TEACHING EBP PRE-CORE CURRICULUM TO NON-ENGLISH SPEAKING MEDICAL STUDENTS. FOUR-YEARS EXPERIENCE AT THE UNIVERSITY OF SIENA

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Setting

Established: 1240

Students 20,000
Teachers 900

School of Medicine 3000
Teachers 300
Graduate Students 1000

Frequency = 150 per year

Mostly conventional

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- Critical thinking
- Team working/communication skills
- English literacy
- Clinical epidemiology
- Computer/Internet skills
- Medical information sources
    - "Physiology"
    - "Anatomy"
    - "Pathology"
- Use all the above for something useful
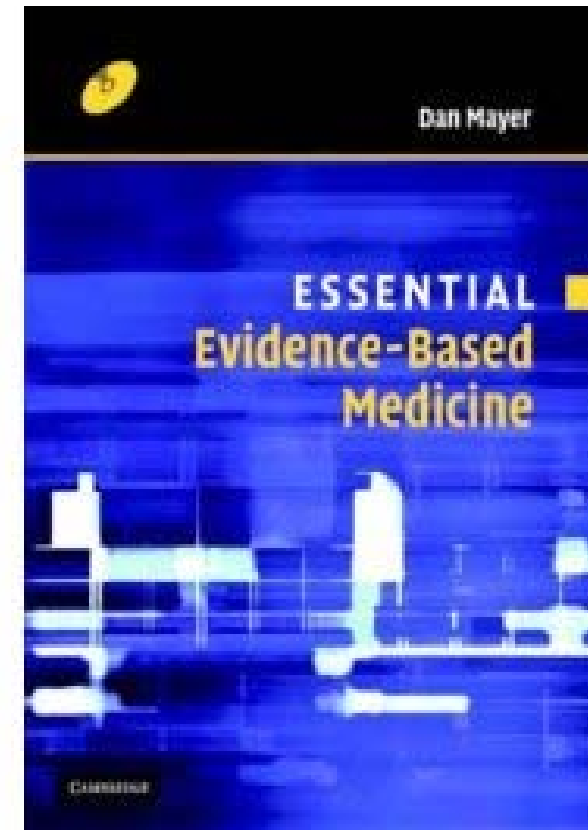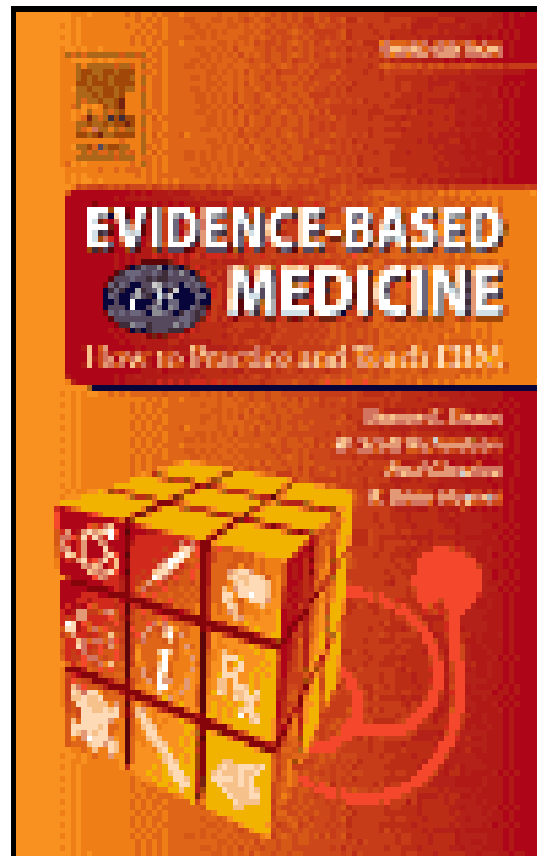
- Background questions
  - Root: "what" "how"
  - Verb; "is" "causes" "works"etc..
  - Noun: a disease, condition, drug, procedure etc..

- Foreground questions
  - Often (not necessarily) 4 components:
    - P(atient)
    - I(ntervention)
    - C(omparison)
    - O(utcome)

Background questions
About a disease, condition, drug, procedure
Answered in books, reviews

Foreground questions
About a specific patient
Answered in original papers or systematic reviews

Students only have background questions
Foreground questions increase with experience
Background questions arise at any level of experience

The ability to identify, formulate and answer background questions is a fundamental EBP pre-core curriculum skill

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- AISMe (Apprendimento Interdisciplinare delle Scienze Mediche). A small group, PBL-based course for the first 3 years
- About 30 teachers with some experience in the tutorial process. Many from basic sciences. Mostly EBM illiterate
- Course program:
  - First year: building team skills using problems based on actuality
  - 2nd. Problems designed to the knowledge of the sources of biomedical information (literature)
  - 3rd. Clinical problems (Diagnosis, Therapy)

Students work in small groups (10-12) with 2 tutors (mostly EBM illiterate)

8 small group problems each requiring new background information.

Problems mostly build on recent reviews published in web accessible journals (NEJM).

Examples: avian influenza. Osteoarthritis of the knee, cell phones..

They discuss in the group using their current knowledge and meet after one week after reading a relevant article

Two hands-on sessions in a computer room (50 seats)

- 1 Basics

  - What is a journal

  - How is it produced

  - What does it looks like

  - Types of articles

  - How do they look like (sections)

  - Answerable questions

Hands-on sessions in a computer room (50 seats)

1. Pubmed

- Specific articles/author: Citation matcher
- Background questions
  - Limits (Publication type, field/tag, etc)
  - Comments, corrections
- Foreground questions
  - Clinical queries (PICO)

Diagnosis, therapy

A.I.S.Me. ① ②
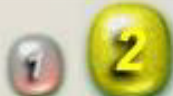
AISMe ▶ AISMe2_2005

? Switch role t

Scriveva il medico e filosofo **Sesto Empirico**, nell'*Adversus dogmaticos*, (circa 200 d.c.):

"**Ogni mestiere** (τεχνη) **o scienza** (επιστημη) **esistente si apprende attraverso i suoi** prodotti professionali e le sue **opere** (εργα) **scientifiche**"

Il corso di questo anno è proprio dedicato a conoscere e saper usare le basi della letteratura scientifica e delle fonti di informazione proprie della professione medica.

Persone −

Partecipanti

Attivit? −

Antologie
Compiti
Diari

Argomento corrente

Forum News
Informazioni sul corso
Manifesto del corso
Calendario del corso
Aule e Gruppi
Seminari nell'aula informatica
Presenze e partecipazione
Materiale utile
Biblioteca Centrale di Medicina
Semplice introduzione alle **fonti di informazione in medicina**
Criteri di valutazione delle informazioni trovate nell'Internet
Forum Insegnanti

1 Esercitazione in aula informatica ☐
Ricerca su Pubmed
Spam intrigante

2 8 Marzo Sospeso per elezioni del Rettore ☐

3 15 Marzo Primo incontro del corso AISMe del 2° anno ☐
La diatriba

4 22 Marzo ☐
Febbre da polli

Evaluation

- Feedback questionnaire

- Final test: written comment of a review article ("Clinical practice" series of the NEJM) about a clinical problem

- >60% of the students rated their satisfaction as "high" or "very high", <5% as "poor" or "very poor"

- At the end of the 2nd year, virtually all the students know the different types of sources of information and are able to read and identify the different sections of an article, but most of them still misclassify a clinical review as an original article or as a systematic review.

- At the end of the 3rd year, however, 98% correctly classify a randomized controlled trial or a systematic review.

- Most students appreciate particularly group discussions and learning to use Pubmed.

- Most students took 1 ½ hour to read a 4-5 pages article.

- Although they had a formal course on statistics/epidemiology in the first year, very few students are able to recall basic concepts and to integrate them in the problems during the group discussions.

- Common complaints were about time, English,

- Some complaints about "too advanced" topics for their preparation

- Learning EBP pre-core curriculum skills is feasible for non-English speaking medical students using a PBL course using problems about background questions

- and clinical epidemiology is better suited to be learnt in a PBL context than in a theoretic course.

Find a job that you enjoy and you wouldn't work a single day in your life

Confucius