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Dancing Between the Purist and the Practical: Teaching Evidence-Based Medicine in the 3rd Year Family Medicine Clerkship

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Et al.

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Dancing Between the Purist and the Practical

TEACHING EVIDENCE- BASED MEDICINE IN THE 3RD YEAR FAMILY MEDICINE CLERKSHIP

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Then

THEN: In 1999, the library and the Department of Family Medicine began co-teaching Evidence-Based Medicine to students in the 3rd year Family Medicine Clerkship. The classes relied heavily on lecture with a strong emphasis on detailed EBM statistics. Students were told "the best" sites to use to find good evidence but were not necessarily instructed how to recognize good evidence and utilize it. From early on, student comments have been solicited at the close of each class. Through student input, changes occurring within Evidence-Based Medicine and faculty study/discussion, many changes have occurred throughout the seven years of this teaching collaboration.

What we'll do

- For each category
  - Present a case study
  - Suggest a database
  - Do a search
- I invite you to follow along when I search.
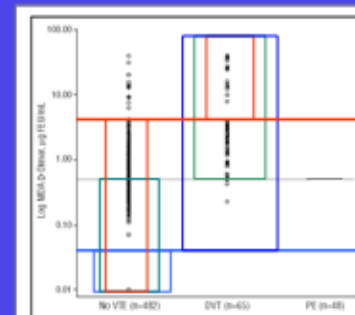- I'll let you know when to begin.

Principles Governing the Use of Narrowing Terms

- First, try a subheading if there is one that seems directly related to your clinical question. Use the one subheading that is most specific to your topic.
- When combining subheadings, you will usually want to use the OR operand to expand the search.

Distributions of D Dimer Results: Alternative Cutoffs

Distribution of MDA D-Dimer (a quantitative latex D-dimer assay) (Organon Teknika Corporation, Durham, NC) results in the study population. VTE indicates venous thromboembolism; DVT, deep vein thrombosis; and PE, pulmonary embolism. The horizontal line specifies the discriminant value of 0.50 µg fibrinogen equivalent units per milliliter (FEU/mL).

Local Lab:
Se - .33
Sp. - .975

Study:
Se - .97
Sp. - .47

Low
Se - .1.0
Sp. - .01

Then → More time for student practice → **NOW**

Then → Simpler but still meaningful stats → **NOW**

Then → Less "search for it", more "find it"! → **NOW**

NOW: Today, the class focuses more on helping students to identify good evidence and less on "the best" place to find it and statistically analyze it. We have garnered a 60.4% total return on student feedback that has given us great insight into what the student's value in this training. One measure now used to help students better identify and critique the literature for good evidence is the inclusion of a module on bias. Some content has also been moved to a pre-class WebCT presentation, allowing students more time for useful exercises and practice. This helps them to understand the impact EBM can have within their training and future clinical practice.

Your Search

Take 20 minutes to Search for on your question
Search a **MINIMUM** of 3 Databases:

Clinical: --Ovid EBM Reviews
                --PubMed Clinical Queries
                -Systematic Reviews/Clinical Study
Prevention: --USPSTF at www.ahrq.gov
Guideline: --Nat. Guideline C/H www.ahrq.gov
Overview: -UpToDate, others....

2. PubMed Clinical Queries Filters

- Freely available: *www.pubmed.gov*
- Searches the Primary Literature
  - Clinically Relevant Research
  - Systematic Reviews
- Simple to use – "smart" subject mapping
  - Filter By "English", Age (if appropriate) and Abstract
  - Use * (congest*) to look for different word endings

Let's look at the numbers

Absolute Risk MI on Simvistatin 19%; Placebo 28%

Absolute Risk Reduction =
$$28\% - 19\% = 9\%$$

Number Needed to Treat =
$$NNT = 100 / (28\% - 19\% = 9\%) = 11$$

Relative Risk Reduction =
$$(28-19)/28 = 33\%$$

STUDENT COMMENTS

It would be nice to add 15 minutes or so on critiquing articles for bias, NNT, etc. Thanks! *2000*

More time to actually search on computer would be helpful. *2000*

1 1/2 hours of watching someone else navigate is difficult to maintain attention to. *2001*

The pre-searched examples in the presentation had all the thinking/brainstorming done. *2001*

I found this very helpful, but I think more time should be spent "practicing" than being lectured. *2002*

More time to explore searching would be good. *2002*

STUDENT COMMENTS

Helpful that we each researched a topic independently - provided focus and the incentive for the session. *2003*

PubMed/clinical queries Very helpful! So glad you told us. *2004*

The interactive exercises were very helpful. *2005*

Nice that you simplify the statistics. *2005*

Clear, concise, interactive and helpful. *2005*