work intensity. This is an area where an open minded approach, perhaps associated with a willingness to test more radical solutions in pilot studies, may pay dividends.[5]

The most controversial aspect of the proposals, which has attracted most media attention,[6] is the government's wish to prevent newly appointed consultants from undertaking private practice in the early years of their appointments. This issue will no doubt cause heated debate and may even lead to a legal challenge by the BMA.[6] My personal view is that there should not be an objection in principle to the government rewarding full time commitment to the NHS, provided that legal rights are respected. The profession's negotiators need to assess the level of support for such a commitment, properly rewarded, among specialist registrars and newly appointed consultants before concluding that suggestion of extra payment for commitment should be implacably opposed.

Moreover, this contentious issue should be looked at carefully in context and not be allowed to deflect attention from the many clear opportunities for major improvements in the current unsatisfactory contract. Hard and detailed negotiation will need to take place to achieve these improvements by the earliest target date of April 2002. But this is another example where the Churchillian maxim that "jaw jaw is better than war war" holds true.

John Riordan *medical director*

North West London Hospitals Trust, Northwick Park Hospital, Watford Road, Harrow HA1 3UJ

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Using clinical evidence

Having the evidence in your hand is just a start—but a good one

Most health carers want to base their practice on evidence and feel that this will improve patient care.[1 2] The original idea that each health professional should himself or herself formulate questions; search, appraise, and summarise the literature; and apply the evidence to patients[3] has proved too difficult alongside the competing demands of clinical practice.[1 4] Over 90% of British general practitioners believe that learning evidence handling skills is not a priority,[1] and, even when resources are available, doctors rarely search for evidence.[5] However, 72% do often use evidence based summaries generated by others,[1] which can be accessed by busy clinicians in seconds.[6] From this week the NHS will be providing many of its clinicians with one of those sources—*Clinical Evidence*.

Clinical Evidence is a compendium of summaries of the best available evidence about what works and what doesn't work in health care. It is designed to be useful in daily practice by answering common and important clinical questions. It is constructed by transparent methods and updated regularly (so earlier issues should be discarded). And details of the evidence are provided without obscuring the summaries. The NHS research and development programme is sponsoring the provision of *Clinical Evidence* throughout the NHS in England for one year. All 33 000 general practitioner principals in England will receive paper copies of issue 4 of *Clinical Evidence* in early March and issue 5 in the summer. In addition NHS professionals in England and Scotland can access *Clinical Evidence* through the National Electronic Library for Health or through one of the 14 000 paper copies that are being distributed to NHS institutions (10 000 in England and 4000 in Scotland). This distribution brings English clinicians in line with those in the United States, where 400 000 doctors are now sent free copies of *Clinical Evidence* by UnitedHealth Foundation—a private, not for profit foundation that supports the education of physicians.

Will the distribution of *Clinical Evidence* improve patient care? Sadly, there are no large studies of the results of distributing similar printed materials.[7] One systematic review (nine studies) found that the passive distribution of printed educational materials compared with no distribution produced only small effects of uncertain clinical importance. Printed materials may be necessary to transmit knowledge but they are probably insufficient to change practice. Six further studies compared printed educational materials combined with further interventions versus educational materials alone. Educational outreach visits and opinion leaders improved the adoption of evidence by clinicians,[7] but the poor reporting of results and inappropriate analyses prevent firm conclusions. No study explored why printed materials were ineffective, but it is not surprising that passive distribution of printed materials does not automatically change behaviour: information may have been difficult to access when it was needed, may have been difficult to understand, or may have been irrelevant. Printed materials may have lacked credibility without a method of checking that the information is rigorous and complete.

Several specific strategies do change targeted clinical behaviours and help to get evidence into practice—including discussions with an expert, academic detailing, advice from opinion leaders, targeted audit and feedback, computerised alerts or reminders, and local development of evidence based policies.[8 9] Combined approaches are more effective than individual techniques used alone.[8]

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Clinical Evidence presents the evidence but does not tell doctors or patients what to do because evidence is only part of making a clinical decision.[10] Clinical expertise to evaluate each patient's circumstances and personal preferences is also important. Even the best available evidence may need adapting for individual patients.[11 12] Questions that arise include: Is my patient typical of those in the studies? Are the interventions likely to be delivered in the same way as in the trials? Are the reported outcomes for benefits and harms the ones we want to know about? Clinical judgment is then required to estimate the relevance of the best available evidence for an individual and to explore its meaning for them.

This judgment is often performed intuitively, but more analytical methods of tailoring evidence for individuals are sometimes possible. Absolute measures of benefit (such as the number needed to treat) provide less misleading descriptions of the results of single randomised trials than relative measures of benefit (such as the relative risk and the odds ratio). However, for many treatments the relative measures of benefit are more independent of the severity of the illness and are the most useful when tailoring evidence for individuals. Clinicians wanting to extrapolate evidence from one group to another therefore need to use relative measures of benefit from the evidence and some means of assessing the severity of illness or baseline risk of their patient.

In future decision support systems may help to tailor information for individuals, but at present it is unclear how such systems would work. Adapting care to individuals remains a task for physicians' judgment whether or not they include evidence in their decision making.

Thus a valid, relevant, and accessible source of detailed clinical evidence is a necessary but not sufficient precursor of innovation to achieve evidence based health care. Additional professional, educational, and operational support for clinical innovation will probably accelerate the use of clinical evidence.[13] In the meantime, we hope that *Clinical Evidence* will provide access to evidence in the way that the *British National Formulary* provides access to prescribing information—and earn as welcome a place in the consulting room.

Stuart Barton *editor, Clinical Evidence*

BMJ Publishing Group, London WC1H 9JR

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Higher dose inhaled corticosteroids in childhood asthma

What we do doesn't work and what we don't do does

Inhaled corticosteroids are the most effective regular prophylactic drugs for chronic persistent asthma in children. But uncertainty remains over the role of higher dosages (>400 μg/day beclomethasone equivalent) in treating persistent poorly controlled asthma; minor exacerbations in the community; or acute attacks.

For the symptoms of chronic persistent asthma the effectiveness of inhaled corticosteroids compared with placebo has been shown repeatedly in randomised controlled trials,[1] and comparative trials have shown them to be more effective than sodium cromoglycate, nedocromil, theophylline, and long acting β agonists. This effectiveness has to be balanced against the possibility of adverse effects, but in routine use at lower dosages (≤400 μg/day) important adverse effects are rare. This much is widely accepted, although there are concerns about overdiagnosing asthma and overuse of inhaled steroids, particularly in children aged under 5.[2] The diagnosis of asthma must be made carefully and regular prophylaxis started only if warranted by persistent symptoms. The dose of inhaled steroids should be periodically stepped down—and perhaps discontinued if a child remains asymptomatic for more than a month or two. Most parents do this anyway.

But what are the effects of increasing the dose? Increasing the dosage of inhaled steroids to obtain better control of persistent asthma is widely practised with little or no formal evidence of effectiveness. Dose response studies suggest that most of the symptomatic benefit obtainable from inhaled steroids occurs at lower doses, with little effect from dose increments.[3] A well designed trial over one year of doubling the dose of beclomethasone versus adding salmeterol in 177

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