Fig 1—Non-inclusive drug costs per prescriber unit for quarter ending September, 1991-4. Figures in parentheses are differences between fundholders and non-fundholders

such as deprivation indices and the proportion of training and singlehanded practices. Our figures have the advantage, however, that they are based on an entire district. Uptake of fundholding in this district has remained low; indeed, no practice in Nottingham joined the sixth wave as standard fundholders.

We would endorse the conclusion that the differences in prescribing costs between fundholders and non-fundholders three years after the introduction of the scheme are small compared with the overall increase in prescribing costs.

Sarah Stewart-Brown and colleagues suggest that the effect of marketing pressure from the pharmaceutical industry is probably the most powerful influence on inflation in drug costs. We would suggest that the increased rate of prescribing of selective serotonin reuptake inhibitors and proton pump inhibitors has been led, at least in part, by our consultant colleagues. It should be recognised that not all prescribing is primary care led. In Nottingham we have proposed that the prescribing and purchasing budgets of non-fundholders should be linked at district level and that it should be possible to move funds between budgets. Knowing that rising drug costs would reduce the funds available to purchase their services, trust hospitals and their clinicians should then be motivated to work in concert with their primary care colleagues to encourage rational cost effective prescribing and end the unedifying spectacle of "cost dumping." This mechanism would exert a greater effect on overall prescribing costs than fundholding.

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- 1 Wilson RPH, Buchan I, Williams R. Alterations in prescribing by general practitioner fundholders: an observational study. *BMJ* 1995;311:1347-50. (18 November.)
- 2 Stewart-Brown S, Surender R, Bradlow J, Coulter A, Doll H. The effects of fundholding in general practice on prescribing habits three years after introduction of the scheme. *BMJ* 1995;311:1543-7. (9 December.)
- 3 Bradlow J, Coulter A. Effect of fundholding and indicative prescribing schemes on general practitioners' prescribing costs. *BMJ* 1993;307:1186-9.
- 4 Black DG, Birchall AD, Trimble IMG. Non-fundholding in Nottingham: a vision of the future. *BMJ* 1994;309:930-2.

Other factors probably explain differences in prescribing

EDITOR,—Robert P H Wilson and colleagues conclude that fundholding alters practice prescribing patterns and reduces the rate of increase in prescribing costs compared with those of non-fundholders.¹ Though this may be the case in the former Mersey region, a similar study in Avon (of 156 general practitioners) has not reached the same conclusion. Using the same methods, colleagues and I found that, before the introduction of

fundholding, fundholders spent on average less per weighted capitation (prescribing unit) than non-fundholders. The margin in spend between fundholders and non-fundholders has subsequently continued.

Comparison of 1991-2 with 1992-3 showed a large increase in the average spend of fundholding general practitioners. This was due to the relatively high prescribing costs of the second wave fundholders, which have continued to stay high. In Avon, at present, second wave fundholders have the highest drug costs of any group, including non-fundholders.

There has been no significant difference in the rate of increase in the average drug spend per prescribing unit for successive fundholding waves compared with that for non-fundholders. Unlike the authors of the paper, we not only have observed prescribing costs for successive fundholding waves for the year before and the year after practices became fundholders but have followed each wave through to 1995. Our conclusions are supported by Coulter and Bradlow, who found that fundholders were unable to sustain a lesser rate of increase in costs over two years.²

Similar work performed by the Audit Office showed that the difference in increases in prescribing costs between fundholders and non-fundholders was not significant.³ I suggest that other factors explain the differences in prescribing costs between general practitioners in Merseyside and that fundholding is a confounding variable.

Fundholders, like non-fundholders, are not a homogeneous group. Within each group there are variations in prescribing that cannot be explained in simplistic terms of fundholding versus non-fundholding. Within fundholding and non-fundholding groups there are both cost effective prescribers and prescribers who are not cost effective, and generalised comparisons must be viewed with great caution.

Variations in prescribing may involve many factors, such as patient deprivation and morbidity rates; prescribers' sex, age, year of qualification, postgraduate education and degrees, and areas of clinical interest; and the nature and size of the partnership. These factors merit further consideration.

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- 1 Wilson RPH, Buchan I, Walley T. Alterations in prescribing by general practitioner fundholders: an observation study. *BMJ* 1995;311:1347-50. (18 November.)
- 2 Bradlow J, Coulter A. Effect of fundholding and indicative prescribing schemes on general practitioner costs. *BMJ* 1993;307:1186-9.
- 3 Audit Commission. *Briefing on GP fundholding*. London: HMSO, 1995.

Direct access magnetic resonance imaging of the knee for GPs

Magnetic resonance imaging should be used selectively

EDITOR,—As a result of R Watura and colleagues' paper on direct access magnetic resonance imaging of the knee, use of such imaging may increase inappropriately.¹ We would be interested to know what the clinical indications for scanning the knee were for the orthopaedic surgeons and the general practitioners. What were the rates of arthroscopy in the two groups, and how accurate were the findings of the scan compared with the arthroscopic findings? Magnetic resonance imaging is sensitive and specific for meniscal and ligamentous lesions but less effective in defects of articular cartilage.^{2,3}

We believe that magnetic resonance imaging of the knee should be used selectively. Patients who

have obvious clinical symptoms and signs of a meniscal tear do not need such imaging before having an arthroscopy. Imaging may, however, be useful to avoid a diagnostic arthroscopy.

We recently studied the selective use of medical resonance imaging of the knee. Our six criteria for scanning the knee were:

History—A good history of a mechanical problem of the knee but little abnormal on examination.

In children—If symptoms persisted after conservative treatment and physical examination led to doubt about the diagnosis.

Previous arthroscopy—Persistent symptoms after an arthroscopy.

Reconstructive surgery—Patients who had had reconstructive procedures and developed a complication—for example, rupture of a graft.

Lumps, cysts, and swellings around the knee—To assess any intra-articular disease.

To avoid arthroscopy—Patients who had had conservative treatment with little or no improvement but in whom it was thought that results of an arthroscopy would be normal.

When these criteria were used 100 scans were carried out over two years; 37 patients went on to have an arthroscopy. This represented only 10% of all patients seen in the knee clinic. In 90% a diagnosis could be made accurately from an adequate history and competent clinical examination. If medical resonance imaging had not been available then all 100 patients would probably have had an arthroscopy. This would have meant a 16% increase in the number of arthroscopies listed each year.

The selective use of medical resonance imaging helped us to avoid unnecessary operations, plan surgical procedures, and save money. These benefits would be lost if demand for inappropriate scans increased. We do not believe that magnetic resonance imaging should be used as a blanket test; it would be a shame if such imaging replaced the need for accurate clinical skills.

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- 1 Watura R, Lloyd DCF, Chawda S. Magnetic resonance imaging of the knee: direct access for general practitioners. *BMJ* 1995;311:1614. (16 December.)
- 2 Heron CW, Calvert PT. Three dimensional gradient ECHO MR imaging of the knee: comparison with arthroscopy in 100 patients. *Radiology* 1992;183:839-44.
- 3 Grevitt MP, Pool CJF, Bodley RN, Savage PC. Magnetic resonance imaging of the knee: initial experience in a district general hospital. *Injury* 1992;23:410-12.

Patients should be seen by an experienced orthopaedic surgeon

EDITOR,—R Watura and colleagues' recommendations regarding direct access to magnetic resonance imaging of the knee for general practitioners merit further discussion.¹ The appropriate use of such imaging for knee problems is the subject of considerable research. In selected patients magnetic resonance imaging can help with management decisions and an expensive, invasive arthroscopy can be avoided.^{2,4} It is less certain whether recommending direct access magnetic resonance imaging to avoid an orthopaedic consultation is appropriate.

Watura and colleagues found "similar pick up rates for meniscal and ligamentous injury between patients referred by general practitioners and those from orthopaedic teams." Given that patients referred by general practitioners may have clinically obvious lesions whereas those referred by orthopaedic specialists tend to present difficult problems, this observed similarity may be misleading. The authors do not give statistics on diagnostic performance or the proportions of patients with