Comparing hypertension guidelines

Guidelines are based on evidence from trials, not normal practice

EDITOR,—T P Fahey and T J Peters illustrate well the difficulties that general practitioners face in deciding whether to treat hypertension, given the variation in published guidelines.¹ One factor that they do not consider, however, is that the treatment levels set in guidelines are based on evidence from trials rather than measurement in normal practice.

We examined blood pressure readings in West Sussex. We expected to find lower systolic and diastolic blood pressures than the national average, given the recently confirmed evidence that blood pressures in areas of low cardiovascular mortality are lower than the national average.² Instead, where we could analyse individual readings we found that, although recorded systolic pressures in both sexes were lower ($P < 0.0001$) than national values,³ recorded diastolic pressures in both sexes were higher ($P < 0.0001$). Figure 1 shows the results by age group for women ($n = 1316$); the results for men ($n = 846$) showed a similar trend.

Given that in general practice blood pressures are taken by a variety of team members, this consistency was remarkable. Interviews with team members confirmed the use of the phase IV Korotkoff sound as opposed to phase V, which is generally used in trials and national surveys.³ It is therefore likely that many people diagnosed as being hypertensive in practice would not be so diagnosed in a clinical trial and that published

Fig 1—Mean blood pressure by age group in women in West Sussex ($n = 1316$) and in England ($n = 1423$)

recommended levels for starting treatment are in practice artificially high.

Consistency is undoubtedly needed in guidelines, but guidelines also need to reflect the practice of medicine in vivo as opposed to the rarefied atmosphere of clinical trials and national surveys.

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Audit in Mid-Glamorgan also shows major problems with management of hypertension

EDITOR,—T P Fahey and T J Peters's paper highlights the fact that blood pressure guidelines vary considerably in the way they determine control of hypertension.¹ Colleagues and I are currently carrying out an audit of hypertensive patients, and I report here some preliminary data on our findings from this audit in Upper Rhondda Fawr, Mid-Glamorgan.

The audit involves five local practices and 10 community pharmacists, who regularly assess control of blood pressure and other, related variables in patients being treated for hypertension. Fahey and Peters studied 876 treated hypertensive patients in Oxford, to whom a range of different hypertension management guidelines were applied. When the guideline criteria of the British Hypertension Society,² regarded as a

British standard, were applied 417 (48%) of the Oxford patients were found to have well controlled blood pressure.

Our audit findings to date suggest a similar, high level of failure of treatment. Preliminary results for 181 treated antihypertensive patients show that as few as 65 (36%) were well controlled according to the British Hypertension Society's guidelines, which set a target blood pressure of $<160/90$ mm Hg.²

The audit also focused on possible reasons for failure of treatment. In all, 119 of the 181 patients were receiving single drug treatment and the remainder various drug combinations. Only 16 of the 181 were free of side effects of their antihypertensive treatment, while 123 had more than two side effects. Of the 116 patients with uncontrolled blood pressure, 112 had side effects of their antihypertensive treatment. Altogether 114 of the 181 patients had problems that affected the quality of their life. This high incidence of side effects of antihypertensive treatment is consistent with a study by the Stroke Association, which reported a similar incidence and also linked this to the discontinuation of treatment.³

In conclusion, on the basis of the British Hypertension Society's guidelines, the findings of both the Oxford study and the audit in Rhondda (to date) clearly imply major problems with the management of hypertension. This suggests that currently available guidelines may not adequately facilitate good clinical practice in hypertension. In our audit a range of measures, such as education, counselling, and review of the prescription, are being used to improve blood pressure control where appropriate. Any benefits to patients should be apparent in the outcome data for the audit, which will be reported later.

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Cost effectiveness analyses have been carried out in Sweden

EDITOR,—T P Fahey and T J Peters applied five different sets of guidelines for the treatment of hypertension to patients from several general practices; only about one third of hypertensive patients met all the guideline criteria.¹ In an editorial Rodney T Jackson and David L Sackett suggest (i) that the guidelines overemphasise clinically inappropriate relative measures of the benefit of treating raised blood pressure and (ii) that more interest should be focused on the absolute benefits of antihypertensive treatment.² They also suggest (iii) "that clinicians practising evidence based medicine should explicitly consider the resource implications of their decisions (the cost effectiveness)."

A report published by the Swedish Council on Technology Assessment in Health Care (an independent Swedish civil service agency) addressed the problems of moderately raised

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