As we approach the ever-dreaded winter season, I recall winters past and quickly my anxiety level begins to rise. I have been spoiled by the busy, albeit manageable, summer and now look toward the future. The days (and nights) of full hospital rooms, leading to full ED rooms, creating full waiting rooms of unhappy people... do not make happy holidays for anyone! I remember looking at a colleague last year (while we were up to our eyeballs in bronchiolitis, fever, abscesses, and the ever present 4-wheeler accident) and asking, “Haven’t we seen all the children in Birmingham yet?”

The topic of ED overcrowding has been a hot item for discussion. Simply put, it is a “situation in which the identified need for emergency services outstrips available resources in the ED”. Harmful effects of overcrowding include: placing both patients and physicians at higher risk, and increasing the number of medical errors, stress in the workplace, and patient dissatisfaction (1). But the question remains... what can any of us do about it???

For the interest of discussion, I will review some of the recent literature. Every year, approximately 22 million children receive emergency care. Demographics associated with nonurgent visits include low SES, single parent homes, and unemployment. A group in Louisiana surveyed non-urgent and urgent visits to the pediatric ED (emergent visits excluded), and found that 76% of nonurgent visits had a primary medical home for their child. Of interest, for those with more than one child, 56% reported having more than one medical home. The most common reason cited for coming to the ED for their non-urgent problem was a seemingly shorter amount of time from check-in until being seen by a physician. The medical home was seen as a place to go for well child care and immunizations, but the convenience of expanded hours, larger waiting rooms, and perceived friendliness of the staff made the ED a more desirable option for acute illnesses (2).

Working in the ED, something that requires explanation is the “LWTs” or “left without treatment” patients. Most patients who leave a pediatric ED without being seen do so because the wait was too long or their symptoms resolved. In one study, these patients received lower triage acuity levels, lived closer to the hospital, were more likely to seek alternate medical advice than those who stayed, and were more likely to check-in in the early morning hours (3). We all know that kids change. Although some may get better while waiting, some may get worse. Optimally, we would like them to all be evaluated in the ED before going home.
What’s In The News

Effectiveness of Oral Dexamethasone in the Treatment of Moderate to Severe Pharyngitis in Children


We’ve all been there. We’ve all had that sore throat that is so bad, rather than even think about taking one drink, you go without. We can tolerate it (although I complain about it an awful lot), but in younger children, the discomfort associated with significant pharyngitis can mean dehydration and missed school. Is there something we can do above and beyond the routine rest and nonsteroidals?

This study looked prospectively at children ages 5-18 years with moderate to severe pharyngitis (defined by presence of odynophagia or dysphagia, moderate to severe pharyngeal erythema or swelling, and a McGrath Facial Affective Scale of 0.75 or greater). Exclusion criteria included immunosuppression, pregnancy, dexamethasone allergy, receiving steroids in the past week, or retropharyngeal/peritonsillar abscess. Testing for GABHS was performed and patients were treated for positive tests. The children were randomized into 2 groups: one receiving oral dexamethasone, and the other receiving placebo. Follow-up was done by phone with each family until resolution of symptoms.

Their results showed that in patients with GABHS, there was a significant difference between the groups in the onset of pain relief, but no differences in pain scores in first 24 hours or time to complete resolution. In those without GABHS, if dexamethasone was administered, there was a considerable difference in onset of pain relief, total duration of pain, and pain scores in the first 24 hours. No adverse effects from the steroids were noted. So, maybe we do have something else to offer…

Delayed Prescription May Reduce the Use of Antibiotics for Acute Otitis Media


It doesn’t look like we will ever let this subject rest, but it seems that acute otitis media (AOM) remains to be the target. Do we have to treat these infections? Will they get better on their own? Increasing bacterial resistance has gotten everyone’s attention, but the actual execution of ideas such as “safety net antibiotic prescriptions” are easier said than done.

This prospective study was designed to evaluate the acceptability of the “wait and see” approach to the treatment of AOM. The definition of “severe AOM” was red, bulging tympanic membrane, and temperature $\geq 38.4^\circ$C. Exclusion criteria included: age < 12 months, earlier antibiotic administration, severe concomitant disease (i.e. asthma, pneumonia), Down’s syndrome, cystic fibrosis, immunodeficiency, and craniofacial malformations. Almost 1,300 patients were included in their analysis. 178 of those received antibiotic therapy at the onset of symptoms because they met the treatment criteria specified by the practice guideline: otorrhea, h/o recurrent AOM, or both. At the end of the study period, 65% (n=716) of patients recovered from their AOM without antibiotic therapy. The others enrolled received antibiotics at some point for either persistence of symptoms, severity of clinical features, parental concern, contralateral AOM, and intervening illness.

This study is full of limitations and bias, but it’s hard to argue that 2 of 3 patients recovered from their infection without antimicrobial agents. Is there a perfect way to perform this study? Probably not, but I do think this approach is going to become more acceptable to both physicians and parents as time goes on.
**Urgency of Evaluation and Outcome of Acute Ovarian Torsion in Pediatric Patients**


When I hear torsion, the first word that comes to my mind is testicular. However, the torsion that makes me lose sleep at night is of the ovarian variety. Testicular torsion is not an always easy diagnosis to make, but anatomy makes it a little less confusing. Young girls with abdominal pain…how many times am I missing the torsed ovary?

This study was designed to describe the symptoms of ovarian torsion, examine the diagnostic studies performed, and report the rate of ovarian salvage. A retrospective chart review was performed investigating all patients with the diagnosis of ovarian torsion who had undergone operative treatment over a 15 year period. 22 patients met their inclusion criteria. Their mean age was 10.2 years, and the majority of patients were premenarchal. All of the patients presented with abdominal pain of varying location, most commonly RLQ. Most patients (91%) had abdominal tenderness, and many (77%) had nausea/vomiting. Other associated findings and symptoms included: palpable mass (36%), WBC > 12,000 (32%), peritoneal signs (23%), and fever (18%). The majority of patients underwent ultrasound examination (20/22), and some had CT (5/22). 19 of the ultrasounds and 4 of the CTs suggested the diagnosis.

27% (n=6) of the ovaries were salvaged, with all of those patients having surgical intervention within 24 hours of initial examination. The mean time to the OR in those with salvaged ovaries was 10.8 hours, while the mean time in those with unsalvageable ovaries was 21.2 hours. Of the 16 unsalvageable ovaries, 8 demonstrated masses on examination, with the other 8 showing signs of hemorrhagic necrosis or infarction alone. They could not show a significant difference in salvage based on duration of pain prior to examination. Although the differences in salvage based on mean duration of pain prior to operative procedure and time from initial examination to operative procedure is not statistically significant, some would argue that it is clinically significant. So, what does this mean for us? We need to think about it more, push for the ultrasound when we think it is indicated, and do it quicker once the patient presents to our door.
Standing Room Only
Continued from page 1

So, what do we do? Are there any solutions? In September 2004, the American Academy of Pediatrics issued a policy statement addressing just this issue. They maintain that, on a national scale, overcrowding is not largely a result of inappropriate use of the ED by those with nonurgent problems, but more from increasing numbers of seriously ill and injured patients combined with decreased resources supplied by the hospitals (1).

In 1985, the Emergency Medical Treatment and Active Labor Act (EMTALA) was enacted for the purpose of protecting indigent and uninsured patients who were seeking medical care. This act requires all Medicare-participating hospitals to provide a medical screening examination to all patients presenting to their door. This has made emergency departments the only place in our system where health care is guaranteed. When asked the reason why emergency services are sought, inadequate or inaccessible sources of primary care are often cited. Measures considered necessary to definitively fix these problems are not easy or inexpensive. Changes should be made at the hospital inpatient level, as well as at the ED level.

In the AAP statement there are specific intervention to be made at the primary care level including:

1. **Connect patients to a fully functional medical home, thereby improving access to office-based acute care and coordinating utilization of after-hours clinical services.** For those in the community, take another look at how the office functions, preferably from a patient’s viewpoint. Evaluate such things as availability of same-day appointments, policies on walk-in patients, and effectiveness of answering service/telephone triage.

2. **Advocate for improved Medicaid reimbursements.** The average Medicaid caseload for pediatricians has increased from 24% to 30% in the last several years. Stronger advocacy for fair Medicaid reimbursements is needed to maintain financial incentive to care for these patients.

3. **Encourage State Children’s Health Insurance Program (SCHIP) enrollment (i.e. AllKids).**

4. **Support advocacy efforts directed toward medical professional liability and tort re-form.**

5. **Advocate for effective reforms in current health care delivery systems.** Our goal is to provide each child with a fully functional medical home (1).

I speak for more than just myself when saying how appreciative we are of the physicians in the community that have expanded their office hours into the evenings and weekends. It has been a wonderful experience having patients follow-up on Saturday or Sunday morning with their regular doctor rather than having them come back to the ED (and I KNOW the families appreciate that as well!). We know that during this time, we are ALL busy and just trying to keep our heads above water. So, as we approach another winter in pediatrics, let’s make a pact to keep the lines of communication open, not only with the families, but also with each other, and to work together to do what’s ultimately best for the patient. After all, isn’t that why we are all doing this?

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1. The leading cause of unintentional injuries on Halloween is:
   a. Poisonings
   b. Falls
   c. Dog bites
   d. MVA
   e. Burns

2. The following are true regarding glow sticks:
   a. The active ingredient is Dibutyl phthalate
   b. In small doses, it is non-toxic
   c. It can cause irritation to the skin and mucous membranes on contact
   d. If ingested, it causes nausea and vomiting
   e. All of the above

3. Select the true statement regarding your Thanksgiving turkey:
   a. A frozen turkey may be defrosted in the refrigerator, in cold water, or at room temperature.
   b. When cooking a stuffed turkey, the temperature of the stuffing should reach 165 ° F.
   c. The cooking time for a frozen turkey is twice as long as a fully thawed turkey.
   d. It takes 4 hours for food at room temperature to grow enough bacteria to cause illness.
   e. A “pop-up” thermometer alone is sufficient when cooking a turkey.

4. Which of the following plants is considered non-toxic?
   a. Holly
   b. Mistletoe
   c. Poinsettia
   d. Rhododendron
   e. Jerusalem Cherry

5. Match the following item found in the house at holiday time with the toxin it contains:
   a. Bubble lights
   b. Icicles/foil wrapping paper
   c. Angel hair
   d. Vanilla extract
   e. “Fire salts”/colored fireplace logs

   ___ alcohol
   ___ spun glass
   ___ lead
   ___ metallic salts
   ___ methylene chloride

We were all made aware of the “black box” warning placed on promethazine (Phenergan) and its use in children under the age of 2. A “black box” warning is the strongest warning the government can place on a medication short of banning the drug. Wonder what the basis was for this action?

Adverse events associated with the use of promethazine have been noted since 1951. For this reason, in 1995 the AAP reviewed the use of promethazine in combination with other drugs. In 2000, the warnings section of the label was strengthened to not using the medication in children < 2 years of age, and only with caution in those > 2. However, the cases with adverse events continued to occur. In late 2004, the boxed warning was added due to the unpredictable nature of these events, and their serious outcomes. They include respiratory depression, apnea, cardiac arrest and death. In cases of uncomplicated vomiting, the warning goes on to caution against the use of promethazine, as it may cause symptoms indistinguishable from those of encephalopathy.

Consultant’s Corner

Topic: MRSA in the Community

Consultant: Russ Bradford, MD

Please note: This is designed as a general discussion only. Each patient should be treated on a case-by-case basis.

Q: It seems as though the number of cellulitis cases I see is increasing. Is this true everywhere?

A: Nationwide we have seen an upsurge in skin and soft tissue infections over the past several years, among both children and adults. A large component of that is due to the spread of community-associated methicillin-resistant Staphylococcus aureus (CA-MRSA).

Q: I know that CA-MRSA is more common now, but just how common is it?

A: Because diagnosis requires specific culture, we don’t know the true incidence of infections with CA-MRSA. Over the past 6 months at TCHA, 56% of all S. aureus isolates have been resistant to methicillin. Of the S. aureus cultured from wound, abscess, or skin the figure is even more striking at 70%.

Q: Should I get a culture if there is pus?

A: Absolutely. When is the last time you wished you hadn’t done a wound culture? Culture data can help not only guide your treatment of the individual patient, it may also give you a handle on the specific microbiologic epidemiology in your area.

Q: What about drug resistance?

A: An important concept in the treatment of CA-MRSA is the notion of inducible resistance to clindamycin. That means that in some cases, traditional sensitivity testing will report the organism sensitive to clindamycin, when in fact it is not. A simple confirmatory test, known as the “D-zone test” is needed to confirm sensitivity. The test can be done in any basic microbiology laboratory. If your lab is not performing this test routinely, you need to request that it be done for all your CA-MRSA isolates. The microbiology laboratory at the Children’s Hospital of Alabama performs the “D-zone test” routinely, and will not report clindamycin sensitivity without this confirmatory test.

Q: Are there risk factors for having CA-MRSA?

A: The traditional risk factors for MRSA, such as institutional child-care attendance (day-care) and family members who work in health care or who have been exposed to hospitals or nursing homes do not predict risk for CA-MRSA. It is truly a ubiquitous community-acquired organism. There does seem to be a propensity for spread within families or other close contact groups like athletic teams.

Q: What is your choice of antibiotic for cellulitis and why?

A: The number one therapy for purulent skin and soft tissue infections is surgical drainage, where possible. In fact, for abscesses less than 5 cm in size, small studies have suggested that choice of antibiotic may be unimportant, as drainage provides the most clinical benefit. Having said that, your choice of first-line antibiotics for outpatient management of skin and soft-tissue infection should be based on your local microbiologic data. If CA-MRSA is not a problem in your area, beta-lactams such as dicloxacillin or cephalaxin remain the drug of choice. In areas with significant rates of CA-MRSA (>10% of S. aureus isolates), clindamycin and trimethoprim-sulfamethoxazole are the mainstays of therapy. There is not a clear first choice among the two options. In our area, I favor clindamycin when feasible. In the past six months at TCHA, greater than 95% of our CA-MRSA isolates were susceptible to clindamycin. Clindamycin also has the potential benefit of superior coverage for other organisms, primarily Group A Streptococcus. Other experts recommend trimethoprim-sulfamethoxazole, which has advantages in both taste and cost.

Welcome to our first installment of the consultant’s corner. I think you will find this section very useful and informative. Please send your questions to me at: asorrentino@peds.uab.edu. I have several specialists who have agreed to help! Hopefully, next time I can get a question from someone who is not married to me. Enjoy!
1. **B.** Falls are the leading cause of unintentional injury on Halloween. To help prevent falls, costumes should not be long enough to be a tripping hazard. Costumes and make-up should be flame retardant and loose enough to allow for warm clothes if needed, but not so loose that the child may brush up against an open flame. Poisonings are a scary thought when it comes to Halloween candy, so any treats with torn, faded or unsealed wrapping should be thrown out, as well as homemade treats. Urge your children to wait until they get home to eat any candy so you can inspect it. Pets are often mistreated at Halloween time, so they can be less tolerant. Keep away from dogs that seem agitated or are barking. Whether you are walking or driving on Halloween night, stay alert of your surroundings. If you are walking on a dark street, carry a flashlight, walk on the sidewalks, and always look both ways before crossing the street.

2. **E.** Glow sticks contain Dibutyl phthalate, which is very safe in small amounts. However, it can cause irritation to the skin and eyes. Oral ingestion can cause nausea and burning.

3. **B.** When cooking a stuffed turkey, the temperature of the innermost part of the thigh should reach 180°F and the stuffing should reach 165°F. A frozen turkey should never be allowed to thaw at room temperature, as that promotes bacterial growth. The cooking time for a frozen turkey is 50% longer than that of a thawed turkey. Illness causing bacteria can develop on foods left out at room temperature in just 2 hours. A “pop-up” thermometer is OK to use, but it is also recommended that a meat thermometer be used at several other places to ensure adequate cooking throughout.

4. **C.** Although previously thought to be highly toxic, the poinsettia has since been found to be safe to have in the home. Ingestion of a leaf or two has not resulted in significant toxicity, but can cause mild nausea, vomiting and diarrhea. Holly berries are highly toxic, and ingestion of 20 berries has caused death in children. All parts of mistletoe are toxic, so keep it up high, but watch for fallen parts. The rhododendron can cause weakness, nausea, vomiting, seizures, bradycardia, coma and death. The Jerusalem Cherry has bright orange/red berries which are the toxic part of the plant. It, too, can cause vomiting and seizures.

5. **D.** Vanilla extract contains alcohol which can cause significant hypoglycemia in children.
   **C.** Angel hair is made of spun glass which is an irritant to skin, eyes, and GI tract.
   **B.** Icicles and foil wrapping paper contain lead...need I say more?
   **E.** “Fire salts”/colored fireplace logs contain metallic salts that cause GI toxicity if ingested.
   **A.** Bubble lights contain methylene chloride; this is also found in paint removers, and can cause seizures and coma.

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**Consultant’s Corner** Continued From Page 6

Q: When do I need to put the child in the hospital?

A: As always, decisions to admit must be made on a case-by-case basis. However, among the indications for admission in a child with skin and soft-tissue infections are (1) very young age, (2) failure of outpatient therapy, (3) systemic illness, (4) large area of involvement requiring continued medical and surgical care, (5) social concerns, including uncertain follow-up or caregivers unable or unwilling to provide appropriate care.

Q: Should I try to eradicate colonization with CA-MRSA in a patient with recurrent episodes?

A: There are very little data to support the widespread practice of eradication of colonization in patients with CA-MRSA.

Recommended Reading:

As we enter into this Fall season, let us remember our neighbors affected by Hurricane Katrina in South Alabama, Mississippi, and Louisiana. Hundreds of children have been affected both physically and emotionally by this tragedy. Many of these children have relocated to Birmingham for an indefinite period of time, and will need ongoing medical care. Hopefully, we can all work together to meet the needs of these people during this truly unfortunate time.

Many of you have offered your invaluable time and services to the victims of Hurricane Katrina. Many have also asked where they can help. If anyone is interested in volunteering, M-Power ministries is holding free clinics to help meet some of this need. This will be a mix of adults and children. Please call 959-5959 for more details.

Please keep these people in your thoughts and prayers. They are our colleagues, our neighbors, and our friends. All of us have been touched in some way by this event. Let us not forget how truly fortunate we are.