Evidence based prescribing

Is the goal, but prescribers still need education, experience, and common sense

Evidence based medicine has been defined as "the conscientious, explicit, and judicious use of current best evidence in making decisions about the care of individual patients." Few areas of medical practice have felt the effects of this movement more clearly than prescribing. Until recently doctors could prescribe medicines without worrying that their choices might be judged against evidence accumulated in the world's literature. Now, prescribers are increasingly expected to back up their decisions with evidence.1 Enthusiasm for evidence based prescribing is welcome and should lead to safer and more effective use of medicines. But it also poses some real problems for prescribers.

Reliable information to underpin everyday prescribing decisions at the point of prescription is hard to find. One solution is to provide modern information technology systems in the consulting room or at the bedside.2 But even these may deliver too much unfiltered information including some original research, some guidance derived from research, and some unsubstantiated opinion. The modern prescriber has to decide which data are the most reliable, accurate, and representative of true evidence rather than conjecture.

What should the prescriber do, however, if he or she finds several apparently reliable sources giving differing advice about the same clinical problem? In this issue of the BMJ Vidal et al (p 263) compare the advice given in four respected prescribers' guides on adjusting in renal impairment the dosages of 100 commonly used drugs.3 They find that the four texts differ in their recommendations on dose and dosing interval, and even in their definition of renal impairment. They conclude that this variation is "remarkable," as is the lack of detail about how the advice was reached, and describe the sources as "ill suited for clinical use." These conclusions seem harsh and deserve further analysis.

Should we be surprised that respected texts vary? Probably not. Even when there is very good evidence—for example for managing hypertension—different experts may synthesise it to produce a variety of conclusions about optimal prescribing.4 Vidal et al focus on recommended adjustments in dose for a relatively small proportion of patients with a problem that is much rarer than hypertension. In more than half the instances of discrepant advice, the authors acknowledge that they could find no firm evidence despite prolonged searching of Medline.5 Clinicians often have no relevant scientific evidence on which to base a decision. Rapid accumulation of research findings and international efforts to sort and rationalise them systematically are closing some of these gaps in

Inmates need more organised and more preventive health care in emptier prisons

The cost of providing prison health services has been debated since 1774, when the Health of Prisoners Act was passed by the British parliament.1 That debate continues now, although measuring how much taxpayers spend on prisoners is notoriously difficult. Nevertheless, the annual median cost of incarcerating a prisoner in secure custody in the United States,2 $45 000 in Australia,3 and $53 000 in Britain,4 is high compared with other health care costs in the community.5-7 In September 2002, the British government announced that it would transfer budgetary responsibility for prison health from the Prison Service to the Department of Health. By April 2006 responsibility for commissioning prison health care will be devolved to NHS primary care trusts.8 Elsewhere, many custodial authorities have implemented strategies such as managed care and copayment schemes to reduce pressure on prison health budgets. In the first three years of the introduction of managed care to Texas prisons, for example, the daily healthcare costs for each prisoner fell from $5.98 to $5.11.9-11

Since prisoners are not generally paying customers, healthcare providers have little incentive to provide good quality care: indeed, they have a perverse incentive to minimise essential services that have high costs. Doctors and nurses generally have to seek approval from managed care organisations to request tests and surgical procedures, but such approval is sometimes so slow in prisons that it arrives after an inmate is released or transferred.12 In the US, limitations on comprehensive care are compounded by fragmented health care systems, with each state having a unique system, such as the Texas “Medical Management Improvement Program,” which has been shown to improve both outcomes and costs.13

Evidence-based medicine: what it is and what it isn’t

Evidence-based medicine (EBM) has been described as the “convergence of clinical expertise and scientific evidence.”14 It has attracted a great deal of attention since its publication in 1992 and has become a part of medical education, overhauling the way in which guidelines are developed.15,16

EBM is based on evidence that is relevant to the patient’s presenting problem. Only when such evidence can be found is the advice provided by a trusted source in the knowledge that, if they want to see the evidence, they have relatively easy access to it through searches of Medline and other databases and resources such as Clinical Evidence.

Prescribing will always be too complex for all the answers to be evidence based and “grey zones” will always be there. Even when the best course of action seems clear, evidence has to be interpreted in the light of variables such as patients’ comorbidities and drug interactions. To cope with these uncertainties, prescribers will still need a combination of clinical experience, common sense, and knowledge based on a firm grounding in the principles of clinical pharmacology.17

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Competing interests: None declared.


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BMJ 2005;331:248-9