

Evidence Based Medicine: Need of the hour**Kanchan A, Jasrotia RB**

Dear Sir,

Medical and its allied fraternity are constantly engaged in generating evidences, these evidences are designed to be utilised in innovation of medical treatment. An effort is always made to breach the gap of research evidences available and its utilisation in clinical practice.

In view of improving the state of affairs to great extent, loads of medical education techniques are introduced at frequent intervals by Medical Universities in different parts of the world. The very recent one is evidence based medicine (EBM) and evidence based education system (EBES) in medical science. Like India, in many developing countries, EBM and EBES are still in the phase of introduction. The EBM is the process of systematically finding, appraising, and using contemporary research findings as the basis for clinical decisions. The practicing of EBM means integrating individual clinical expertise with the best available external clinical evidence from systematic research. The evidence based education system (EBES) is the integration of conventional education from medical textbooks with the best available basic science evidences. The integration of EBM training to residents help establish clinical venues, offers theoretical educational advantages and confronts the challenge of practicing EBM under the imperatives of 'real time' patient care.

The individual clinical expertise means the judgmental ability that clinicians acquire

through clinical experience year by year. Increased expertise is reflected in many ways, but especially in more effective and efficient diagnosis and in the more thoughtful identification and compassionate use of individual patients' preferences in making clinical decisions about their care. There is no replacement in the medical field for the subject expert. But the practicing EBM principles could even make the novice practitioners to become wise decision makers.

The best available external clinical evidence means clinically relevant research, often from the basic sciences of medicine as well as from patient centered clinical research into the accuracy and precision of diagnostic tests (including the clinical examination), the efficacy and safety of therapeutic, preventive and rehabilitative approaches. External clinical evidence both invalidates previously accepted diagnostic tests and treatments and replaces them with new ones that are more powerful, more accurate, more efficacious, and safer.

Good clinician use both, the individual clinical expertise and the best available external evidence, and neither alone is enough. Without clinical expertise, practice risks becoming paralyzed by evidence, for even excellent research evidence may be inappropriate for an individual patient.

Summing up the working principles of EBM: it involves the change of information needed in the form of focused questions, searching the answer as best evidence, thereafter, critically

appraising the evidence for validity and clinical usefulness and finally applying this in clinical practice and evaluating performance of the evidence in clinical application.

Evidence based medicine requires a bottom up approach that integrates the best external evidence with individual clinical expertise and patients' choice. External clinical evidence can inform, but can never replace, individual clinical expertise, and it is this expertise that decides whether the external evidence applies to the individual patient at all and, if so, how it should be integrated into a clinical decision. Similarly, any external guideline must be integrated with individual clinical expertise in deciding whether and how it matches the patient's clinical state, predicament, and preferences, and thus whether it should be applied.

The clear cut added advantages in practicing EBM and EBES are multi-pronged:

For Academicians, it enables to upgrade their knowledge base routinely, improves understanding of research methods and makes them more critical in using data, improves confidence in management decisions, improves computer literacy and data searching techniques and thus improves reading habits.

For clinical teams, it gives team a framework for group problem solving and for teaching, enables juniors to contribute usefully to team.

For patients, who can effectively use available resources, better communication with clinicians about the rationale behind management decisions.

An immediate attraction of evidence based medicine is that it integrates medical education with clinical practice. It had been observed that students and doctors who begin to learn evidence based medicine become adept at generating their own questions and following them through with efficient literature searches.

Although the EBM and EBES in medical field remains a relatively young discipline whose positive impacts are just beginning to be validated by various committees and it will continue to develop day by day. This evolution will be enhanced as several undergraduate, postgraduate, and continuing medical education (CME) programmes, symposiums and conferences adopt it to their learners' needs. These programmes, and their evaluation, will provide further information and understanding about the importance of evidence based medicine.

AUTHOR NOTE

Arvind Kanchan, Assistant Professor of Physiology. **(Corresponding Author)**;

Email: dr.kanchan.arvind@gmail.com

Rajani Bala Jasrotia, Assistant Professor of Physiology

SBKS MI & RC, Sumandeep Vidyapeeth, Vadodara, Gujarat
