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 fluid to be sure of such an outcome.6 These are issues that must be dealt with in future reports—as must the accountability of other players, such as foundations and non-governmental organisations.

The global health governance system needs a strong core that develops and monitors norms and standards including international health treaties, tackles key health issues of the poor, and ensures global health security through international regulations, surveillance, and rapid outbreak response. With this in mind, the chapter analysing WHO and the leadership and governance problems it faces is one of the most worrying in this report. The report makes specific proposals for a stronger WHO, for better funding and organisation of global health, and for cooperation between civil society movements committed to global public goods such as water, education, and health. It also proposes a global campaign for a tax to finance global public goods. How difficult such a shift will be could be seen at the recent G8 summit.7 Even so, when public health experts suggested a tax on airline tickets for global public health several years ago,8 9 they were considered dreamers; now this issue is part of the political. We need to tackle the political determinants of health. National public health associations and medical associations should be at the forefront of explaining and exploring the interface of national and global public health, maybe through the mechanism of national global health summits. They should commit to this unique historical opportunity, which is like the 19th century golden age of public health. Then as now, if we want "to make poverty history," we need to tackle health.

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Evidence, but new gaps will continue to appear. In the absence of unambiguous evidence covering all eventualities, differences of opinion are inevitable, even among the most reliable sources of guidance.

Furthermore, should respected sources such as the British National Formulary (BNF) be expected to provide details about how they reach their advice? Three of the four texts compared in this study provide information relevant to much of the population on the use of several thousand medicines. Vidal et al focused on the prescribing of 100 drugs in circumstances that affect only a small proportion of people. Their call for clarification of the evidence behind the advice that interests them ignores the difficulties of providing similar backing for hundreds of thousands of other similar items of prescribing information. The task would be beyond most editorial groups.

Many items of prescribing information probably cannot yet be matched to primary evidence. Even when such evidence can be found, it is often inconclusive, inconsistent with other studies, irrelevant to clinical realities, or of poor quality. Systematic reviews solve some of these problems, but they too may reach varying recommendations because of differing designs. Most users of the BNF probably prefer a text that summarises best practice and does not describe the totality and complexity of evidence that goes into creating it. The BNF is probably better “suited for clinical use” because of its relative simplicity.

These caveats should not lessen our appetite for sound, evidence based recommendations for rational prescribing. Vidal et al are right to remind us that, where possible, such recommendations should be referenced and open to scrutiny. However, these ideals have to be seen in context. Most prescribers are probably willing to accept the advice provided by a trusted source in the knowledge that, if they want to see the existing 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. Simon R J Maxwell

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Making prison health care more efficient

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. 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 2003-4 was about $28 000 ($15 800, $25 400) per state prisoner in the United States, $45 000 in Australia, and $53 000 in Britain. US state prisoners’ annual healthcare costs averaged 12% of total costs (around $3350). With rising rates of incarceration, increasing public support for penal policies, greater needs among inmates for health care, and limited budgets, prison health care is becoming harder to fund adequately.

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. 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 Texan prisons, for example, the daily healthcare costs for each prisoner fell from $5.98 to $5.11.

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. In the US,