



# ABC of Governance

*Towards informed and transparent societies*

Health Governance Unit, Medical Research Institute, Alexandria University

## Evidence-Based Medicine

### What is EBM?

Research Evidence	Clinical Expertise	Values Circumstances
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Evidence-based medicine (EBM) is the integration of best research evidence with our clinical expertise and our patient's unique values and circumstances when making decisions regarding their care.

**Best research evidence** is current, valid and clinically relevant research derived from patient-centered clinical research related to diagnostic accuracy or prognostic markers power or therapeutic, rehabilitative, or preventative interventions efficacy and safety. **Clinical expertise** is our ability as healthcare providers to skillfully diagnose the patient condition and perform the required interventions. **Patient values** are the unique preferences, concerns and expectations each patient has that have to be taken into consideration when making clinical decisions. **Patient circumstances** are the specific patient clinical state and related clinical setting.

### Need for EBM

New Technology	Patient Expectation	Care Cost
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EBM fulfills the need for valid information regarding clinical decision-making (five times per inpatient and once per outpatient) that is not present in traditional sources of information such as textbooks, especially in the presence of the rapid increase in new medical technology. This, coupled with an increase in patient expectations from health services and a constant rise in the cost of health care has made evidence-based decision-making, in contrast to opinion-based decision-making, a desirable shift in clinical practice and health policy making.

### Further need for EBM

Limited Governance	Limited Capacity	Limited Resources
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Countries with health systems that suffer from fragmentation, poor governance arrangement and limited capacity for professional regulation and

development, especially in the presence of limited human and financial resources, can benefit from EBM as a strategy for informal autonomous professional development and health system strengthening.

### Aim of EBM

Start Stopping	Stop Starting	Start Starting
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The aim of evidence-based medicine is to **start stopping** utilizing interventions that are known to be ineffective, **stop starting** new interventions that are not backed by strong evidence, and finally **start starting** the utilization of interventions that are effective and backed by strong evidence.

### How to practice EBM

Replicators	Users	Doers
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An EBM **replicator** is a healthcare provider who seeks evidence for practice from opinions of respected authorities who are themselves doers of EBM. An EBM **user** is a healthcare provider who applies EBM methodology partially by searching only for already appraised research evidence to apply in practice. An EBM **doer** is a healthcare provider who applies all the five steps of EBM (*see next page*).

### Benefits of EBM

Applying EBM leads to better patient outcome and reinforces practitioner generic and clinical skills. EBM is a form of long-life learning that provides a common language among professionals and helps them identify issues requiring further research.

### Limitations of EBM

EBM requires time, money and skills to apply its five steps, whether individually or collectively through specialized units. EBM may lead to frustration especially when good current evidence is lacking or does not fit with the current clinical situation. EBM requires a minimum of knowledge in the field of statistics which many practitioners may not have. However, if integrated into undergraduate curricula, such a problem is expected to be less significant over time.

## Reading Material

- Straus SE, et al. Evidence-based medicine. How to practice and teach EBM. 3rd ed. Elsevier, Churchill Livingstone, 2005
- Badenoch D and Heneghan C. Evidence-based medicine toolkit. BMJ. London. 2002
- Attia A. Towards an easier way to practice evidence-based medicine. Middle East Fertil Soc J. 2010;15:119-22.

### Health Governance Diploma



Problem-Based Learning

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### ABC of Governance

aims at

creating an awareness of issues related to health governance;

providing a core of knowledge that is practice-based;

encouraging communication between advocates of governance.

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## EBM Five Steps - 5A



We can summarize the EBM approach as a five-step model (**5A**):

1. **A**sking answerable questions.
2. **A**cquiring the research evidence.
3. **A**ppraising the evidence for its validity and relevance.
4. **A**pplying the evidence to your patient.
5. **A**ssessing your performance.

### Asking answerable questions

The four main elements of a well-formed clinical question (PICO) are:

1. **P**atient or Problem
2. **I**ntervention
3. **C**omparison intervention (if appropriate)
4. **O**utcome(s)

### Acquiring the evidence

Identify terms which you would want to include in your search from your PICO question and develop a search strategy by combining them using Boolean characters (AND, OR, NOT). It is advisable to use an electronic database of peer reviewed research, whether primary or secondary, such as PubMed or TRIP database for your search.

### Appraising the evidence

The research evidence obtained has to be critically appraised for its validity (closeness to the truth), impact (size of the effect), and applicability (useful in relation to your patients and practice).

### Applying the evidence

Once the research evidence is considered valid and relevant, you have to decide whether you can integrate it into your practice effectively and whether you have the expertise to do that safely. Also, the chosen intervention has to fit with your patient values and preferences.

### Assessing your performance

It is important to assess your performance in relation to the above four steps. The following questions can help you do that:

1. Do I ask enough clinical questions in my daily practice?
2. Do I know how to translate my questions into search strategies?
3. Do I have an electronic source of research evidence that I can access any time and am skillful at using?
4. Do I know how to read a research paper, whether primary or secondary, and decide whether it is valid and relevant or not?
5. Do I know how to integrate new effective interventions into my practice?
6. Do I explain to my patients about available care options?
7. Do I ask my patients about their care preferences?
8. Do I know how much of my practice is evidence-based?