Research, audit, and education

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This is the seventh in a series of articles responding to the questions raised by the BMA's document, "Leading for Health." The document looks well beyond the coming British election and raises questions about health and health care that will be on the agenda of many countries into the next century.

The limited ability of cost containment strategies to resolve the problems besetting health services is increasingly being recognised. There is a growing awareness among politicians, managers, clinicians, and the public that, while changes in the financial management of health services may help to improve the environment in which care is provided, financial measures do not address the underlying issues of the effectiveness, appropriateness, and humanity of care. *Leading for Health: a BMA Agenda for Health* emphasises the crucial importance in working to improve health by identifying and measuring problems and monitoring new ways of dealing with them.¹

The need for a shift in approach was recognised by, among others, Arnold Relman, when he wrote in 1988 of the dawn of "the era of assessment and accountability": "We can no longer afford to provide health care without knowing more about its success and failures. The Era of Assessment and Accountability is dawning at last; it is the third and latest—but probably not the last—phase of our efforts to achieve an equitable health care system, of satisfactory quality, at a price we can afford." If this approach is to succeed a widespread change in attitude on the part of the medical profession will be required. There needs to be a far greater acceptance of current uncertainties in medical practice, combined with wholehearted support for evaluative research. Without this it will prove impossible to place the health service on a firm, scientific base. This does not mean, as defenders of uncertainty are prone to suggest, that the art of medicine is to be sacrificed but rather that wherever possible scientific evidence should be able to be marshalled to suggest that the care being provided is effective. The new era can be achieved only through, firstly, an expanded programme of health services research; secondly, medical audit to ensure research findings are adopted in clinical practice; and, thirdly, education to change some well established professional attitudes towards medicine.

Research

CRITICISM OF PREVIOUS RESEARCH

The extent of our knowledge about the effectiveness of medicine is uncertain. David Eddy recently suggested that as few as 15% of interventions have been adequately evaluated.³ Even if the true figure were twice that, it is clear that our aim of improving the health of the people will prove impossible until more is known about the effectiveness of care. Up until now research has suffered from being almost entirely uncoordinated. With one or two notable exceptions (such as the Medical Research Council's AIDS programme) no attempt has been made to establish research priorities and strategies. As a result the limited resources available have often been wasted on studies which either unnecessarily repeated existing work; were too small to achieve meaningful results; or were methodologically weak, being undertaken (in the true British tradition) by keen amateurs without appropriate scientific training. It has been suggested that only 1% of the articles in medical journals are scientifically sound.⁴

Many of these criticisms may become things of the past. During 1992 we shall see for the first time the emergence of a research and development strategy for the NHS.⁴ This offers an opportunity for more relevant and cost effective research to be performed. It should prove easier for the large, multicentre studies commonly needed to resolve current uncertainties to be undertaken. However, three factors threaten this optimism: funding for this initiative has still to be secured and there will be many who will resist more being spent on research; the political imperative of regional devolvement may rob us of the opportunity of a national strategy, with the potential to coordinate with similar programmes in other countries; and, as ever, research studies will remain dependent on clinicians' acceptance of their own uncertainty—an attitude that is not always evident.

SPECIALISED AND METHODOLOGICAL CENTRES

How best can research be organised? We face a long term shortage of high calibre scientists (doctors, nurses, statisticians, economists, sociologists) trained in health services research methods. Both to maximise the productivity from those who are available and to develop expertise in each of the main areas of health care a series of specialised research centres should be established along the lines of the highly successful National Perinatal Epidemiology Unit in Oxford. In addition to these topic focused centres, some methodological ones (such as for clinical trials) to advise on and manage large studies are needed.

OPPORTUNITIES FOR RESEARCHERS

Whatever way the research strategy is organised, it must address several obstacles that currently hamper progress. The first is the lack both of training opportunities and of a career structure for non-medical researchers. The development and funding of masters courses in health care evaluation are needed, along with doctoral training fellowships (in addition to the postdoctoral ones currently provided by the Medical Research Council and the Wellcome Trust). Secondly, there is a need to develop training opportunities for young clinicians who want to enter health services research but in the long term remain in clinical practice: clinical sciences programmes exist in the United States and have produced some first class clinician researchers. Increasingly, opportunities should be provided for clinical registrars and senior registrars to undertake health services research for their doctorates rather than considering only basic science or clinical research, as currently happens. Thirdly, research funding bodies should be more prepared to fund structured reviews of the existing literature; such tasks require experienced, senior scientists and therefore are not cheap, but investment in such work will prove highly cost effective in that it will ensure the funding body identifies an appropriate agenda for future research that should be supported. Finally, even among the more enlightened members of the profession, there is a tendency to believe that evaluative research can be conducted only by doctors who work in the same specialty—for example, only surgeons can carry out research on surgery. While

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There is a need for more specialised research centres like the National Perinatal Epidemiology Unit in Oxford

clinicians clearly have an essential and unique contribution to make, we must not lose sight of the fact that they also have a vested interest in the subject of study. Health services research must be independent of bodies and individuals with a particular interest in the topic if a high degree of objectivity is desired.

DISSEMINATION OF RESULTS

The best efforts to establish a coordinated research strategy will have little or no effect on the health of the people unless the results are disseminated and applied. Dissemination can be aided by the use of structured abstracts for scientific papers and financial support for systematic (rather than opinionated) review articles. The support of professional associations such as the royal colleges is also important. The real difficulty lies in persuading clinicians to modify their practice in the light of research findings. This is the principal task of medical audit.

Audit

RESPONSIBILITY

Doctors must take prime responsibility for raising the quality of medical care. That is not the same as ultimate responsibility, which lies with the purchasers of care. Contracting for services is still at a primitive level and largely based on a combination of existing patterns of care and estimated prices. Quality criteria (covering the appropriateness, humanity, and equity of care) will need to be introduced in future years. In theory this will give purchasers the ability to ensure that high quality care is being provided and make doctors more accountable to the public for their actions. In practice this will be achieved only if valid, reliable, and cost effective methods of monitoring quality are developed. This in turn requires more investment in methodological research into outcome measures and process indicators such as readmission rates and hospital mortality. Faced with the danger of losing contracts, provider managers will have to take on the responsibility of ensuring their clinicians are auditing their own work and can demonstrate its high quality.

Defining what constitutes high quality will need to be negotiated by purchasers and providers. This will require one or other party being aware of the relevant scientific literature. Acting on behalf of the public, purchasers will need to incorporate lay people's views of service quality into the negotiations. This will be particularly relevant for aspects of the humanity of care (such as waiting times and the attitude and behaviour

of staff). Purchasers are already adopting methods for obtaining the views of the public.

COST EFFECTIVENESS

The inclusion of quality criteria in contracts presupposes that clinicians can act to improve quality. Broadly speaking five approaches have been tried: information feedback, education, administrative rules, financial incentives, and penalties. The key finding from evaluations of all five methods is that success is associated with the involvement and support of respected clinical leaders in the specialty. Without them audit may have little or no impact. It is also important to recognise the cost of audit, which may be greater than any tangible benefits that are obtained. This underlines the need for more research that evaluates the cost effectiveness of audit. It is salutary to note that the country which has developed and practised audit the most, the United States, is also the country facing the greatest problems to do with cost containment and overutilisation.

Clearly, the amount of time clinicians could spend on audit is almost limitless. It is therefore necessary for a finite amount to be allocated and priority topics selected, rather than trying to take on everything at once. It is also necessary for routine methods of audit to be developed which do not require vast amounts of medical time. This in turn will require doctors to make much clearer and more comprehensive notes of their clinical decisions and actions so that a non-medical auditor can interpret the care that was provided from the medical records.

FUNDING

Who will fund audit? If purchasers require providers to demonstrate the quality of care they are providing, then the cost of audit will be included in the contract agreed between the two protagonists. However, purchasers will have great difficulty in interpreting the audit data they are supplied with by providers unless they can compare the information with that obtained from other providers. There is therefore a need for comparative audit databases to be established. Some are already being developed with research and audit funds obtained from national and regional bodies. Should such sources of funds dry up in the future, comparative audit would have to be funded by purchasers. Whether they will is unclear at present.

Education and training

CHANGE IN ATTITUDES

Much of what has been suggested above can be successfully implemented only if doctors alter some of their attitudes towards the way they practise medicine. For some this will not be easy. It will entail changing their views of their relationship with patients, accepting greater accountability to their patients and the public at large, supporting the need for more scientific evaluation of medicine, and accepting the need for regular systematic audit of their own work.

UNDERGRADUATE EDUCATION

One place to start promoting the "era of assessment and accountability" is in medical undergraduate education. For years criticisms of the traditional curriculum have been made. In brief, the curriculum tends to reflect the working practices and patterns of teaching hospital consultants, despite the fact that less than 5% of students will end up working in such an environment. Attempts to increase the relevance of the curriculum by introducing more primary care, teaching communication skills, and widening the hospital training experience by incorporating attachments to district

general hospitals have all helped. However, many components of courses remain anachronistic, while occupying disproportionate amounts of time. Reductions in these areas would mean that there would be few logistical problems in introducing new areas of learning such as the philosophy of science, scientific methods, medical audit, and management skills. For these are the skills, alongside clinical ones, that the students' future employers are going to value. The primary responsibility of medical schools is to prepare their students for their careers. In the interests of their students, therefore, medical schools must take note of employers' views. Clearly, too great an influence by employers over educational content and standards could potentially be damaging to the health of the public. For example, if the NHS (as the principal future employer) funded medical education some longer term educational objectives might be sacrificed for short term benefits. It is therefore safer to maintain funding of undergraduate teaching by the Department of Education and Science with academic control in the universities' hands.

POSTGRADUATE EDUCATION

In contrast, funding of postgraduate and continuing education by the NHS is long established, though postgraduate deans derive their authority from universities as well as the health service. Further training has the advantage that the recipients have had experience of the subjects being taught and tend therefore to be highly motivated to learn. This provides an excellent opportunity for medical audit to be teamed up with postgraduate education to their mutual benefit. For instance, the discovery through audit of suboptimal care can act to stimulate interest in a subject and generate a demand for education. In turn, any educational intervention is more likely to be effective if the recipient perceives a need for change.

- 1 BMA. *Leading for Health. A BMA Agenda for Health*. London: BMA, 1991.
- 2 Relman AS. Assessment and accountability. The third revolution in medical care. *N Engl J Med* 1988;319:1220-2.
- 3 Smith R. Where is the wisdom...? The poverty of medical evidence. *BMJ* 1991;303:798-9.
- 4 Department of Health. *Research for health. A research and development strategy for the NHS*. London: DoH, 1991.

Medicine in Europe

European law, medicine, and the social charter

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This is the fourteenth in a series of articles looking at medical issues in Europe

In 1974 Lord Denning said that the Treaty of Rome "is like an intruding tide. . . . It flows into the estuaries and up the rivers. It cannot be held back."¹ He was confirming what had been apparent from the treaty: "If the Court of Justice finds that a member state has failed to fulfil an obligation under this treaty, the state shall be required to take the necessary measures to comply with the judgment of the Court of Justice." So in matters of law parliament would no longer have the last word and in many areas the law would be made by the European institutions and determined in accordance with the decisions of the European Court.

But the doctrine of the sovereignty of parliament has been a long time dying because of judicial conservatism and political prevarication. A contemporary commentator wrote of the European Communities Act 1972, "This unique act is a fascinating exercise in equivocation, a wilful manifestation of legislative schizophrenia. . . the United Kingdom government has seated parliament on two horses, one straining towards the preservation of parliamentary sovereignty, the other galloping in the general direction of community law supremacy."²

There is a time limit for European legislation to be translated into the law of member states. This has given rise to confusion over the interpretation of United Kingdom legislation, which a grudging government has passed in supposed compliance with European Community (EC) law. In addition to trying to resolve conflicts between the EC regulation and the United Kingdom law, British courts have had difficulty simply understanding the regulation. As Lord Diplock said in one leading case, "The European court, in contrast to English courts, applies teleological rather than historical methods to the interpretation of the treaties and other community legislation. It seeks to give effect to what it conceives to be the spirit rather than the letter of the treaties; sometimes, indeed, to an English judge, it may seem to the exclusion of the letter."³

The conflict over parliamentary sovereignty recently came to a head in the Factortame case.⁴ In a long

Conflicting issues

The European Commission and the United Kingdom government are in conflict over the following commission proposals⁵:

- Protection for pregnant and nursing mothers from being obliged to work shifts
- Fourteen weeks' maternity leave on full pay
- Equal rights for part time and temporary staff to pensions, holidays, training, and rights in redundancy
- Minimum wage
- Rights of workers to participate in employer decisions
- Action to assist disabled people
- Greater protection for employees threatened with collective dismissal
- Controls on hours of work

running conflict over fishing quotas parliament passed the Merchant Shipping Act 1988, which prevented foreign owned vessels registering in Britain and getting access to British quotas. Spanish owners applied to the British courts, which in turn sought a preliminary ruling from the European court. This held that British courts had power temporarily to suspend the operation of the act pending determination of whether it conflicted with European law.⁵

In an even more recent case the European court held that the relevant directive did not create obligations which could be relied upon by one private individual against another.⁶ A national court was, however, bound to interpret national law in accordance with the terms of the directive. It therefore had to disapply a provision in national law to secure compliance with the terms of the directive since the directive constituted an exhaustive statement of the relevant law even though it had not been implemented in the member state.

This decision seemed to sweep away much of the confusion, that had surrounded British equal pay cases. In one case the plaintiff succeeded because she

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