Performance Improvement
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WESLEY EMERGENCY DEPARTMENT
THE QUEAS-E UPDATE

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

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New Stuff

"Flomax May Not Be Beneficial For Kidney Stone Passage"

Two recent meta-analyses have evaluated tamsulosin (Flomax) in a select group of patients who had distal ureteral stones referred to urologists and found Flomax to be markedly helpful. However, this most recent study of 77 patients with stones 4mm or less in a general ED setting found that Flomax made no significant improvement in passage of the stone over the 14 days after treatment in the ED. This new and very different conclusion will leave us all uncertain until more data comes along.

Ann Emerg Med 54; 3; September 2009: 432-9

"Blood Pressures in the ED for Children that are Low Acuity is not Valuable"

The fourth report of the National High Blood Pressure Education Program recommended blood pressure measurement for all children over three presenting for medical care. However, in this prospective study of 549 children ages 3-18 years without chronic medical conditions who presented to an ED with non urgent complaints, the initial triage BP was elevated in 26% of children. None of the patients at follow-up at 1 month and 2 months had elevated blood pressures. These findings suggest that screening blood pressures in children presenting to the ER with non urgent problems is unnecessary.

J Ped 153; 478: October 2008

"Controlling Blood Pressure Immediately Post-Stroke Not Helpful"

A double blind trial of 179 patients with a stroke (ischemic or hemorrhagic) with a systolic ≥ 160 were randomized to labetolol, lisinopril or placebo. Active treatment did not affect early neurological deterioration during the first 72 hours. There was no difference in any measure between the groups. In spite of recommendations in both hemorrhagic and ischemic strokes there appears to be no good clinical data to recommend anything with regard to blood pressure management.

Lancet 8; 48: January 2009

"The Type of Antibiotic for Mild-Moderate Community Acquired Pneumonia Doesn't Matter"

The Infectious Disease Society of America (IDSA) and the American Thoracic Society updated recommendations for the treatment of community-acquired pneumonia (CAP) in 2007. (Clin Infect Dis 2007; 44; [Suppl 2]: S27) For healthy outpatients with CAP, they recommend doxycycline or a macrolide. For outpatients with co-morbidities, they recommend a flouroquinolone alone or a beta-lactam plus a macrolide. But how well supported are these recommendations?

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New Stuff (cont'd)

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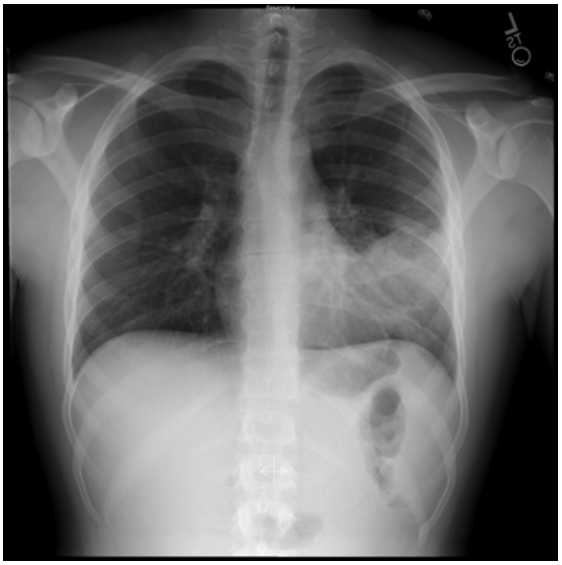
A meta-analysis of 18 randomized controlled trials for patients with outpatient CAP either healthy or comorbid did as well with a beta-lactam penicillin or cephalosporin as they did with a quinolone or a macrolide. (Thorax 2001; 56; [Suppl 4]: IV1)

Similar findings were found with inpatients in which no difference was found between regimens with atypical coverage versus those without. (Cochrane Database Syst Rev 2008; January 23; [2]; Arch Intern Med 2005; 165 [17]: 1992) In several other studies, respiratory quinolones and macrolides were not superior to macrolides and beta-lactams or cephalosporins and beta lactams. (Europ Resp J 2008; 31 [5]: 1068)

How much data do we need to prove that any guidelines for CAP are filled with assumptions, lack of good clinical data, and poor recommendations upon which no one should base reimbursement.



2003

1) Nothing really works for bronchiolitis.

   NEJM 2003; 49: 27-35

2) No NSAIDS for fractures.

3) Flouroquinolones can precipitate hypoglycemia especially with the first dose in the elderly diabetic.

   Medical Letter August 4, 2003

4) Consider screening young sexually active females with urine GC and urine chlamydia while checking a urine preg.

5) Mannitol has no good data to support its use with TBI even with increased ICP.

6) It is a myth that you can't use a 1st generation cephalosporin if you have a "penicillin allergy".

7) When we record a temperature in the ER, we should document with or without antipyretics.

8) Consider writing on dismissals "Thank you for coming to our ER today".

9) Dimming the lights and reducing noise should be our first medical approach to reducing pain and nausea.

10) Prilosec and other PPIs should not be prescribed in the ER – try H_2 blockers which are faster and cheaper.

2004

11) Serum prolactins are sometimes used as a type of brain sed rate to diagnose seizure when the first prolactin is elevated and the second one 1 hour later is coming down. Unfortunately this is from several small studies with dis-appointing conclusions.

Acta Neurol Scand 109(5); 318-23: May 2004

12) Well's Criteria is used to help pre-test probability of DVT + PE.

NEJM 349; 13; September 25, 2003: 1247-55

13) O and P of the stool is almost worthless yield in our ER.

14) Decadron 0.6mg/kg po x 1 for all kids with croup.

NEJM 2004; 351: 1306-13

15) Central vertigo, unlike peripheral vertigo will rarely cause nausea.

Otolaryngol Head Neck Surg July 1998; 119(1): 55-9

16) Crackles, not rales, is the acceptable term for lung findings.

17) A February 2004 report by the Institute of Medicine reviewed more than 400 studies and rejected the conventional wisdom of 6-8 glasses of water each day.

Consumer Reports on Health August 2004

18) PSA (Procedural Sedation and Analgesia) is the preferred term over conscious sedation.

19) When speaking through an interpreter you should still face the patient and keep eye contact and talk to the patient in the first person.

20) Lifelong smokers die 13-14 years sooner than non-smokers.

BMJ June 2004

21) The peak flow after a treatment should be 20-30 minutes after to allow the albuterol to take effect.

22) Minors can be treated without parental consent when an "emergency" exists, the minor is pregnant, married, mentally ill, or desiring drug rehab or an STD check.

23) It is considered unethical for a physician to sell supplements to patients and make a profit.

24) Pain and psychological experiences can be remembered physiologically in a young child. Childhood memory of pain is different.

Journal of Pain (5) June 2004: 241-9

2005

25) If a patient's EKG does not have LVH, BBB, pacing or digoxin patterns consider ACS for s-t depression.

Clinical Briefs in Emergency Med Vol 7: 2005

26) Migraines are thought to be due to cortical deactivation in the posterior circulation.

Neurology 2003

27) Weighted radiographs to find third degree AC separation did not generally help diagnosis or change in management.

Am J Sports Med 27(6); 806: 1999

28) 80% of the elderly with pneumonia will still have an infiltrate on the CXR 6 weeks later.

29) GHB can be detected in the urine up to 12 hours later.

NEJM 352; 26: June 30, 2005

30) A trial of 3000 high risk women found no evidence that 1000mg calcium per day reduced fractures.

BMJ 2005; 330: 1003

31) Prevnar has prevented the majority of bacterial CAP in children.

NEJM 2002; 346: 429-37

32) Most endocarditis prophylaxis has never been established.

Clin Infect Dis 1999; 29: 1

33) Higher TIMI flow rates do not necessarily translate into clinical improvement.

NEJM 2005; 352: 1179-89

34) In vivo, vitamin E supplements are not anti-oxidants but pro-oxidants.

Medical Letter 47: July 18, 2005

35) There is a pharmaceutical rep for every 4.7 doctors in the US.

NEJM 352; 25; June 23, 2005: 2576-8

36) Optivar is cheapest prescription ophthalmologic anti-histamine.

Medical Letter

37) 50-90% of patients do not take their medications correctly and nearly 20% of all prescriptions are never filled.

Institute for Safe Medication Practices

38) Start bad news with "I have some bad news…" and use the name of the deceased.

Acad Emerg Med 9; 1326: 2002

39) Patient satisfaction surveys are neither accurate nor do they lead to quality changes.

JAMA 2002; 288: 1987-93

2006

40) Cholecystitis is an inaccurate diagnosis and an elevated WBC is only 63% sensitivity and 57% specific.

Ann Emerg Med 48; 1; July 2006: 101-3

41) A lipase must be 3x normal to approach a specificity of 98%.

Ann Intern Med 1985; 102: 576

42) Early aggressive beta-blocker in AMI increases mortality in first 24-48 hours.

Lancet 366; 1622: November 5, 2005

43) The routine use of CT for someone with syncope and no head trauma or seizure is unwarranted.

Ann Intern Med 1997; June 15; 126(12): 989-96

44) Most rules to distinguish bloody taps and inflammation from infection are not adequately studied and are poorly predictive.

Peds Infect Dis Journal (25); 1; January 2006: 8-11

45) "Chest cold" is a better term than bronchitis. The cough lasts about 2-3 weeks and antibiotics are unnecessary in normal individuals.

JAMA June 22/29, 2005

46) False positive hemoccults can occur from horseradish; and iron supplements do not cause false positives.

47) Daily aspirin does not decrease AMI in women and any decrease in stroke is off-set by bleeding in men and women.

JAMA 2006; 295: 306

48) 2 units of PRBC will increase hematocrit by 6 points.

Emergency Medicine July 2006: 41-4

49) If the rust-ring is in front of the pupil rather than the iris, one should probably refer to an ophth.

50) From 1995 to 2003, inflation-adjusted income decreased by 7% for all physicians and by 10% for primary care.

NEJM 355; 9; August 31, 2006: 861-4

51) "Gold standards" are not always good.

NEJM 347; 3; July 18, 2002: 161-7

52) Medicine does not follow market principles.

NEJM September 7, 2006; 355; 10: 1073-4

2007

53) Nail polish does not significantly affect pulse oximetry.

Resuscitation 2007; 72: 82

54) Relaxation and/or distraction are essential to test DTR. Grading the reflex is subjective – and it is not clear how helpful DTRs are to emergency medicine.

JOGNN 2003; 32: 39

55) Adding BNP to routine chest pain work-up is not helpful.

Ann Emerg Med 2007; 49: 153-63

56) Bimanual laryngoscopy better than BURP maneuver.

Ann Emerg Med 2006; 47: 548-55

57) MANTRELS test may be helpful score for pediatric appendicitis.

JAMA 2007; July 25; 298; 4: 438-51

58) 8 out of 10 elderly believe their chances of surviving CPR was greater than 50%.

JAOA 2006; 106(7): 402-4

59) Silver sulphadiazine not recommended for burns.

Emerg Med J 23; 929: December 2006

60) Only about 3 out of 4 women with abdominal pain get a urine dip in the ER.

In house study

61) Standard of Care is a legal term, not a medical one and should be used with some caution by medical personnel.

Risk Management Monthly 1; 2: July 2007

62) Boarding admitted patients in the ED costs more and harms patients.

Acad Emerg Med 2007; 14(4): 332

63) Antibiotics, cyclopegics, and eye patching are not needed for small corneal abrasions covering less than 1/3 the corneal surface.

Eye 12; part 2; 278-81: 1998

2008

64) Stored RBCs and additives can actually decrease oxygen availability. 2 units in vitro do not equal 2 units in vivo.

Transfusion and Apheresis Science 37(2007): 201-7

65) Case control trials would indicate that the rate of fluid administration does not cause cerebral edema in pediatric DKA.

Ann Emerg Med 52; 1; July 2008: 72-5

66) Hydrocolloid type dressing (Tegaderm) may do better than wet-to-dry dressings in chronic wounds.

Arch Dermatol 143(10); October 2007: 1297-304

67) Trephination is as good as nail removal. (two small studies)

NEJM 359; 10; September 4, 2008: 1037-46

68) Cleocin and metrogel are both generic and run about $35 a piece. Oral metronidazole is on the $4 list.

69) Trancutaneous pCO_2 can be monitored during BiPAP.

Chest 132; 6; December 2007: 1810-16

70) Soy formula not helpful for colic.

Pediatrics 121; 5; May 2008: 1062-8

71) Likelihood ratios are often favored over sensitivities and specifications.

J Gen Intern Med 23(1); 87-92: 2007

72) Inguinal pain is more often indicative of true hip pathology.

NEJM 357; 14: October 4, 2007

73) Procainamide is drug of choice for WPW.

Emergency Medicine August 2007

74) Most common abnormality is red lunula with COPD, CHF, cirrhosis.

J Fam Pract 57; 8; August 2008: 509-14

75) New pathophysiology for migraine means new treatments such as "cortical spreading depression" inhibitor called tonabersat.

76) Serum creatinine is not a truly accurate measure of renal function.

Clin Nephrology 68; 4; 2007: 235-7

77) Half of all indwelling foleys placed in the elderly were inappropriate in a recent study.

Am J Infect Control 2007; 35: 589-93

78) GCS scores have questionable reliability.

J Trauma 2007; 63: 1026-31

79) New patient flow concepts include informational triage, rapid triage, immediate bedding, team assessment and preprinted orders.

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.

"Alternative Medicine is not Ancient Wisdom"

Most of what we think as "alternative medicine" (homeopathy, botanical medicine, naturepathy, hydrotherapy, magnetic bracelets and chiropractory, etc.) is not the result of ancient healing rituals practiced throughout history as is sometimes suggested. All of these ideas (including the western adoption of acupuncture) came on the scene through a very narrow historical period from 1800-1850. Why?

The Romantic period was a reaction against the Age of Reason. The individual was elevated as his own authority, as well as a return to nature as the source of truth. Mystical experience superseded scientific measure. These factors, in addition to the advent of medical professional licensure and medical schools (1800-1830), set the stage for the creation of "alternative medicine" as opposing movements against the "machine" of "scientific medicine".

Almost without exception, every alternative medicine movement (called "irregular medicine") was started by a common unlearned individual who had very dissatisfying experiences with "traditional medicine" and tried other alternative approaches in a very accidental and intuitional way. With only one or two exceptions (homeopathy and Samuel Hahnemann) did alternative medicine begin with a scientific theory ("like cures like") with experiments to follow. Those approaches had varying degrees of popularity and success, especially given that the traditional medical approaches included blood-letting and calomel (mercurials).

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But "alternative medicine's" heyday was cut short with the Flexnor Report (1910) and the rise of medical professionalism and antibiotics. It wasn't until the 1960's and 70's in the U.S. that a new "romantic movement" occurred which was, again, largely a response to the dissatisfaction with a mechanistic style of medicine that had not addressed the human spirit and basic emotional needs.

Unfortunately, with all of the holistic and even spiritual promises of "alternative medicine", alternative medicine has failed the majority of all scientific studies. In 1991, the U.S. Congress set up the Office of Alternative Medicine, and – in the past 18 years – has spent billions of dollars researching Echinacea, feverfew, ginkgo biloba, St. John's Wort, chiropractory, and the list goes on. To date, there is little proof that any of these compounds or therapies do any more than placebo. This same argument can be levied against "traditional therapies" also; however, the alternative medicine compounds are currently unregulated and often filled with toxic heavy metals of illicit steroidal compounds. Vitamins and antioxidants, when given routinely as supplements, have been found to do more harm than good. Chondroitin sulfate and glucosamine have been found not to be helpful. And, while the current rage is Omega-3 fatty acids, this is nutritional science we found from studies of the arachidonic acid cycle, not an herb or alternate compound.

Most disheartening is that alternative medicine advocates (like Andrew Weil, M.D.) or the one out of three patients who are currently using alternative compounds disbelieve the scientific method as a stamp of validity. "I know because it works for me" becomes the authoritative accreditation of good medicine. So what does one do with this war between mystical individual experience and reasoned scientific data?

The paradigm shift is to no longer place them at war. We should caution patients that anyone using their own self-experience as a source of truth is arrogant and dangerous (unless it is, in fact, very cheap and completely not harmful). It is equally blind and ineffectual to use a biomedical approach to disease which is devoid of an empathetic and/or spiritual base. We should get rid of such silly labels as "alternative medicine", complimentary medicine or natural therapies. There is only medicine which is "good" or "bad" – or still experimental. Good medicine should ideally be scientifically validated and emotionally satisfying by connecting the therapy with the deepest of human needs. The most educational elements of alternative medicine's stardom is how deeply dissatisfied people are today with the approach that traditional medicine takes and that most people heal in spite of whether they have magnetic bracelets or Augmentin, chiropractory or Plavix. Perhaps we can take away the "proof" that to do less may often be better – give less pharmaceuticals, do less procedures and replace them with a medicine that serves the human needs of touch, communication and empathy.