Moving forward on research

IT is not easy to plan for the future of general practice at a time when many general practitioners feel crushed by a relentless workload and frustrated by the more doubtful aspects of health promotion and regular three yearly checks of healthy patients. But times of crisis are also times of opportunity. News of the concordat between the RCGP and the GMSC, together with prospects of a more constructive attitude on the part of government are encouraging signs.

Every practice requires information on what it does and on the special needs of its practice population. Data generated within the practice is a clinical instrument with immense potential for improving patient care. It seems likely that practice performance review will become widespread and information will be required not only on the structure and process of care but on its outcome. Research is needed on the outcome of activities imposed by the new contract. It was partly lack of research and partly ignorance of existing research evidence that has left general practice burdened with three yearly checks, clinic screening and other questionable health promotion activities. Clinical instinct and experience can often be right but we need an adequate body of evidence to guide policies to secure the best care for our patients and a satisfying professional life for doctors. The step from performance review to research is a short one. While performance review measures work against an acceptable standard, research is the stimulus for the process by which standards are changed or their validity confirmed. The methods used in audit must be adequate to guarantee confidence in the quality of the results obtained but need not be as rigorous as in original research. Yet, both activities are essential and of equal worth; they represent different bands on the same spectrum of scientific method and critical thinking.

There is more to the research process than carrying out individual projects. It requires the identification of issues which need to be researched, the development of applications and the publication of results. Research is not only a technical process but reflects the personality of the researcher and the environment and community within which he or she works. Research is not only for the benefit of patients; doing it promotes the personal development of the participating doctor by broadening experience, improving problem solving skills and so enhancing clinical acumen and job satisfaction. It is crucial that general practitioners have the chance to think over problems and test hypotheses arising from everyday work as well as contributing data to multi-centre studies and drug trials. Just as they have already been enabled to get into teaching, general practitioners, wherever they work, must be enabled to get into research. This research could be practice-based just as much teaching is now practice-based. Research practices might be established along the same lines as teaching practices where a research partner might have responsibility for organizing audit activities and improving the effectiveness of patient care in the same way that the trainer partner is responsible for organizing teaching.

The Howie[1] report pointed out that 'If research is to thrive there must be a climate of opinion in which research is an expected, valued and rewarded activity. There must be an appropriate infrastructure of resources and advice to support research activity at several levels. There must be mechanisms whereby health professionals and others can acquire research skills, and have the opportunity to apply them as part of their normal work.' Vocational training does not provide even basic proficiency in research skills though the question is addressed by RCGP proposals for higher professional training.[2]

General practitioners wishing to make a start need protected time, clear and practical advice, training in research methods and a sympathetic ear to counter the intellectual isolation of working at the periphery. Those general practitioners working from academic departments are not immune from the problem of lack of protected time from clinical and teaching responsibilities.[3] Younger general practitioners in academic departments also have training needs, particularly in the area of research.[4]

Providing time, training and continuing support will require money if practice-based research is to flourish without detriment to the clinical work of practice teams. To date government financial support has been meagre. Lord Rea (the only member of the Lord's committee with a background in general practice) pointed out: 'Despite much interest among general practitioners, research in primary care is still poorly funded. Comparatively speaking it is still an amateur affair, often relying on the dedication of part-time enthusiasts carrying out research at their own expense ... So far the Government's expressed support for such work has not led to secure funding for research or training in research methods'.[5]

The structure of general practice in the United Kingdom provides distinctive potential for research, especially in epidemiology and natural history. It was Mackenzie in 1921 who foresaw the immense potential of population-based research in general practice in his 'Defence of the thesis that the opportunities of the general practitioner are essential for the investigation of disease and the progress of medicine'.[6] The Medical Research Council acknowledges that '... general practitioners are playing an increasingly important role in research' and 'believe that the registered list offers a particularly valuable denominator in many forms of research, both pinnacle and health services research'.[7] The registered list gives UK doctors the most accurate general practice population base in the world, affording incomparable opportunities for identifying age–sex matched controls and studying individuals who do not seek or do not receive care. General practitioners are in long-term contact with individuals and families. They work in the community, see huge numbers of patients each day, have uniquely comprehensive records and manage access to specialist care. General practice teams are well placed to study groups of patients with chronic conditions and long term care in communities. Not only can they identify researchable issues and have access to the setting in which to carry out the research, they are also ideally placed to implement research findings.[8] Such unique advantages offer considerable opportunity but an equally great responsibility to ensure that these advantages are properly exploited.

General practice research need not depend on advanced technologies or complex analysis but continues to offer opportunities for simple observation and deduction. The indispensable requirement is that doctors can do their daily work conscientiously and with their eyes open. Henry Koplik[9] declared 'It is indeed very late in the day to describe something connected with the diagnosis of the exanthemata'. He went on to describe a sign which has been of great diagnostic importance in early recognition of measles. Leslie Florence, in a rather diffident letter to the *British Medical Journal* in 1960[10] observed, 'Sir, I feel that four cases which have occurred in my practice recently are wor-

thy of mention, as they may correspond to the experience of other practitioners'. This letter was a catalyst in the process which led to the linking of congenital abnormalities to the taking of thalidomide in pregnancy. Indeed, present day over-emphasis on the methodology of biomedical science and complex statistical analysis may explain why many general practitioners, who have chosen a career in patient-centred medicine, abstain from any involvement in research activities and resist approaches which seem to reduce people to lists of numbers. There is an urgent need to develop qualitative as well as quantitative approaches. Clear clinical outcomes are easily counted. Outcomes such as the relief of anxiety, helping to change a patient's attitude to disability, chronic pain or terminal illness are much harder to measure reliably. The patient may regard outcome in different ways from the health professional: the medical treatment for his or her complaint may be less important to the patient than understanding what is happening, how long he or she had to wait and how the practice treated him or her as a person.

Research-based information is vital to meet the changing medical needs of practice patients and develop useful measures for disease prevention and health promotion by encouraging an inquiring, analytical attitude to the problems of daily clinical work. As hospital treatment becomes even more costly and hospital management more cost-conscious, it becomes urgent to investigate health problems in the community. Do practice clinics for asthma, diabetes or hypertension make worthwhile savings on hospital referrals? Can retinopathy be spotted earlier, can amputations be avoided and can quality be maintained by a well-resourced professional practice team? Can we measure 'softer' outcomes such as relief and prevention of pain, anxiety or disability in a meaningful way? Health promotion activities such as three yearly checks have not been shown to be helpful to patients[11] and published research suggests that such activities are neither effective nor an efficient use of health care resources. Further research work and observance of the principles identified by Wilson and Younger[12] should secure more worthwhile alternative contributions to the delivery of care and the promotion of health.

A strong research culture in general practice is necessary to enable the general practitioner and the primary care team to maintain and develop the clinical skills required to meet the evolving medical needs of their practice population. Also, as Buckley[13] points out, 'in a society which is increasingly well informed, we need to prove our value'. Times of change and crisis also present opportunities — opportunities to increase the number and proportion of practitioners questioning, testing and thinking about the way they work. General practitioners work at the front line of medicine[14] rather than in hospitals or central institutions. As a result, solutions must reflect the decentralization of general practice. Accessible local research resources are needed to promote a research-friendly environment. Support at local level is required to help researchers develop their research proposals before they are submitted for funding. A laudable start has been made in the Syntex awards[15] which provide an incentive for trainees wishing to start a project and in the critical reading paper recently introduced in the MRCGP examination. RCGP research training fellowships have been successful but relatively few are available. Such fellowships are less about learning statistical techniques and more about exposing doctors to a stimulating environment where ideas can be nourished and nurtured. The recently announced MIA/RCGP research training fellowship is a welcome addition.

Research represents a commitment to the future of general practice. Good care depends ultimately on the quantity and quality of research and of continuing education within general practice. The College's standing places it in a position to influence the climate of opinion within and outside the medical profession and part of its responsibility is to forward the research and academic future of our discipline. The opportunity exists to enable interested general practitioners to get into research and for the College not only to identify research needs but to influence the planning and implementation of research studies. Are we moving forward on research?

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Statistics — with confidence?

OVER the past 10 years, the statistical analysis of articles published in this *Journal* has improved, at least by common consent. It would be difficult, if not impossible, to identify the causes of that improvement scientifically. Nevertheless, it is tempting to attribute part of the improvement to a change in *Journal* policy dating from 1982. Since then, inferential articles (those that seek to go beyond descriptive statistics by inferring conclusions from data) have been seen by a statistical assessor as well as by medical assessors.[1] If that change of policy has indeed resulted in an increase in the statistical quality