Quality of service provision for anticoagulation in atrial fibrillation

Bridges from evidence to practice are fragile

EDITOR,—C M Sudlow and colleagues are right to raise doubts about the applicability of the evidence regarding anticoagulation for atrial fibrillation to current situations in both primary and secondary care.¹ This debate takes place, however, in a wider context: there are further barriers to the implementation of research findings that need to be addressed. Clinical situations are complex, and even if all the relevant resources were in place for widespread anticoagulant treatment how likely is it that such treatment would become routine rather than the domain simply of enthusiasts? Three such barriers are as follows.

Firstly, clinicians are concerned that studies select patients too carefully, thus maximising both the effects of the clinical risk and responsiveness to the intervention.² This bias may be addressed by selecting and monitoring "real life" patients as carefully as is done in the trials.¹ But a second barrier to implementation of the results can be envisaged: if one uses the criteria for entry to the anticoagulation trials as the basis for deciding who should receive treatment then 60-97% of patients would be ineligible.¹ If, for example, only 1 in 10 qualifies according to these criteria then a practitioner may find the time burdens of assessment excessive in relation to the clinical activity implemented. This may discourage attempts to be certain that every patient who could benefit receives the treatment.²

Thirdly, the way in which the results of trials are conveyed to clinicians may influence practice: do they provide enough predictive information on which to base a decision about treatment? Does the presentation of percentages, relative risks, annual event rates, or numbers needed to treat influence acceptance by clinicians, for whom (along with patients) the information was designed to be useful? Translation of the language of research into that of the consultation may require a change from the current numerical presentation to a more narrative approach, taking account of psychological and contextual considerations.³

These factors require recognition and further study if we are to improve the way in which research findings are implemented. Practitioners are of necessity accustomed to making decisions in situations of uncertainty. Thus the shift from the current experiential and qualitative modes of practice to a quantitative or evidence based mode is likely to be slow. Given the complexity of clinical situations that arise for the same disorder, it will be a long time before we generate the answers to most of the questions that confront practitioners to enable them to make this shift. Bridges from evidence to clinical practice are bound to be fragile for the foreseeable future.² The research questions themselves may have to be radically revised to focus on the problems that confront practitioners rather than those that are apparent to researchers or resource managers.

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Letters will be edited and may be shortened.

- 1 Sudlow CM, Rodgers H, Kenny RA, Thomson RG, Sweeney KG, Pereira Gray DJ, *et al.* Service provision and use of anticoagulants in atrial fibrillation. *BMJ* 1995;311:558-61. (26 August.)
- 2 Haynes RB. Some problems in applying evidence in clinical practice. *Ann NY Acad Sci* 1993;703:210-25.
- 3 Owen P. Clinical practice and medical research: bridging the divide between the two cultures. *Br J Gen Pract* 1995;45:557-60.

Many patients are ineligible

EDITOR,—I share C M Sudlow and colleagues' concern over whether evidence from studies of the prevention of stroke in patients with atrial fibrillation applies to clinical practice because of the highly selected nature of the patients in randomised trials.¹ Compliance and safety may be different when anticoagulants are used in clinical practice rather than in the carefully selected, well motivated, and closely monitored participants in studies, and patients in clinical practice may have different risks of thromboembolism and bleeding. In a recent survey of patients with atrial fibrillation, for example, the monitoring interval was less frequent, the international normalised ratio less commonly within the target therapeutic range, and the prevalence of concurrent illness higher than was the case in patients in clinical trials.² The concerns about translating the results of clinical trials to clinical practice do not mean, however, that we should neglect to give anti-thrombotic drugs, including warfarin, to suitable patients with atrial fibrillation.

Sudlow and colleagues suggest that further

information is required on the prevalence of atrial fibrillation in Britain, the prevalence of and contraindications to anticoagulant treatment, and the factors that influence doctors' decisions in treating atrial fibrillation. In prospective surveys of acute medical admissions to a Scottish district general hospital³ and a hospital in the centre of Birmingham serving a multiracial population,⁴ colleagues and I found atrial fibrillation in 3-6% of patients. Importantly, however, we noted suboptimal use of standard clinical investigations and of antithrombotic treatment for patients with atrial fibrillation despite clinical risk factors for thromboembolism (hypertension, heart failure, previous thromboembolism) being present.^{3,4}

In our survey in Birmingham, among the 61 patients newly diagnosed as having atrial fibrillation who were discharged from hospital only 15 were prescribed warfarin and 19 aspirin (the latter predominantly for concomitant vascular disease). Among the whole group (n=185) contraindications to warfarin were as follows: a history of gastrointestinal bleeding or peptic ulcer in 32, recent stroke in 18, "age" in 32, dementia or lack of comprehension in six, and chronic renal failure in two.

Atrial fibrillation is a common arrhythmia with various aetiologies, clinical presentations, and therapeutic options. Colleagues and I conducted a questionnaire survey of 214 consultant physicians in England, Wales, and Scotland and found considerable variation in the management of atrial fibrillation, with more cardiologists than non-cardiologists considering cardioversion and thromboprophylaxis with anticoagulants.⁵ Reassuringly, decisions about anticoagulant treatment were usually related to the perceived relative risk of thromboembolism versus haemorrhage in each of the case management scenarios described in our questionnaire.⁵

The continuing debate over the use of anticoagulant treatment in atrial fibrillation and the results of our questionnaire survey strongly suggest that guidelines on the clinical management of this common arrhythmia are required.

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- 1 Sudlow CM, Rodgers H, Kenny RA, Thomson RG, Sweeney KG, Pereira Gray DJ, *et al.* Service provision and use of anticoagulants in atrial fibrillation. *BMJ* 1995;311:558-60. (26 August.)
- 2 Gottlieb LK, Salem-Schatz S. Anticoagulation in atrial fibrillation. Does efficacy in clinical trials translate into effectiveness in practice? *Arch Intern Med* 1994;154:1945-53.
- 3 Lip GYH, Tean KN, Dunn FG. Treatment of atrial fibrillation in a district general hospital. *Br Heart J* 1994;71:92-5.
- 4 Zarifis J, Beevers DG, Lip GYH. A survey of acute admissions with atrial fibrillation in a multiracial hospital population. *Clin Sci* 1995;33(suppl):34-5P.
- 5 Lip GYH, Zarifis J, Watson RDS, Beevers DG. Physician variation in the management of patients with atrial fibrillation. *Br Heart J* (in press).

Patients and doctors play it safe

EDITOR,—C M Sudlow and colleagues draw attention to the need for the planned provision of facilities to monitor the increasing number of patients to be treated,¹ in line with current recommendations.² We wish to make several suggestions in the light of a recent audit of a cardiac anticoagulation clinic that we undertook recently.