

## WESLEY EMERGENCY DEPARTMENT THE QUEAS-E UPDATE

(Quality, Uniformity, Education, Attitude, and Service - in Emergencies)

Issue 53

October 2007



### "CARDIAC:

#### "Myths & mistakes about chest pain"

1. The myth of "response to nitro"  
In a large prospective study, only one out of three patients with coronary artery disease had a 50% reduction of pain from nitroglycerin. And one out of three patients without disease had a 50% reduction of pain from nitroglycerin. "Response to nitro" is neither specific nor sensitive.<sup>1</sup>
2. The mistake of "reproducible chest wall pain"  
While this can be helpful in the low risk patient, a prospective study done a few years ago in ED patients revealed that 6% of patients ultimately diagnosed with AMI had reproducible chest wall pain.<sup>2</sup>
3. The mistake of using an ER troponin  
We preach in our ED that one should rarely use an ER troponin to make a diagnosis or send someone home. When the attending on the phone asks "What was their troponin?" Do not hop on board that train without some kind of qualifying statement: "but that was with only 3 hours of chest pain so it is not very helpful."

A study of 1149 patients revealed that an initial troponin in the ER was only 39% sensitive. Furthermore, while time with continuous chest pain may occasionally be helpful, the length of time with chest pain does not necessarily correspond with the length of time of myocardial damage (responsible for increasing the troponin). "Negative troponins" in the low risk individual is good primarily for hospital bed placement in telemetry versus intensive care.<sup>3</sup>

4. The myth of traditional risk factors  
One in five patients who present to the ED with acute coronary syndrome (ACS) have zero traditional risk factors. Many other ER patients have several traditional risk factors (smoking, hypertension, obesity, etc) and have non-cardiac chest pain. Still others may have risk factors but they don't know it (elevated lipids, genetic predisposition, etc).

Traditional risk factors are neither sufficiently specific or sensitive to make clinical decisions concerning admission or dismissal. Meanwhile, non-traditional risk factors like lupus, which we probably never ask, may have a 50 fold increase in cardiac risk for women older than 35.<sup>4,5</sup> (Although this was retrospective cohort data, not yet prospectively tested.)



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5. The mistake of diagnosing "non-cardiac chest pain"

Never write this diagnosis down in the ED. Better to write "chest discomfort indeterminant". But you say, "they had a normal treadmill last week for this same pain." Beware, treadmill testing can be poorly sensitive depending on the population you screen and which artery is involved (the left circumflex may not show well compared to a LAD lesion). But what if they had a "normal cath"? While fairly reassuring, even heart caths are not 100% sensitive. Remember that soft plaque in early atherosclerotic disease may rupture and cause ACS with minimal to no luminal impingement. An intravascular coronary ultrasonography may in fact be the gold standard.<sup>6,7</sup>

1. Ann Emerg Med 2003; 45: 581-5
2. Arch Intern Med 1994; 154: 2466-9
3. Ann Emerg Med 2001; 37: 478-94
4. JAMA 2003; 290: 898-904
5. Am J Epidemiol 1997; 145: 408-15
6. Ann Intern Med 1999; 130: 719-28
7. Consultant June 2007: 657-64

**NEURO/CRITICAL CARE: "Factor VII no better than placebo for ICH"**

In a Phase III trial called Factor VII in acute intracerebral hemorrhage trial (FAST), 841 patients with intracerebral hemorrhage were randomized to either placebo or recombinant activated factor VII. There appeared to be no difference in morbidity or mortality (but I can promise you that the placebo was dramatically cheaper).

ACEP News 26; 6; June 2007: 1

**PULMONOLOGY: "Pneumonia is often a made-up diagnosis"**

One reason the Community Acquired Pneumonia guidelines are so debated is because "pneumonia" is a nebulous diagnosis. Even when physicians use the "wrong" antibiotics not recommended by national experts, the outcomes are the same.

The history and physical exam are poorly predictive. Even the chest x-ray that supposedly "proves" pneumonia is extremely variable in persons with a lower respiratory tract infection, showing "pneumonia" in 6-39% of patients depending upon the inclusion criteria used. Let's all say it out loud "Pneumonia is often a made-up diagnosis!" This is why the recent CAP recommendations recommend a place for "diagnostic uncertainty". This will allow the patient with fever and respiratory problems with a chest x-ray abnormality to not necessarily "count" as a "Community acquired pneumonia" if you document "diagnostic uncertainty".

1. Br J Gen Pract 2004; 54: 15-9
2. J Fam Pract 56; 6: June 2007

**ID: "Lyme disease guideline update"**

The Infectious Disease Society of America has recently updated its Lyme disease guidelines. There are a few highlights:

- ♦ Other organisms are transmitted by the deer tick besides Lyme disease, namely babesiosis and human granulocytic anaplasmosis. (You probably won't remember these names but hopefully you will remember that if you think "Lyme" you should include testing for other diseases and call your ID buddy.)
- ♦ Prophylactic antibiotics are primarily only for the high risk individual who has had a deer tick attached for greater than 36 hours!

**OPHTH/PEDS:**

**“CONSIDER CORNEAL ABRASION IN THE  
INCONSOLABLE CRYING INFANT”**

THERE ARE MANY CAUSES OF THE INCONSOLABLE CRYING INFANT. PHYSICAL EXAM MAY FIND THE CAUSE IN 4 OUT OF 10 PATIENTS. IN YOUR DIFFERENTIAL, CONSIDER CORNEAL ABRASION AND SEE IF THE CRYING STOPS WITH A DROP OF ALCAINE. DO FURTHER DIAGNOSTIC TESTING WITH FLOURESCIN STAIN, ETC, IF IT APPEARS TO HELP.

J OF EMERG NURSING DECEMBER 2006; 32; 6: 535-40

**ENT: “Halitosis & Helicobacter”**

20-40% of adults suffer from morning bad breath. This goes up to 100% of nighttime Emergency physicians who sip on 12 hour old coffee and munch on abandoned and sometimes unrecognizable snack foods in the break room.

Bad breath or halitosis is thought to originate mostly from volatile sulfur compounds that arise from bacterial accumulation between the teeth and from the posterior part of the tongue. There are two studies that suggest that the irradiation of H-Pylori greatly diminishes halitosis, but it is unclear whether this is correlation or causation.

1. Oral Dis 2005; II Suppl I: 105-6
2. Eur J Intern Med 2003; 14: 45-8
3. Helicobacter 2005; 10: 312-7



# REGURG

Revisiting old contents of October 2006

1. 87% of patients with colds have abnormalities on the CT of the sinuses.  
Chest 129; 1; Jan 2006: 725-45
2. If no one witnessed an arrest, and no shocks were administered and there is no spontaneous return of circulation, the patient will die with 99.5% certainty.  
NEJM 355; 5; Aug 3, 2006: 478, 510-3
3. Viscous lidocaine should be standard for all pediatric urethral caths.  
J Urol 2003; 170: 564-7
4. Lack of swallowing, rather than "absent gag reflex" is a more reliable parameter to determine intubation in the patient with neurological injury.  
Lancet 1995; 345: 487-8
5. PID is basically a made up diagnosis.  
Int J of STD & AIDS 2005; 16: 715-21
6. Emergently getting patients off spine-boards reduces the number of radiographs as well as skin breakdown and decreases pain.  
Injury, Int J Care Injured 2006; 37: 53-6
7. Orthostatic vitals are an unreliable guide for syncope.  
Arch Gerontol Geriatr 2006, Feb 6
8. Neither ice nor heat have been proven sufficiently superior to aid in low back pain.  
Cochrane Library Vol 2: 2006

**CULTURAL FACTOIDS/GERIATRICS:**

**"Polypharmacy"**

The average community-dwelling older adult takes 4.5 prescription drugs and 2 over the counter medications.

One large community-based study found that 1 out of 4 persons 65 years or older were on an inappropriate drug according to a panel of experts.

Emergency Medicine June 2007: 10-17

**PREVENTION: "If a doctor just says no"**

A new meta-analysis of 51 randomized trials looking at 27,000 smokers showed that self-quit rates is 10%. Additional behavioral intervention boosts the success rate to 15-17%. Behavioral interventions can be 1) brief advice by a physician to quit lasting 30 seconds to minutes, 2) a more in-depth (greater than twenty minutes) counseling session by a therapist or doctor, 3) group counseling, or 4) telephone counseling with multiple follow-up calls. All of these 4 behavioral interventions were found to be equally effective. And pharmacotherapies appeared to be only slightly more effective than behavioral interventions. (Other meta-analyses have suggested a larger effect for pharmacotherapeutics.)

But the bottom line is that if a doctor will "just say no" to the smoking patient who smokes, it improves the quit rate significantly.

Annual meeting of the ACC reported in Family Practice News June 1, 2007: 28

**GI/SURGERY: "External hemorrhoids"**

Most external hemorrhoids even if thrombosed can be initially managed conservatively with running water (sitz bath), moist heat, stool softeners, analgesics and topical medications that include steroids (eg anusol HC, etc).

If due to pain, bleeding or length of time without resolution, one may consider thrombectomy. Many do this by making a single incision and squeezing or pulling out the clot. But this technique may often lead to re-accumulation of the clot. A better technique (and is less painful than squeezing) is to cut a small elliptical wedge that includes the clot and perianal skin.

Dis Colon Rect 47(9): 1493: 2004

**PHARMACY/BUSINESS/POLITICS:  
"Our dogs may save American people"**

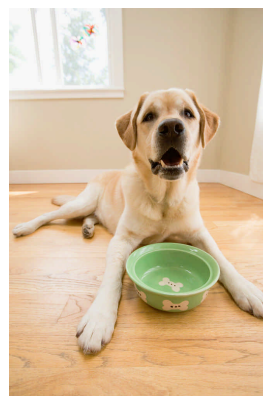
Independent tests have found that one in four supplements tested are revealed to be sub-standard. Some are tainted with pesticide, salmonella, glass, bacteria, and heavy metals like lead and cadmium. How can this be?

The lobbyists for the 22 billion dollar "alternative and complementary" medicine supplements industry convinced Congress long ago that they are dietary supplements and should be viewed as "food" rather than as a drug or medicine. Therefore, they are not required to be approved by the FDA before being sold.

We would still have our heads in organic sand if it wasn't for our dogs? What? The tainted dog food from China which sent every dog owner to immediately do the heimlich on their chihuahua, made everyone sit up and wonder what else could China be putting in our food-stuffs? Answer: China is a leading ingredient supplier for the supplement industry which seek out lower cost ingredients. Based upon this political and public outcry, the FDA is just beginning to be more stringent on the monitoring and sale of "health food supplements". We should have been barking all along at our patients and friends who have been eating this crap all in the name of "natural health". Maybe it's not too late for Americans to wake up before they "go to the dogs".

FDA website:

[www.cfsan.fda.gov/~dms/dscgmps7](http://www.cfsan.fda.gov/~dms/dscgmps7)





In the world of "risk management", there are people who collect "data" with regard to lawsuits and what juries seem to like with regard to documentation.

This appears at first blush to be extremely valuable information from a documentation, risk, malpractice insurance, and even business perspective. However, as we should remind ourselves: statistics are not meaningful; only meaningful statistics are meaningful. This kind of "risk data" is the poorest kind of meaningful information. Let me try an analogy that fits with the baseball season.

Let's pretend that you want to avoid having umpires that are blind. So you go out and find as many umpires as you can that are considered "blind". You want to find out what factors may have caused them to become blind. What you find out first is that this is a small portion of umpires. You also realize that of the umpires who may be blind, you will only find a small subset because a lot of the blind umpires are not going to tell you. But of the umpires that you sample, you begin to gather data like "How many hours are you out in the sun?"; "Do you like baseball?"; "Do you have diabetes?"; "Did you ever have trauma to your eyeball?" These are questions that at very best are simply correlations but tell you absolutely nothing about causation? What kind of study is this? Is it prospective? No. Is it a historical cohort? No. It is really a case series. You don't know the denominator, or causation, or even all the potential biases.



With a case study or series, you can't do a whole lot more than "Hmmm, that's very interesting". To try to make any kind of assumptions that home plate umpires are more likely to be blind than other umpires or any other conclusions would be foolish. And finally, we must know who is making the designation of "blind". If you found out that this was not a medical definition but rather determined by a group of fans, you would laugh and say "This is ridiculous!"; "You can't ever predict fans."; "What do they know?"; "They're just upset because their team lost, etc." All pretty far-fetched, right?

This is exactly what "risk data" is! You take a very small portion of physicians that have gone to jury trial and lost. This does not include the largest portion of physicians which never made it to trial because it was thrown out or settled. So you don't know the denominator of the data, and are dealing with a small selected subset (selection bias). To attempt to use this data prospectively on all physicians would be erroneous.

You find out that the documentation that is recorded (or not recorded according to the plaintiff's attorney): "Do you have a history of Marfan's?"; "Do you have elevated cholesterol?"; "Are there bilateral blood pressures documented?"; "Is there a pelvic exam performed?" at best can only show you correlations and not causation. The "risk data" is nothing other than a "case series" of medical malpractice cases that made it to trial and lost. Statistically, you can do little more than "Hmmm, very interesting". Finally, one discovers that the jury, not of peers (and not even of fans), but of a jury pool which is the same genetic pool whose favorite TV show is championship wrestling, and whose medical complaints include "hypoglycemia" and "allergic to many antibiotics". This jury is the group, like the fans at a game, that determine whether the call was right or wrong.

Like the "blind umpire" analogy, we should all laugh and say "This is ridiculous". Unfortunately, there are insurance companies, national health corporations, and administrators that believe that this "risk data" is the strategy by which we doctors should play ball.



### QUALITY:

#### "Pay for performance NOT associated with improved quality of care or outcomes"

Financial incentives to health care givers to improve quality of care is not only a pitiful philosophy ("pay me more and I'll take care of people better"); it is characteristic of such large national incentives that the measures of quality are often not well evidenced-based. Even when the quality measures are pretty good ones like acute MI, the data shows that physician "quality care" is not influenced by financial incentive. And the final blow, even when the "quality" is done, outcomes are not improved! Medical providers everywhere need to rebel against the current "political-business" takeover that is directing the medical care of our patients - and stop the Tsunami of stupidity called "pay for performance".

JAMA June 6, 2007; 297; 21: 2373

#### OPERATION MANAGEMENT: "ED overcrowding not due to minor complaints"

Recent research has challenged the myth that ED overcrowding is primarily the result of uninsured patients using the ER a lot for minor health issues. Changing the way that minor complaints or persons with no insurance are cared for (eg sending them to an outlying clinic) does not appear to affect ED overcrowding.

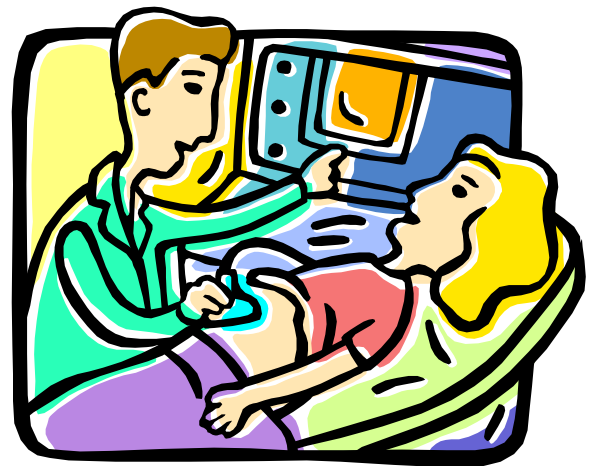
A primary reason why the ED is overcrowded has to do with the availability of a hospital bed and the efficiency of transporting the patient out of the ED.

American Medical News June 4, 2007: 37

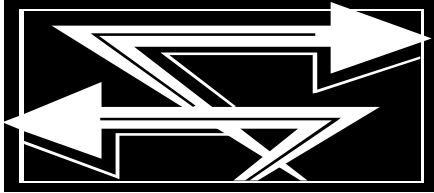
#### OB: "PE during pregnancy"

CT angiography and the radiation exposure outweighs the risk of unnecessary anticoagulation in the pregnant woman. D-dimers may not be a helpful in the pregnant patient because they are often falsely elevated. If a patient has no pleuritic chest pain, no tachypnea, and no dyspnea, the pre-test probability of PE  $\leq$  3%.

Resp Med 2006; 100: 1682-7



**MEDICAL HISTORY:  
"GOING FORWARD  
BY LOOKING BACK"**



"Cocaine"

When the Italian explorer Amerigo Vespucci (after which American was named) reached the coast of Venezuela in 1499, he saw people obsessively chewing coca leaves; and noted their degraded state.

After the Spanish conquest and colonization, the first documented cocaine epidemic occurred in Peru. This story repeated itself many times over throughout history. In the years leading up to WWII, Imperial Japan cultivated and sold cocaine through companies like Mitsubishi to finance its military campaigns, while pretending to cooperate with the League of Nations to curtail drug trafficking. And later in the 20<sup>th</sup> century, it is no surprise that the first cocaine cartel was made up of European drug companies.

Today cocaine is as prevalent and devastating to our youth and American population as it has been to civilizations before us.

A Brief History of Cocaine:  
500 years of cocaine dealing  
By Steven Karch ISBN 0-8493-9775-8

## WORDS OF HEALING

**"It is possible  
to get all A's and  
flunk life."**

**-Walker Percy, MD**

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**QUEAS-E**  
**CME**  
**October 2007**

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Wesley designates this educational activity for a maximum 0.5 AMA PRA Category 1 Credit(s). Physicians should claim credit commensurate with the extent of their participation in the activities.

1. If a patient has a good response to nitroglycerin, it is suspicious for unstable angina. T or F
2. ERs are overcrowded because a lot of people who don't need to be in the ER come with minor complaints. T or F
3. If a patient finds a tick on their body, they should consider prophylactic doxycycline. T or F
4. The diagnosis of pneumonia is made fairly accurately by a patient with fever that has an infiltrate on the CXR. T or F
5. A low risk patient with a negative troponin can be safely sent home from the ED. T or F
6. Orthostatic vitals are an unreliable guide for syncope. T or F
7. A small elliptical wedge may be more successful than an incision and squeezing out the clot in external hemorrhoids. T or F
8. Risk data is very selected retrospective data that has everything to do with circumstances (jury, doctor selected, lawyer) and should not be generalized prospectively to all physicians. T or F

Circle the one correct answer.

To complete this educational activity, please check your test for accuracy. The correct answers can be found on the evaluation.

Dr. Mosley has disclosed that he does not have any financial relationship with any product or equipment that he writes about.  
(Evaluation following)

## Continuing Medical Education QUEAS-E Update Evaluation

**Please circle a response to the following:**

1. Having read this CME activity, the participant should be better able to: demonstrate an increased awareness of current practices, new therapies and new technologies appropriate for patients in the Emergency Department?

Agree    5    4    3    2    1    Disagree

2. The educational content in this CME article will be:

Very useful    5    4    3    2    1    Not at all useful

3. In this article I learned:

A great deal    5    4    3    2    1    Little

4. As a result of this CME article do you anticipate making a change in your practice?

Yes [   ]            No [   ]

5. Additional comments:

6. What topics would you suggest for future articles?

**(Answers to post test:    1. F    2. F    3. F    4. F    5. F    6. T    7. T    8. T)**

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