Addressing uncertainties about the effects of treatments offered to NHS patients: whose responsibility?

'*You must work with colleagues and patients to maintain and improve the quality of your work and promote patient safety. In particular you must . . . help to resolve uncertainties about the effects of treatments.*'

General Medical Council[1]

Eight years ago the new millennium began with a fanfare about the core principles of our National Health Service.[2] One of these is that 'healthcare organisations and professions will establish ways to identify procedures that should be modified or abandoned and new practices that will lead to improved patient care.' I welcomed this element of *The NHS Plan* in a *JRSM* editorial (*JRSM* 2000;**93**:555–556), but noted that the government had not explained how this goal would be achieved in practice.[3]

Since then, the National Institute for Health and Clinical Excellence (NICE) has earned an international reputation for assembling some of the evidence needed to translate the principle into practice: over 150 technology appraisals and 80 clinical guidelines have been published or are in the pipeline.[4] And NICE has been able to draw on the results of increased Department of Health support for the Cochrane Collaboration, the NHS Health Technology Assessment Programme and the Centre for Reviews and Dissemination in York, as well other technology assessment groups.

So how are we to know whether all this work has led to better patient care in the NHS? Assessment of NICE's impact is methodologically challenging, particularly because most NICE guidance provides criteria for appropriate use rather than simply recommending that a technology be used or not. However, the available evidence suggests that there is plenty of room for improvement in the difficult area of changing professional practice.[5] A paper by Chidgey and Leng in this issue of the *JRSM* describes NICE's programme to support the implementation of its guidance (*JRSM* 2007;**100**:448–52).[4]

It is not generally known that one of the guidance options available to NICE is that 'technologies should only be used in the context of appropriately designed clinical trials' when there is substantial uncertainty about their effects. Uncertainties about treatment effects can almost never be eliminated; but they can often be reduced by further research to an extent that facilitates decision making. In another paper in this issue, Kalipso Chalkidou and her colleagues at NICE review the relatively few occasions on which NICE has chosen to issue guidance in this form (*JRSM* 2007;**100**:453–60).[6] NICE's Citizens' Council considered the Only In Research (OIR) guidance option at a meeting earlier this year, and concluded that '. . . *patients would be reassured to know that clinicians and the healthcare system in general could face up to uncertainty, and were confident enough to deal with it in a mature, scientific way, and avoid wasting money on unproven technologies.*'

Failure to face up to uncertainties about the effects of treatments can result in avoidable suffering and death on a massive scale. If when diazepam and phenytoin were introduced as anticonvulsants for eclampsia they had been compared with magnesium sulphate—which had been in use for decades—hundreds of thousands fewer women would have suffered and died.[7] Similary, if the effects of systemic steroids for traumatic brain injury had been assessed before this treatment became widely adopted, tens of thousands of unnecessary deaths could have been avoided.[8] These are just two examples of many that might have been used to illustrate why doctors have a professional responsibility to help address uncertainties about the effects of treatments—as is made clear in the latest edition of *Good Medical Practice*,[1] the General Medical Council's principal guidance to the profession. But is the NHS willing to help clinicians and patients reduce uncertainties about the effects of treatments?[9] Some parts of the NHS are: in *Best Research for Best Health*, for example, the Department of Health has made clear that, under the aegis of the National Institute of Health Research, it wishes evaluative research to become an integral element of the NHS.[10] And the Cooksey review of UK health research noted that earmarked funding is needed to 'implement NICE recommendations calling on the NHS to use health interventions in a research context.'[11]

But what about the role of NHS managers? There is little evidence that they recognize their responsibilities for promoting research to address uncertainties about the effects of the treatments being given within the Trusts that they manage. For example, the criteria used by the Healthcare Commission to assess the performance of the NHS still ignore contributions by Trusts to the call in *The NHS Plan* to identify 'procedures that should be modified or abandoned and new practices that will lead to improved patient care.'[2]

Some of the changes that are needed could be promoted if NICE used its OIR option more frequently. This strategy could help to protect patients and the NHS itself from inadequately assessed treatments, particularly at a time when NICE has been required by politicians to introduce a 'fast-track' single technology appraisal for new drugs.

If OIR advice from NICE is to become a mechanism for protecting patients and the NHS, however, there needs to be greater public appreciation of what NICE is trying to do

on behalf of an NHS based on the principles of shared risk and equitable distribution of limited resources. Members of the NICE Citizen's Council could make an important contribution here, not in relation to specific NICE appraisals or guidelines, but by helping to make the public more aware of the principles and methods used by NICE in its efforts to serve the public interest effectively and fairly.

In this spirit, ministers also need to be more ready to stand up to lobbying by special interests—particularly industry, patient groups, the media and some health professionals. When NICE concluded that interferons for multiple sclerosis had not been shown to affect the irreversible consequences of the disease, ministers succumbed to special interest pressure to overrule NICE's advice. The data collection and cost-sharing scheme agreed between the Medicines Division at the Department of Health and the companies producing interferons to make these very expensive drugs available to patients will not yield reliable information about whether they delay dependence on mobility aids, or about the moment when people with multiple sclerosis become bed-bound. Uncertainties about the value of interferons in multiple sclerosis have been handled far more responsibly in Italy. The Italians have begun a randomized comparison of interferon with azathioprine, a dramatically cheaper drug, which existing evidence suggests may be as effective as interferon beta.[12] It is worth noting that the costs of the Italian comparison of interferon with azathioprine are being met from a fund of €35 million derived from a 5% tax on the marketing budgets of pharmaceutical companies, which has been established to support independent drug research.

The recent legal challenge to NICE's decisions about the relative value to the NHS of anti-cholinergic drugs for early dementia, which was mounted by the Alzheimer's Society in collaboration with manufacturers of these drugs, might have been avoided—and relevant evidence generated—had NICE's advice been that these drugs should be used only within the context of further research. Rather than having to defend itself in court, how much better it would have been if these public funds had been used to address uncertainties about which patients are likely to benefit from these drugs, and which can expect only to suffer their adverse effects without improving the quality of their lives.[13]

NICE should feel emboldened by this judgment to make it clearer than it has done in the past when uncertainties about the effects of treatments preclude informed guidance, and when further research is needed in the interests of an effective and equitable national health service.

Competing interests I am a member of the NICE Research and Development Advisory Committee; I addressed the NICE Citizens' Council during its consideration of the Only In Research principle; and I provided written evidence challenging the Alzheimer's Society's charge that NICE's assessment and consideration of the AD2000 study (of donepezil in Alzheimer's disease) was irrational.

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Iain Chalmers

Editor, James Lind Library, James Lind Initiative, Summertown Pavilion, Middle Way, Oxford OX2 7LG, UK
Email: ichalmers@jameslindlibrary.org

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