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# Patients and Populations I: Medical Decision-Making

## First Steps Towards Lifelong Learning

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### GENERAL OBJECTIVES FOR LIFELONG LEARNING

1. **Ask** well-defined clinical questions from case scenarios, the answer to which will inform decisions concerning the use of diagnostic tests and medical therapies.
2. **Acquire** information by selecting and searching the most appropriate resources likely to answer these therapeutic and diagnostic questions.
3. **Appraise** the medical literature using the basic foundations of biostatistics, research design and clinical epidemiology.
4. **Apply** the results of the appraisal of medical references to make sound, reasoned clinical decisions concerning the use of diagnostic tests and medical therapies.

### OVERALL LEARNING OBJECTIVES FOR THIS COMPONENT

1. Construct well-defined clinical questions from case scenarios, designed to improve general knowledge about a topic, and to help make decisions regarding the use of diagnostic tests.
2. Understand the differences between foreground and background questions and the implications for the types of information resources best suited to answer these questions.
3. Become familiar with the U-M information environment, and learn to effectively search several core biomedical resources to answer specific clinical questions.
4. Develop an understanding of the basic foundations of biostatistics, research design and epidemiology to begin to apply scientific data to the understanding of clinical conditions.
5. Effectively and logically apply probabilistic reasoning to diagnostic questions that arise in patient case scenarios.

## READING MATERIALS

1. **Mandatory:** Syllabus (you're reading it now)
2. **Mandatory:** Three articles (available under MDM Resources in CTools)
  - a. Strogatz S. Chances Are. *New York Times*. April 25, 2009.
  - b. Haynes B, Haynes GA. What does it take to put an ugly fact through the heart of a beautiful hypothesis? *ACP Journal Club*. 2009;150(3):JC3-2 to JC3-3.
  - c. Paulos JA. Mammogram Math. *New York Times*. December 10, 2009.
3. **Strongly Recommended:** User's Guides to the Medical Literature: A Manual for Evidence-Based Clinical Practice. Second Ed. Guyatt G, Rennie D, Meade M, Cook D, eds. AMA Press. 2008. NOTE: We now have this book online. Search on "JAMAEvidence" from the Health Sciences Library homepage (<http://www.lib.umich.edu/>) and then click on the link provided under "Databases". You will see the online version of this text (free as long as you are at U-M). If you choose to use this book, it will serve you well throughout medical school and beyond. It will especially be helpful during the MDM components that run throughout the M1, M2 and M3 years. If you want to purchase this book, be sure to get the MANUAL and not the ESSENTIALS (see below), unless you want a pocket guide.
4. **Completely Optional:** User's Guides to the Medical Literature: Essentials of Evidence-Based Clinical Practice. Second Ed. Guyatt G, Rennie D, Meade M, Cook D, eds. AMA Press. 2008. This is a handy pocket guide to the above-mentioned manual. It is NOT as in depth as the Manual, but is a useful summary of the key points.