Let me start this issue by saying I am in no way trying to impart my beliefs or feelings onto anyone who might be reading this. I’m sure Dr. Glaeser would like to have a disclaimer somewhere saying “the views expressed in this article are not necessarily those shared by the division”. I do not plan to condone or condemn...I only plan to present the facts as I have found them. I am an Italian Catholic from the Midwest, so you can imagine that some things may have been pretty black and white in my house growing up, but I have learned the importance of weighing pros and cons, risks vs. benefits, and keeping an open mind. If I haven’t lost you yet, I think you will find the following information interesting and the very least, and it may be valuable in your practice.

Let’s start with some facts:

♦ Genital infection with human papillomavirus (HPV) is the most common sexually transmitted infection (STI) in the United States today.

♦ Approximately 20 million Americans 15-49 years of age (~15% of the population) are currently infected with HPV, with 50% of those being between the ages of 15 and 24.

♦ Even though routine Pap screening has significantly reduced the incidence and mortality of cervical cancer, it remains the second most common cancer in women, behind only breast cancer.

♦ There are >100 different types of HPV, and they differ in terms of the epithelium they infect. The vaccine targets 4 types that cause up to 70% of cervical cancers and 90% of genital warts.

♦ In 2002, the age-adjusted incidence of invasive cervical cancer in the U.S. was 8.7 per 100,000 women. There were 3,952 deaths from cervical cancer that same year.

In recent years, there have been many new vaccines on the market, with many of them targeted at adolescents. In 2006, the recommended schedule includes a Tdap and meningococcal vaccine, as well as catch up vaccines for hepatitis B, MMR, and varicella. However, none has seemed to spark such lively conversation as the HPV vaccine. Many in the health care realm see it as a wonderful advance and a step forward in preventing a not uncommon type of cancer. However, others (including parents) feel that introducing this vaccine may prematurely present the need for education regarding sexual intercourse and sexually transmitted infections. I don’t think it’s the education that bothers people, but that it may be viewed as a “license” to have sex, as you will be protected from this potentially dangerous virus. Again, I am not in a position where I will be giving the vaccine, nor am I a parent, but I do find the dialogue interesting.

On June 8, 2006, the Food and Drug Administration (FDA) licensed the first vaccine developed to protect against invasive cervical cancer caused by certain types of HPV. Gardasil® was introduced into the market as a quadrivalent vaccine protecting against 4 types of HPV (6,11,16,18) that are responsible for the majority of cancers and genital warts. On June 29, 2006, the Advisory Committee on Immunization Practices (ACIP) voted to recommend the use of this vaccine in females ages 9-26 years. Studies have been performed testing the vaccine in over 11,000 women worldwide and found it to be safe and without major side effects.

Gardasil®: Clear Cut or Controversy continued on page 4


Especially this time of year, it seems that an asthma exacerbation is close to every other patient I evaluate. There are several compliance issues that go along with families of patients with asthma, including not using the medicine correctly, if at all! Studies have shown poor compliance of home oral steroid use. These authors set out to compare the efficacy of a single dose of oral dexamethasone with 5 days of twice daily prednisone.

Patients were eligible if they were between the ages of 2 and 16 with mild to moderate asthma. Exclusion criteria included severe symptoms, resolution of symptoms after 1 aerosol, having received oral steroids in the past 2 weeks, having a history of ICU admission or intubation for their asthma symptoms, or underlying co-morbidity, such as heart disease, chronic lung disease, or neurologic disorder.

One hundred thirty four patients were enrolled and were given either oral prednisone or dexamethasone as determined by double-blind randomization. Overall, 15 patients were admitted (9 in the prednisone and 6 in the dexamethasone group). Those that were discharged were given either 9 doses of prednisone or 9 doses of placebo.

At follow-up on day 5, 3 of the dexamethasone group had been admitted as compared with 1 from the prednisone group, making overall admission rates similar.

There are several limitations to this study, including a clinical scoring system that relied on parental interpretation of symptoms and not more objective methods. There was also no differentiation between mild and moderate exacerbations, making it unclear if either group was biased in their severity. Overall, they recommend that single-dose dexamethasone is not inferior to 5 days of twice daily prednisone, but further research is needed to be able to formally recommend a change in practice.

Pediatric Head Trauma: Changes in Use of Computed Tomography in Emergency Departments in the United States Over Time


OK, next to asthma, it seems that head injury is another complaint I see very frequently in the ED. As I attempt to teach the residents how to recognize a significant head injury, we all know that there are no absolutes in medicine. Several studies have tried to develop a clinical decision rule with modest success. People continue to look for the answer...as a matter of fact, I just completed a survey that came across my desk regarding my opinions on head CT in pediatric head trauma for a group in California. So, what are we actually doing while we search for the Holy Grail of imaging head trauma?

This group performed a cross-sectional analysis from a national database from 1995-2003. Patients 0-18 years of age with head trauma as chief complaint or discharge diagnosis were analyzed. Patient demographics, use of CT scan, ED demographics, and disposition data were collected.

They found that the use of CT scans in the evaluation of children with head trauma increased from 12.8% in 1995 to 22.4% in 2003 (with a peak of 28.6% in 2000). Hospitalization rates remained unchanged throughout the study period. Interestingly, more CTs were ordered in the older age groups (10-18), when many times I feel more comfortable clinically observing a patient. Could this be because of the increasing use of recreational drugs and alcohol in our teenagers? More CTs were ordered in non-pediatric departments, but there was no difference in academic vs. non-academic institutions.

Being a retrospective study of data collected in a national database is one limitation to this study. Other studies have shown that GCS is a major predictor of significant intracranial injury, but that information was not available to the researchers. So, this tells us what we are doing, but not exactly why...maybe that will come out next month.
Preparedness of Selected Pediatric Offices to Respond to Critical Emergencies in Children

When a sick child comes into the ED, I feel my pulse start to race and my palms can get a little sweaty...what am I going to need to do first? Fluids? Intubate? Defibrillation? But, I am comforted by the fact that I can walk into one of our front beds, and everything is at my fingertips, including PALS certified nurses and respiratory therapists, a pediatric trained pharmacist with access to any drug I could even think to ask for, and all the equipment I would want. So, I can only imagine what it is like to be faced with a critically ill child in the office setting without all those things...and my bet is terrifying. Even though those episodes are few and far between (hopefully), we all know they happen and have happened to everyone who is reading this right now. Are private offices prepared for emergencies or do they hit the panic button?

This study surveyed selected practices that had activated the EMS system for a critically ill child in their office requiring respiratory or cardio-respiratory resuscitation. Most survey respondents stated that they saw at least one patient annually that required emergent care. All of the offices surveyed were within 5 miles of an emergency department. 88% of respondent physicians were either PALS or APLS certified, and all nurses were BLS trained, but <50% of office managers and receptionists were trained in basic life support.

Most emergencies in children are respiratory in nature and this survey found that 88% of offices had an oxygen source with flow meter, and all offices had albuterol, while only 25% had racemic epinephrine. Only 62% of offices had suction or bag-valve-mask capabilities. A portable defibrillator was found in 25% of offices. 50% of the offices had some form of benzodiazepine, with 12% having Diastat. The most common reason for not stocking all emergency equipment and drugs were the close proximity to the hospital and the quick response of EMS, stating that transport time would range from 2 to 15 minutes (median 5 minutes). However, time from original call to 911 to patient’s arrival in the ED ranged from 7 to 71 minutes (median 22.5 minutes).

This study illustrates that the majority of pediatric offices may not be prepared to handle common emergencies. It’s always best to be familiar with what your office has access to, because when the code comes in is not the time to find out. Make sure your staff is BLS certified, and review the resources available that recommend minimal office preparedness, such as:
- Contemporary Pediatrics 2002;19:107-121
- Pediatric Emergency Care 1988;4:212-214

Is your office ready?

Atypical Clinical Features of Pediatric Appendicitis

What is one of the top causes of litigation in pediatric emergency medicine? Missed appendicitis...it’s a problem that plagues all of us. Especially in the younger children that are so difficult to get a reliable exam on. Much of what we base our current diagnostic and treatment strategy on is based on adult medicine, but we all know that children don’t read those books. So, if we could identify the atypical features of pediatric appendicitis, that would be helpful, right?

755 patient with suspected appendicitis were enrolled prospectively over a 20 month period with a median age of 11.9 years. 36% were diagnosed with appendicitis, which was confirmed by pathology or follow-up conversation with the family. 44% of patients with appendicitis had 6 or more atypical characteristics. Among those with diagnosed appendicitis, the following atypical features were found:
- 83% with absence of fever
- 68% with absence of Rovsing’s sign
- 50% with lack of migration of pain
- 47% with lack of guarding
- 40% with lack of anorexia
- 32% with absence of maximal TTP in the RLQ

The greatest negative predictors were WBC count < 10,000, ANC < 7,500, lack of percussive tenderness, lack of guarding, and lack of nausea/vomiting. I don’t know about you, but I feel like I’m right back where I started...

Interesting Fact:

According to the 2005 survey data from the Medical Group Management Association, group practice pediatricians in the South have a higher median income than any other region:
- South $171,575
- West: $172,166
- North $162,922
- East $151,528

*Reported in Pediatric News 40(12), December 2006.
The vaccine is administered in a series of 3 injections (0, 2, and 6 months). It should be administered to 11 and 12 year old girls, but can be given as young as 9 years. Ideally, the vaccine should be given before onset of any sexual activity, as it will not protect against types of HPV already causing infection in the host. Clinical trials in HPV naïve women demonstrated 100% efficacy in preventing cervical precancers caused by the targeted HPV types.

The vaccine is not recommended during pregnancy, but is safe to use while lactating or if immunocompromised. The cost of the vaccine is $119.75 per dose (about $360.00 for the series), and is covered under Vaccines for Children.

HPV infection causing invasive cancers in men is rare, but not non-existent. HPV has been shown to cause invasive penile cancer and anal cancer in men, especially in men who engage in intercourse with other men. Ongoing studies are being performed evaluating the efficacy of the HPV vaccine in males.

Some studies have looked at the acceptability of the HPV vaccine among physicians, and they found that the majority of doctors would recommend the vaccine to their patients. Physicians were also more likely to recommend the vaccine if they themselves were female. They held onto concerns, however, that parents might avoid the vaccine because of issues related to premature sexual activity. It has been shown, however, that parents tend to make their decisions regarding vaccines based on the severity of the disease and the efficacy and safety of the vaccine.

The single most important factor associated with invasive cervical cancer is the factor of never or rarely being screened for cervical cancer.

So, educating the families on the topic may alleviate some of the angst that may come along with it. When administering the vaccine, there are specific points that should be relayed to the patient and their family. These are outlined in Table 1.

In the New England Journal of Medicine, December 2006 issue, there was an article regarding the “ethics and politics of compulsory HPV vaccine”. Soon after the FDA licensed the vaccine, Michigan lawmakers proposed that the vaccine become compulsory for girls who are entering the 6th grade. Parents would still be able to opt out of the immunization under the same provisions that allows them to refuse other vaccines. The bill overwhelmingly passed in the state senate and now is awaiting consideration by the house. It probably won’t be long until other states follow suit.

### Table 1: Important Information to Give to Vaccinated Females

- Continue regular cervical cancer screening as the vaccine will not provide protection against all types of HPV that cause cervical cancer
- Practice protective sexual behaviors (abstinence, monogamy, limiting number of partners, condom use), as the vaccine will not prevent all cases of genital warts or other STIs
- If the vaccine is given after the patient is sexually active, they may not receive the full benefit, as they may have already acquired a vaccine HPV type

### HPV and Cervical Cancer by the Numbers:

- Approximately 20 million people are currently infected by HPV.
- By age 50, at least 80% of women will have acquired genital HPV infection.
- HPV infects more people every year than any other STI.
- 1 out of every 1000 women with HPV will get cervical cancer.
- An estimated 9,700 cases of invasive cervical cancer were diagnosed in 2006.
- 3,700 women will have died of cervical cancer in 2006.
- Increased use of the Pap test has decreased death from cervical cancer by 74%.
- Cervical cancer occurs twice as often in Hispanic women over non-Hispanic white women.
- The 5-year survival rate for the earliest stage of invasive cervical cancer is 92%. The overall 5-year survival rate is 73%.
Some feel the vaccine weakens the message provided by abstinence groups. Other advocacy groups have concerns that this could be forcing a child to undergo a therapy that may be in direct conflict with their family’s beliefs. Remembering the discussions that followed even more “mainstream” vaccinations (polio/measles/whooping cough), it is not surprising that this immunization in particular would spark such controversy. The bottom line is can parents decide what is best for their children, or does someone else need to decide for them? The bottom line remains that we want the best possible outcomes for ourselves and our children. Disease prevention is a key component of that, whether it be from immunization or avoidance or education. Specifically to cervical cancer, the single most important part of the equation to stop the progression of invasive cervical cancer is routine screening with Pap smears. No matter what you decide about the vaccine, the screening should remain a priority for women.

I hope that I have been able to present some potentially new information to you about HPV, the vaccine, or cervical cancer. I find the topic interesting, but I will not be the one counseling patients and families. What will you do when the time comes?

For More Information, visit:
- CDC: www.cdc.gov/std/hpv
- American Cancer Society: www.cancer.org
- American Social Health Association: www.ashastd.org
- www.vaccineinformation.org/HPV/links

References:
3. Human Papillomavirus: the naked truth. ... www.andrew.cmu.edu/user/mfrisby/statistics.htm
4. Majority of Doctors Intend to Recommend HPV Vaccine for Children, Concern Over Parents’ Role Remains, Surveys Say.
A Day in the Park

There is something special about a day in the park if you are a kid. It’s where childhood memories are made. On Saturday, November 4, 2006 we celebrated the first anniversary of the Elyton Park Playground built in October of 2005 with cooperative efforts from AllState Foundation, Injury Free Coalition for Kids, Alabama Safe Kids, and The Arlington West End community. This collaborative community effort took a trash filled empty lot and created a safe place for kids to play basketball, field games or simply swing in a playground with an energy absorbent surface. Our own Dr. Jennifer McCain (pediatric emergency medicine fellow) applied to the AllState Foundation for funding for this playground initiative.

In celebration of this important occasion, an injury prevention/health promotion fair was held in conjunction with the party. A disc jockey and the aroma of hot dogs and fried chicken cooked by Arlington West End Neighborhood Association set the party atmosphere and helped draw about 200 folks. Booths sponsored by organizations such as Alabama Safe Kids, Injury Free Coalition for Kids (IFCK), UAB Early Head Start, ThinkFirst, Reading is Fundamental (sponsored by the Chris McNair Health Department); AllState Foundation; Children’s Hospital; and Birmingham Healthy Start provided free health and safety products. The most popular give-away were the free bike helmets provided by IFCK and fitted to each individual child’s head by several Children’s Hospital doctors. Mr. Keith Aaron (Arlington West End Neighborhood Association President) says “The playground and seeing our children using the park again has been instrumental in our neighborhood revitalization. We are grateful to Children’s Hospital and Injury Free Coalition for writing the grant to make this happen”.

IFCK is in turn grateful for an amazing community who are committed to keeping their kids healthy and safe. It is always good for children when we work together! If you want to learn how you can be a part of IFCK or Safe Kids Alabama, contact Julie Farmer at 939-9804 or Julie.Farmer@chsys.org.

—Julie Cole Farmer
Apology in Medical Practice
An Emerging Clinical Skill
Lazare A. JAMA295(11):1401-1404

I'm sorry. Two simple words that are often the hardest to say, especially when it is in the context of our clinical practice. However, the idea of full disclosure by physicians of medical errors to their patients has grown in significance in recent years. This article offers a wonderful overview and approach to the apology in medical practice.

Policies have been passed by JCAHO (2001) and the Institute of Medicine (1999) regarding disclosure and apology, with their goal being to enhance patient safety and fulfill an ethical commitment of honesty to patients. Unexpectedly, after these policies passed there was a reduction in the number and cost of malpractice claims. Since 2005, 20 states have passed laws allowing some forms of expression of condolence and/or apology inadmissible as evidence, however some still view admission of fault as admissible.

To date, Alabama has no such provisions.

Let's start with a couple of definitions. Apology is defined as an acknowledgment of responsibility for an offense coupled with an expression of remorse. Offense is defined as a physical or psychological harm caused by an individual or group that could or should have been avoided by ordinary standards of behavior. Seems simple enough, right? But, how do we go about it?

There are 4 parts to an apology, although not all apologies need to contain all 4 parts:

1. **Acknowledgement of the offense**, including identity of the offenders, details of the offense, and validation that the behavior was unacceptable.

2. **Explanation for committing the offense**, which can mitigate or aggravate the situation.

3. **Expression of remorse** (deep sense of regret), **shame** (emotion associated with failing to live up to one’s standards), **forbearance** (commitment not to repeat the offense), and **humility** (state of being humble, not arrogant), and

4. **Reparation**.

Unexpectedly...there was a reduction in the number and cost of malpractice claims.

So, after the apology is made, how does it make a difference? Several healing mechanisms have been identified:

- Restoration of self-respect and dignity
- Feeling cared for
- Restoration of power
- Suffering in the offender
- Validation that the offense occurred
- Designation of fault
- Assurance of shared values
- Entering into a dialogue with the offender
- Reparations
- A promise for the future

There are other aspects of apologies such as who offers (MD, RN, administrator?) and who receives the apology (patient, family, both?). The timing of the apology is also important, as it should be offered as soon as it is determined that a medical error has occurred. An apology can serve as a negotiation between the physician and patient facilitating the discussion of what the patient needs and how much the physician is willing to give. Apologies are not always for medical errors. Table 1 lists some other offenses that may require some discussion.

Apologies can fail for a variety of reasons including insincerity or fraudulence. However, the most common error in apologizing is the failure to adequately acknowledge the offense. This can lead the apology to be too vague, mask the true error, or contain conditional “ifs” and “buts” to minimize the offense. We all have an innate resistance to apologize, some of which is grounded in fear, but also from our need to maintain a strong self-image for ourselves, our co-workers, and our patients.

An apology can be a profound healing processes between 2 people. It should be considered an admirable behavior, and should not be avoided in today’s medical world. If you would like more information, visit www.sorryworks.net, a website compiled by a multidisciplinary team of physicians, lawyers, patients, researchers and hospital administrators that deal with the art and practice of apology. This is an area where we could all use a little review.

<table>
<thead>
<tr>
<th>Table 1: Offenses Other than Medical Errors</th>
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<tbody>
<tr>
<td>♦ Excessive waiting times</td>
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<td>♦ Failure to address the patient by his or her preferred name</td>
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<td>♦ Violations of privacy of conversations and records</td>
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<td>♦ Inappropriate body exposure of the patient</td>
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<td>♦ Failure to listen to the patient</td>
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<td>♦ Failure to adequately explain the illness or procedures</td>
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<td>♦ Inadequate communication among the treatment team</td>
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<tr>
<td>♦ Making disparaging or condescending comments about the patient’s medical condition or habits</td>
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Mark Your Calendars!!

Don’t miss the 4th annual Rud Polhill Memorial Grand Rounds!!

When: Thursday April 12, 2007
12:00 pm
Where: Bradley Lecture Center

Hope to see you all there!