



ABSTRACTS IN URGENT CARE

- Sumatriptan Less Effective in Migraine with Aura
- Medication-Induced Ketoacidosis in Type 2 Diabetes
- MRSA Colonization Lasts Longer Than Thought After Treatment
- Trimethoprim-Sulfamethoxazole Versus Vancomycin for Severe MRSA
- Silver Sulfadiazine Slows Healing of Burn Wounds
- Insole Options in Plantar Fasciitis

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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.

Sumatriptan Less Effective in Migraine with Aura

Key point: Migraine with aura might require additional treatment measures.

Citation: Hansen JM, Goadsby PJ, Charles A. Reduced efficacy of sumatriptan in migraine with aura vs without aura. *Neurology*. 2015;84:1880–1885.

This study used pooled data to compare the response of patients with migraines with aura and the response of those with migraines without aura. A total of 3714 patients were compared; 1199 had an aura. Two hours after taking sumatriptan, 32% of the patients without aura were pain free, compared with 24% of those with aura. The authors also looked at treatment with inhaled dihydroergotamine (DHE), which produced less of a gap between groups regarding the percentage of pain-free patients (29% vs 27%). These numbers seem low overall, which might be related to defining the cutoff point for assessing pain as 2 hours. However, urgent care providers should remain aware that it may be necessary to consider additional measures, such as administering a ketorolac injection, for patients with migraine. ■



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Medication-Induced Ketoacidosis in Type 2 Diabetes

Key point: Watch out for ketoacidosis in patients with type 2 diabetes who take SGLT2 inhibitors.

Citation: SGLT2 inhibitors: Drug safety communication—FDA warns medicines may result in a serious condition of too much acid in the blood. Silver Spring, MD: U.S. Food and Drug Administration [updated 2015 May 15; cited 2015 June 6]. Available from: <http://www.fda.gov/Safety/MedWatch/SafetyInformation/SafetyAlertsforHumanMedicalProducts/ucm46994.htm>

Generally *JUCM*'s abstracts section focuses on new research. However, this alert from the U.S. Food and Drug Administration is reported here because it concerns an important risk from new but already commonly used diabetes drugs. Ketoacidosis is generally a worry for patients with type 1 diabetes, but now it appears that sodium-glucose cotransporter-2 (SGLT2) inhibitors such as canagliflozin, dapagliflozin, and empagliflozin increase the risk of ketoacidosis in patients with type 2 disease. These medications lower glucose levels by causing the kidneys to absorb less glucose, but this allows glucose to spill into the urine. Urgent care providers should thus evaluate for ketoacidosis all patients who take these medications and present with nausea, emesis, and/or abdominal pain. ■

MRSA Colonization Lasts Longer Than Thought After Treatment

Key point: Patients remain colonized with methicillin-resistant *Staphylococcus aureus* for a significant period even after treatment.

Citation: Cluzet VC, Gerber JS, Nachamkin I, et al. Duration of colonization and determinants of earlier clearance of colonization with methicillin-resistant *Staphylococcus aureus*. *Clin Infect Dis*. 2015;60:1489–1496.

With the recent increase of infections with methicillin-resistant *Staphylococcus aureus* (MRSA), colonization with *S. aureus* has become a large concern because of the possibility of reinfection and of passing the infection to family members. This study attempted to characterize colonization duration and treatment. A total of 243 patients with MRSA skin and soft-tissue infections were reexamined every 2 weeks for 6 months after treatment. Samples were taken from the nares, axilla, and groin for both patients and household members. The most commonly prescribed antibiotics were trimethoprim-sulfamethoxazole and clindamycin. The median duration of colonization was 21 days, although almost 20% of participants were still colonized at 6 months. Clindamycin did improve clearance compared with other antibiotics. Although this was a small study, its findings point to the need for urgent care providers to consider prescribing clindamycin in appropriate cases and discussing colonization duration with patients. ■

Trimethoprim-Sulfamethoxazole Versus Vancomycin for Severe MRSA

Key point: *Trimethoprim-sulfamethoxazole may not be the best treatment for severe MRSA.*

Citation: Paul M et al. Trimethoprim-sulfamethoxazole versus vancomycin for severe infections caused by methicillin resistant *Staphylococcus aureus*: randomized control trial. *BMJ*. 2015;350:h2219. doi:10.1136/bmj.h2219.

Treatment of methicillin-resistant *Staphylococcus aureus* (MRSA) infections continues to change as antibiotic resistance grows and thus infection incidence increases. Because of concerns about potential resistance to vancomycin and the potential use of high-dose trimethoprim-sulfamethoxazole as a convenient alternative, the researchers conducted a randomized non-inferiority trial. A total of 252 patients with severe MRSA infections, including bacteremia, were randomized to receive either high-dose trimethoprim-sulfamethoxazole twice daily or vancomycin. Treatment continued for at least 7 days. Unfortunately, there were more treatment failures (odds ratio, 2.0) for trimethoprim-sulfamethoxazole than for vancomycin. Severe MRSA is not commonly encountered in the urgent care setting. However, from time to time patients with potential early bacteremia from a MRSA infection (low-grade fever, tachycardia, etc.) may present, and thus urgent care clinicians may want to reconsider administering a single dose of vancomycin to these patients and discharging them with a prescription for trimethoprim-sulfamethoxazole. Also, in view of the findings

of this study, further consideration of antibiotic choice, return-visit interval, or even treatment location may be warranted. ■

Silver Sulfadiazine Slows Healing of Burn Wounds

Key point: *There is additional evidence that silver sulfadiazine may not be the best choice for burns.*

Citation: Rosen J, Landriscina A, Kutner A, et al. Silver sulfadiazine retards wound healing in mice via alterations in cytokine expression. *J Invest Dermatol*. 2015;135:1459–1462.

Many past articles have questioned the use of silver sulfadiazine in burn care. Although the drug was once the treatment of choice, concerns about slower wound healing have made it a second choice for many clinicians. In this study, treatment with silver sulfadiazine 1% was compared with no treatment for mice with induced third-degree (complete-thickness) burns. Untreated wounds healed faster and showed greater collagen deposition. Although this study was not of humans, its findings are consistent with other studies of the same type. Although a deep understanding of wound science may not be applicable to burn treatment in the urgent care setting, this report is a good reminder to consider options other than silver sulfadiazine 1%. It is also one more piece of information to help convince patients who expect the old therapy. ■

Insole Options in Plantar Fasciitis

Key point: *Both flat and total contact insoles seem effective in the treatment of plantar fasciitis.*

Citation: Oliveira HA, Jones A, Moreira E, et al. Effectiveness of total contact insoles in patients with plantar fasciitis. *J Rheumatol*. 2015;42:870–878.

Although plantar fasciitis is a common condition, its treatment still produces frustrating results. In this double-blind, randomized, controlled trial, the benefits of total contact insoles were evaluated for patients with the disorder. The total contact insoles were created with the patient lying on the abdomen and with the knee bent at 90°, to take advantage of gravity for a better fit to the foot shape. In comparison with the control group (37 participants), the group with total contact insoles (37 participants) experienced decreased pain while walking. However, both groups showed decreased pain at rest, decreased foot pain, improved foot function, and improved general foot health, with differences between groups being statistically insignificant. Thus, total contact insoles and flat insoles both produced improvement, making either type a reasonable choice. In the urgent care setting, this might mean that using the less-expensive version can be discussed with patients because in most cases, plantar fasciitis will resolve on its own within about 18 months. ■