

Evidence-Based Practice: The Process and the Resources

National Hospital of Pediatrics

Hanoi, Viet Nam

Wednesday 14 March 2007

- I will send a copy of this presentation to Dr. Lily
- Dartmouth Biomedical Libraries Web: open to all

Who am I?



William F. Garrity

"Bill"

- **Director of Biomedical Libraries,**
Dartmouth Medical School/
Dartmouth College and
Dartmouth-Hitchcock Medical Center
- **Instructor,** Department of
Community and Family Medicine,
Dartmouth Medical School
- <http://www.william-garrity.com/>

Why am I here?

Why am I here?

- **Joseph Rosen, MD**, Professor of Surgery, Dartmouth Medical School and Dartmouth-Hitchcock Medical Center
- **Vo Thi Kim Hue, MD**--"Dr. Lily"-- Director, Department of Community Child Health, Research, and Training

NHP's Challenges

- Resources (information resources)
- Staff knowledge and training
 - Clinical skills and knowledge
- Enable needs for primary care to be met locally
- Planning major institutional redevelopment

How Do You Get Information Now?

- I have a patient with deep vein thrombosis. How should I treat him?

Seven Alternatives to Evidence-Based Medicine

Basis of clinical practice

Basis for clinical decisions	Marker	Measuring device	Unit of measurement
Evidence	Randomised controlled trial	Meta-analysis	Odds ratio
Eminence	Radiance of white hair	Luminometer	Optical density
Vehemence	Level of stridency	Audiometer	Decibels
Eloquence (or elegance)	Smoothness of tongue or nap of suit	Teflometer	Adhesin score
Providence	Level of religious fervour	Sextant to measure angle of genuflection	International units of piety
Diffidence	Level of gloom	Nihilometer	Sighs
Nervousness	Litigation phobia level	Every conceivable test	Bank balance
Confidence*	Bravado	Sweat test	No sweat

* Applies only to surgeons.



Not to mention...

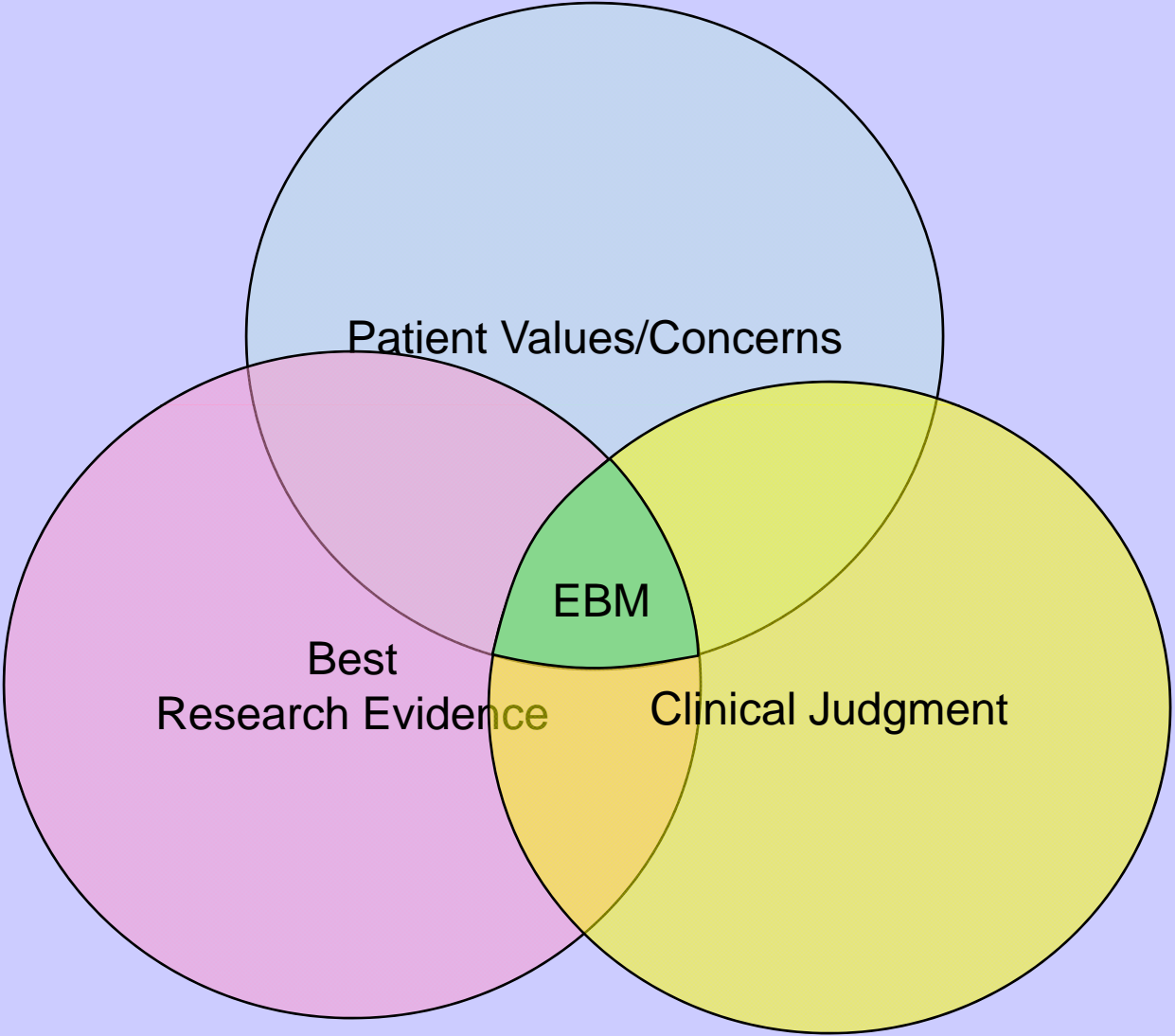
"Experience Based Medicine"

- doing the wrong thing with increasing confidence for an impressive number of years.
- A bad idea done by a LOT of people for a LONG time, is still a bad idea

Evidence-based medicine

- the integration of best research evidence with clinical expertise and patient values”

David Sackett, 2001



Patient Values/Concerns

EBM

Best
Research Evidence

Clinical Judgment

- Sounds reasonable - why don't we all do this all the time?

The Ascent of Evidence (and the exhaustion of Man)

Wissett



fig.1



fig.2

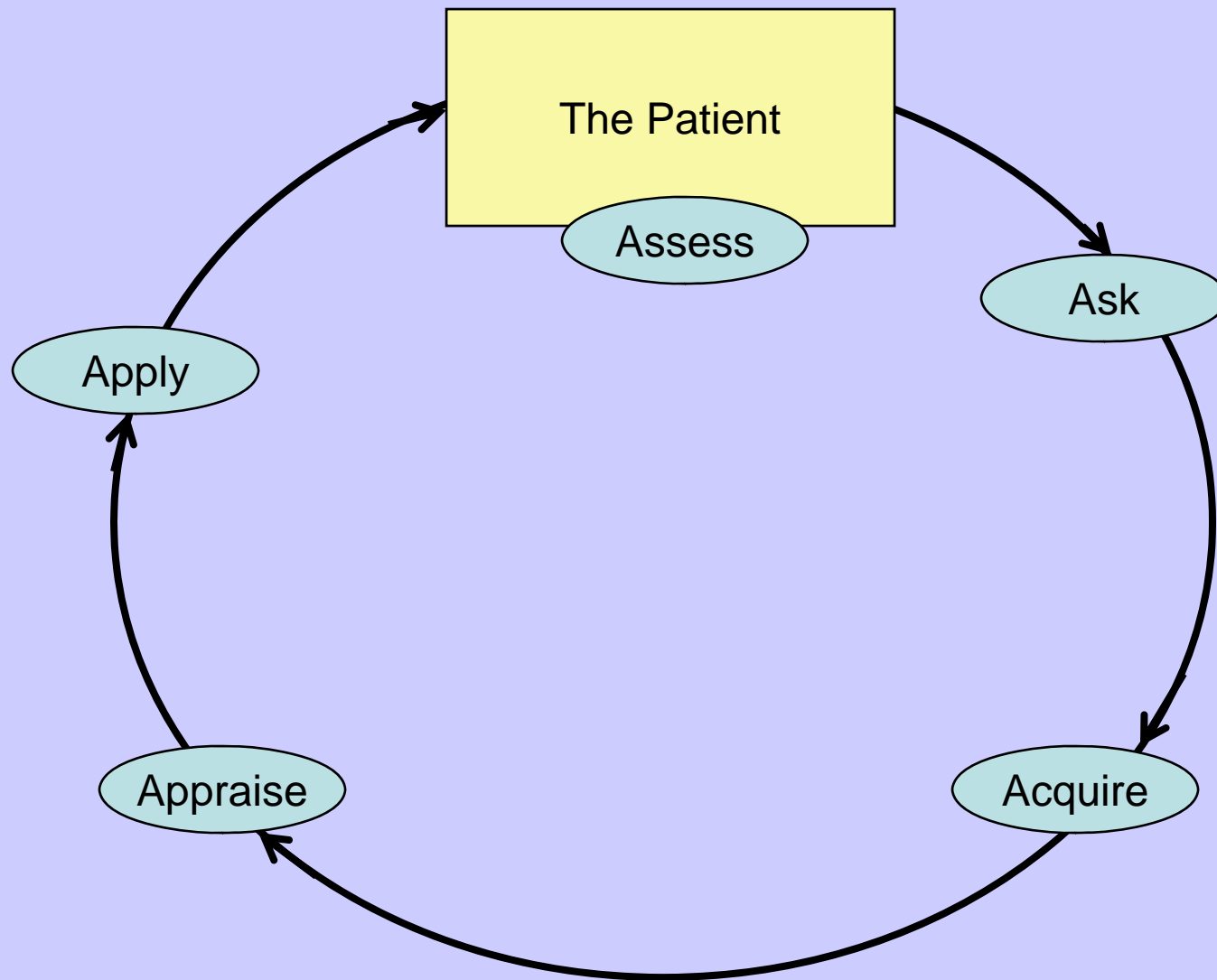


fig.3

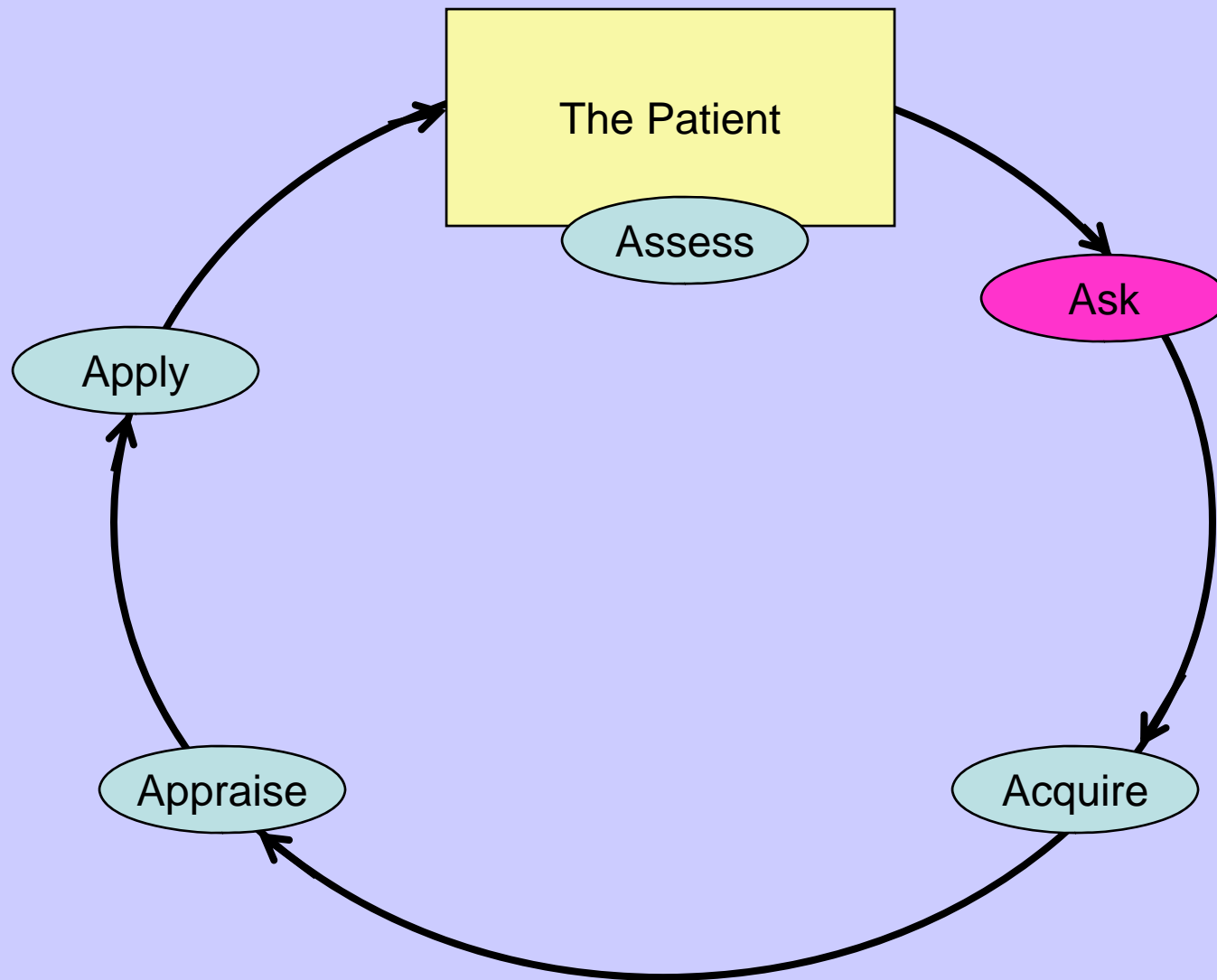


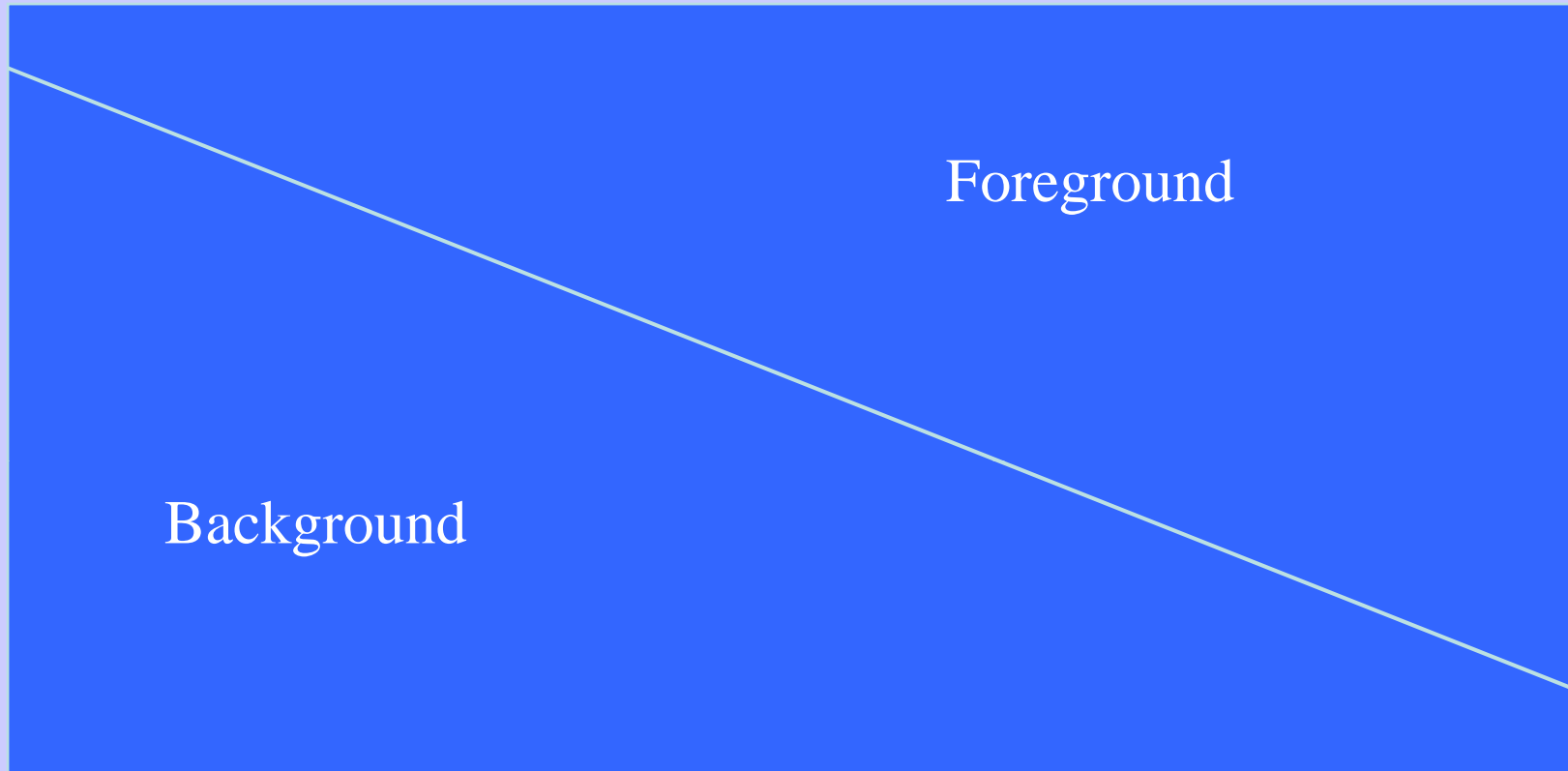
fig.4

Evidence-Based Practice



Evidence-Based Practice



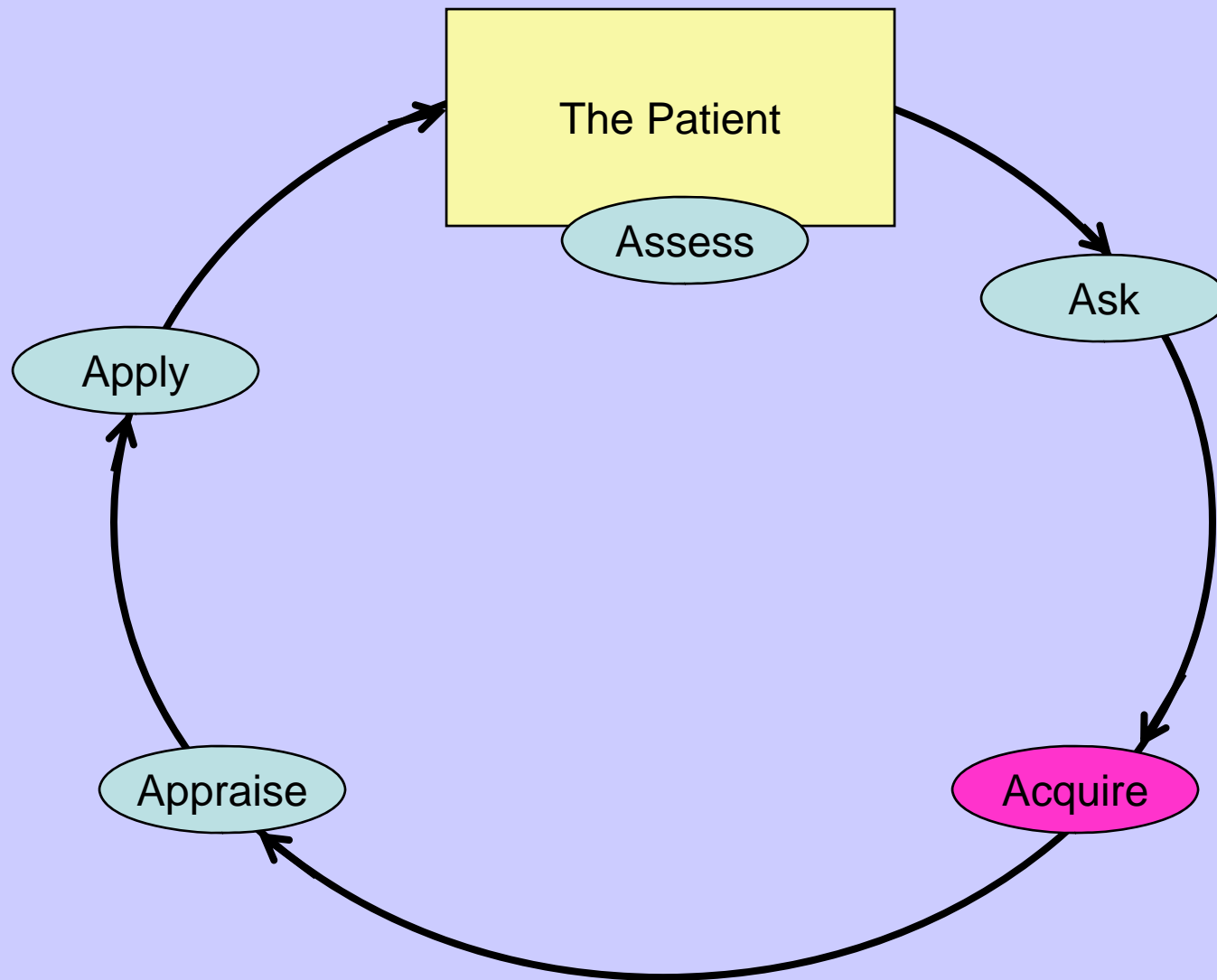


Experience with Condition

Ask: Develop a well-structured, patient-focused question [PICO(TT)]

- P - Patient population
- I - Intervention
- C - Comparison (optional)
- O - Outcome
- (TT) - Type of question/type of study

Evidence-Based Practice



Acquire: Search for the evidence

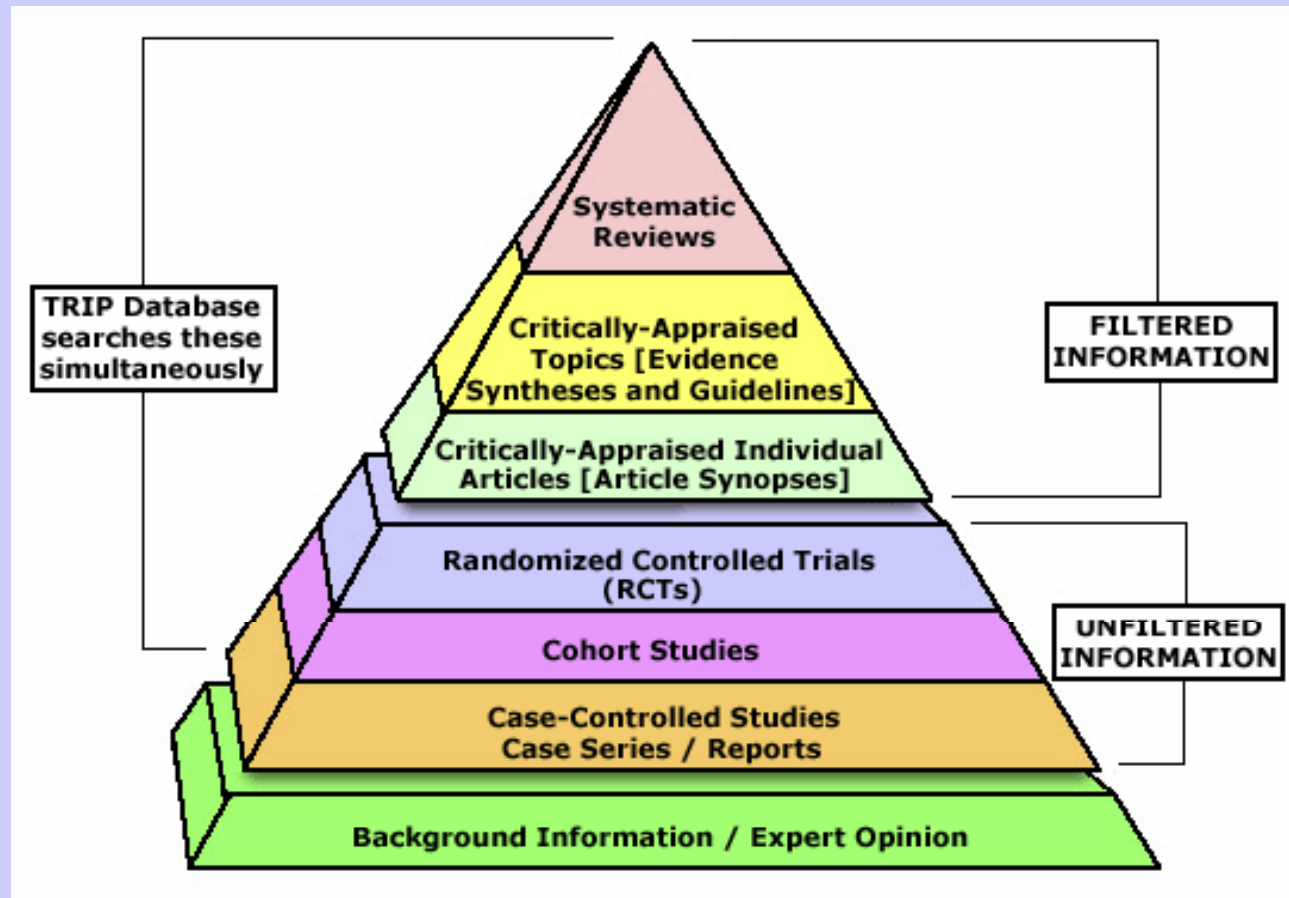
- PICO → search strategy
- The hierarchy of evidence and the evidence pyramid
- Evidence-based resources

Levels of Evidence

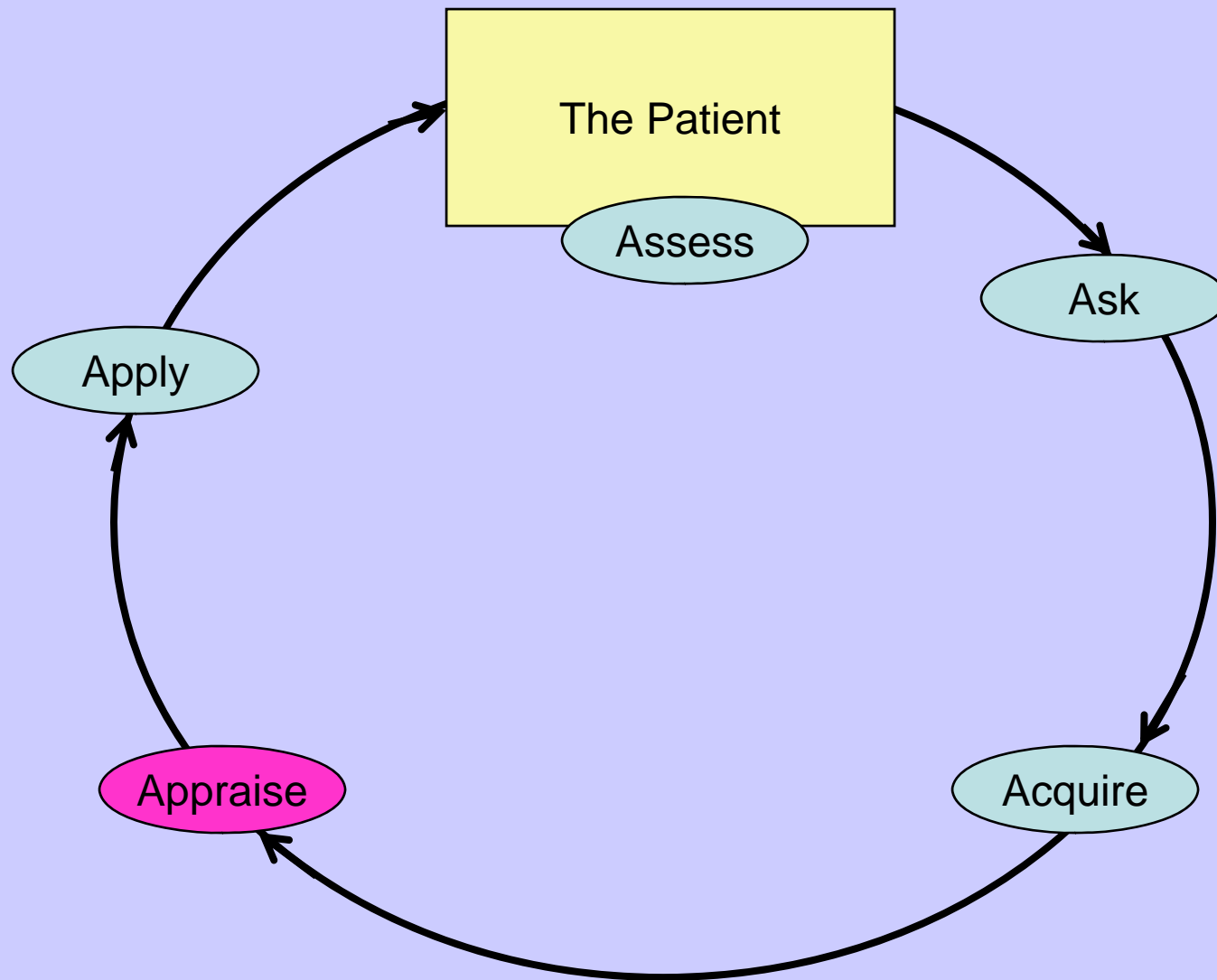


from Medical Research Library of Brooklyn, SUNY Downstate Medical Center
<<http://servers.medlib.hscbklyn.edu/ebm/2100.htm>>

Hierarchy of EBM Resources



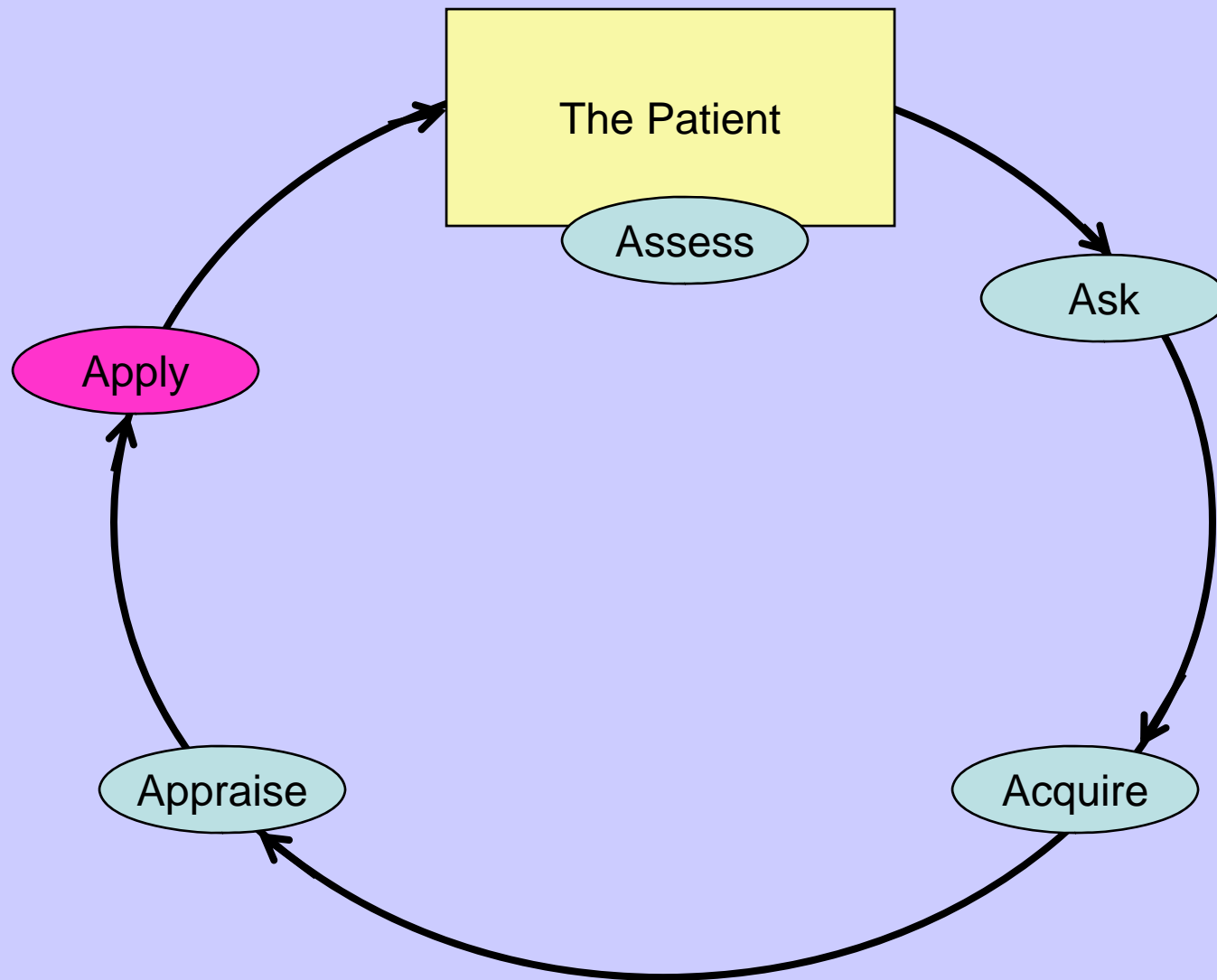
Evidence-Based Practice



Appraise: Critically appraise the evidence

- Are the results valid (i.e., not due to chance, bias, or confounding variables)?
- What are the magnitude and precision of the results?

Evidence-Based Practice



Begin with a patient-focused problem

For example:

A 26 year old woman with schizophrenia has been successfully treated with olanzapine for the past 4 years. She is concerned about her 20-lb. weight gain and wants to discontinue the drug - or switch to another that will not cause weight gain. What do you recommend?

Ask: Develop a clear, well-structured (answerable) question [PICO(TT)]

- P - Patient population
 - Young women with schizophrenia
- I - Intervention
 - antipsychotic
- C - Comparison (optional)
 - Olanzapine
- O - Outcome
 - Control symptoms without weight gain
- (TT) - Type of question/type of study
 - Therapy/RCT

Good Start

- Evidence-based Answers to Clinical Questions for Busy Clinicians:
www.mihsr.monash.org/cce/pdf/ebpworkbook2006.pdf
- 20+ page workbook that's clear, concise, and free on the web
- From the Centre for Clinical Effectiveness (CCE), Monash Medical Centre, Australia

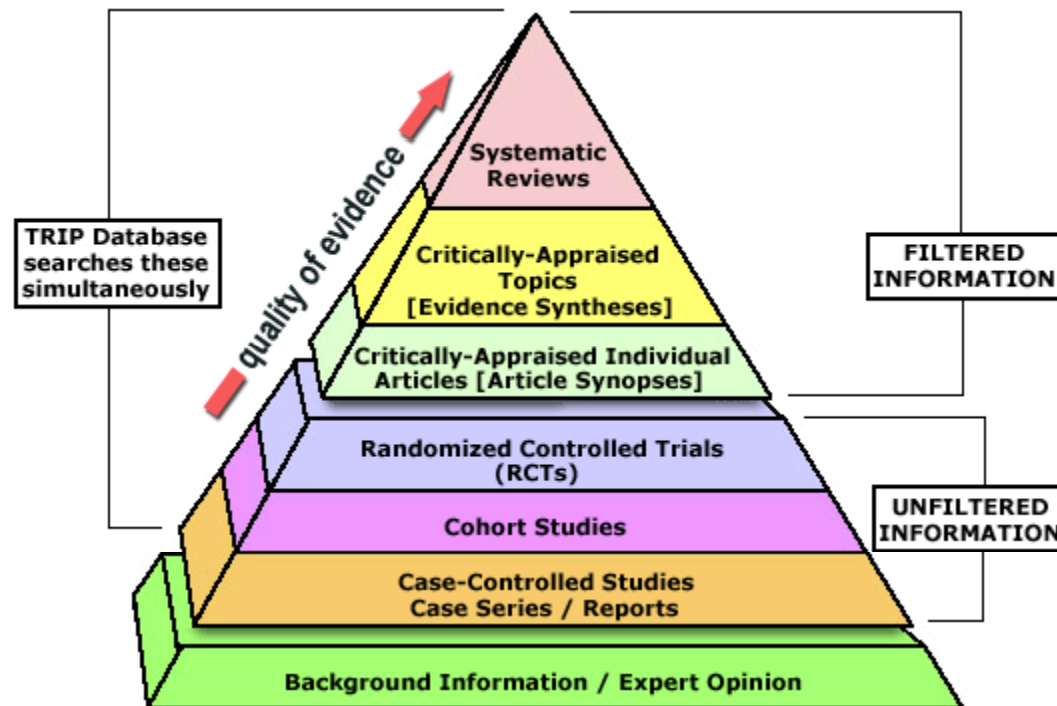
Another Good Start

- Dartmouth's EBM research guide:
http://www.dartmouth.edu/~biomed/resources.html#guides/ebm_resources.shtml
- http://www.dartmouth.edu/~biomed/resources.html#guides/find_ebm.shtml
(free resources).

Evidence-Based Medicine (EBM) Resources

Evidence-Based Medicine is the integration of best research evidence with clinical expertise and patient values.

[Sackett DL, Straus SE, Richardson WS, et al. Evidence-based medicine: how to practice and teach EBM, 2d ed. Edinburgh: Churchill Livingstone, 2000.]



Other Evidence Based Medicine Resources:

- [EBM Information Sites](#)
- [A - Z List of the Resources](#)

Dartmouth Biomedical Libraries

Home Search Index				
General Info	Resources	Services	Forms	Guides/Help

Finding Evidence-Based Answers to Clinical Questions- Quickly and Effectively

Click [here](#) for a printable version (PDF) of this page.

I need:	Example:	Resources to consider:
<p>an overview of a particular disease, condition</p> <p>background information</p>	<p>What's the difference between depression and bipolar disorder?</p> <p>I have a new patient with sickle cell anemia; I need an overview of this condition.</p>	<p>Textbooks (print or online)</p> <p>UpToDate</p> <p>eMedicine</p>
<p>drug information</p>	<p>What is the pediatric dosage of erythromycin for strep throat?</p> <p>What drugs have been approved by the FDA for the tx of Alzheimer's?</p>	<p>Clinical Pharmacology Online</p> <p>Epocrates Online</p> <p>Drug Facts and Comparisons (print) or USP-DI, et al.</p> <p>MEDLINE for more specific information</p>
<p>a synthesis of best practice recommendations for</p>	<p>What's the latest on the management of panic disorder?</p>	<p>Cochrane Database</p> <p>Clinical Evidence</p> <p>MEDLINE (Clinical Queries - Systematic Reviews)</p> <p>National Guideline</p>

Yet Another Good Start

- Dartmouth's teaching materials:
http://www.dartmouth.edu/~biomed/resources.html#guides/ebm_teach.shtml

Evidence-Based Medicine: Teaching Materials

Evidence-Based Medicine is the integration of best research evidence with clinical expertise and patient values.

[Sackett DL, Straus SE, Richardson WS, et al. Evidence-based medicine: how to practice and teach EBM. 2d ed. Edinburgh: Churchill Livingstone, 2000.]

- [Overview of EBM](#)
- [Applying the Evidence](#)
- [Asking the Clinical Question](#)
- [Creating and Using CATs](#)
- [Acquiring the Evidence](#)
- [Critical Appraisal Worksheets](#)
- [Appraising the Evidence](#)

Overview of EBM

- [Evidence-based Answers to Clinical Questions for Busy Clinicians](#) - from the Centre for Clinical Effectiveness (CCE), Monash Medical Centre, Australia
- [The Evidence Cycle](#) - from the Duke Program on Teaching Evidence-Based Practice

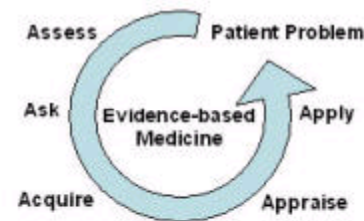
Asking the Clinical Question

- The Clinical Question Worksheet- ([PDF](#) or [WORD](#); [Example](#)) - from the Dartmouth Biomedical Libraries
- [Focusing Clinical Questions](#) - from the Oxford Centre for Evidence-Based Medicine
- [Type of Question](#) - from the Oxford Centre for Evidence-Based Medicine

More!

- Our EBM "wiki:"
<http://ebmlibrarian.wetpaint.com/>

EBM Librarian



Search this wiki

Navigation

- Home
- EBM overview
- 1. Asking clinical questions
- 2. Acquiring the evidence
- 3. Appraising the evidence
- 4. Applying the evidence
- CATS: Putting it all Together
- EBM Curriculum
- EBM Workshops
- Forums/Discussion

- Browse by Keywords
- Site Reports & RSS Feeds

Ads by [Google](#)

[Treatment Guidelines](#)
ODG Treatment in
Workers Comp based on
empirical medical
evidence
www.disabilitydurations.com

[Librarian](#)
Visit the Top Librarian
Sites for Librarian.

Home

Welcome to EBM Librarian

The purpose of this wiki is to develop a community of librarians who are involved in teaching and supporting the practice of evidence based medicine (ebm) or evidence based practice (ebp). This site offers a place to:

- share teaching materials and class handouts
- discuss issues and ask for advice from colleagues
- share useful information on teaching ebm

You are encouraged to apply to be a writer [on the right side of this page] so that you can add your comments, share your materials and engage in discussions with your ebm librarian colleagues. The ebm materials currently posted on this wiki are just a small sample of what's available. We can all benefit from each other's ideas and different ways of presenting this material.

Connie Schardt
Medical Center Library
Duke University

Karen Odato
Biomedical Libraries
Dartmouth College

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Professional Development

- Oxford's Centre for Evidence-Based Medicine; <http://www.cebm.net/>