proportions of abnormal findings. Although many negative results will be clinically useful, an unduly high negative percentage would suggest that the referral threshold needed to be reviewed.

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1 Royal College of Radiologists Working Party. Influence of Royal College of Radiologists' guidelines on referral from general practice. BMJ 1993;306:110-1. (9 January.)

EDITOR,—The design of the study reported by the Royal College of Radiologists Working Party¹ seems flawed. Using an uncontrolled study to report a reduction in referrals from general practice in the year after introduction of the guidelines and then to ascribe this drop to the guidelines themselves is somewhat naive.

A control group is needed to exclude a secular trend contributing to the reported reduction in referral rates. This could easily have been a series of practices such as our own in areas where no education or communication with the local general practitioners took place.

Such a control group could also have been identified easily as all practices have been keeping records of their referrals for x ray examinations since the introduction of the new contract in April 1990. Our practice shows a reduction in referrals for x ray examinations of 14 per 1000 patients between the last two full annual report years of 1990-1 and 1991-2.

If this behaviour represents a national trend then the influence of these guidelines on the sample doctors' behaviour may not have been as pronounced as the study suggests.

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1 Royal College of Radiologists Working Party. Influence of Royal College of Radiologists' guidelines on referral from general practice. BMJ 1993;306:110-1. (9 January.)

Civil rights for disabled people

EDITOR,—Congratulations to the BMJ on taking such a strong stand on such an important issue.¹ How about the BMA really setting the government an example by (a) encouraging all its disabled staff to register as disabled with guarantees of no discrimination, and (b) taking prompt action to move from its current level of 1.5% of workforce disabled, towards the 3% target as laid out in the 1944 Disabled Persons Employment Act? Let no one accuse us of idle posturing.

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1 Handysides S. Disabled look for civil rights backed by legal protection. BM7 1993;306:289. (30 January.)

Treatment of asymptomatic carotid artery stenosis

EDITOR,—Minerva¹ quotes a paper from the New England Journal of Medicine that compared carotid endarterectomy with optimal medical treatment for asymptomatic carotid artery stenosis.² Unfortunately, her summary is misleading. Her message was that the data favour operative intervention. Although there was a significant reduction in ipsilateral neurological events in the group who had endarterectomy, these events included tran-

sient monocular blindness and transient ischaemic attacks, which do not necessarily have a major impact on patients' wellbeing. When stroke was considered alone there was merely a trend favouring the surgical group; this trend disappeared when perioperative deaths and three strokes associated with arteriography were included in the analysis. Importantly, deaths overall, including postoperative deaths, were mainly due to coronary artery disease, and when this was combined with stroke as a measure of outcome there was no difference between the two groups. This study does not show a clear advantage for the operative group.

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- 1 Minerva. BM7 1993;306:406. (6 February.)
- 2 Hobson RW II, Weiss DG, Fields WS, Goldstone J, Moore WS, Towne JB, et al. Efficacy of carotid endarterectomy for asymptomatic carotid stenosis. N Engl J Med 1993;328:221-7.

Hospital patients who smoke

EDITOR,—Substance misusers make up a considerable proportion of patients admitted to hospital, yet during our work as housestaff we have noticed a curious anomaly. While patients dependent on alcohol who suffer withdrawal are given sedation and heroine addicts receive opiate substitutes, only tobacco users are expected to go "cold turkey" or leave their ward to smoke.

On one occasion a confused patient with subarachnoid haemorrhage harangued nurses and caused chaos on the ward until she was wheeled out of the high dependency unit for a cigarette, after which she settled down. Yet when an attempt was made to obtain nicotine patches or chewing gum to help the patient over her withdrawal and reduce the chaos none were available. A few telephone calls to other units showed that our hospital was not an exception. When patches were obtained from an outside pharmacy some peace returned to the ward.

All doctors are aware of the hazards of smoking.¹ A period as a hospital inpatient is an opportunity for patients to break the habit, particularly those who have disease related to smoking or are at high risk, such as those with diabetes. Even when the habit cannot be broken, stopping a patient smoking temporarily—for example, preoperatively—will often to be to the patient's and the hospital's advantage. Profits from the sales of patches or chewing gum might even provide a source of income, which could fund an antismoking counsellor.

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1 Smith T. Richard Doll at 80. BMJ 1993;306:412. (13 February.)

Epidemiology of endometriosis

EDITOR,—The data of M P Vessey and colleagues¹ should be interpreted with caution.

The data were collected over a 22 year period during which the frequency of diagnosis of endometriosis increased dramatically, with, for example, the reported incidence at time of laparoscopic sterilisation rising from <5% to 18%. This occurred for a number of reasons: laparoscopy became a widely used diagnostic tool, with diagnosis no longer being restricted to patients with disease severe enough to warrant laparotomy, and gynaecologists became aware of the myriad visual appearances of endometriosis which represent

evolution of the disease through visually distinct stages to the relatively inactive classic blue-black lesions.³

The changes outlined above and in the editorial by Eric J Thomas have significant implications for the interpretation of Vessey and colleagues' data. Firstly, most patients nowadays have the diagnosis made at laparoscopy, yet in this study only 15% of cases were diagnosed at laparoscopy and this increased to only 29% when endometriosis was the principal diagnosis. This suggests that only relatively severe cases of endometriosis were diagnosed or reported and that the actual incidence in this population might be greater. Secondly, under-reporting can be further suspected because no cases of endometriosis were reported in the 14% of the population in whom female sterilisation was the method of contraception. From the figures quoted above, between 119 and 429 additional cases of endometriosis would be expected. Finally, until recently, gynaecologists recognised only the classic blue-black lesion as being endometriosis and if diagnosis was restricted to this appearance and to severe cases this would influence the effect of age on the risk of endometriosis reported in this study.

The lack of epidemiological information about endometriosis is lamentable and can be improved only by studies in which an accurate visual diagnosis is made. Vessey and colleagues are unfortunate that over the period of their study the goal posts have moved significantly, with a greater use of laparoscopy as a diagnostic tool and a change in our understanding of what visually constitutes the diagnosis of endometriosis.

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- 1 Vessey MP, Villard-Mackintosh L, Painter R. Epidemiology of endometriosis in women attending family planning clinics. BMJ 1993;306:182-4. (16 January.)
- 2 Thomas EJ, Prentice A. The actiology and pathogenesis of endometriosis. Reproductive Medicine Review 1992;1:21-36.
- 3 Redwine DB. Age-related evolution in color appearance of endometriosis. Fertil Steril 1987;48:1062-3.
- 4 Thomas EJ. Endometriosis. BMJ 1993;306:158-9. (16 January.)

Hypersensitivity to dexamethasone

EDITOR,—A T C Chan and M E R O'Brien describe episodes of bronchospasm and urticaria that developed four days after treatment with oral dexamethasone in a patient with pleural and liver metastases.¹ The patient was also receiving substantial doses of ibuprofen, cimetidine, and hydrocortisone. The attacks continued after ibuprofen and cimetidine had been stopped and recurred three days later, after chemotherapy in conjunction with intravenous dexamethasone, metoclopramide, and oral dexamethasone. Sensitivity to dexamethasone was suggested by the fact that the adverse reaction stopped on withdrawal of the drug, although an intradermal test to dexamethasone sodium phosphate gave a negative result.

This case report seems to describe a pseudo-allergic drug reaction for which there is no satisfactory explanation. I suggest that release of vasoactive mediators from plasma proteins should be considered as a possible mechanism for pseudo-allergy on the basis of recent studies on mediator displacement by a wide range of therapeutic drugs. Non-steroidal anti-inflammatory drugs, ionic cholegraphic contrast media, and intravenous preparations of hydrocortisone, benzylpenicillin, and sulphonamides release prostaglandin $F_2\alpha$ from serum proteins. Intravenous preparations of basic drugs—for example, neuromuscular blocking agents, metoclopramide, procainamide, and desferrioxamine—displace histamine.