



ABSTRACTS IN URGENT CARE

- Why Rush a Stress Test?
- UTI in Children <2 Years of Age
- The Need (or Not) of Cholecystectomy in Biliary Colic
- Here Comes Telemedicine
- Wood's Lamp vs Slit Lamp for Evaluating the Cornea
- Syncope vs Seizure: First, Get the History Right

■ JOSHUA RUSSELL, MD, MSC, FAAEM, FACEP

Rush for Outpatient Stress Test Recommendation (Finally) Examined

Key point: Rapid outpatient stress testing (ie, within 72 hours), which has long been recommended by the American Heart Association, did not decrease the short-term risk of major adverse cardiac events (MACE).

Citation: Natsui S, Sun BC, Shen E, et al. Evaluation of outpatient cardiac stress testing after emergency department encounters for suspected acute coronary syndrome. *Ann Emerg Med.* April 5, 2019. [Epub ahead of print]

The management of low-risk chest pain has been a perpetual source of frustration for acute care clinicians. Concerns for missing ACS/MI (largely for fear of legal repercussions) have driven overly conservative recommendations and practices that have led to increases in spending and complications of unnecessary testing without improving patient outcomes.

One of the largest sources of frustration, in the era of more sensitive troponin testing, is how to coordinate quick outpatient follow-up for provocative testing (eg, exercise treadmill), for patients in an overburdened healthcare system. The issue is even more challenging in urgent care given the fact that many patients choose us because they do not have insurance and/or a primary care provider. However, the AHA has long recommended risk stratification after ACS is ruled out through provocative testing within 72 hours of discharge based on poor quality evidence/expert opinion.

These authors performed a retrospective review of over

24,000 patient visits from 2015-2017 across 13 different EDs in Southern California. Approximately 8,000 of these patients were discharged home with an order for an outpatient stress test. Only 31% of patients were able to complete the stress test successfully within 72 hours, despite being part of an “integrated healthcare system” (ie, Kaiser). Additionally, a full 10% of patients never completed any provocative testing at all.

However, more interestingly, the rates of 30-day MACE were exceedingly low among all patients. No patient who was discharged with low-risk chest pain died and only 0.7% had a non-fatal MI. Keep in mind this was after an entire month following discharge. It seems that, for the lowest-risk chest pain patients, we needn't lose sleep or pull our hair out if we cannot get them rapid outpatient follow-up. An obvious caveat is that this was an ED study and most, if not all, of these patients underwent serum troponin testing prior to discharge, which is still not widely available in urgent care. ■

What's the Disposition for Children with UTI Under 2 Years of Age?

Key point: Children 2–24 months of age with UTI who are well-appearing and tolerating oral medications can safely be treated as outpatients.

Citation: Chaudhari PP, Monuteaux MC, Bachur RG. Management of urinary tract infections in young children: balancing admission with the risk of emergency department revisits. *Acad Pediatr.* 2019;19(2):203-208.

Considerable variation exists in the practice of treating UTI in young children. I recall working with certain attendings during my Emergency Medicine residency training who would admit every child under 2 years who had a UTI regardless of their appearance. Other attendings I trained under would rarely admit a child for UTI unless they had no follow-up or were vomiting.



Joshua Russell, MD, MSc, FAAEM, FACEP practices emergency and urgent care medicine, and manages quality and provider education for Legacy/GoHealth Urgent Care. Follow him on Twitter: @UCPracticeTips.

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So, who was right? I never followed up on the young children we discharged with UTIs, but I have since always had a moment of pause when discharging such patients.

This retrospective study sought to answer the question of whether or not discharging these patients on outpatient oral antibiotics is a safe and reasonable practice. The investigators reviewed over 41,000 ED visits for pediatric patients under 2 years diagnosed with UTI across 36 U.S. hospitals. Overall, these patients were admitted 27% of the time on average; however, the admission rates varied considerably between hospitals (from 6% to 64%).

Overall, the ED revisit rate was (not unexpectedly) higher among discharged patients compared with children admitted for UTI. However, the ED revisits generally did not lead to hospital admission. Of note, the admission rate for neonates (<60 days of age) was, understandably, considerably higher than for older children and, therefore, the data cannot support routine discharge of children <60 days diagnosed with UTI. Certainly it’s worth noting that, across many hospital settings, 89% of children under 2 months with UTI were admitted to the hospital. Therefore, there will likely be no shortage of clinicians pointing a finger at the urgent care clinician who discharges a neonate with UTI if there is a subsequent bad outcome. ■

Does Everyone with Biliary Colic Benefit from Cholecystectomy?

Key point: Using a more restrictive approach to determine who is offered elective cholecystectomy resulted in fewer patients undergoing surgery, with no difference in proportion of patients who were pain free at 1 year. Cholecystectomy seems far from a “cure all” for presumed symptomatic gallstone disease, even with more restrictive patient selection criteria.

Citation: van Dijk AH, Wennmacker SZ, de Reuver PR, et al. Restrictive strategy versus usual care for cholecystectomy in patients with gallstones and abdominal pain (SECURE): a multicentre, randomised, parallel-arm, non-inferiority trial. *Lancet*. 2019;393(10188):2322-2330.

Gallstones are a common incidental finding in patients who are evaluated for abdominal pain. Many of these patients are subsequently offered elective cholecystectomy for presumed biliary colic if the pain continues and no other obvious etiology

for the symptoms is found. However, many patients and clinicians alike are left frustrated in the all-too-common scenario where the patient’s pain remains unchanged despite having the gallbladder removed. Moreover, there is no universal set of criteria defining a group of patients who will clearly benefit from elective cholecystectomy.

Because pain resembling biliary colic is often unsuccessfully treated with cholecystectomy, this group of investigators from the Netherlands performed a multicenter randomized trial across 24 hospitals to examine the differences in outcomes at 1 year between patients who were liberally offered cholecystectomy vs those who were only offered surgery if they met a set of relatively strict criteria. The five criteria for the more restrictive group were: severe pain, pain radiating to the back, pain lasting >15 minutes, epigastric or right upper quadrant pain, and pain relieved by analgesics.

Most significantly, about 40% of patients in both groups were not pain-free at 1 year after cholecystectomy. The restrictive strategy, however, did result in somewhat fewer patients undergoing surgery. Many patients with presumed biliary colic are miserable and, therefore, are understandably hopeful that surgery will result in symptom resolution. Data from this study suggest that whether patients with intermittent upper abdominal pain and gallstones undergo cholecystectomy or not, most will still have some abdominal pain 1 year later. This is helpful for counseling patients about reasonable expectations. ■

Are Patients Ready for Telemedicine to Replace Face-to-Face Visits in Primary Care?

Key point: The vast majority of patients felt that their primary care needs were addressed adequately via video telemedicine visits; however, many still expressed preference for in-person visits.
Citation: Reed ME, Huang J, Parikh R, et al. Patient-provider video telemedicine integrated with clinical care: Patient experiences. *Ann Intern Med*. April 30, 2019. [E-pub ahead of print]

The services provided remotely via telemedicine platforms have expanded rapidly in recent decades. Primary care is among the most enticing arenas for increased integration of telemedical services. This is because, for many types of visits to PCPs (eg, medication adjustments and coordination of care), in-person patient contact is not necessary. Office visits often require patients to miss work and force other inconveniences such as arranging childcare and transportation.

In this survey study, researchers polled approximately 1,200 Kaiser Permanente members from Northern California for their opinions on use of telemedicine for primary care-related issues. Eighty-two percent of the participants completed the scheduled visit. Unsurprisingly, the main motivation for scheduling in-person visits was improved convenience. While over 90% of patients felt that their needs were adequately addressed via

the telephone visit, 41% still expressed a preference for an in-person visit.

This study was a relatively small survey of a fairly affluent population in a closed healthcare network. Patients also had an established relationship with their PCP and were in generally good-to-excellent health. The results may not be generalizable to a more heterogeneous population, but the findings indicate that many (if not most) primary care needs can be handled without a face-to-face interaction. Certainly, visits with a PCP differ from urgent care visits in many ways; however, this study demonstrates that patients are acclimating to the concept of telemedicine. Because of the increased convenience of remote visits, expect to see patients preferentially choosing telemedical services when possible for unscheduled visits for urgent needs.

Wood's Lamp Is a Poor Substitute for the Slit Lamp When Evaluating the Cornea

Key point: Wood's lamp exams had poor sensitivity in identifying a variety of corneal injuries and pathologies compared with slit lamp exams.

Citation: Hooker EA, Faulkner WJ, Kelly LD, Whitford RC. Prospective study of the sensitivity of the Wood's lamp for common eye abnormalities. *Emerg Med J.* 2019;36(3):159-162.

Urgent care centers are a common destination of choice for patients with traumatic and atraumatic eye pain. In such cases, urgent care providers commonly reach for three ingredients: a topical anesthetic, fluorescein, and the Wood's lamp. The Wood's lamp typically uses long-wave UV light and, with the help of fluorescein and 2–3x magnification, allows for improved visualization of corneal irregularities.

In this first-of-its-kind study, the investigators sought to determine the test characteristics of Wood's lamp in identifying various corneal pathologies among 73 ED patients presenting with eye complaints. The slit lamp was used as the gold standard for diagnosis.

The performance of the Wood's lamp was disappointing, to say the least. The authors found that the Wood's lamp had an overall sensitivity of 52% and missed half the cases of corneal ulcer and herpes keratitis—potentially vision-threatening conditions when diagnosis/treatment is delayed. On the other hand, the specificity of the Wood's lamp was found to be 88%–100% for all conditions, suggesting that a positive finding with the Wood's lamp remains clinically meaningful.

Many urgent care centers still do not have slit lamps, and perhaps this needs to be reconsidered. However, the price point for a slit lamp makes widespread urgent care adoption somewhat impractical. Regardless, this article shows the danger of relying on the Wood's lamp exam to exclude significant anterior eye pathology. The most sensible approach for patients with a concerning history, but normal Wood's lamp exam, would be

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urgent ophthalmology or ED referral, depending on your practice environment. ■

Syncope vs Seizure? Better to Get Your History from a Bystander Than the Patient

Key point: Witness reports of circumstances and patient appearance during loss of consciousness differentiate between seizure, syncope, and psychogenic seizure better than patient reports.

Citation: Chen M, Jamnadas-Khoda J, Broadhurst M, et al. Value of witness observations in the differential diagnosis of transient loss of consciousness. *Neurology.* 2019;92(9):e895-e904.

Patients with a witnessed loss of consciousness often present hours or even days after an event. The primary considerations after such episodes are seizure and syncope. The work-up for these two conditions differs significantly. Therefore, it is crucial that urgent care providers understand which condition is at play so they head down the appropriate diagnostic pathway as early as possible. However, patient reports of such events are understandably and notoriously unreliable.

The investigators in this study retrospectively examined approximately 200 cases of syncope, epileptic, and nonepileptic/psychogenic seizure (ie, PNES) presenting to a UK center for evaluation after loss of consciousness. They administered a 31-question survey to witnesses of the event and to the patients themselves. They found that the witnesses' reports better distinguished seizure, syncope, and PNES compared with the patients' reports of the events.

These results are not surprising and underscore the importance of a corroborating history when evaluating patients after loss of consciousness. These patients may present alone or have a family member or companion with them who didn't witness the event. Taking a few minutes to call an eyewitness to determine what they saw can be the most valuable intervention for ensuring this patient is not getting a neurology referral and an MRI of their brain when they had a simple vasovagal episode with a few myoclonic jerks. ■