The intention and the effect of the reforms have been to foster competition and insecurity, and it is therefore hardly surprising if some consultants treat fundholders' patients in private hospitals. These consultants are still entitled to criticise the system that has resulted in such an anomaly; so are the patients of fundholders who find themselves admitted to hospital earlier than patients of non-fundholders. Neither group is being hypocritical—just realistic.

Most doctors I meet share the views of Ward and colleagues. The pity is that the reforms have fragmented the profession, with the risk that each doctor thinks that he or she is representative of the broad mass of medical opinion.

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1 Freeman H. Deterioration of the NHS. *BMJ* 1994;308:58. (2 July.)

2 Ward JD, Peat C, Revell J. Deterioration of the NHS. *BMJ* 1994;308:1239-40. (7 May.)

Topical steroids for ocular disease

EDITOR,—I would go further than Jeremy M Butcher and colleagues by suggesting that there are no indications in general practice for initiating topical steroids for ocular disease.¹ Most general practitioners do not have access to a slit lamp microscope. The means to make a firm diagnosis, to exclude contraindications to steroids, and to measure the intraocular pressure are therefore denied them. Thus treatment with topical steroids should be initiated only by an ophthalmologist.

Many common ocular conditions can be diagnosed from a careful history and examination by naked eye or with a hand held loupe and then managed without referral to an ophthalmologist: acute conjunctivitis, blepharitis, simple corneal abrasions, and subconjunctival and many corneal foreign bodies. None of these conditions are indications for topical steroids. Episcleritis responds well to steroids, but, as it is a self limiting condition, justifying the use of steroids in the first instance is hard as the potential side effects are worse than the disease, which responds well to non-steroidal anti-inflammatory agents. Patients with all forms of keratitis and uveitis should be referred to an ophthalmologist. Patients known to have recurrent anterior uveitis who recognise the early symptoms of a new attack are an exception: they benefit from prompt treatment with topical steroids and cycloplegia before seeing their ophthalmologist at the earliest opportunity.

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1 Butcher JM, Austin M, McGalliard J, Bourke RD. Bilateral cataracts and glaucoma induced by the long term use of steroid eye drops. *BMJ* 1994;309:43. (2 July.)

Over the counter sales of steroid cream and ointment

EDITOR,—C J McLean and colleagues draw attention to the dangers of long term periorbital use of strong steroid ointments and in particular express alarm at, and advise caution in, the over the counter sale of 1% hydrocortisone ointment from community pharmacies.¹ Although topical hydrocortisone cream and ointment can be sold over the counter for a limited range of indications, their use is contraindicated on the face and they should therefore not be sold for this purpose. In

addition, patients should be instructed both at the point of sale and by reference to patient information supplied with the container that any treatment course must not last longer than one week.

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1 McLean CJ, Lobo RFJ, Brazier DJ. Periorbital steroid ointments may cause ocular damage. *BMJ* 1994;309:543. (20-27 August.)

Increasing the accessibility of data

EDITOR,—George Davey Smith details several potential benefits of sharing data and proposes mechanisms by which the "understandable" objections of primary researchers can be overcome.¹ In occupational health and, I suspect, other areas in which medical or health data form the basis of research, another group of potential objectors to the sharing of data need to be considered—namely, the individuals themselves. The data are, after all, theirs. I suggest that their consent to participate should both be sought and be based on a firm and specific proposal for research. Proposals to use their data for different purposes and in different ways should necessitate their consent being sought again or, at least, discussion with their representatives. This contact at the earliest stage in any research also allows arrangements for the dissemination of results to participating individuals before publication to be well documented before the work begins.

Undoubtedly, in many situations the pooling of data made available to all has considerable advantages for research. I suggest, however, that, whenever relevant, the requirements to seek an individual's consent to participate and to provide data for a specific purpose must take precedence over the establishment of the sort of clearing house that Davey Smith suggests.

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1 Davey Smith G. Increasing the accessibility of data. *BMJ* 1994;308:1519-20. (11 June.)

Towards a knowledge based health service

May lead to more red tape

EDITOR,—A "knowledge based health service" would seem to be something of which we might all approve. Yet the means proposed for reaching this desirable end give serious cause for concern. A new regulatory scheme is proposed whereby research managers will evaluate the evidence on science and health technologies and will "see that the results are introduced into practice."¹ Clearly, this process would be prone to the political influences, exploitation by pressure groups, and short term expediency that have affected all other aspects of NHS management.

The old model for incorporating science into clinical work was based on education and the self motivation of professionals.² This model was able to respond to the development of scientific medicine throughout the 20th century to produce massive changes in health service practices. Of course this model is imperfect; nevertheless, remarkable progress towards evidence based medicine has been achieved, especially in Britain. The facts comprehensively refute the accusation of

a "failure of research to feed through to practice";³ failure compared with what? Research does feed through to practice, although perhaps not as fast or as completely as everybody might wish in an ideal world.

Under the new arrangements, clinical responsibility will be taken from doctors in practice and instead be vested with executive committees; this could prove to be a grave error of judgment.² The basis for this new managerial system is the so called "science of critical reviews of the literature"—in other words, systematic overviews and meta-analyses. But meta-analysis is not a science; it is merely a more explicit and systematised way in which a new breed of experts in critical appraisal can write an old fashioned review article.³ Meta-analysis does not form part of the hard biological sciences such as molecular biology; the need for it is a consequence of decision making in the face of scientific uncertainty.

In a truly knowledge based health service, knowledge must be dispersed throughout the system,² along with the clinical responsibility for using that knowledge in practice. The method should be to strengthen education rather than regulation. There are, of course, a minority of doctors who (dangerously) persist in obsolete practices or fail to introduce proved improvements.⁴ The answer is to reform disciplinary mechanisms, making them tougher. We should tackle the doctors at fault rather than tangling all doctors in more red tape and introducing a system of pseudoscience by diktat.

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1 Smith R. Towards a knowledge based health service. *BMJ* 1994;309:217-8. (23 July.)

2 Charlton BG. Management of science. *Lancet* 1993;342:99-100.

3 Charlton BG. Practice guidelines and practical judgment: the role of meta-trials, meta-analysis and consensus. *Br J Gen Pract* 1994;44:290-1.

4 Donaldson LJ. Doctors with problems in an NHS workforce. *BMJ* 1994;308:1277-82.

Teaching evidence based medicine in Sheffield

EDITOR,—Richard Smith rightly describes the training of medical students in scientific methods and critical appraisal as minimal.¹ We will attempt to plug this gap in the coming academic year, when a new course, principles of evidence based medicine, will be introduced for first year students from their first week at the University of Sheffield Medical School.

This approach is based on the work of the Evidence Based Medicine Working Group at McMaster University,² and the rationale derives largely from the General Medical Council's recent recommendations concerning undergraduate medical education.³ In evidence based medicine critical appraisal is not an end in itself but one element of a cycle requiring a range of skills, which include recognising and defining a problem, searching the literature, selecting appropriate articles, appraising their quality as evidence, judging their applicability to the problem, reaching a conclusion, and using judgment based on first principles when suitable evidence does not exist.

In Sheffield's course on evidence based medicine, which will span the first two undergraduate years, traditional teaching of epidemiology and medical statistics will be wholly replaced by problem solving tutorials, in which students will work cooperatively in small groups. Because of the different method of selecting students at McMaster University, our students will be introduced to the practice of reading and assessing publications by means of structured exercises that link a clinical scenario to a relevant article. As students progress through their training these