

# *Risk Management Monthly / Emergency Medicine*

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## **1. In the News**

- ✓ In California, the parents of a 2-year-old have initiated a malpractice suit against a hospital for alleged radiation poisoning of the child resulting from attempted performance of more than 100 CT scans of the neck following a fall. Movement on the part of the child resulting in inadequate images was cited as the reason for performance of multiple scans. Several hours later, radiation burns were noted on the child's face.
  - Specialized blood testing was consistent with serious chromosome damage secondary to radiation exposure.
  - The radiation dose delivered was calculated to be 2800mSv (possibly as high as 11,000mSv). To put this into perspective, an abdominal CT delivers a dose of 10mSv (lifetime risk of fatal cancer, 1 in 2000) and the dose for imaging of the entire pediatric spine is 1.5-4.0mSv. A medical physicist estimated that the lifetime relative risk of fatal cancer was increased by 39% for the child in question. Other longer-term complications (e.g., cognitive impairment) might possibly be alleged in the future.
  - According to a study reported in the New York Times in August 2009, at least 4 million Americans under the age of 65 will develop cancer due to high radiation doses delivered during their youth.
  - A recurring theme in the literature focuses on the risks vs. benefits of exposure to diagnostic radiation in children, and multiple studies have reported overutilization of CT scanning in general.
  - The simple bottom line is: 1) **be sure that the CT you order is actually needed** and 2) **do what you can to facilitate performance of the study (e.g., sedation of the young uncooperative child)**
  - While parents are not realistically in a position to make decisions about the necessity of CT studies for their children, some effort to make them aware of the risks vs. benefits is considered prudent.

**IMAGE GENTLY: WHY WE SHOULD TALK TO PARENTS ABOUT CT IN CHILDREN** Bulas, D.I., et al, *Am J Roent* 192(5):1176, May 2009

The authors, from the Children's National Medical Center in Washington, DC, address the ethical obligation of informing patients and parents of safety issues relating to medical radiation from CT scanning. While patients and parents are generally advised of other risks (e.g., allergic reactions, teratogenicity), the possible radiation risk is not often discussed. In fact, several studies have reported that clinicians are unaware of the possible magnitude of this risk. While not all authorities believe that the risk is substantial, most experts and national organizations believe that even low-level radiation exposure can be harmful in terms of future cancer mortality, particularly for children. These authors note that patients/parents have a right to be advised of the risks and benefits of any medical intervention. Failure to discuss these risks can generate mistrust, while disclosure by a trusted source fosters effective communication, health literacy, and a sense of participation in healthcare decision making. Furthermore, the authors feel that provision of risk/benefit information might mitigate parental or patient demands for unnecessary CT scanning. Downloadable information pamphlets are available from the Alliance for Radiation Safety in Pediatric Imaging through their "Image Gently" initiative ([www.pedrad.org](http://www.pedrad.org)). "What Parents Should Know About Medical Radiation Safety" is an 8-page document that provides detailed information, while the 2-page "What Parents Should Know About CT Scans for Children" is designed for distribution in emergency departments, imaging centers and medical offices. It is also suggested that parents download "My Child's Medical Imaging Record" from the same website. Much like an immunization record, this instrument would allow parents and clinicians to track a child's exposure to diagnostic radiation and to make appropriate decisions about diagnostic imaging accordingly. 44 references

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## **2. Letters**

- ✓ An anonymous listener writes about a case of alleged failure to perform a proper evaluation for a patient with chest pain. The plaintiff's attorney requested the records of all patients who presented to the ED with chest pain during the previous two weeks, ostensibly to determine the standard evaluation for such patients in an effort to ascertain if the patient had received one.

Fortunately the case was settled and the necessity to produce the requested records of other patients evaluated with a similar complaint never came to pass. The *RMM* panel notes that such a broad-based chart review is not a legitimate method of establishing a standard of care (i.e., what a physician of similar training would do in a similar case) for a particular case.

- The question arises whether hospitals should develop policies dictating the appropriate evaluation for various conditions. The *RMM* panel notes that it would be virtually impossible to develop policies that would cover all circumstances for all presenting conditions and advises against this tactic.
- ✓ Jim Heinzen asks that we lose the "us against them" attitude...patients are not the enemy. The *RMM* panel readily acknowledges that there are patients who are harmed during the provision of care and who deserve compensation. It should be recognized, however, that the malpractice system in the U.S. is not based on compassion or intelligence. Only \$1 of every \$6 paid to an insurance company actually goes to an injured party. The remainder is dispersed throughout the system (lawyers, experts, accountants, etc., etc., etc.). Tort reform *should* be a major component of any healthcare "reform" initiative.
- ✓ Hal Smith asks about the defense of x-ray misinterpretation by an emergency physician given that, with teleradiology, there is always a radiologist somewhere available to read images. The *RMM* panel suggests that reading plain films is in the purview of board-certified emergency physicians, and that the belief that a mistake could have been avoided by interpretation by a radiologist is not extrapolatable. The panel believes that if the ED physician is not trained in the imaging modality (e.g., CT scans, MRI) the study should be interpreted by a radiologist but that this is not necessarily the case if interpretation of the imaging study is within the core competency of the emergency physician (e.g., plain films).
- ✓ Rich Schwab asks if the limits of your malpractice coverage act as the springboard for monetary requests against you. Policies with higher malpractice limits are much more expensive than those with lower limits. Should you lower your limit? The emergency physician is rarely sued in isolation - usually the hospital, the group and/or other physicians are also named. The hospital may require a certain limit to be maintained by emergency physicians to protect its much deeper pockets. If specific limits are not required by the hospital, the emergency physician might certainly consider maintaining a lower limit of liability protection.
- ✓ Dave Goff asks about methods of dealing with hospital policies that the physician feels are unsafe. It's suggested that the hospital should be asked to provide a letter of indemnification covering the specific situation. Be sure to establish a paper trail (emails, written requests, etc.) so that if the hospital refuses to provide such a letter it's clear that the issue has been raised.

### **3. Thrombolytic Therapy for Stroke**

- ✓ On May 28, the American Heart Association issued an advisory supporting extension of the time frame for thrombolytic therapy for stroke from 3 hours to 4.5 hours, apparently based on the reported results of the multinational, manufacturer-sponsored European Cooperative Acute Stroke III Study (ECASS III). The *RMM* panel points out that not all studies have supported this position, but that this action of the AHA will likely pave the way for a declaration of this position as a standard of care for stroke. Such a decision might be anticipated to expand the liability of emergency physicians with regard to the care of stroke patients as it will no longer be possible to use the three-hour time window as a reason for failure to treat (to date, most lawsuits involving thrombolytic therapy for stroke have cited failure to treat or failure to diagnose).
  - Current data on the safety of this treatment are conflicting, and the *RMM* panel feels that the AHA should await more definitive data before establishing this recommendation as policy. The data suggest that 12% of treated patients improved while 6% became worse and the outcome for most was unchanged (a very narrow therapeutic gap).
  - For physicians who are uncomfortable with giving thrombolytics to stroke patients, heavy reliance on the ECASS exclusion criteria is suggested. These included an age above 80, any use of anticoagulants, a baseline NIH stroke score above 25 and diabetes.
  - The importance of INFORMED consent is cited. Patients/families should be advised that this is not necessarily a miracle drug and that there is a possibility of serious complications.

**Interview With  
Graham Billingham, MD and Bob Bitterman, MD  
Emergency Physicians Insurance Company (EPIC)**

- ✓ Neurologic, cardiac and abdominal conditions continue to be three major sources of malpractice in emergency medicine. Strokes, missed MIs (especially in young females), aneurysms and appendicitis are also recurring issues.
- ✓ A newer development is that many malpractice suits now involve the ED environment and operational issues, such as triage, boarding and even issues occurring in patients who are admitted via the ED (was the patient admitted to the correct location in the hospital -- was everything possible done for the patient in the ED -- etc.). Delay in diagnosis or treatment has almost become as important as failure to diagnose or treat from a malpractice point of view.
  - Physicians are advised to initiate in the ED those items of care that would have been initiated in the first two or three inpatient hours in the past, such as starting antibiotics for infection, etc.
- ✓ Chest pain continues to be a major source of malpractice payouts.
  - Clinical differentiation of cardiac and noncardiac chest pain is unreliable. Similarly, the description of pain is not a reliable differentiator. Chest pain should be considered cardiac until proven otherwise.
  - Beware of the patient who "describes symptoms to known parameters." Don't let the patient lead you down an erroneous path (e.g., yesterday I did a lot of yard work and today my chest hurts -- this pain is not necessarily musculoskeletal).
  - In the ED, tunnel vision is dangerous. In the sometimes chaotic ED environment, there is a temptation to quickly zero in on an apparent diagnosis. For example, vomiting after a visit to a taco stand does NOT necessarily mean the food was bad.
  - The concept of cardiac risk factors is useful from a counseling standpoint, but is worthless in the evaluation of an individual patient. Absence of cardiac risk factors in the patient with chest pain is not an indicator that it is safe to discharge the patient without verification.
  - In the "Great Debate" between Rick Bukata and Mel Herbert (see the September 2009 issue of *Risk Management Monthly*), it was Rick's contention that if you can't be certain that a patient's chest pain is not cardiac in origin, you're obligated to initiate a workup. It was Mel's position that some sort of discretion is in order (e.g., chest pain in an apparently healthy 19-year-old is unlikely to be an MI).
    - ❖ Rick believes that, if there is any doubt, some type of provocative or imaging test is indicated (although what type of test is uncertain) even when the troponins and EKG are negative. It's unwise to assure a patient that "it's not your heart" based on inadequate data.
    - ❖ Bob and Graham suggest two sets of markers and EKGs, with arrangement made for a confirmatory test within 24 hours for the low-risk patient. They also note the importance of documentation of your thought process in the chart.
    - ❖ Mel interjects that, for very-low-risk patients, there are more false-positive than true-positive confirmatory tests, and that routine follow-up testing for all such patients does not provide the best outcomes for most patients. He would reserve confirmatory testing for the patient for whom you're uncertain and are a bit worried.
- ✓ Low back pain is a common complaint in the ED.
  - There's been an increase in cases of spinal epidural abscess and cauda equina syndrome -- consider these possibilities. Injection drug users are at particular risk. These patients often present on multiple occasions with the same complaint. Do an appropriate neurologic exam. Check muscle strength and ask about extremity paresthesias and problems with urination. Document your considerations and your findings.

- Consideration of the "red flags" is a simple guide. These include major trauma, an age above 50, a history of cancer, unexplained weight loss, fever, immune deficiency and/or suppression, injection drug use, active infection, saddle anesthesia, bladder or bowel incontinence, and a severe or progressive neurologic deficit.
- Remember that the ED physician is the "worse first" clinician and that patients presenting to the ED with back pain differ from those cases that present to primary care. Delay in the diagnosis and treatment of emergent conditions can have devastating consequences, so don't fall victim to the "nice guy at night" syndrome. Don't hesitate to bring in the radiology technician or the surgeon when indicated.
- ✓ Radiology claims in emergency medicine
  - Communication - Get the correct information from the radiologist on a timely basis.
  - Have a good system for dealing with follow-up issues when the final interpretation differs from the initial one, or when there is a significant incidental finding. Radiologists should be available at all times for immediate interpretation of specialty studies outside the emergency physician's scope of practice, while the patient is still in the ED. Immediate availability of final interpretations would essentially eliminate the problem of follow-up.
- ✓ Systems issues
  - Most of the time that an emergency physician is named in a malpractice suit the hospital (which is believed to have "deeper pockets") is also named. As such, the hospital has a stake in working with the ED to optimize systems to reduce risk, with a particular focus on chronic problems.
- ✓ Miscellaneous issues
  - What is the best approach to the situation in which the ED is overwhelmed by patient numbers and/or acuity? Should this situation be noted in the chart as a means of protecting the physician in these dangerous circumstances? Should it be preemptively documented? Unless a true disaster is involved, Dr. Billingham prefers an approach that involves retrospective reconstruction of the situation (via perusal of patient logs, etc.) by someone other than the involved physician. It is also noted that in some situations, spikes in patient numbers can be anticipated (e.g., flu season). ED staffing, to the extent reasonably feasible, should be modified accordingly.
  - Recognize the importance of considering the mechanism of an injury rather than relying on what appears to be the patient's condition at the time of your evaluation. Understand, also, that injuries might not always follow an anticipated course.
  - Learning how to think about potential problems as a means of avoiding medicolegal risk in the ED is a skill that would merit specific instruction. It is not intuitive and it is generally not taught in residency. It is important to restructure your thinking processes and to take a step or two back to consider things that you might have missed when providing patient care.

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### *Wine of the Month*

By popular request, we'll be returning our attention to the less expensive wines. In a recent issue of the *Wine Advocate*, Robert Parker provided a lengthy list of the best cheap wines. Columbia Valley Cabernet Sauvignon from Washington state earned a score of 89, and Mason Cellars Sauvignon Blanc from the Napa Valley scored an 88 -- both at about \$18 per bottle.

*Greg Henry, MD*

*Rick Bukata, MD*

*Mel Herbert, MD*