

Evidence Based Medicine (Analytical Approach)

Evidence-based medicine (EBM) is using the **best research evidence** with **clinical expertise** and **patient values** to optimize **clinical outcomes** and **quality of life**



It is commonly known as "Western Medicine"

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Best Research Evidence

- New evidence from clinical research invalidates previously accepted diagnostic tests and treatments and replaces them with new ones that are more **powerful, accurate, and safer**.



2

B) Clinical Expertise

- Practitioners using clinical skills and past experience to rapidly identify (**diagnose**) a patient's unique health state and determine the **risks & benefits** of potential interventions as they pertain to that individual



3

C) Patient Values

- the patient's unique **preferences, concerns** and **expectations** must be integrated into clinical decisions to serve the patient.



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Characteristics of this System...

- Based on **Western scientific tradition**.
- Treats the **pathology (illness)**.
- The **effectiveness** of this method has been **tested** in various clinical trials : randomized trials must be designed and reported carefully to ensure **reliability** of this system



- A purely analytical approach : it doesn't consider the whole person, just tries to **treat** the **disease** and the **symptoms** of that disease.

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Roles of Practitioner and Patient

Practitioner:

- to obtain **medical training**
- must keep **current**
= know the latest information on treatments/clinical trials
- can **prescribe** medications
- tries to treat the **cause** of the illness & **symptoms** associated with it



Patient:

- must know their **symptoms**
- passive role = **answer** questions
= take **medications** as prescribed

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Criticism of Evidence-Based Approach

- is seen as a **'Cookbook Approach'**
 - = a general recipe is followed with no consideration for the specific needs or preferences of individuals.
- there are concerns related to **accurate** up-dating of evidence and the ability to ensure that the information gathered is **current**.
 - = the evidence is only as good as the **collecting** and **reporting**.

Example:

Vioxx was a medication recently developed and approved by the FDA to treat patients suffering from Gout. During clinical trials a few patients died of heart attacks but were just omitted from the final data based on their age. The end result was more people died after the product was released and it was subsequently withdrawn from use.



<https://www.youtube.com/watch?v=B4MbbkWJzKk>

Ben Goldacre video "Identifying Bad Science" Question:

What are 4 things to look at when questioning the validity of Evidence Based Medicine?

