



# ABSTRACTS IN URGENT CARE

- Faster Diagnosis of STIs
- Reduce ED Referrals for SVT
- Kids' Dental Pain and Quality of Life
- Ultrasound-Guided Blocks and Renal Pain
- EI as a Leadership Attribute in Physicians

■ AVIJIT BARAI, MBBS, FACEM, FRNZCUC, MRCS, MSc (CRITICAL CARE), PGCERTCPU

## Rapid Testing for Sexually Transmitted Infections

**Take-home point:** A point-of-care (POC) test for chlamydia and gonorrhoea proved useful for rapid diagnosis of STI in both men and women.

**Citation:** Van Der Pol B, Taylor SN, Mena L, et al. Evaluation of the performance of a point-of-care test for chlamydia and gonorrhoea. *JAMA Netw Open.* 2020;1;3(5):e204819.

**Relevance:** The incidence of gonorrhoea and chlamydia continue to rise in the United States. Unfortunately, most current methods of testing require send-out tests which take days to result. Point-of-care tests offer promise for more rapid diagnosis and less need for inappropriate empiric antibiotic treatment.

**Study summary:** This prospective cross-sectional study was conducted in various sexually transmitted disease (STI), HIV, family planning, and gynecology clinics across nine geographical areas of the United States. The researchers performed convenience sampling of the patients and compared the existing commercially available assays with a new POC assay (Binx Health). Four vaginal swabs were taken from each of the women (n=1,523) and first-catch urine samples were taken from each of the men (n=922). The POC tests were found to be a quick and reliable method for early diagnosis of chlamydia and gonorrhoea compared with conventional, currently available nucleic acid amplification tests (NAAT).

The sensitivity of the POC assay for chlamydia was 96.1% among women and 92.5% among the men. The sensitivity of POC for gonorrhoea was 100% among women and 97.3% among the men, making this POC assay useful for excluding infection.



**Dr Avijit Barai MBBS, FACEM, FRNZCUC, MRCS, MSc (Critical Care), PgCertCPU** is Locum Consultant in Emergency Medicine and Urgent Care Australia and New Zealand.

Similarly, the specificity of POC for chlamydia was 99.1% among women and 99.3% among the men. The specificity of POC for gonorrhoea was 99.9% among women and 100% among men (in other words, demonstrating very low rates of false positives for either infection in either men or women). Interestingly, most of the tests (94.8%) were conducted by the non laboratory-trained personnel, making it a very useful and replicable tool for urgent care centers.

**Limitations:** The study was funded by the manufacturer of the assay. ■

## Noninvasive Management of Supraventricular Tachycardia (SVT)

**Take-home point:** The reverse vagal maneuver is an effective, no-risk method in the management of SVT.

**Citation:** Gaudart P, Cazes N, Simon K, et al. The reverse vagal manoeuvre: a new tool for treatment of supraventricular tachycardia? *American J Emerg Med.* 2020;41:66-69.

**Relevance:** SVT is a common dysrhythmia with a generally benign course. However, as adenosine and electrical cardioversion cannot be performed in urgent care, maneuvers to terminate SVT noninvasively are highly valuable in reducing ED referrals for this condition.

**Study summary:** This was a case series of 11 patients who presented to an acute care setting in France with palpitations. SVT was confirmed with ECG in each case. The patients were taught the reverse vagal maneuver at the time of presentation.

The reverse vagal maneuver involves sitting upright and exhaling without force. Patients were then instructed to pinch their nose and inhale against the resulting resistance for 10 seconds. Try it yourself. This produces a reverse vagal experience of significant negative intrathoracic pressure.

Ten out of 11 patients (91%) were successfully cardioverted to sinus rhythm with the reverse vagal maneuver. Although the

study is of small sample size, the remarkable rate of conversion among these patients and little downside suggest this maneuver deserves further study.

**Limitations:** Small sample size.

### Dental Pain in Children and Adolescents

**Take-home point:** Dental pain has a significant impact on the quality of life for children and adolescents.

**Citation:** Barasuol JC, Santos PS, Moccelini BS, et al. Association between dental pain and oral health-related quality of life in children and adolescents: a systematic review and meta-analysis. *Community Dent Oral Epidemiol.* 2020;48(4):257-263.

**Relevance:** There is a variable level of impact of dental pain on the quality of life of the children and adolescents.

**Study summary:** This was a systematic review and meta-analysis of 16 studies. The authors performed a systematic review of the studies as per the PRISMA guidelines and specifically examined patients below 19 years of age. The studies reviewed showed that pediatric patients with dental pain were 3.64 times more likely to have a poorer oral health-related quality of life score (95% CI 2.8 to 4.72,  $p < 0.001$ ).

**Limitation:** The certainty of evidence in the meta-analysis was low. ■

### Ultrasound-Guided Blocks for Renal Colic

**Take-home point:** An ultrasound (US)-guided erector spinae plane (ESP) block improved pain control in renal colic and reduced opioid use.

**Citation:** Aydin ME, Tekin E, Ahiskalioglu EO, et al. Erector spinae plane block vs nonsteroidal anti-inflammatory drugs for severe renal colic pain: a pilot clinical feasibility study. *Int J Clin Pract.* 2021;75(3):e13789.

**Relevance:** Control of pain associated with renal colic is a common clinical challenge. Prior studies have suggested that multimodal analgesia is most effective in treating this condition. The use of ultrasound-guided erector spinae nerve block offers yet another analgesic strategy, which may be opioid-sparing, in the treatment of renal colic.

**Study summary:** This was a randomized controlled pilot clinical study evaluating the efficacy of the ESP block for the management of renal colic pain among 40 patients presenting to a single-center emergency department in Turkey. The patients were randomized into an NSAID group and an ESP group, who received

*“The most effective leaders have at least one competency from each of the four domains of EI.”*

ultrasound-guided bupivacaine 0.25% 30 mL at the level of T8 transverse process. A visual analogue scale (VAS) was used for the measurement of pain score at 5, 15, 30, 45, and 60 minutes after the administration of analgesia. Those whose pain score was  $>40$ , were given IV fentanyl. Those whose pain could not be controlled to a VAS  $<40$  were admitted to urology. The authors found that the VAS pain score was significantly lower in the ESP group than in the NSAID group ( $p < 0.001$ ). The use of rescue opioids was significantly lower in the ESP group compared with the NSAID group ( $p < 0.001$ ). There were no significant clinical complications from the ESP or NSAID administration among participants.

The utility of ESP as an adjunct in the management of pain associated with ureterolithiasis will increase as US machines and procedural proficiency become more ubiquitous in urgent care settings.

**Limitations:** Turkish study with limited generalizability to current U.S. practice and small sample size. ■

### Emotional Intelligence and Leadership

**Take-home point:** Emotional intelligence among clinicians plays a significant role in the quality of healthcare.

**Citation:** Stoller JK. Leadership essentials for the chest physician: emotional intelligence. *Chest.* Epub ahead of print September 18, 2020. Available at: [https://journal.chestnet.org/article/S0012-3692\(20\)34516-5/fulltext](https://journal.chestnet.org/article/S0012-3692(20)34516-5/fulltext). Accessed June 10, 2021.

**Relevance:** Emotional intelligence (EI) has become increasingly appreciated as an impactful leadership trait across sectors. Current evidence strongly suggests that EI can be learned and taught.

**Study summary:** This editorial-style review from the journal *Chest* discusses the role that emotional intelligence (EI) plays in healthcare. EI is defined as “the capacity to understand your own and others’ emotions and to motivate and develop yourself and others in service of improved work performance and enhanced organizational effectiveness.”

EI consists of four separate domains: self-awareness, self-management, social awareness, and relationship management. Each of these four sectors has different competencies. Research on the impact of EI on leadership has revealed that the most effective leaders have at least one competency from each of these four sectors. ■