So wrote the eminent cardiologist John Hampton nearly 30 years ago. He argued that ‘doctors expect too much of their remedies’ and that the adoption of new treatments should be determined not by opinion but by the results of well-designed clinical trials.

Hampton recognized that determining the use of scarce resources with evidence of effectiveness was a logical, but optimistic, venture. He noted that ‘the medical profession had always preferred to travel hopefully, rather than to arrive, because arrival is often so disappointing’. His emphasis on the issue of opportunity cost, without using the term, led him to demand that investment in unproven technologies be prevented.

The themes Hampton discussed are as relevant now as they were 30 years ago. During the subsequent decades the role of economics has increased as epitomized in England by the National Institute for Health and Clinical Excellence (NICE). The focus of decisions has shifted from concern solely about effectiveness as demonstrated in randomized clinical trials (RCTs) to the ‘cost effectiveness’ or efficiency of treatments competing for funding, i.e. the comparative health gain per euro from competing treatments.

In estimating efficiency, the challenges for clinicians and economists are similar. How good are the effectiveness data when RCTs remain expensive, slow and all too few? How good are the cost data when healthcare systems do not routinely collect such information and economists turn to esoteric modelling techniques? Progress since 1983 has been considerable but opinion, especially when driven by commercial concerns of pharmaceutical companies, can still undermine attempts to bring science to decision-making about who will live and who will live in what degree of pain and discomfort.

The evolution from decision-making based on effectiveness to cost-effectiveness was advocated by Archie Cochrane some years before Hampton wrote. Indeed, it is curious that Cochrane’s work is not cited by Hampton as their positions were very similar on the unethical nature of patient care not supported by evidence. One explanation of this is that Hampton was focused on cardiology and the then unproven and shrill advocacy by his colleagues of coronary artery bypass surgery and thrombolitics.

Hampton’s assertion that all new treatments that were not in RCTs should be deprived of investment remains elusive. It highlights the issue of stymieing innovation by clinicians in their practices, which has led to significant innovations, e.g. hip replacements. It also raises the nice issue of how such a mandate could be managed when clinical colleagues and managers know little about the day-to-day choices of individual practitioners.

This raises the nice issue implicit in Hampton’s paper and the preceding work of Cochrane, i.e. the audit of clinical practice. Even when RCTs demonstrate that a new treatment is effective and NICE uses this information and economists’ expertise to permit National Health Service (NHS) reimbursement, are the trial results replicated in routine clinical
practice? If we assume the usual Gaussian distribution of skills, there must still be concerns about performance in the ‘poor’ tail of the distribution, particularly if individuals are consistently lodged there.

Thirty years after Hampton’s paper, the cardiothoracic surgeons have established a remarkable system of auditing their subspecialty. However, other surgical subspecialties have yet to fully emulate this example of good practice. For instance, there is still debate about the small number of patients who have complications after laparoscopic cholecystectomies. Lamont et al. report that 84% of these procedures were undertaken laparoscopically in 2005–06, but no audit has been carried out since 1997.

The requirement that any new technology be tested in a well-designed RCT is as relevant today as it was decades ago. ‘Experimentation’ with new treatments has significant opportunity costs, i.e. it deprives other patients of care. However, evidence of effectiveness alone is now recognized as a necessary, but not a sufficient condition for investment. Economics has to work hand in hand with clinical evidence.

In the period of austerity now afflicting many countries, using such evidence alone to permit investment is insufficient. Audit of practice once NICE and equivalent agencies in other countries have approved a treatment is of increasing importance. This is a task that clinical groups need to manage to ensure transparency and accountability, and which they have been sadly slow in developing.

Re-reading Hampton remains stimulating. The lessons he gave us remain pertinent and challenging, in particular the need to train clinicians in the ‘dark arts’ of both clinical and economic evaluation!

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References


