ABSTRACTS IN URGENT CARE

- Sharing Decisions → Mitigating Legal Risk
- Incidental High BP Findings: to Treat or Not to Treat
- A Fresh Look at Ondansetron in Pregnancy
- Steroids and the Wheezy Child
- Cleaning Before a Urine Dipstick Test
- Patients Overestimate Penicillin Allergies

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Mitigating Risk Through Shared Decision-Making

Key point: Shared decision-making appears to mitigate the risk to clinicians of patient complaints and lawsuits in the event of a bad outcome.

Citation: Schoenfeld EM, Mader S, Houghton C, et al. The effect of shared decisionmaking on patients' likelihood of filing a complaint or lawsuit: a simulation study. *Ann Emerg Med.* January 3, 2019. [Epub ahead of print]

Missed and delayed diagnoses of dangerous conditions are unavoidable in urgent care. The deck is simply stacked against us. We are forced to see high volumes of undifferentiated patients with whom we have no prior relationship and diagnose and treat them with minimal access to diagnostic testing. Additionally, for most patients presenting to urgent care, there isn't one "right" course of action, but rather, multiple courses of action which could be reasonable. For example, should a young patient with atypical chest pain and a normal ECG go to the emergency room immediately, be monitored in clinic for an hour, or go home and follow-up with a primary care doctor the next day? The "right" answer really depends on the patient's preferences and risk tolerance.

Shared decision-making (SDM), as the name implies, involves including the patient in the thought process behind determining the course of testing and/or treatment. In so doing, patients understandably will generally feel greater autonomy and responsibility for whatever outcome arises. In other words, we'd expect that the young patient with chest pain would be less likely to blame the clinician if they actually did have a PE or MI, if they were offered an ED referral but chose to go home.

These authors sought to answer this question specifically. Using an online survey of a hypothetical scenario surrounding a missed diagnosis of appendicitis, 812 respondents were randomized to receive either no-SDM, brief SDM, or extensive SDM when determining whether or not to get a CT scan. The respondents were then asked how likely they were to file a complaint or seek litigation against the clinician. The results were striking: 41% of the respondents in the no-SDM group reported they were likely to seek damages for the misdiagnosis vs 12% and 11% in the brief SDM and extensive SDM group, respectively.

These findings offer a unique perspective on how we may rethink the notion of practicing defensively. Rather than ordering a battery of labs and imaging studies, it seems the most defensible practice is actually much cheaper and more rational: simply involve the patient in the decisions about their care when multiple courses of action would be reasonable. Furthermore, remarkably, there was no difference between the groups who received brief SDM vs extensive SDM. So we needn't fear that SDM requires a lengthy discussion to allow patients to feel a sense of autonomy and responsibility for their outcome. ■

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Should We Just Let That High Blood Pressure Ride?

Key point: Treating mild hypertension in patients at low risk for cardiovascular disease may do more harm than good.

Citation: Sheppard JP, Stevens S, Stevens R, et al. Benefits and harms of antihypertensive treatment in low-risk patients with mild hypertension. *JAMA Intern Med.* 2018;178(12):1626–1634.

We see it all the time. Blood pressures of 140 or 150 systolic in otherwise healthy patients. Sure, it could be pain, stress, or anxiety.

So we repeat the blood pressure when our patient is more comfortable, but we get the same value. For years, the conventional wisdom and teaching has been to recommend the patient follow-up with a PCP for blood pressure control. Some urgent care providers may even start an antihypertensive medication in these instances for patients with poor access to follow-up care, believing, understandably, that they are helping to prevent MI and stroke.

This paper, however, casts some doubt on that traditional thinking. In this paper, British researchers performed a retrospective cohort study of nearly 40,000 patients with mild hypertension (defined as 140-160/90-100 measured on three occasions over 12 months). Half of the patients were treated with antihypertensive medication and half were not. Only low-risk patients, (ie, those with no history of heart, kidney, or vascular disease) were included. Patients were followed for a median duration of 5.8 years.

During the period of follow-up, there was no increase in mortality or adverse cardiovascular events detected in those whose hypertension was not treated. There was, however, a significantly higher rate of adverse outcomes among the group taking antihypertensive medications—predominantly electrolyte disturbance, hypotension, and kidney injury. Based on these data, it is reasonable to pump the brakes on lower-risk patients presenting with incidentally identified hypertension in urgent care. Initiation of medication in such patients may have little or no benefit and, therefore, not be worth the risks. In light of these data, allowing such patients to monitor their blood pressure and have a more nuanced discussion with a PCP is likely a more sensible approach for the urgent care provider. ■

Can We Finally Use Ondansetron Again in Pregnancy? Almost

Key point: Use of ondansetron (Zofran) in early pregnancy does not appear to increase risk of cardiac malformations, but may slightly increase the risk of cleft palate.

Citation: Huybrechts KF, Hernández-Diaz S, Straub L, et al. Association of maternal first-trimester ondansetron use with cardiac malformations and oral clefts in offspring. *JAMA*. 2018;320(23):2429-2437.

Nausea, as a symptom, approaches ubiquity during the first trimester of pregnancy. For some women, it can be debilitating, making adequate nutrition and hydration a challenge. Ondansetron, among antiemetics, has a generally favorable side-effect profile, and dosing is especially convenient in cases of severe nausea with the oral dissolving tablet formulation.

Over recent years, several observational studies have shown some signal of association between ondansetron use in early pregnancy and fetal malformations of various types, including cardiac, leading to a questionably rational fear among clinicians and patients alike surrounding the use of this medication. This study, again observational and retrospective, sought to determine whether these concerns are justified.

The investigators reviewed nearly 2 million pregnancies from a Medicaid database where the patient was prescribed ondansetron in the first trimester. The primary outcome of interest was cardiac malformations, with secondary outcomes of interest including other congenital malformations diagnosed in the first 3 months of life. Among this very large sample, there was no apparent increased risk in cardiac malformations or other classes of congenital anomalies associated with ondansetron risk in the first trimester. However, there was a small increase in the risk of the less concerning, but nontrivial, cleft palate (risk difference of 2.7 cases per 10,000 births).

Practically speaking, ondansetron is probably safe in early pregnancy, especially when considering a single dose for symptom relief in urgent care. However, consider a trial of first-line agents recommended by the American College of Obstetricians and Gynecologists (eg, ginger, vitamin B6, doxylamine) before prescribing ondansetron in pregnancy. The concerns for fetal harms are probably still worth mentioning if prescribing ondansetron, so your patients know that you've heard the news and aren't intending to harm their baby, but rather support them through a very difficult phase of pregnancy. ■

Will Steroids Help This Wheezy Toddler?

Key point: Most toddlers and preschool-age children with wheezing will not improve more rapidly with oral corticosteroids. Children most likely to see benefit from steroids are those with multiple prior episodes of wheezing, family history of asthma, and/or history of other atopic features.

Citation: Abrams EM, Becker AB, Szefler SJ. Use of oral corticosteroids in the wheezy toddler. *J Pediatrics*. October 2018. [Epub ahead of print]

Most toddlers will have wheezing with a viral illness at some point. However, the majority of these children will not develop asthma. We know that systemic corticosteroids help reduce severity and duration of wheezing in children with asthma, but evidence is less clear in younger children with wheezing.

These authors review the available evidence surrounding the use of oral steroids in toddlers with wheezing. There have been multiple RCTs examining the use of steroids, generally prednisolone vs placebo, often initiated by the parent at home. These studies have all failed to show any acceleration in symptom resolution with steroid use.

A single emergency department study showed some improvement in length of stay (LOS) in the ED in wheezy toddlers treated with prednisolone over placebo. However, this difference in LOS, while statistically significant, is not clinically relevant, as the difference was only about 2.5 hours. Additionally, this study included a large number (>60%) of children with

history of prior wheezing and/or atopy.

Finally, the authors remind us of the adverse reactions to steroids, including behavioral and sleep disturbance and increased risk of infection. Specifically, in one study, ~1% more of children in the prednisolone group were found to have clinically significant infections after a short course of steroids, including three cases of varicella requiring ICU admission.

Prednisolone tastes terrible, has significant risks, and seems to offer little benefit in children without history of asthma and/or atopy who present with wheezing in the setting of a viral URI. ■

Cleaning Up the 'Clean Catch' in Kids

Key point: Gently cleaning the genital area of young children significantly reduces the likelihood of a false positive urine dip stick. This is of greatest value in girls and uncircumcised boys with nonretractable foreskin.

Citation: Marzuillo P, Guarino S, Furlan D, et al. Cleaning the genitalia with plain water improves accuracy of urine dipstick in childhood. *Eur J Pediatr*. 2018;177(10):1573-1579.

The urine dipstick is among the most ubiquitous tests available in urgent care. When considering UTI, a catheterized specimen is preferred but often not available for infants and small children in the urgent care setting because of lack of supplies and adequately trained staff. In the pre potty-trained child, contamination (especially if using bag urine collection) is common, leading to many false positive urine dips.

The investigators in this study sought to determine the impact of gently cleansing the genitals of children with water (using gauze for girls and syringe irrigation for boys) on the likelihood of false positive urine dips. They enrolled over 600 consecutive children presenting to a pediatric urology clinic; 69% of the children were toilet trained and 58% were male. Interestingly, in this European pediatric population, all males were uncircumcised.

Consecutive urine samples were collected from each child before and after cleaning the genital area with "plain water" (presumably meaning tap water, but not clearly defined in the study) and analyzed on urine dipstick. Thus, each child served as their own control. The researchers found that 25% of the positive tests normalized after cleaning. The risk of false positive was highest among females and males with nonretractable foreskin.

While the urine dipstick is far from a perfect test, we do base a large number of clinical decisions on the dip results while awaiting cultures. Using tap water to clean the genital area of young children prior to collection is a safe, no-cost method of improving the clinical utility of urine dip test results at the point-of-care. ■

'I'm Allergic to Penicillin!' But Are You Really?

Key point: Most patients who report allergy to penicillins will not have a true hypersensitivity reaction. In patients reporting a low-risk history of allergy, an oral amoxicillin challenge in clinic is safe and can minimize unnecessary harms of treating with second line antibiotics. Cephalosporin cross-reactivity seems to be much lower than previously believed.

Citation: Shenoy ES, Macy E, Rowe T, Blumenthal KG. Evaluation and management of penicillin allergy: a review. *JAMA*. 2019;321(2):188–199.

Patient safety alert! jolts onto your screen. You've just diagnosed a child with bilateral otitis media and as you click to prescribe amoxicillin, your EHR stops you cold. The patient has a "penicillin allergy." I doubt many urgent care providers have gone a single shift without this exact experience.

Penicillins are a highly effective and affordable treatment option for many common infections we see in urgent care. Allergies to these antibiotics are reported by ~10% of Americans; however, >95% of patients who claim to be penicillin-allergic are actually able to tolerate penicillins safely. This is because most "allergies" are either non–IgE mediated rashes or nonallergic adverse reactions, such as GI upset.

In this review, a multidisciplinary writing group consisting of allergy & immunology, infectious disease, and epidemiology physicians and researchers produce evidence-based guidelines for the management of patients identifying as penicillin-allergic based on a review of the literature. They conclude that patients with a low-risk history of true penicillin allergy (ie, no history of rash/urticaria or anaphylaxis or unknown reaction >10 years previously) can safely undergo an observed trial of amoxicillin in clinic. Absence of any reaction within 1 hour of administration of 250-500 mg of amoxicillin indicates no risk for IgE-mediated hypersensitivity reaction (ie, anaphylaxis). Reassure your patient and update their allergy list.

Also worth noting, this writing group concluded, based on their literature review, that cephalosporin cross-reactivity is much lower than previously thought and occurs in only 2% of cases. Cephalosporins can safely be administered in patients with low-risk penicillin histories and/or patients who have not reacted during a 1-hour amoxicillin challenge. [For a useful patient reference about penicillin allergy, see Blumenthal KG, Shenoy ES. Am I allergic to penicillin? *JAMA*. 2019;321(2):216.] ■

Tips on Twitter: Obesity and Back Pain

Sure, it's awkward to address the elephant in the room, but obesity is undeniably associated with acute and chronic low back pain and patients with acute pain need to be made aware that losing weight will help prevent them from developing the same pain *chronically*. (Follow Dr. Russell on Twitter: @UCPracticeTips.)