

VIEW POINT

Era of Evidence Based Medicine: Is clinical expertise outdated?

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Evidence Based Medicine (EBM) is a relatively recent concept. However, it has more than made up for its late entry by showing exponential growth over the past two decades. Pioneered in early 1990s by Guyatt et al, it represents the conscientious, explicit and judicious use of current best evidence in making clinical decisions about the care of individual patients¹. Although new to modern times, its philosophical underpinnings have been traced back to China in older times².

In simple terms EBM helps the clinicians make decisions supported by evidence. The philosophy of EBM can be summed up as follows: if there is evidence that something is of good and of benefit to the patient, then use it; if there is evidence that something is not good for the patient and can be harmful, then do not use it³. In this context Evidence Based Practice (EBP) would pertain to any practice that applies up-to-date information from relevant and valid research about the usefulness of various diagnostic tests or the predictive power of prognostic factors or the beneficence of a particular treatment method.

Multiple ongoing clinical trials, ever increasing number of biomedical journals and thousands of articles published every month have ensured floods of information. Going by most conservative of estimates this is likely to grow exponentially in the coming years. Also growing use of the internet and other modes of communication has ensured that most of this information

is easily accessible at the user end point⁴. As an integral component of the professional development clinicians are expected to keep themselves apprised of this enormous amount of information. However, not all available information is necessarily scientifically valid and reliable. Thus the clinicians have a two-fold task: to go through the available information and simultaneously screen it for scientific validity, applicability and relevance before putting it to practice.

With this explosion of ever evolving biomedical information the age old practice of depending on a combination of informed guesswork, unsystematic observation, common sense, the consensus views of clinical experts, and the so-called 'standard and accepted practice' has been put to question. So does this mean that clinical expertise and opinion is unnecessary or obsolete for patient care? Does acceptance of EBM to guide clinical decision making preclude and forbid the use of clinical judgement and expertise? Is what a clinician has gathered over the years by his/her interaction with patients or professional colleagues no longer relevant in patient care?

We would be able to answer these questions better if we revisit the concept of EBM and EBP. EBM aims at evidence being the driving force behind clinical decision making. If an intervention is supported by evidence for its benefit, then EBM recommends its use. If an intervention is not supported by evidence then EBM does not recommend its use⁵. However, the practice of EBM in no way refutes the importance and value of clinical expertise in decision making. In fact, EBM goes a step

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beyond. It not only recommends that clinical expertise be integral to effective patient care, it also acknowledges and recommends inclusion of 'patient values' in clinical decision making. EBM is the integration of clinical expertise, patient values, and the best evidence into the decision making process for patient care⁶. These 'patient values' include individual specific personal and social issues, clinical settings etc.

EBM helps foster shared decision making. The importance of shared decision making is of special relevance to our setting where clinicians tend to rely heavily on evidence generated in other populations and settings (primarily Western) and need to extrapolate it to a vastly different Indian patient population. The differences are evident in terms of accessibility, acceptability, affordability and applicability of these interventions. As a result when a clinical decision has to be taken for an individual patient, one has to keep in mind certain additional factors along with the level of evidence. At times applicability of intervention best supported by evidence could be put to question because of lack of availability or affordability. Neglect of clinical expertise and 'patient values' could be counterproductive in such scenarios and would defeat the basic principle of patient care- provision of effective, acceptable and affordable interventions. Such a decision calls for sound clinical expertise based on the clinician's accumulated experience, education and clinical skills. A related situation would be to choose from two or more interventions with comparable evidence base. Even in such a situation, clinical expertise could play a key role. A decision guided by astute clinical judgement would ensure judicious use of resources and maximum benefit to the patient.

The process of practice of evidence based medicine follows a systematic approach. It begins with conversion of medical information in to competent, searchable, focused questions⁷. Once the question of

interest is ready then one endeavours to search for best evidence to answer the question. Subsequently one has to critically appraise available evidence. This includes ascertainment of the validity and clinical usefulness of the evidence. Following this the evidence is put to clinical practice. The job is not yet completely done and involves a final step - evaluation of performance of the evidence in clinical application.

In order to practice EBM the clinicians need to have access to relevant literature as well as good understanding of the correct strategy to search and then critically evaluate it. However, the most important pre-requisite and potential barrier to the practice of EBM remains the attitudinal change of the clinicians⁸. The clinicians need to realise that it is their professional, moral and ethical responsibility to deliver the most appropriate and effective care to their patients. Also they have to acknowledge the ever changing and evolving nature of the medical field. What seems to be the most appropriate strategy might not hold good if appropriate search for alternative strategies is carried out. Thus the clinicians need to be open to challenge their knowledge and be on the look out for better alternatives. This would ensure that they choose the most appropriate intervention for their patients and in the process enrich themselves as well.

To conclude, clinical expertise and EBM are complimentary and go hand in hand. Rather, it would be more precise to put clinical expertise as an integral component of clinical decision making based on EBM. EBP has evolved from the application of clinical epidemiology and critical appraisal to explicit decision making within the clinician's daily practice. Practice of EBM would ensure the judicious use of valuable clinical expertise and hence help arrive at sound clinical judgement. While EBM ensures the science of medicine it is finally the experience, knowledge and

integrative capacity of the clinician which provides its art, and thus becomes the scaffold on which final clinical decision rests.

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