How can evidence-based medicine help patients in general practice?

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Family doctors are generalists: any experience which an individual perceives as problematic can become the legitimate concern of a GP, if it is brought up in a consultation. One of the fundamental tasks of the GP is to interpret a person's story. Here, the doctor tries to establish if the person's sense of unease suggests the onset of a discrete identifiable disease, or has its origins in other forms of stress, for example, personal unhappiness or unfavourable socio-economic circumstances. In the process, the doctor may draw on biomedical diagnostic pathways, for example, for the patient who describes symptoms of polyuria and polydypsia, and has a blood sugar concentration of 16 mmols/l. But at other times, the GP may have to bypass confident biomedical diagnosis, and adopt a decision pathway which approximates more to symptomatic treatment. Often, GPs do not make biomechanical diagnoses: dealing with non-disease and non-diagnosis is a routine part of a GP's work.

Into this background comes evidence-based medicine (EBM), a method of solving clinical problems which applies the best relevant research evidence to clinical questions. First formally described in 1992, the method offered the possibility of improving the quality of clinical care by encouraging rigorous appraisal of new evidence. How can EBM help patients in general practice?

The EBM method has five steps:

(i) a clinical question is formed from the patient's story;
(ii) the appropriate relevant evidence is identified from a literature search;
(iii) this evidence is critically appraised;
(iv) valid findings are incorporated into clinical management;
(v) an audit is carried out.

EBM is certainly an appealing approach to clinical problem solving, holding the promise of diminishing uncertainty in clinical practice. An EBM approach has successfully been used at undergraduate level, and it can become part of lifelong clinical practice. Dawes argued that EBM can help doctors keep up to date with the explosion in information. He describes how advances in electronic communication, allied to the EBM approach, can help doctors to access and appraise the vast amounts of information on the diverse clinical problems with which GPS are faced. This is clearly appropriate, as the evidence suggests that patients are being denied the benefits of the results of well controlled clinical trials.

But the description of EBM by Rosenberg, and an early example of its application if Professor Sackett's own acute medical unit by Ellis et al. did not escape criticism. Critics argued that the concept of diagnosis in EBM is too narrow and biomedical, and inappropriately reduces the complexity of clinical problems. Second, the approach was criticised for relying too heavily on randomized control trials (RCTs) and meta-analyses. Third, EBM was criticised for measuring only what is measurable.

These criticisms seem well founded. The concept of 'diagnosis' in general practice is broader than the strict biomechanical diagnoses used in RCTs which form the cornerstone of the claims of EBM. Forming a diagnosis can be straightforward, following a conventional, biomechanical pathway: but in general practice, the diagnostic process is often imprecise and evolutionary. Diagnoses in general practice may be made retrospectively, or indeed not at all.

While no-one doubts the huge contribution of RCTs to biomedical science, the RCT is a simplified experimental design, where the outcome statistic represents the average experience of a group of patients who share the same diagnosis, but might exhibit quite different patterns of illness behaviour, or rate of progress of the subject condition. GPs still have difficulty reconciling the data from the populations in such trials to the situation of the individual patient in the consulting room: patients with the same disease do not necessarily have the same sickness.

That EBM measures only what is measurable is part of a wider critique of academic research in clinical medicine, addressed by Rudebeck, who argued that the requirements of medical research are limited by insisting "that an answer should be numeric, otherwise it is not a real answer". Cassell calls this a "crippling prejudice".

Doctors have a responsibility to acquire the skills necessary for accessing and evaluating the results of the vast number of clinical studies now being published. In this respect, the integration of EBM into general practice is necessary and timely. But the risk lies in regarding EBM as the principal and exclusive route to clinical
quality in general practice. When an individual consults a GP, the aim is not simply to seek a scientific answer to a clinical question. The consultation is a forum, in which the patient comes to understand the illness, not merely in the scientific sense, but also in a metaphysical sense, where the doctor and the patient both explore the meaning of the illness in the unique context of the individual's history. As the doctor and the patient develop their relationship, the doctor comes to understand the individual at three different levels: firstly, on the basis of recognizable patterns of disease, upon which a biomedical diagnosis can be made; secondly, at the level of the person's life history, which permits both the doctor and the patient to understand the importance of what has been happening; and thirdly, at the level of the uniqueness of the person's own human condition, which allows the doctor and the individual to identify the significance of an illness experience from the patient's perspective.

GPs assume responsibility with their patients for a wide variety of problems. Some of these will be addressed usefully by the rigorous application of EBM. Other problems are not exclusively biomechanical, but reflect personal, social or cultural issues. The impact of inexplicable life events, the misery of homelessness and the chronic unhappiness caused by disastrous but inescapable personal relationships are all issues which GPs may have to deal with. That these issues are not helped by the principles of EBM does not reveal an inherent weakness in that model—it merely addresses the limitations of EBM in primary care. GPs should develop EBM into another strength of general practice. It should sit alongside the other key generic functions of the GP which Heath has described as interpreting a patient's story, guarding against overmedicalization, and witnessing a patient's suffering. In summary, EBM is necessary, but not in itself sufficient for good practice in primary care.

References