Balancing Evidence based medicine with Experience based practice

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Evidence based medicine (EBM) has been marked as a major discoveries in medicine and has been considered one of the top 15 medical milestones of 20th Century by readers of the British Medical Journal [1]. But is EBM enough for clinical decision making (CDM)?

Historically EBM splashed as a revolutionary idea of its time against the then existing 'expert opinion' culture. There was building discontent over a period of time against this lopsided and subjective nature of clinical medicine which was based on pathoanatomical knowledge, personal experience and individual opinions of the clinicians. EBM was a revolt against such existing system and an attempt to introduce objectivity into the clinical paradigm. Not that the earlier system was completely wrong, but probably it was inadequate and lagging behind the advances in medical knowledge and research, especially clinical epidemiology and biostatistics. EBM introduced these concepts and evolved into a completely new paradigm of objective clinical decision making. The EBM movement received lot of support and grew rapidly through frameworks of randomised controlled trials, systematic reviews, metanalysis and concepts of hierarchy of evidence and grades of recommendations. But like every new paradigm, it slowly started to manifest its shortcomings too.

Similar to the previous 'subjective' paradigm, EBM suffered from too much objectivity. The aim of EBM to reduce bias, improved the internal validity of the studies, but decreased the external validity (generalisability). The studies became more and more consistent within themselves but less and less applicable to the real world scenarios [2]. As EBM became more technical and statistical, the understanding of these concepts among clinicians lagged behind. Today many of us are not aware of the statistical tests and the clinical design which are used for most of the randomised trials and have to depend on the analysis of 'expert' in EBM for a summary! Randomised trials have become expensive and at times the designs are difficult to construct specially in a surgical field like orthopaedics [3]. Factors like patient preferences and surgeons expertise have no way to be accounted into the framework, in fact these are actively ignored by the randomised design. In many cases the good quality evidence simply does not exist and many metanalysis end with the phrase, 'more trial are needed for strong recommendations'. The issues of industry run trials and conflict of interest have additionally plagued the scenario not only of EBM but of scientific literature in general [4]. Most of the clinicians currently struggle to apply EBM to their practises and continue to practice medicine the old ways. EBM is not able to achieve its goal of integrating itself completely into the clinical decision making process [4]. These issues do not, however, take away importance of EBM and its relevance in today's clinical world but it surely advocates for a different approach toward EBM. The concept of EBM is also exhibiting flexibility and is allowing observational and pragmatic controlled trials to gain more importance along with randomised trials [5].

Before the advent of EBM, expert opinion and subjective experience played important role, now EBM based guidelines play the same role. The pendulum has swung from one end to another and with new set of shortcomings. Combining both objective and subjective clinical knowledge is needed to achieving an effective clinical decision making. There is an urgent need to integrate clinical experience with clinical evidence and the only way to do this is to have two way approach from both parties viz the EBM group and the clinician group. From EBM side every attempt should be made to simplify the studies and focus on studies that are more pragmatic. The IDEAL Collaboration is one such initiative [6] and we hope the Acta of Shoulder and Elbow Surgery will help in developing this idea. From the clinical side it is essential that clinicians understand the EBM concepts and keep themselves informed about the latest research. Along with clinical experience, every clinician should also develop experience in critical appraisal of literature. With the increased number of papers published every day, clinicians must be able to differentiate between good evidence and bad evidence. Currently EBM cannot account for surgeon's expertise and patient preferences and these responsibility lies with the surgeon himself. Depending on his expertise and the patient's preferences, along with Evidence from

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literature, a surgeon must be able to make a clinical decision which is best suited for individual patients [7]. Also at times clinicians are sceptical about EBM, which they believe is here to replace their clinical acumen. EBM is here to inform us and help us make more relevant decisions rather than to dictate our decisions. A confidence building from both side is needed and also certain modifications are needed in approach of these sections. This will not only help in positively impacting patient care but will also help in coexistence and rapid development of both the faculties of EBM and Clinical reasoning.

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