

WESLEY EMERGENCY DEPARTMENT THE QUEAS-E UPDATE

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

Issue 76

September 2009

New Stuff

"Probiotics for gastroenteritis"

A meta-analysis of 23 studies (N=1917) using different probiotics for both viral and traveler's diarrhea concluded that diarrhea is decreased in duration by more than a day.

While the heterogeneity of this review makes its conclusions less strong, the side effects and contraindications are minimal to none. The cost is also affordable at < \$20 for therapy. One option is Lactobacillus GG capsules (1 daily for children; 2 daily for adults).

Cochrane Database Syst Rev 2004: CD003048

"Post-coital voiding does not help prevent UTI"

ACOG Bulletin "Treatment of Urinary Tract Infections in Non-pregnant Women"

OB & GYN March 2008; 111; 3: 785-94

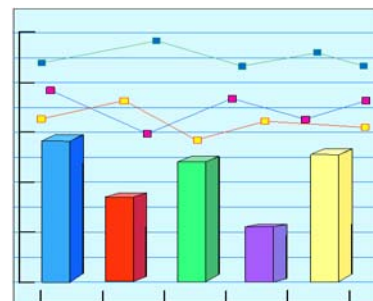
"Facilitated PCI and statistical trickery"

Every good study done within the past 10 years has come to the exact same conclusion: thrombolytics followed by early PCI, (facilitated PCI) is not advantageous to patients.

The makers of stents and thrombolytics apparently don't want to give up - and so they keep doing trials of which their most recent study called TRANSFER-AMI. They do 2 popular statistical tricks to make this study appear to support facilitated PCI: combined end-points and surrogate markers instead of outcomes.

The trick with combined endpoints is to use a combined list of hard endpoints like mortality, re-infarction, and cardiogenic shock and combine them with less relevant and more subjective surrogate markers like "recurrent ischemia". The only one that shows any statistical difference is recurrent ischemia; not mortality, re-infarction, etc but the author combines all of these to make the study appear more relevant.

NEJM 360; 26; June 25, 2009: 2705-18



New Stuff (cont'd)

"Hypertonic saline of no benefit for TBI"

The National Heart Lung and Blood Institute conducted a study on 1,073 trauma patients with traumatic brain injury (TBI) that received hypertonic saline - and found no benefit.

(www.clinicaltrials.gov - NCT 00316004)



"Type of beta-blockers for CHF at discharge may affect mortality"

A new study of 11,326 patients discharged after hospitalization for CHF showed that 8,000 were given beta-blockers (as recommended by national quality measures like CMS). Beta-blockers did reduce mortality compared to the almost 4,000 that did not get beta-blockers (although this could be selection bias - there may be some reason these patients were not given beta-blockers).

Of the patients given beta-blockers (atenolol 43%; metoprolol 43% and carvediol 12%); atenolol had the highest mortality (22.8%/yr) and carvediol had the lowest mortality (17.7%/yr).

Arch Intern Med 168(22): 2415-21

2003

- 1) A urine preg test can miss a very early pregnancy with a serum quantitative <15-20. This costs \$52.
- 2) Do not tell patients "you are not pregnant". Instead say "the urine suggests you are not pregnant".
- 3) A nebulized albuterol treatment equals 4 good separate puffs from an inhaler. Most initial treatment for asthma should be 2 treatments or 8 puffs.
- 4) If pinpoint pupils, think opiods. If big eyes, think Benzodiazepine, Bag of cocaine or Benedryl type drug.
- 5) Calcium supplements, not calcium in the diet, causes increased kidney stones (including Tums, Rolaids, etc).
- 6) Plain film "shunt series" add very little to a CT for shunt evaluation.
- 7) All chest pain patients must be screened for smoking and counseled for smoking cessation.
- 8) "Feedback" should be "coaching", not punishment.
- 9) Response to a GI cocktail is not diagnostic of a GI problem. And there is no reason in the ER to start someone on a PPI for "dyspepsia".
- 10) Most PPIs cost in the \$100-150 range for one month of treatment (*2001 prices).

2004

- 11) Ibuprofen just as effective as flexeril.

Ann Emerg Med 41(6); 818: June 2003

- 12) Nesiritide (Natreacor) is new kid on block for CHF but study shows it holds no advantage over NTG (in spite of author's conclusions).

JAMA March 27, 2002; Vol 287: 12

- 13) Steroids in pediatric meningitis is NOT recommended for ≤ 6 weeks of age.

Ped Infect Dis April 2004; Ralph Feigin: 355-7

- 14) Narcan should be dosed according to acute or chronic user with 2mg in adults for acute OD and 0.2mg in adults for chronic use.

- 15) The p value standard is quite arbitrary. Whether there is any difference between .06 and .04 is largely due to sample size. The correlation coefficient is an important determinant.

- 16) Valacyclovir is not beneficial for vestibular neuronitis. Steroids may be of some benefit (small study).

NEJM 351; 4; July 22, 2004: 354-61

- 17) Any questions about when to recommend/offer HIV post-exposure prophylaxis - hotline is 1-888-448-4911 or needlestick.mednet.ucla.edu.

Ann Emerg Med March 2002; 39: 321-8

- 18) Telling the story back to the patient will clarify information and will impress the patient that you were listening.

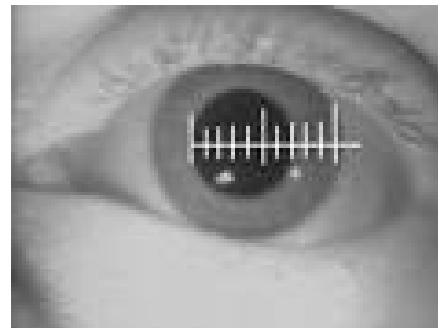
- 19) BMI ≥ 30 is "obese". BMI 25-30 is overweight. To calculate, take weight (in pounds) and multiply by 705. Then divide by height (in inches). Then divide by height (in inches) again.

- 20) If you ask a patient or family if they want water or coffee, go the next step with regard to ice, cream, sugar and how much.

- 21) A comprehensive metabolic costs about \$30 more than a basic. Ask yourself, do I really need to screen liver function tests?

- 22) We should quit making up measurements of pupil size and just say "constricted", "normal", or "dilated".

Ann Emerg Med 22; 6; 1052: June 1993



- 23) A study of 1,186 patients showed no difference between epi and vasopressin. Only in post-hoc analysis was there a statistical difference in asystole.

NEJM 350(2); 105: January 8, 2004

- 24) "Chest discomfort?" is a better question than "chest pain?"

- 25) Symptom profiles for STEMI by gender are more similar than different.

Circ 2004; 109: 558-60

26) Serial EKGs 10 minutes apart are a Class IC recommendation.

27) PCI has advantage over thrombolytics especially in anterior MI, the elderly, and those at risk for bleeding. Young patients with inferior infarcts may fare the same.

JAMA 2004; 291: 947-54

28) Heparin 4000 unit bolus IV for STEMI is a Class IC recommendation.

29) Diagnostic cath prior to Plavix load is preferable.

Ann Intern Med 2003; 139: 123-36

30) Anti-oxidant vitamins are of no benefit.



31) Major depression is found in 15-20% of patients with STEMI with reactive, situational depression found in up to 50%. This is a very significant predictor of post-MI 5 year mortality.

Am J Cardiol 2001; 88: 337-41

32) 12 out of 15 panel members of the ACC/AHA 2004 committee had conflict of interest concerning pharmaceutical companies.

33) "Unstable angina" is a trashbucket term.

34) GPIIIB/IIIa Inhibitors are not well supported for emergent PCI.

Emergency Medicine News Vol 26; No 6, 7, 8: June/July/August 2004

2005

35) Facilitated PCI study stopped due to poor outcome.

(ACEP News, July 2005)

36) Antibiotics are overused.

JAMA 2002; 287: 3096-102

37) Abdominal flat-plates are a lousy test, apart from foreign body (90% sensitive).

Radiology 2002; 225: 159-64

38) Tight glycemic control may harm critically ill patients.

Chest 126(3); September 2004: 674-6

39) Procalcitonin levels being used to differentiate bacterial from viral.

Lancet 2004; 363: 600-7

40) Intent of drug (eg anxiolysis) may be more important than category of drug for "conscious sedation".

41) Layperson CPR is ineffective.

Am J Med 118(1); 58: January 2005

42) Unnecessary to alternate anti-pyretics.

43) Half of all enlarged livers are not palpable by experienced examiners.

Ann Emerg Med 45; 5; May 2005: 553-5

44) Improved quality measures do not translate into improved quality outcomes.

NEJM 353; 3; July 21, 2005: 302-4

2006

- 45) 85% of low back pain has no patho-anatomical diagnosis.

NEJM 2001; 344: 363-70



- 46) Facilitated PCI not helpful.

Lancet 367; February 18, 2006: 569-78

- 47) Meta-analysis can be heavily skewed by one study.

Circ 2001; 104: 636-41

- 48) For recurrent aphthous ulcers, systemic steroids are the mainstay.

NEJM 355; 2; July 13, 2006: 165-72

- 49) Large prospective study of 140 term infants showed no evidence of kernicterus with bili levels > 25.

NEJM May 4, 2006; 354; 18: 1947-8

- 50) Routine CT for suspect apy not warranted.

Am J Emerg Med 2006; 24: 43

- 51) Empiric acyclovir for suspect meningitis.

Ann Emerg Med 47; 1; January 2006: 100-05

- 52) Vasopressin not better than epi in cardiac arrest.

Ann Emerg Med 48; 1; July 2006: 86-95

53. Ativan more effective than valium for first drug in status epilepticus.

Ann Emerg Med 48; 1; July 2006: 98-9

- 54) Auscultating lungs for pneumonia among seasoned physicians is no better than 47-69% sensitive and 58-75% specific for diagnosis, but can aid in setting a pre-test probability for interpreting other findings (eg CXR).

- 55) "Mature minor" is age 16-18 who is able to give informed consent without guardian readily available.

- 56) Food does not significantly change the pH of your stomach.

UC Berkeley Wellness Letter 22; 8; May 2006: 5

- 57) Never say "there is nothing more we can do". This is untrue.

2007

- 58) Broslew tapes made it 3x more likely that a pediatric patient would receive the right dose of medication in a code.

Pediatrics October 2006; 118(4): 1493-1500

- 59) Tongue piercing caused dental damage in 25% of adolescents.

Journal Adol Health 39(2006): 767-9

- 60) Prevnar is 94% effective and caused strep pneumo bacteremia to fall by 75% in immunized pediatric population. Some question any CBC or blood culture for the non-toxic fully immunized child > 2 months old.

Ped Infect Dis J 25(4); 294: 2006

- 61) Rochester criteria can be used for low risk infant 6 weeks-2 months and may omit the spinal tap.

Emerg Med June 2007

- 62) Children ≥ 2 years old with no true LOC, no vomiting and GSC = 15, the risk of TBI is 0.04% (4 out of 10,000).

- 63) Marijuana today is 5x stronger than marijuana in the 60's. (1 out of 10 8th graders have admitted to using marijuana in the past year.)

NIDA for Teens/teens.drugabuse.com

- 64) Reducing house dust mite exposure with special bedding and filters does not appear to help asthmatics and food avoidance hasn't helped either.

NEJM 355; 21; November 23, 2006: 2226

- 65) DHE plus antiemetic is as good as opiates.

Ann Emerg Med 45; 4; April 2005: 393-401

- 66) Flushing ears can not be billed as earwax removal.

Physician's Practice March 2007: 67



- 67) Obese children that are active attract more mosquitos due to increased carbon dioxide.

American Medicine News May 21, 2007: 29



- 68) Roller shoes sent 1600 people to the ER last year.

The Week June 22, 2007: 24

- 69) Most pediatric UTIs are either transient pyuria that are self-limiting (without antibiotics) or we are not clear on what constitutes the diagnosis of "pediatric UTI".

Arch Ped Adol Med 2005; 159: 915

- 70) "Recreating the womb" is the best way to quiet very young babies.

2008

71) Specific gravity and ketones are not accurate for dehydration.

JAMA 2004; 291: 2746-54

72) Vagal maneuvers for SVT may be up to 50% successful when done in the supine position and done early.

Emerg Med Practice 10; 4: April 2008

73) An "open fracture" is any break with a direct communication to broken skin.

Rosen 552

74) For anaphylaxis, use epi IM.

Allergy 2007; 62: 857-71



75) Epley maneuver for BPPV.

Neurology 2008; 70(22): 2067-74

76) Bipap performs same as Cpap for CHF.

NEJM 359; July 10, 2008: 142-51

77) NG tubes are usually unnecessary.

JEM 33; 1: 61-4: 2007

78) Vasopressin of no benefit.

NEJM July 3, 2008; 359: 21-30

79) Taking Vioxx carries twice the mortality of rock climbing.

American Med News May 28, 2007: 21

80) Defensive medicine is bad medicine.

Medical Economics January 4, 2008: 9

81) *Positive words can lead others to health.*



82) Hypertensive, Abdominal pain, Neuro-psych and GI disturbance - think porphyria.





PARADIGM SHIFTS

A NEW SECTION THAT REVIEWS RECENT “PARADIGM SHIFTS” IN MEDICINE. A “PARADIGM SHIFT” IS A RADICAL CHANGE IN VIEW IN THE WAY THE WORLD IS UNDERSTOOD.

SOME HISTORICAL EXAMPLES ARE “THE WORLD IS ROUND” WHICH ALTERED THE WAY PEOPLE THOUGHT ABOUT THE HORIZON OR THE WAY THEY MADE MAPS. ANOTHER MORE MEDICAL EXAMPLE WAS THE MICROSCOPE. BEFORE THE MICROSCOPE, DUST WAS THE SMALLEST IMAGINABLE PARTICLE (“ASHES TO ASHES, DUST TO DUST...”). AFTER THE MICROSCOPE, A NEW INVISIBLE WORLD CAME TO MIND.

“Tighter glucose control may harm more than it helps”

There is often the assumption that Type I diabetes is often Type II diabetes that now requires insulin. Along with this assumption is the idea that if Type II diabetes had tighter control that it would prevent progression and decrease patient morbidity and mortality.

A recent ACCORD trial (as well as other reports in both critical care literature and cardiovascular literature) has turned much of conventional wisdom upside down. While lower glucose may help Type I diabetes, there is now a fair amount of evidence suggesting this is not true for Type II diabetes. In the ACCORD trial, lower glucose in Type II diabetes actually increased mortality. This study, unlike previous studies done on observational data, was very well done.

This brings to light many misconceptions we can begin to correct:

- 1) Type II diabetes is a different pathophysiology that may follow very different recommendations than Type I diabetes.
- 2) Observational data should not be used to draw conclusions about drug therapy.
- 3) Better surrogate markers (eg Hgb A1C) do not necessarily represent better clinical outcomes (eg mortality).

Arch Intern Med 169(2); 150: January 26, 2009



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