Evidence-Based Medicine

EBM NOTEBOOK

Evidence-based medicine and cost-effectiveness: uneasy bedfellows?

The messages of evidence-based medicine and cost-effectiveness are often promulgated together. For example, the Executive Letter from the U.K. National Health Service (1) on improving clinical effectiveness stated that clinical guidelines to inform commissioning should be developed and endorsed by the relevant professional bodies; be based on good research evidence of clinical effectiveness; be practical and affordable; and where appropriate, be multidisciplinary and take into account patient choices and values. However, there is also a tension between evidence-based medicine and cost-effectiveness. As Williams (2) notes, “the problem is that many of those who pay lip service to the need for clinical practice to be pursued in a cost-effective way do not really appreciate what they are committing themselves to, and they tend to shrink from the implications when they realise what they are.”

Similarities between evidence-based medicine and cost-effectiveness

In many ways, evidence-based medicine and cost-effectiveness address the same issues. For example, if a treatment is not efficacious (i.e., does more harm than good), then it cannot be cost-effective (i.e., it does not represent good use of resources). Therefore, cost-effectiveness studies are built on clinical data conforming to the quality criteria proposed by advocates of evidence-based medicine. Another common concern of evidence-based medicine and cost-effectiveness is that the outcomes used in clinical trials should, as far as possible, be relevant to the patient and include effects on quality of life.

Differences between evidence-based medicine and cost-effectiveness

On the other hand, several important differences exist between evidence-based medicine and cost-effectiveness. The central difference, noted by Maynard (3), is that advocates of evidence-based medicine allude to the individual clinical ethic of doing everything possible (where efficacious) for the patient, whereas advocates of cost-effectiveness allude to the social ethic of obtaining the maximum gains in terms of population health for a finite budget. Therefore, the most effective treatment option may not be the most cost-effective if it consumes a disproportionate amount of additional resources that could be redirected to give effective care to other patients.

The evidence base for cost-effectiveness

Like evidence-based medicine, cost-effectiveness is based on an accepted set of methodological principles that have been set out in textbooks (4) and in criteria for judging the quality of published papers (5). However, several reviews of the literature have identified deficiencies in the methods, and evidence-based practitioners should be wary of these (6).

Indeed, one of the main deficiencies of cost-effectiveness studies lies in the ways in which the data on clinical effectiveness are incorporated (7). Practitioners of evidence-based medicine and cost-effectiveness have a shared interest in dealing with this problem.

Building bridges between evidence-based medicine and cost-effectiveness

Despite some of the differences outlined above, there are several ways in which practitioners of evidence-based medicine and cost-effectiveness can work together.

First, ineffective procedures should be eliminated because they are wasteful of resources. Here, estimates of the extent of the cost consequences may galvanise clinicians and managers to bring about changes in practice.

Second, high-cost treatments should be replaced by others that are equally effective but consume fewer resources. Here, the contribution of evidence-based medicine would be to ensure that the appropriate literature was considered and that spurious claims by manufacturers of expensive health technologies are rebutted.

Third, more debate should occur, probably through discussion of clinical practice guidelines, of the trade-offs between effectiveness and cost. The challenge will be to identify situations where a substantial amount of resources can be saved without seriously compromising the individual clinical ethic. For example, it may be possible to develop protocols that suggest the use of inexpensive technologies as first-line therapy, reserving more expensive treatments for those who are at high risk or who cannot tolerate the first-line therapy. The evidence on the relative effectiveness and cost-effectiveness of alternative treatments is central to guidelines development. Therefore, it is important that more practitioners of evidence-based medicine accept the social ethic as well as the individual clinical ethic in the interest of providing effective care to more patients.

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References