

tions of the outcomes (positive and negative) likely to result, and the overall net costs of the alternative strategies (Williams, 1994).

This decision-analytic approach is 'evidence-based' in that it lays out explicitly all the important parameters which may affect people's well-being and then prompts the practitioner to seek the best (unbiased) estimates of these parameters.

The results of surveys of current practice which show that treatments used have research evidence to demonstrate that they are better than (say) placebo, while reassuring, do not necessarily imply that their application in a particular condition is optimal or even desirable.

Precise and unbiased estimates of effectiveness of all options relevant to the particularities of each patient are, unfortunately, rare. This means that there will be varying levels of uncertainty about the probability of achieving desired outcomes. Research evidence will have to be viewed in conjunction with personally acquired evidence of effects and those of experienced colleagues. This is still evidence, though not of the same kind (Tanenbaum, 1994). The difference between this way of harnessing more experiential or anecdotal evidence (lower down the cognitive continuum) and that usually practised in day-to-day decision-making is that it is explicit and interpreted within a scientific framework. How to access and weight these different sources and types of evidence however, is poorly understood and therefore, is usually implicit.

Evidence-based psychiatry not only needs to promote the systematic estimation of the likely effects of treatments, but also must consider the cost-effectiveness of the options (Williams, 1994). This is a more complex task, less likely to be well supported by good quality research. The incorporation of patient valuations of alternative outcomes presents a major challenge to practitioners and to researchers who traditionally have measured clinical outcomes of uncertain direct relevance to patients and their families and imposed their own value system (Maynard, 1997).

Finally, the 'evidence-based' practitioner needs a technology to bring together the

various components of all this evidence (taking into account the risks, uncertainties and trade-offs) in order to determine the best options.

Ensuring that we incorporate and continually revise research-based evidence of effectiveness is a first step; a necessary, but not sufficient, condition. The battle to undermine the domain of arrogance in clinical practice must not distract us from these more methodologically and philosophically difficult challenges posed by the programme of rational evidence-based decision-making.

---

**Maynard, A. (1997)** Evidence-based medicine: an incomplete method for informing choices. *Lancet*, **349**, 126–128.

**Tanenbaum, S. J. (1994)** Knowing and acting in medical practice: The epistemological politics of outcomes research. *Journal of Health Politics, Policy and Law*, **19**, 27–40.

**Williams, A. (1994)** How should information on cost-effectiveness influence clinical practice? In *Outcomes into Clinical Practice* (ed. T. Delamonthé), pp. 99–107. London: BMJ Publishing.

---

**Professor Trevor A. Sheldon, Dr  
Simon M. Gilbody** NHS Centre for  
Reviews and Dissemination, University of  
York, York YO1 5DD

---

## NEW EVIDENCE IS REQUIRED

---

What's new about evidence-based medicine? Medical practice has been based upon scientific evidence for some time, although the standards of evidence we require before using a treatment are becoming more stringent. EBM places more emphasis on evidence from randomised controlled trials (RCTs) than on clinical anecdote, but the notion that RCTs are the best evidence on the effectiveness of interventions has been around for nearly 50 years. There is more emphasis now on systematic reviews and although they are not a new idea, their widespread acceptance has been a relatively recent phenomenon within medicine.

The real message behind EBM is on the relationship between clinical practice and research. There has often been an implication that research and clinical practice are almost

two separate activities within medicine. EBM is explicit about making strong links between the two and using research evidence in an explicit way in informing clinical judgements. This helps the clinician to focus on the quality of evidence for the interventions that are used. But it also has profound implications for researchers and for the kind of studies which they need to carry out to inform clinical practice.

EBM, if it is to have real influence, will not I think be about reviewing our present literature on RCTs as these have many methodological shortcomings and will tend to produce rather inconclusive findings. The main criticisms of the existing RCTs are that they have been too small and underpowered statistically, and have often failed to represent practice as it might occur in real clinical life. Exclusion criteria have been too strict and so important groups of patients, for example those with suicidal ideas and plans, have tended to be excluded from trials even though this is one of the groups on which we desperately need good randomised evidence. We need a change of culture among researchers so that they become firmly rooted in everyday clinical dilemmas experienced by practitioners. RCTs need to be designed in order to provide clinicians with realistic estimates of cost-effectiveness. RCTs should investigate services that might occur in the real world rather than examine the effectiveness of 'Rolls Royce' demonstration projects that rarely outlive the duration of the research grant.

Large pragmatic trials will also require the cooperation and active involvement of clinicians in a number of sites in order to recruit sufficient subjects. EBM is both about using the existing evidence as sensibly as possible, and about getting better evidence for the future so that much more of our clinical work can be done without relying upon clinical anecdote or basing treatment on theoretical speculation.

---

**Professor Glyn Lewis** Division of  
Psychological Medicine, University of  
Wales College of Medicine, Heath Park,  
Cardiff CF4 4XN; e-mail:  
wpcghl@cardiff.ac.uk