ABSTRACTS IN URGENT CARE

- POCUS in Ocular Presentations
- Experiencing—and Handling—Patient Biases
- Self-Swabbing for STIs
- CAM Boots for Toddler's Fracture?
- Treating Children with Bronchiolitis
- Azithromycin in COVID-19

IVAN KOAY, MBCHB, FRNZCUC, MD

Point-of-Care Ultrasound for Eye Examination

Take-home point: Ocular ultrasound (OUS) can be a quick, safe, and effective way to assess eye complaints and complements the clinical exam.

Citation: Manton J, Henry C. Benefits to utilising ultrasound in examining the eye. *Emerg Med Australas*. 2021;33:745–747.

Relevance: As availability of point-of-care ultrasound (POCUS) becomes more common, urgent care clinicians will be expected to become more comfortable in using this technology. Incorporating POCUS into UC training programs should be considered.

Study summary: This article looked at the benefits and practical use of OUS in the assessment of patients presenting to emergency rooms with eye complaints. OUS can detect issues in the anterior segment such as lens dislocation, foreign body, and ocular movements. In the the posterior segment, OUS can be used to detect retinal detachment, vitreous hemorrhage, papilledema, and retrobulbar hemorrhage—all difficult to detect using the traditional slit lamp examination. A previous meta-analysis has shown excellent test characteristics of OUS for detecting retinal detachments, specifically (94% sensitivity and 96% specificity). The authors therefore suggest that OUS be included as part of training in the context of serving as an extension of the physical exam. The benefits of OUS would be confirmation of time-critical, vision-threatening diagnoses at the bedside without immediate ophthalmologist consultation.

Editor's comments: This was an editorial piece representing the authors' own views based on current evidence. Studies quoted relied on varying methodologies to collate data. ■

Ivan Koay, MBChB, FRNZCUC, MD is a Dublin, Ireland-based urgent care physician, as well as an examiner and trainee supervisor for the Royal New Zealand College of Urgent Care Education Faculty for the Urgent Care Medicine Fellowship, Royal College of Surgeons Ireland.

Clinician Experiences of Patients' Biases

Take-home point: Female and non-Caucasian clinicians frequently have negative experiences attributable to patients' inherent biases. Healthcare systems would benefit from acknowledging these occurrences and having policies in place to support the affected providers.

Citation: de Bourmont S, Burra A, Nouri S, et al. Resident physician experiences with and responses to biased patients. *JAMA Netw Open*. 2020;3(11):e2021769.

Relevance: Awareness of the experience of female and nonwhite clinicians is important for supporting a healthy work environment.

Study summary: This article reflects an electronic survey sent to second- and third-year internal medical residents at three academic medical centers in California and North Carolina. The survey asked participants about their experiences with biased patient behaviors such as belittling, use of demeaning stereotypes, role questioning, refusal to engage with the residents, and sexual harassment. Residents were then asked how they responded to these behaviors, their beliefs as to whether they felt institutional policies were necessary, and any specific barriers they perceived in responding to the incidences.

The authors noted that 70% of the 331 residents responded to the survey, and that they were diverse in gender identity and race/ethnicity. Ninety-eight percent reported experiencing or witnessing biased behavior from patients within the previous year. Experiences with biased patient behavior were more common for residents who identified as women, African-American, Latinx, or Asian. Nineth-six percent of female residents reported encountering role-questioning behaviors at least once within the past year. Eighty-nine percent felt that training for medical students, residents, and faculty on how to handle discriminatory behavior from patients is necessary.

Editor's comments: Limitations of this survey study include recall bias and small sample size. Nonbinary gender identities of residents were not accounted for. ■

Swabbing Female Patients for STIs

Take-home point: Patient-obtained vaginal self-swabs are noninferior to provider-obtained endocervical swabbing for the diagnosis of *Neisseria gonorrhoeae* (GC) and *Chlamydia trachomatis* (CT).

"Education surrounding the inutility of frequently considered interventions for bronchiolitis seems to have value in standardizing care and reducing harm in the treatment of this very common childhood illness."

Citation: Chinnock B, Yore M, Mason J, et. al. Self-obtained vaginal swabs are not inferior to provider-performed endocervical sampling for emergency department diagnosis of *Neisseria gonorrhoeae* and *Chlamydia trachomatis*. *Acad Emerg Med*. 2021;28(6):612-620.

Relevance: Vaginal self-swabbing for STIs in women who otherwise do not require a pelvic exam is more time efficient and preferred by patients and clinicians. Understanding the accuracy of self-swabbing is important before widespread adoption of this practice.

Study summary: This was a prospective observational cohort study comparing two methods of GC/CT specimen collection in an academic urban hospital ED. Female patients ≥18 years old who were judged by the treating practitioner to need GC/CT testing were included in the study. Enrolled patients had samples collected by both self-obtained vaginal swabs (SOVS) and provider-performed endocervical swabbing (PPES), with the PPES collected during standard pelvic examination. Participants were asked to complete a survey regarding the methods of swab collection at the end of the procedures.

The authors found that of the 515 patients who had both SOVS and PPES performed, 17% were positive for either GC or CT (or both). Of these patients, 34% had infection with GC, 54% with CT, and 12% with coinfection. SOVS had a sensitivity of 95% (95% CI = 88% to 99%) for the detection of NG/CT when compared with PPES. Participant responses showed 93% felt that collecting a self-sample is acceptable; 75% preferred the idea of SOVS to PPES, with 28% concerned about doing SOVS incorrectly.

Editor's comments: The majority of the participants were Latinx, making the data's generalizability to other populations limited. The study was terminated earlier than planned due to the COVID-19 pandemic and therefore subject enrollment was somewhat lower than planned. Regardless, this study lends support to a growing body of evidence that SOVS is a reasonable approach for GC/CT testing. Because the method is less invasive and onerous for patients, this may decrease barriers in women reluctant to seek testing/treatment for STI. ■

Controlled Ankle Motion (CAM) Boots for Toddler's Fractures

Take-home point: CAM boots can be used as a safe alternative to traditional above-knee casts for toddler's fractures.

Citation: Bradman K, Stannage K, O'Brien S, et al. Randomised controlled trial comparing immobilisation in above-knee plaster of Paris to controlled ankle motion boots in undisplaced paediatric spiral tibial fractures. *Emerg Med J*. 2021;38(8):600-606.

Relevance: Small children tolerate casting poorly. Therefore, a less restrictive alternative is desirable for toddler's fractures.

Study summary: This was a single center, prospective randomized controlled trial comparing immobilization with above-knee plaster-of-Paris casts (AK-POP) to CAM boots in proven or suspected toddler's fractures presenting to an emergency room in Western Australia. Patients were randomized to receive AK-POP or CAM boot sized to fit the patient's foot length. Children randomized to AK-POP had their plaster reinforced or replaced at 7–10 days with fiberglass cast or overlay to permit weightbearing, as standard procedure. A modified comfort and care questionnaire (CCQ) and pain score were completed by caregivers at various points during treatment.

The authors found 59 patients (31 CAM, 28 AK-POP) had radiographic evidence of toddler's fractures and 25 patients (10 CAM, 15 AK-POP) had suspected fractures but with no fracture visible on radiograph. They noted that CAM boots were safe in respect to fracture healing, but conferred benefits with regards to a significantly quicker return to weightbearing and normal gait.

Editor's comments: This was a small, single center study and there was a higher number of patients lost to follow-up in the CAM boot group. However, these results suggest that CAM boots in uncomplicated toddler's fractures are a reasonable alternative to casting. It is prudent to confer with local pediatric orthopedic specialists before adopting this new practice. ■

Treatment of Bronchiolitis in Children

Take-home point: Using evidence-based clinical decision-making tools for the treatment of bronchiolitis reduces the

impact of unnecessary investigations and treatment and improves patient outcomes

Citation: Haskell L, Tavender EJ, Wilson CL, et al. Effectiveness of targeted interventions on treatment of infants with bronchiolitis: a randomized clinical trial. *JAMA Pediatr*. 2021;175(8):797-806.

Relevance: Care for bronchiolitis is notoriously variable, and most interventions have little effect on outcomes—making it a prime target for use of evidence-based clinical decision tools.

Study summary: This was a multicenter cluster randomized control trial conducted in 26 institutions in Australia and New Zealand. The control institutes received electronic and printed copies of the Australasian Bronchiolitis Guidelines. The intervention institutes received education targeting nursing and medical clinicians who managed infants with bronchiolitis in the ED and pediatric inpatient wards. Educational interventions were developed using the Template for Intervention Description and Replication checklist framework following a qualitative study identifying local barriers to evidence-based bronchiolitis care. Analysis was by intention-to-treat (ITT) with primary outcomes being the proportion of infants in whom all five Australasian Bronchiolitis Guideline interventions known to have no benefit (chest radiography, albuterol, glucocorticoids, antibiotics, and epinephrine) were avoided in the first 24 hours of hospitalization.

The authors analyzed 3,727 participants from all institutions that participated. There was a 14.1% difference in rates of compliance during the first 24 hours of hospitalization, favoring the intervention group for all five bronchiolitis guideline recommendations, with the greatest change seen in albuterol and chest x-ray use. Compliance was improved in the intervention group for patients in the ED (risk difference, 10.8%; 95% CI, 4.1%-17.4%; p = .002), as inpatients (RD, 8.5%; 95% CI, 2.7%-14.3%; p = .004) and during the total hospitalization (RD, 14.4%; 95% CI, 6.2%-22.6%; p <.001).

Editor's comments: The cluster randomized design improves generalizability of these findings. Education surrounding the inutility of frequently considered interventions for bronchiolitis seems to have value in standardizing care and reducing harm in the treatment of this very common childhood illness. ■

COVID-19 Abstract
Azithromycin Use in COVID-19

Take-home point: A single dose of azithromycin did not result in greater likelihood of being symptom-free from COVID-19 at day 14 compared with placebo.

Citation: Oldenbrug C, Pinsky B, Brogdon J, et. al. Effect of oral azithromycin vs placebo on COVID-19 symptoms in outpatients with SARS-CoV-2 infection—a randomized clinical trial. *JAMA*. 2021;326(6):490-498.

Relevance: During the pandemic, there have been a variety of therapies purported to reduce the severity and duration of COVID-19 disease. Patients commonly request antibiotics, specifically azithromycin, when presenting to UC for respiratory complaints.

"Patients with confirmed COVID-19, unsurprisingly, did not benefit from the use of an antibiotic in this well-designed prospective trial."

Study summary: This was a prospective randomized trial evaluating the efficacy of a single dose of 1.2 g of oral azithromycin on self-reported COVID-19 symptoms compared with placebo among outpatients throughout the U.S. Participants were randomized in a 2:1 ratio to azithromycin or placebo. The ratio was chosen to increase the probability that participants received the active study drug without compromising the statistical power. Participants completed online surveys at days 3, 7, 14, and 21 after enrolment to assess outcomes.

The authors enrolled 263 participants; 171 were randomized to azithromycin and 92 to placebo. The proportion of participants reporting being symptom-free at day 14 was not significantly different between groups (approximately 50% of participants in each group). More participants reported gastrointestinal adverse events in the azithromycin group compared with placebo, such as diarrhea, abdominal pain, and nausea. There were no significant differences in specific self-reported COVID-19 symptoms reported at day 14, either.

Editor's comments: Azithromycin has fallen increasingly out of favor as a preferred antibiotic for treatment of bacterial pneumonia. Patients with confirmed COVID-19, unsurprisingly, did not benefit from the use of an antibiotic in this well-designed prospective trial. While the single dose of 1.2 g of azithromycin is not a common dosing strategy for respiratory infections, this study lends further support that granting "Z-pak" requests doesn't help our patients and can cause significant GI side effects. ■