



On Anaphylaxis, STIs in Adolescents, Rectal Impaction, Hip and Pelvic Fractures, Saying ‘No’ to Patients, Wait Time and Visit Length, and Cardiac Death in Athletes

■ NAHUM KOVALSKI, BSc, MDCM

Each month, Dr. Nahum Kovalski reviews a handful of abstracts from, or relevant to, urgent care practices and practitioners. For the full reports, go to the source cited under each title.

Emergency Treatment of Anaphylactic Reactions

Key point: *Early treatment with intramuscular adrenaline is the treatment of choice for patients having an anaphylactic reaction.*
Citation: Pumphrey R, Cant A, Clarke S, et al. Emergency treatment of anaphylactic reactions—Guidelines for health-care providers. *Resuscitation*. 2008;77(2):157-169.

Patients experiencing an anaphylactic reaction have life-threatening airway and/or breathing and/or circulation problems usually associated with skin or mucosal changes. Such patients should be treated using the ABCDE approach: airway, breathing, circulation, disability, exposure.

Exact treatment will depend on the patient’s location, the equipment and drugs available, and the skills of those treating the anaphylactic reaction, but the treatment of choice is intramuscular adrenaline.

- Despite previous guidelines, there is still confusion about the indications, dose, and route of adrenaline.
- Intravenous adrenaline must only be used in certain specialist settings and only by those skilled and experienced in its use.
- All those who are suspected of having had an anaphylactic reaction should be referred to an allergy specialist.



Nahum Kovalski is an urgent care practitioner and assistant medical director/CIO at Terem Emergency Medical Centers in Jerusalem, Israel.

- Individuals who are at high risk of an anaphylactic reaction should carry an adrenaline auto-injector and receive training and support in its use. ■

STIs in Adolescents

Key point: *The estimated prevalence of STIs in adolescent girls ranged from 14% at age 14–15 to 34% at age 18–19.*
Citation: Forhan SE, Gottlieb SL, Sternberg MR, et al. Prevalence of sexually transmitted infections among female adolescents aged 14 to 19 in the United States. *Pediatrics*. 2009;124:1505-1512.

Sexually transmitted infections (STIs) often accompany initiation of sexual activity. Researchers tested a random sample of 838 female adolescents (14- to 19-years-old) who participated in the National Health and Nutrition Survey 2003–2004 for *Chlamydia trachomatis*, *Neisseria gonorrhoeae*, *Trichomonas vaginalis*, herpes simplex virus type 2 (HSV-2), and human papillomavirus HPV; 23 oncogenic types or type 6 or 11.

The prevalence of infection with any STI was 24% and varied by age from 14% at age 14–15 to 34% at age 18–19. Half the adolescents reported sexual experience; STI prevalence ranged from 20% among those who reported one partner to 53% among those who reported three or more partners.

According to the authors, this is the first published, nationally representative survey of the prevalence of common STIs among U.S. female adolescents.

[Published in *J Watch Pediatr Adolesc Med*, January 6, 2010—Howard Bauchner, MD.] ■

Treating Rectal Impaction: From Above or Below?

Key point: Enemas and high-dose PEG are equally effective for treating impaction.

Citation: Bekkali N-L-H, van den Berg M-M, Dijkgraaf MGW, et al. Rectal fecal impaction treatment in childhood constipation: Enemas versus high doses oral PEG. *Pediatrics*. 2009;124(6):e1108-e1115.

Functional constipation in children can lead to rectal fecal impaction (RFI), which can cause pain and encopresis. Both oral and rectal treatments for RFI are effective, but they have not been compared prospectively.

Investigators in the Netherlands randomized 90 children (age range, 4–16 years) with functional constipation and RFI to receive oral polyethylene glycol (PEG; 1.5 g/kg/day) for six days or dioctyl sodium sulfosuccinate (docusate) enemas once daily for six days.

After six days, all children received maintenance therapy with PEG (0.5 g/kg/day).

Successful disimpaction after six days occurred in 80% of

children in the enema group and in 68% of children in the PEG group.

After the six-day disimpaction regimen, the mean frequency of fecal incontinence improved from 16 to three episodes per week in the enema group but remained at 13 episodes per week in the PEG group.

Two weeks after disimpaction, each group had a mean of five incontinence episodes per week. Watery stools were more common in the PEG group after disimpaction and at two-week follow-up. Colonic transit time improved equally in the two groups. Behavior scores indicated equal levels of anxiety in both groups during disimpaction.

More children in the enema group than in the PEG group experienced abdominal pain after treatment (82% vs. 52%).

This study suggests that a week of either daily enemas or high-dose oral PEG can successfully disimpact most children with rectal fecal impaction.

[Published in *J Watch Pediatr Adolesc Med*, January 27, 2010—Cornelius W. Van Niel, MD.] ■

Continued on page 32



Provide numbing to minor open wounds in seconds

Gebauer's Pain Ease® non-drug instant topical anesthetic skin refrigerant is the only topical anesthetic FDA approved for use on minor open wounds, such as incision and drainage of small abscesses. Additionally, Gebauer's Pain Ease helps control the pain and discomfort of IV placement, venipuncture, injections and other needle procedures. Gebauer's Pain Ease, unlike other topical anesthetics containing lidocaine, prilocaine or benzocaine, is not absorbed into the blood stream and there is no systemic toxicity. There is no waiting as with anesthetic creams. Just spray for a few seconds. The anesthetic effect lasts up to one minute and can be reapplied as needed. Nonflammable. Mist and Medium Stream Sprays.

Important Risk and Safety Information

- Published clinical trials support the use in children three years of age and older
- Do not use on large areas of damaged skin, puncture wounds, animal bites or serious wounds
- Do not spray in eyes
- Over spraying may cause frostbite
- Freezing may alter skin pigmentation
- Use caution when using product on diabetics or persons with poor circulation
- Apply only to intact oral mucous membranes
- Do not use on genital mucous membranes
- The thawing process may be painful and freezing may lower resistance to infection and delay healing
- If skin irritation develops, discontinue use
- Rx only



800.321.9348 • www.GebauersPainEase.com/jucm

Radiographic Detection of Hip and Pelvic Fractures in the Emergency Department

Key point: A new study has found that standard x-rays are often inconclusive in detecting hip and pelvic fractures in the emergency room.

Citation: Kirby MW, Spritzer C. Radiographic detection of hip and pelvic fractures in the emergency department. *AJR*. 2010;194:1054-1060.

Researchers studied 92 patients who underwent x-rays followed by MRI to evaluate hip and pelvic pain. The patient sample included 77 women and 15 men, with an average age of 70.8 years; 65 of these patients had a history of trauma.

The x-ray exams of all patients were reviewed retrospectively by one experienced musculoskeletal radiologist who was blinded to the results of each radiographic and MRI exam. Those obtained within one calendar day prior to the MRI were reviewed first, and MR images were assessed for fractures, bursitis, tendinopathy, muscle injury, and other causes of pain.

Radiographs were considered to be either positive or suggestive of a fracture in 26 patients. In 11 of those patients, MRI showed no fracture. In the other 15 patients, MRI detected 12 additional pelvic fractures not identified on x-rays. Thirteen patients with normal radiograph findings were found to have a total of 23 fractures by MRI. ■

Strategies for Saying ‘No’ to Patients

Key point: Outright rejection resulted in the lowest patient satisfaction.

Citation: Paterniti DA, Fancher TL, Cipri CS, et al. Getting to ‘no’: Strategies primary care physicians use to deny patient requests. *Arch Intern Med* 2010. 170(4):381-388.

Patients ask for specific medications in 10% of office visits, according to some studies. To evaluate physician strategies for saying “no” to such requests, U.S. researchers assigned 18 trained and scripted standardized patients to visit physicians and to request antidepressants.

The patients were insured middle-aged white women who presented with histories consistent with depression or adjustment disorder and with low back pain or wrist pain.

Patients requested antidepressants during 199 of the visits; prescriptions were denied in 36% of visits in which patient histories were consistent with depression and in 53% consistent with adjustment disorder. Strategies used for denying requests included:

- patient-perspective-based approach (focus on patient history and circumstances and offer alternative diagnosis), 63%
- biomedical-based approach (prescribe sleep aid, order diagnostic tests), 31%
- outright rejection, 6%.

Many physicians who used patient-perspective-based strate-

gies left the door open to prescribing an antidepressant at a later date and often referred the patient for further evaluation.

Some physicians who used the biomedical-based approach prescribed a different agent (e.g., trazodone for insomnia symptoms) or ordered further testing (e.g., thyroid-stimulating hormone level) as an alternative to prescribing the requested agent.

In a few instances, physicians rejected the request outright and quickly moved the discussion to the back or wrist pain.

Standardized patients who were offered an alternative diagnosis reported greater visit satisfaction than those who were referred for additional diagnostic testing or were rejected outright.

[Published in *J Watch Gen Med*, March 18, 2010—Jamaluddin Moloo, MD, MPH.] ■

Emergency Department Wait Time and Visit Length: Up, Up, and Away

Key point: Wait times and visit length vary widely among EDs.

Citation: Horwitz LI, Green J, Bradley EH, et al. U.S. emergency department performance on wait time and length of visit. *Ann Emerg Med*. 55(2):133-141.

The National Quality Forum has endorsed a set of consensus standards for emergency care quality that include measures of ED wait time and visit length for admitted and discharged patients.

In a retrospective cross-sectional study, these authors used data from the 2006 National Hospital Ambulatory Medical Care Survey to examine wait time and visit length for a random sample of 35,849 patient visits to 364 U.S. EDs.

Mean and median wait times were 52.4 and 34.0 minutes, respectively. Mean and median visit length were 4.9 and 4.3 hours, respectively, for admitted patients and 3.0 and 2.3 hours, respectively, for discharged patients.

As we continue to grapple with increasing patient volumes and illness acuity, we need to be prepared for the fact that hospital-specific ED quality metrics, including wait time and visit length, will be publicly reported. Although bringing this information into the public domain may help emergency physicians press their case for more resources, meaningful change will require significant process redesign.

[Published in *J Watch Emerg Med*, March 12, 2010—Richard D. Zane, MD, FAAEM.] ■

Preventing Sudden Cardiac Death in Athletes

Key point: Screening, theoretically, is cost-effective, but many practical barriers remain.

Citations: Wheeler MT, Heidenreich PA, Froelicher VF, et al. Cost-effectiveness of preparticipation screening for prevention of sudden cardiac death in young athletes. *Ann Intern Med* 2010;152(5):276-286.

Baggish AL, Hutter AM, Wang F, et al. Cardiovascular screening in college athletes with and without electrocardiography:

A cross-sectional study. *Ann Intern Med.* 2010;152(5):269-275.
 Maron BJ. National electrocardiography screening for competitive athletes: Feasible in the United States? *Ann Intern Med.* 2010;152(5):324-326.

About 90 young U.S. athletes suffer sudden cardiac death (SCD) annually. The International Olympic Committee and other organizations recommend electrocardiography (ECG) screening for athletes. In two studies, researchers explored this proposal for U.S. high school and college athletes.

In a decision analysis, investigators modeled the efficacy and costs for one-time screening of student athletes for known SCD risk factors (e.g., prolonged QT interval, left ventricular hypertrophy), considering published estimates of prevalence, screening accuracy, SCD risk, screening and follow-up costs, and treatment effectiveness.

History and physical examination (H&P) alone saved 0.56 life-years per 1,000 athletes screened at a cost of \$199,000 per life-year saved compared with no screening. Adding ECG to H&P saved an additional 2.1 life-years per 1,000 athletes screened at a total cost of about \$76,000 per life-year saved. ECG alone was more cost-effective than H&P alone.

In the second study, 510 Harvard University athletes were screened with H&P, ECG, and transthoracic echocardiography (TTE; the gold standard). Clinicians who performed ECG and TTE were blinded to H&P results and vice versa. Of 11 TTE findings considered to be significant, five were identified by H&P alone, and five were detected by ECG alone; of three TTE findings that resulted in restriction from sports participation, one was identified by H&P alone, and two were detected by ECG alone. However, 78 athletes (15%) exhibited abnormalities on ECG that were false-positives and did not result in restriction from sports; many of these "abnormalities" (e.g., increased QRS voltage) represented physiologic remodeling.

The authors of the first study note that actual ECG interpretations are highly variable and that a high threshold for suspicion was used in the theoretical model. An editorialist notes that most SCD occurs in non-athletes, that a widespread U.S. program would cost about \$2 billion initially (and that cost would recur if screening was performed annually), and that substantial legal liability could accrue to physicians who must enforce disqualification decisions.

[Published in *J Watch Gen Med*, March 11, 2010—Thomas L. Schwenk, MD.] ■

Afraid you missed something?



Every article that has appeared in *JUCM, The Journal of Urgent Care Medicine* is available on our website. Simply log on to www.jucm.com and click on the Past Issue Archive button to see every issue we've published.