



# ABSTRACTS IN URGENT CARE

- Casts for pediatric fracture
- Pertussis vaccination
- Length of UTI treatment and recurrence
- CT for right lower quadrant pain
- A 'mother's kiss'
- Curbside consults
- DTaP injection-site reactions
- NAHUM KOVALSKI, BSc, MDCM
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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.

## Soft cast versus rigid cast for treatment of distal radius buckle fractures in children

**Key point:** Buckle fractures of the distal radius can be safely and effectively treated with a soft cast and only a single orthopedic outpatient clinic appointment.

**Citation:** Witney-Lagen C, Smith C, Walsh G. Soft cast versus rigid cast for treatment of distal radius buckle fractures in children. *Injury*. 2012 Dec 21. pii: S0020-1383(12)00516-5. doi: 10.1016/j.injury.2012.11.018

Buckle fractures are extremely common and their optimum management is still under debate. This study aimed to ascertain whether buckle fractures of the distal radius can be safely and effectively treated in soft cast with only a single orthopaedic outpatient clinic appointment.

A total of 232 children with buckle fractures of the distal radius were included in the study. 111 children with 112 distal radius fractures were treated in full rigid cast and 121 children with 123 fractures were treated with soft cast. The rigid cast children attended outpatient clinic for removal of cast at 3 weeks. Soft casts were removed by parents unwinding the cast at home after 3 weeks. Follow-up was conducted prospectively by telephone questionnaire at an average of 6 weeks post-injury.

Outcome data were available for 117 children treated in soft cast and for 102 children treated in rigid cast. The most common mechanism of injury was a fall sustained from stand-

ing or running, followed by falls from bikes and then trampoline accidents.

Overall, both groups recovered well. Overall satisfaction with the outcome of treatment was 97.4% in soft cast and 95.2% in rigid cast. Casts were reported as comfortable by 95.7% in soft cast and 93.3% in rigid cast. Cast changes were required for 6.8% of soft casts and 11.5% of rigid casts. The most frequent cause for changing rigid casts was getting the cast wet. None of the improved scores seen in the soft cast group were statistically significant. No re-fractures were seen in either group. Nearly all (94.9%) children in soft cast did bathe, shower or swim in their cast.

Parents of both groups preferred treatment with soft cast ( $P < 0.001$ ). Reasons given for preferring the soft cast included the ability to get the cast wet, avoidance of the plaster saw and not having to take time off work to attend a follow-up visit for cast removal. ■

## Why Do Fully Vaccinated Kids Get Pertussis?

**Key point:** Immunity wanes after the full series, but completing five doses is still our best option for prevention.

**Citation:** Misegades LK, Winter K, Harriman K, et al. Association of childhood pertussis with receipt of 5 doses of pertussis vaccine by time since last vaccine dose, California, 2010. *JAMA*. 2012; 308(20):2126-2132.

In 2010, suffered a large pertussis outbreak; in addition to significant infant mortality, a high disease burden was seen in 7- to 10-year-olds. Investigators used 2010 data from 15 counties to examine the association between pertussis and time since completion of the five-dose diphtheria, tetanus, and acellular pertussis (DTaP) series.



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Among 682 pertussis cases in children aged 4 to 10 years and 2016 controls, cases were significantly more likely than controls to be unvaccinated (7.8% vs. 0.9%) and to be older (median age, 9 vs. 7 years). Unvaccinated children were 8.9 times more likely to contract pertussis than fully vaccinated children. Among children who completed the five-dose series, the odds for pertussis increased with time since administration of the fifth dose (odds ratios ranged from 0.02 in the 12 months since last dose to 0.29 at 60 months or longer). Vaccine efficacy decreased during this period from 98.1% within the first year to 71.2% after 60 months.

Published in *Journal Watch Ped Adoles Med*. January 16, 2013 — Peggy Sue Weintrub, MD. ■

### No Relation Between Length of Treatment for UTIs and Early Recurrence in Men

**Key point:** How long to continue antibiotics in men with urinary tract infections is still up for debate.

**Citations:** Drekonja DM, Rector TS, Cutting AC, Johnson RJ. Urinary tract infection in male veterans: Treatment patterns and outcomes. *JAMA Intern Med*. 2013;173(1):62-6 and Trautner BW. New perspectives on urinary tract infection in men. *JAMA Intern Med* 2013 Jan 14; 173:68.

Most research to examine length of antibiotic treatment for uncomplicated urinary tract infections (UTIs) has been conducted in women, for whom clinical guidelines are well established. In a retrospective study of 33,336 veterans with uncomplicated UTIs (all outpatients; mean age, 68; median antibiotic-therapy duration, 10 days), researchers explored whether length of antibiotic therapy was associated with recurrence in men. Most patients received ciprofloxacin or trimethoprim-sulfamethoxazole; about one third were treated for <7 days, and the rest were treated for >7 days.

Researchers found 1373 cases of early recurrence (at <30 days; 4% of the cohort) and 3313 cases of late recurrence (at >30 days; 10%). In multivariate analyses, no difference was noted in risk for early recurrence between men who received longer- or shorter-duration initial treatment; risk for late recurrence was significantly higher among those who received longer-duration treatment than among those who received shorter initial courses (11% vs. 8%).

Published in *J Watch Gen Med*. January 31, 2013 — Thomas L. Schwenk, MD. ■

### Computed Tomography for Adults with Right Lower Quadrant Pain

**Key point:** When CTing for RLQ pain in adults, in about a third of patients, diagnoses other than appendicitis were evident.

**Citation:** Pooler BD, Lawrence EM, Pickhardt PJ. Alternative

diagnoses to suspected appendicitis at CT. *Radiology*. 2012;265(3):733-742.

Most adults with acute right lower quadrant abdominal pain now undergo computed tomography (CT) when suspicion for appendicitis is at least moderate. In a study from one teaching hospital in , researchers reviewed the results of CT scans ordered explicitly to evaluate 1571 consecutive adults for appendicitis or right lower quadrant pain. All patients were referred from the emergency department or urgent-care settings.

CT revealed appendicitis in 24% of patients; according to review of clinical records, sensitivity and specificity of CT for appendicitis were 99% and 98%, respectively. CT also demonstrated specific alternative diagnoses in 32% of patients, and no specific diagnoses in 45%. Adnexal abnormalities accounted for nearly one third of alternative diagnoses in women; otherwise, the spectrum of alternative diagnoses was fairly similar in men and women. The most common alternative diagnoses (as a proportion of the 496 patients with alternative diagnoses) were inflammatory enteritis or adenitis (17%), urolithiasis (12%), diverticulitis (8%), and constipation (7%). Small bowel obstruction, inflammatory bowel disease, and cholecystitis each accounted for 4% of alternative diagnoses.

Published in *J Watch Gen Med*. January 15, 2013 — Allan S. Brett, MD. ■

### A ‘Mother’s Kiss’ for Removal of Nasal Foreign Bodies

**Key point:** In a systematic case review, this technique worked in most children.

**Citation:** Cook S, Burton M, Glasziou P. Efficacy and safety of the “mother’s kiss” technique: A systematic review of case reports and case series. *CMAJ*. 2012;184(17):E904-E912.

The “mother’s kiss” is a technique first described in 1965 for nasal foreign body removal in children. A trusted adult occludes the unaffected nostril and blows into the child’s mouth gently until they feel resistance caused by closure of the glottis, and then they blow more forcefully to expel the foreign body. Researchers systematically reviewed eight case series and case reports involving 154 patients (age range, 1–8 years). Foreign bodies ranged from beads to a piece of sausage and a doll’s plastic shoe.

The technique was successful in 60% of cases, with similar success rates for smooth, regularly shaped objects and irregularly shaped objects. When noted, most foreign bodies were visible at presentation, and about half the children had undergone previous attempts at removal; these factors, as well as length of time since object insertion, were not described in enough detail to allow for subanalysis. One study of 31 patients noted that introduction of the mother’s kiss reduced the need

for general anesthesia for nasal foreign body removal (from 33% to 3%). No adverse events were reported.

Published in *J Watch Ped Adoles Med*. January 2, 2013 — Cornelius W. Van Niel, MD. ■

### Should We Curb the Curbside Consult?

**Key point:** *Inpatient curbside consults are often inaccurate and incomplete and often result in flawed recommendations.*

Citation: Burden M, Sarcone E, Keniston A, et al. Prospective comparison of curbside versus formal consultations. *J Hosp Med*. 2013;8(1):31-35.

Curbside consultations are widespread in medicine, but how they relate to patient care is largely unknown. Researchers conducted a prospective single-center study that involved 18 hospitalists to compare the accuracy, completeness, and recommendations of curbside versus formal consultations for 47 hospitalized patients.

After completing a curbside consultation, a hospitalist requested verbal approval from the requesting provider to perform a formal consultation in the same patient. If granted, a formal consultation was completed by a different hospitalist within a few hours. The two hospitalists determined whether the information obtained during the curbside consultation was complete and accurate compared with that of the formal consultation, and whether the advice given led to different recommendations for patient management. A physician with >35 years of inpatient experience also evaluated independently whether the formal consultation changed management.

Information obtained from curbside consultations was inaccurate or incomplete in 51% of cases. When information from the curbside consult was inaccurate or incomplete, recommendations provided in the formal consult changed management in 92% of cases.

Published in *J Watch Hosp Med*. January 16, 2013 — Aaron J. Calderon, MD, FACP. ■

### Injection-Site Reactions Less Common When DTaP Vaccine Given in Thigh

**Key point:** *Young children are less likely to have local reactions to the DTaP vaccine when it is administered in the thigh rather than the arm.*

Citation: Jackson LA, Peterson D, Nelson JC, et al. Vaccination site and risk of local reactions in children 1 through 6 years of age. *Pediatrics*. Published online January 14, 2013 (doi: 10.1542/peds.2012-2617)

Researchers assessed the medical records of 1.4 million children aged 1 to 6 years who received intramuscular vaccines for inactivated influenza, hepatitis A, or DTaP.

For DTaP, medically attended local reactions occurred more

often when the vaccine was administered in the arm versus the thigh (66.8 vs. 25.3 per 10,000 vaccinations). The difference was only significant in children aged 12 to 35 months.

For hepatitis A and influenza vaccines, there was no significant difference in the rate of local reactions based on injection site. ■

### Hypertension Drug Combo Plus NSAIDs Associated With Risk of Acute Kidney Injury

**Key point:** *Common antihypertensive agents are associated with increased risk of kidney injury when used concurrent with NSAIDs.*

Citation: Lapi F, Azoulay L, Yin H, et al. Concurrent use of diuretics, angiotensin converting enzyme inhibitors, and angiotensin receptor blockers with nonsteroidal anti-inflammatory drugs and risk of acute kidney injury: nested case-control study. *BMJ*. 2013;346:e8525

Using UK national databases, researchers followed half a million patients who were prescribed antihypertensives over a mean of roughly 6 years. The incidence of kidney injury in the entire cohort was 7 per 10,000 person-years. Patients receiving “triple therapy” (an NSAID plus a diuretic plus either an angiotensin-converting-enzyme inhibitor or angiotensin-receptor blocker) had a 31% increased risk for hospitalization for acute kidney injury, relative to those not taking NSAIDs. “Double therapy” (an NSAID plus either a diuretic, ACE inhibitor, or ARB) was not associated with increased risk.

Editorialists note that the confidence interval around the double therapy estimate was wide, and thus the evidence for the absence of risk was not strong. The study’s authors urge caution, especially early in the course of treatment when risk seems highest and patients may be taking NSAIDs for arthritis or flu-like syndromes. ■

### Antibiotics for COPD: Further Evidence of Benefit

**Key point:** *Inpatients with COPD exacerbations had better outcomes when treated with both steroids and antibiotics.*

Citation: Stefan MS, Rothberg MB, Shieh M-S, et al. Association between antibiotic treatment and outcomes in patients hospitalized with acute exacerbation of COPD treated with systemic steroids. *Chest*. 2013;143(1):82-90.

Patients who are admitted with exacerbations of chronic obstructive pulmonary disease (COPD) are treated routinely with steroids and bronchodilators. However, the incremental benefit of antibiotic therapy is unclear, despite some promising results from previous studies (e.g., *JW Gen Med* Jun 3 2010).

Investigators retrospectively studied 53,900 patients admitted to inpatient wards with acute exacerbations of COPD (not

critically ill or requiring ventilatory support). Patients were drawn from a pool of hospitals, predominantly urban (83%), nonteaching (66%), and located in the South (52%). Patients who received both steroids and antibiotics were compared with those who received steroids alone.

In-hospital mortality was low in both groups but was significantly lower in patients treated with antibiotics (1.0% vs. 1.8%). Rates of readmission by 30 days also were lower (5.4% vs. 6.8%). These results remained significantly different after multivariable analysis and propensity-score matching. Patients who received antibiotics had a slightly but significantly longer mean length of stay and higher cost of admission. The choice of antibiotic regimen did not affect outcomes.

*Published in J Watch Gen Med. January 31, 2013 — Patricia Kritek, MD. ■*

### Emergency Department Triage Respiratory Rate Measurements Are Often Inaccurate

**Key point:** Manual measurement of respiratory rate often is inaccurate.

**Citation:** Bianchi W, Dugas AF, Hsieh YH, et al. Revitalizing a vital sign: Improving detection of tachypnea at primary triage. *Ann Emerg Med* 2013;61(1):37-43.

Inaccurate measurement of respiratory rate can have significant implications for patient care. In this cross-sectional study of 191 emergency department patients, investigators compared the accuracy of respiratory rate measurement by usual care (direct observation of respirations by a triage nurse for 15 seconds, multiplied by 4) and by an electronic BioHarness device (detection of respirations by a thoracic pressure sensor) for identifying tachypnea. They used direct observation of respirations by a trained research assistant for 60 seconds as the criterion standard measurement.

Of 191 patients, 44 (23%) were characterized as tachypnic (respiratory rate >20 breaths/minute) by criterion standard measurement. Usual measurement identified 10 of these patients as tachypnic (sensitivity, 23%; specificity, 99%), while electronic measurement identified 40 patients as tachypnic (sensitivity, 91%; specificity, 97%).

*Published in J Watch Emerg Med. January 11, 2013 — Richard D. Zane, MD, FAAEM. ■*

### FDA Lowers Recommended Dose for Insomnia Drug Zolpidem

**Key point:** Taking the insomnia drug zolpidem at night could impair alertness the next morning—especially in women—and recommended doses should be lowered.

**Citation:** <http://www.fda.gov/Safety/MedWatch/SafetyInformation/SafetyAlertsforHumanMedicalProducts/ucm334738.htm>

Taking the insomnia drug zolpidem (e.g., Ambien) at night could impair alertness the next morning — especially in women — and recommended doses should be lowered, the FDA warned on Thursday.

The warning applies to both generic and brand-name versions of zolpidem and is based on data showing the sedative-hypnotic stays in the body longer than previously thought. The risk for women is higher because they process the drug at a slower rate than men.

Among the agency's recommendations:

- For immediate-release products (including Ambien, Edluar, and Zolpimist), the dose for women should be lowered from 10 mg to 5 mg.
- For the extended-release product Ambien CR, the dose for women should be lowered from 12.5 mg to 6.25 mg.
- For all zolpidem and other insomnia drugs, the lowest dose needed to treat symptoms should be prescribed for both men and women. ■

### Many U.S. Adolescents Have Considered Suicide

**Key point:** One in eight U.S. teens has seriously considered suicide, and one in 25 has attempted it.

**Citation:** Nock MK, Greif J, Hwang I, et al. Prevalence, correlates, and treatment of lifetime suicidal behavior among adolescents. *JAMA Psychiatry*. 2013;():1-11. doi:10.1001/2013.jamapsychiatry.55

Nearly 6500 adolescents (aged 13 to 18) were surveyed about their lifetime history of suicidal behaviors and mental disorders.

Among the findings:

- A third of those who considered suicide go on to make a plan, and nearly two thirds of those with a plan attempt suicide.
- Most of those who attempt suicide do so within a year of first considering it.
- Roughly 90% of suicidal adolescents had at least one of the 15 mental disorders included in the survey, most commonly depression.
- Between 55% and 73% of suicidal adolescents received some form of treatment before symptom onset. ■