Buccal midazolam is effective for acute seizures. Rapid cessation of acute tonic-clonic seizures is a basic principle of emergency care. In a multicenter, randomized study, investigators in the U.K. compared the efficacy and safety of buccal midazolam and rectal diazepam (both about 0.5 mg/kg) for 219 acute seizures in 177 children (median age, 3 years) who presented to the emergency department without established intravenous access. In 35% of episodes, the child was febrile; 28% of episodes were the patients’ first seizure. Treatment success was defined as cessation of the seizure within 10 minutes, lack of respiratory depression, and no seizure recurrence within 1 hour.

Overall, treatment success was significantly better with buccal midazolam than with rectal diazepam (56% vs. 27%). Buccal midazolam also was significantly better than diazepam among patients with an initial seizure episode. Median time for seizure cessation was significantly shorter for midazolam (8 vs. 15 minutes). Seizure recurrence was less common with midazolam. Rates of respiratory depression were similar in the two groups (5%-6%).

Comment ▶ Buccal midazolam appears to be an effective emergency treatment for tonic-clonic seizures in children and should be considered when IV access is not immediately available. Training professionals to administer buccal midazolam during an active seizure will be necessary if it becomes the standard of care.

F. Bruder Stapleton, MD
Published in Journal Watch Pediatrics and Adolescent Medicine
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Which trauma patients require the presence of a surgeon? ▶ Level I trauma centers require that a trauma surgeon be present within 15 minutes of a major resuscitation (as defined by criteria developed by the American College of Surgeons Committee on Trauma). These criteria for a major resuscitation have been evaluated in adults. This retrospective study evaluated one of the established adult criteria—prehospital intubation/respiratory compromise (IRC)—in pediatric patients (age, <13 years) at one trauma center. From January 2000 through January 2004, 118 pediatric patients were classified as requiring a major resuscitation, 40 with prehospital IRC (intubated before or on arrival at the trauma center) and 78 who were classified based on other indications.

Intubated patients had a significantly higher injury severity score (29.9 vs. 11.8) and longer stay in the ICU (5.6 vs. 1.1 days) than nonintubated patients. Eighteen of the intubated patients died, compared with none of the nonintubated patients. The authors conclude that patients with prehospital IRC were more likely to require a major resuscitation.

Comment ▶ Although the results of this study appear to be obvious, it is worthwhile to validate criteria that require increased use of resources, and these data may help those of us outside a Level I trauma center to identify patients who may require resuscitation (and, therefore, the presence of a surgeon). In particular, the findings remind us that respiratory distress in patients who are injured or who have systemic disease is an ominous sign.

William P. Kanto, Jr., MD
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Ask if they know ▶ Chlamydia trachomatis and Neisseria gonorrhoea infections are common among adolescent women, and after treatment for one infection, many patients develop another within 6 months. In some cases, the reinfection is caused by an untreated sex partner.

To examine the relation between patient knowledge of a partner’s treatment status and reinfection, investigators analyzed data on 411 adolescent women enrolled in a Yale University research project from 1998 to 2000. Overall, 104 women reported a previous C. trachomatis or N. gonorrhoea infection, and 97 were able to provide information about their partners’ treatment at the time of that infection. Of these 97, 64 reported that their partners had been treated, and 17 had new diagnoses of C. trachomatis or N. gonorrhoea infection. The rate of infection was 11% (7/64) among those who knew their partners had been treated compared with 30% (10/33) among those who did not know (P=0.02). The authors also examined the effect of a change in partners: Participants who did not know whether their partners had been treated and who no longer had the same partner had the highest risk (37%), and those who knew their partners had been treated and were still in the same relationship had the lowest risk (8%).

Comment ▶ These data underscore the importance of telling young men and women with C. trachomatis or N. gonorrhoea infection that their sex partners must also be treated and that they should refrain from sex until they are certain their partners have been treated. To young patients, I emphasize that when their health is at risk, they have a right to know. Systems that facilitate treating partners together probably enhance treatment success.

Alain Joffe, MD, MPH
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Reading matters: an evidence-based program for well-child visits ▶ Reading aloud to young children enhances the development of literacy. Preschool children who are read to at least three times per week are more likely to recognize all the letters of the alphabet, count to 20, write their names, and read or pretend to read than other children. The Reach Out and Read (ROR) program begins the process by encouraging parents to read books to their infants beginning at the 6-month well-child pediatric visit; a picture book is given to the family at each well-child visit from ages 6 months to 6 years, and volunteers in the waiting room (or the child’s clinician) model effective reading strategies for parents. Studies of ROR programs have documented increased reading aloud among parents and children exposed to the program. Three controlled studies reported a significant increase in preschool vocabulary.
To evaluate the effectiveness of the ROR program in real-world pediatric settings, researchers interviewed a convenience sample of 1647 parents (primarily from low-income families) at 19 new program sites in 10 states at baseline and after 1 year; 730 families received the intervention, and 930 did not. Clinician training followed the standards of the ROR National Center (https://www.reachoutandread.org).

After controlling for multiple potential confounding factors, exposure to ROR was found to be significantly associated with reading aloud as a favorite parent activity, reading aloud at bedtime, reading aloud 3 or more days per week, and ownership of more than 10 picture books.

Comment ► Pediatricians want evidence-based studies to support what they do during well-child visits. This study demonstrates the efficacy of the ROR program, a practical, primary-care intervention with minimal cost and time allocation, in a national sample of primary-care offices and clinics serving low-income families. Study limitations include the use of convenience samples and a historical comparison group. However, the positive results should encourage incorporation of the ROR literacy-promoting program in office-based pediatric practices.

Martin T. Stein, MD
Published in Journal Watch Pediatrics and Adolescent Medicine September 9, 2005

Antibiotics not needed for acute conjunctivitis ► Topical antibiotics are often prescribed for acute conjunctivitis in children. In a randomized, double-blind study, investigators in the U.K. compared topical chloramphenicol with placebo eyedrops in 326 children (age, 6 months to 12 years). Parents were instructed to continue treatment until 48 hours after the infection had resolved.

A pathogen was identified in about 80% of children; 67% tested positive for at least one bacterial pathogen (60% for Haemophilus influenzae, 20% for Streptococcus pneumoniae, and 10% for Moraxella catarrhalis). The type and prevalence of bacteria and viruses were similar in the two treatment groups.

On days 2 through 7, the mean time to cure was significantly shorter (about 0.3 days) in the antibiotic group than in the placebo group. On day 7, however, clinical cure rates did not differ significantly between the antibiotic and placebo groups (86% vs. 83%). Bacterial eradication was significantly better in the antibiotic group (40% vs. 26%). Complication rates were the same in the two groups, although one child had an apparent allergic reaction to chloramphenicol.

Comment ► These results demonstrate that chloramphenicol eyedrops are no better than placebo drops for curing acute infective conjunctivitis. Interestingly, bacterial eradication was not necessary for clinical cure. We don’t know whether these data apply to the more commonly prescribed ophthalmologic antibiotics. Home treatment without antibiotics for uncomplicated conjunctivitis, if possible, could significantly reduce healthcare costs. However, the study did not address whether antibiotics reduce the communicability of conjunctivitis.

F. Bruder Stapleton, MD
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