LETTERS

Problems with implementing guidelines: a randomised controlled trial of consensus management of dyspepsia

The study by Roger Jones *et al*¹ attempts to use quarterly prescribing analysis and cost (PACT) data as a measure of evaluating the introduction of guidelines for the management of dyspepsia. The authors draw attention to the appreciable individual variation in baseline prescribing costs among the general practitioners (GPs) in both the study and control groups. Though the mean cost per GP for upper gastrointestinal drugs does indeed vary by a factor of between 40-55 we are not told to what extent any variation in the individual list size or the number of prescribing units for each GP may account for this feature. Inconsistencies of this nature at the level of individual GPs may not of course appear when examining groups of GPs, as illustrated by the lack of significant difference in the number of items prescribed by group.

Unfortunately, we are not told when the study took place, other than it was before the date of publication of reference fourteen (1991), and we cannot therefore judge as to the influence on the study of any prescriptions for omeprazole. Table 4 and the results section refer to prescribing costs per GP for ulcer healing agents before and after the introduction of the guidelines (this *British National Formulary* category would have included omeprazole if it had been available) whereas the discussion section mentions only the use of H₂-antagonists. As an example of the uptake of this drug, within this family health service authority for the past two quarters in 1990 the cost of prescriptions for omeprazole grew 35%. Rather than assuming that the guidelines brought about a change in behaviour, could those "innovative" GPs within the study group simply have switched from traditional treatments to what may have been then the new "wonder drug" omeprazole, thereby subsequently raising their prescribing costs?

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1 Jones RH, Lydeard S, Dunleavy J. Problems with implementing guidelines: a randomised controlled trial of consensus management of dyspepsia. *Quality in Health Care* 1993;2: 217-21.

AUTHORS' REPLY

Michael Wilcock is correct. We did not set out to explain the variation in prescribing rates and costs among general practitioners, which is well documented elsewhere. Our data were corrected for

workload but not for prescribing units, and we did not think that before and after comparisons of the prescribing costs of individual general practitioners would yield meaningful information because of the influence of other variables. The only concern that we might have about the security of these data relates to the period of observation; the referral literature suggests that referral rates should be measured over periods of at least six months to avoid natural variation, and it might be that prescribing costs vary in response to factors such as case mix, seasonality, and changes in workload in a similar way.

The study guidelines were circulated in March 1990; although omeprazole was then available (having been released for prescribing by general practitioners in September 1989), the timescale was such that an effect on prescribing costs was unlikely. The steep rise in prescribing costs in the study group was, we believe, unrelated to the introduction of a "wonder drug." We would reiterate our contention that a "brakes off" recommendation in the guidelines is more likely to be followed than a constraining one, irrespective of the involvement of the target clinicians in the preparation of the guideline.

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Reducing unnecessary investigation of anterior uveitis

Anterior uveitis, or iritis, is a common cause of painful red eye presenting to casualty departments. It is characterised by ciliary injection, cells and flare in the anterior chamber, and synechiae formation between the iris and the lens. Unlike posterior uveitis or pan-uveitis, disease confined to only the anterior segment, or pure anterior uveitis, is rarely associated with systemic disorders such as sero-negative arthritis, secondary syphilis, and granulomatous conditions such as sarcoidosis and tuberculosis.^{1,2} Despite this, and in the absence of any supporting evidence, a bank of screening investigations is often ordered.

To document the extent of unnecessary investigations ordered for patients with anterior uveitis in our department in Newcastle General Hospital we audited the investigation of 93 cases of pure anterior uveitis in patients presenting to eye casualty for the first time in 1990. The most commonly ordered investigations were full blood count, urea and electrolytes, erythrocyte sedimentation rate, toxoplasma titre, autoantibodies, syphilis serology, and chest and sacroiliac joint x ray examinations (table 1). We were surprised at the number of investigations being ordered and the lack of useful information obtained; many of these tests we considered inappropriate. Most disturbing in view of exposure to ionising radiation was the number of x ray examinations being ordered; such examinations are rarely helpful in managing anterior uveitis.³ In those cases in which there was an underlying systemic disorder, for example, ankylosing spondylitis, the diagnosis was already apparent before the onset of anterior uveitis.

We had shown a problem of significant overinvestigation of patients with pure anterior uveitis. Instead of issuing prescriptive guidelines, we taught our junior staff about the importance of relevant aspects of history taking and encouraged them to select appropriate investigations on the basis of important features of the history, such as early morning stiffness and back pain, recent urinary tract infection, skin rashes, mouth or genital ulcers, and a history of inflammatory bowel disease, etc. Specific points on ophthalmic examination were highlighted as indicating a need for further examination, including iris granulomas, conjunctival follicles, and lacrimal gland infiltration. Through this positive approach to choosing appropriate investigations the departmental "folklore" of a panel of tests for all new cases of pure anterior uveitis was rejected.

To assess the effect of these changes in practice the study was repeated by auditing the investigations ordered for 94 new cases of pure anterior uveitis in 1992, when the number of inappropriate investigations was found to be significantly reduced (table 2). Serum calcium and angiotensin converting enzyme testing were ordered on more occasions suggesting that investigations were being tailored to identify sarcoidosis when appropriate. As in 1990, no new condition was disclosed.

Our primary aim was to ensure that cases of anterior uveitis were investigated more appropriately. The reason why a panel of investigations was being ordered

Table 1 Most commonly performed investigations in 93 patients with pure anterior uveitis, 1990

Investigation	No (%) of patients	No of positive results	Results acted on
Full blood count	59(63)	1 (neutrophilia)	no
Erythrocyte sedimentation rate	54(58)	3(>40)	no
Urea and electrolytes	51(55)	0	no
Toxoplasma titre	45(48)	7	no
Autoantibodies	40(43)	3	no
Syphilis serology	22(24)	0	no
Chest x ray examination	48(52)	0	no
Sacroiliac joint x ray examination	30(32)	1	no