. Atrial fibrillation/flutter (OR 1.3)
5. Diabetes mellitus (OR 1.2)
6. Coronary artery disease (OR 1.2)
7. Anemia (OR 1.4)
8. Chronic obstructive pulmonary disease (OR 1.4)
9. Sent home with home healthcare disposition (OR 1.5)
10. Leaving against medical advice (OR 1.7)
11. Length of stay 3–5 days (OR 1.5) or >5 days (OR 2)
12. Having private insurance (OR 0.6)

Antidepressants and Psychological Therapies for IBS Symptoms

Key point: *Centrally acting drugs such as antidepressants and psychological therapy can be effective in alleviating symptoms of irritable bowel syndrome.*

Citation: Ford AC, Lacy BE, Harris LA, et al. Effect of antidepressants and psychological therapies in irritable bowel syndrome: an updated systematic review and meta-analysis. *Am J Gastroenterol.* September 3, 2018. [Epub ahead of print]

The authors conducted a meta-analysis of 53 randomized controlled trials comparing antidepressants with placebo (17 studies); psychological therapies vs control therapies or “usual management” (35 studies); and one study that compared both psychological therapy and antidepressants with placebo for management of symptoms of irritable bowel syndrome (IBS). They concluded that antidepressants are efficacious, as is psychological therapy—though results of studies looking into the latter may have overestimated the treatment effects due to limitations in the quality of the evidence. Minimum duration of treatment in either case was 7 days. In patients taking antidepressants to aid in managing symptoms of IBS, tricyclic antidepressants and selective serotonin reuptake inhibitors showed similar results (except for stomach pain, for which SSRIs were not effective). Psychological interventions included cognitive behavioral therapy; hypnotherapy; relaxation training; dynamic psychotherapy; mindfulness meditation; stress management; and emotional awareness training. IBS symptoms failed to improve in 52% of subjects receiving psychological therapies. Directed psychological treatment (eg, cognitive behavioral therapy, relaxation therapy, multicomponent psychotherapy, and hypnotherapy) were more likely to produce symptoms reduction than self-administered methods like mindfulness meditation training. One limitation of the study was that few trials were at higher risk for bias because they could not be blinded. ■

“With antibiotic stewardship being a critical consideration for clinicians, more guidance on appropriate choices...would likely be beneficial in preventing resistance.”

Algorithm-Guided Antibiotic Choices for Staphylococcal Bacteremia

Key point: Treatment of staphylococcal bacteremia guided by algorithm was noninferior to usual care, but did not affect the rate of serious adverse events. Thus, the appropriate duration of antibiotic treatment remains unknown.

Citation: Holland TL, Raad I, Boucher HW, et al for the Staphylococcal Bacteremia Investigators. Effect of algorithm-based therapy vs usual care on clinical success and serious adverse events in patients with staphylococcal bacteremia. *JAMA*. 2018;320(12):1249-1258.

With antibiotic stewardship being a critical consideration for clinicians, more guidance on appropriate choices, including duration of treatment for specific indications, would likely be beneficial in preventing resistance. Researchers conducted a randomized trial that included 509 adults to determine if an algorithm to guide antibiotic choice and duration of treatment could be one such tool. They found that use of the algorithm compared with usual care resulted in a nearly identical clinical success rate (82.0% vs 81.5%, respectively), and only a marginal difference in occurrence of serious adverse events (32.5% vs 28.3%). Subjects were adults with staphylococcal bacteremia at 15 academic medical centers in the United States and one in Spain between April 2011 and March 2017. Patients were followed up for 42 days beyond end of therapy for those with *Staphylococcus aureus* and 28 days for those with coagulase-negative staphylococcal bacteremia. They were randomized to algorithm-based therapy (n=255) or usual practice (n=254). Coprimary outcomes were 1) clinical success, as determined by a blinded adjudication committee and tested for non-inferiority within a 15% margin, and 2) serious adverse event rates in the intention-to-treat population. The prespecified secondary outcome measure, tested for superiority, was antibiotic days among per-protocol patients with simple or uncomplicated bacteremia. Given the very narrow disparity between the groups, the authors concluded that further research is needed to assess the utility of the algorithm. ■



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