colleagues also mention that continual feedback may be necessary. We, however, found no significant trend towards a rise in frequency during the second period when this was analysed in smaller time intervals. Unlike us, Stratton and colleagues aspired to a standard defined a priori. The need for frequent feedback may depend on the standard aspired to.

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Doctors' and nurses' right to refuse to participate in abortions

EDITOR,—In his letter on doctors' right to refuse to perform abortions Dennis Cox is misleading in three respects.¹ Firstly, he states that in two cases the House of Lords "made clear that neither secretaries nor nurses had a legal right to refuse to participate in abortions."¹ It did not. Section 4(1) of the Abortion Act 1967 states: "no person shall be under any duty . . . to participate in treatment authorised by this Act to which he has a conscientious objection." These terms include anyone (nurse, junior doctor, or anyone else) asked to participate. Cox's use of the word "perform" is therefore unfortunate. The word "participate" clearly encompasses a wider group than does "perform." In the case of *Janaway v Salford Health Authority* Lord Keith, delivering the judgment of the House of Lords, held that "participate" . . . in its ordinary and natural meaning referred to actually taking part in treatment . . . for the purpose of terminating a pregnancy.² In this regard he was agreeing "entirely" with Mr Justice Nolan (as he then was) in the High Court, who, interestingly, also denied that the right of conscientious objection was limited to the doctor, nurses, and paramedical staff: it included those involved in preoperative and postoperative care.³ Hence, clearly, any member of theatre staff involved in an abortion (whether junior doctor or nurse) has a legal right to refuse to participate. So too, it seems, may those involved in preoperative and postoperative care.

In the case of *Janaway* the House of Lords held that Mrs Janaway, in typing a letter of referral, would not be participating in the abortion. The House dismissed her appeal, not because she had no legal right to refuse to participate but because in its judgment the ordinary meaning of participate "did not cover any arrangements preliminary to . . . terminating a pregnancy, such as typing letters of referral."²

Secondly, Cox refers to two cases but cites only one: that of *Janaway*. *Janaway* is the only case in which the House of Lords has decided on this matter.

Thirdly, whereas Cox states that the general practitioner "has a legal duty to sign the [green] form" there is nothing in Lord Keith's speech to warrant such a sweeping statement. Lord Keith observed: "It does not appear whether or not there are any circumstances under which a doctor might be under any legal duty to sign a green form, so as to place in difficulties one who had a conscientious objection to doing so. . . . I do not think it appropriate to express any opinion on the matter." In other words, Lord Keith expressly left this question open.

Cox is wrong to say that the House of Lords ruled that the conscientious objection "applied

only to people performing abortions." Junior doctors and nurses can rest assured that their right to refuse to participate (that is, to take part) in abortion is guaranteed by law.

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Muslim customs surrounding death

EDITOR,—A R Gatrads' article on Muslim customs surrounding death, postmortem examinations, and organ transplants was useful.¹ The current view of eminent jurists in south Asia is that organ transplantation is permissible and desirable only if it is life saving; there is a longstanding tradition of this practice among Muslim nations of south Asia. The absence of women from funeral rites is not strictly adhered to and is more a cultural practice than a religious one.

Lastly, the photograph in the article does not show typical mourning and may distort the view of readers. Such sights are unfamiliar to most Muslims except perhaps in Iran, which represents the Shia tradition of Islam.

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1 Gatrads AR. Muslim customs surrounding death, bereavement, postmortem examinations, and organ transplants. *BMJ* 1994;309:521-3. (20-27 August.)

Late effects after radiotherapy for breast cancer

EDITOR,—We were disturbed by two of the illustrations in J C R Sainsbury and colleagues' article on the management of breast cancer.¹ The text of the article gives a balanced view of the late effects of radiotherapy; the photographs of patients treated with radiotherapy, however, show the worst end of the range of late radiation effects, and this is not discussed or referred to in the text. Osteoradionecrosis in particular is now an exceptional complication after the treatment of breast carcinoma. It results from outdated, crude radiotherapy techniques; treatment with orthovoltage radiotherapy; and inferior fractionation schedules, including the use of large fractions and alternate day treatment. No British oncology centre is likely to have used this fractionation and equipment within at least the past decade. Using modern linear accelerators and appropriate 4 to 6 week fractionation, we would not expect any of our patients to develop osteoradionecrosis after standard postoperative radiotherapy for breast carcinoma.

The second photograph, showing telangiectasia on the chest wall, is a reasonable illustration of the expected outcome in a patient who has been treated with radiotherapy after mastectomy. As discussed in the article, patients identified as having a high risk of local recurrence require postoperative radiotherapy. Usually the skin sparing effect of megavoltage radiotherapy is used, whereby the maximum absorbed dose is at a depth of ≥ 1 cm beneath the skin surface and the skin receives a dose of 30-40% of the maximum. In those at high risk of local recurrence in the skin or subcutaneous tissue after mastectomy, however, a full skin dose is indicated. This is achieved by applying 1 cm of a

tissue equivalent substance, usually wax, over the chest wall, but at the expense of cosmesis; some patients may develop late skin changes, including telangiectasia.

This illustration is not representative of the outcome in most patients with breast cancer treated with radiotherapy to the breast or chest wall, will have minimal visible late changes in the skin in the treated area. It would have been helpful to include illustrations of more typical results of standard postoperative radiotherapy. Most authors agree that 60-80% of patients have a good or excellent cosmetic outcome after conservation surgery and postoperative radiotherapy.² Patients who have had breast conservation also generally assess their cosmetic outcome as good or excellent in 80-95% of cases.³

Given all the concerns currently being raised by members of the public regarding the potential late effects of radiotherapy and the campaigns of RAGE (Radiotherapy Action Group Exposure)⁴ and other pressure groups, it is important that information in the major medical journals should reflect a balanced view on these issues. While patients and their families should be fully informed about the side effects of treatment, articles such as this, from which information may be disseminated through the media, may cause undue anxiety to those already worried about the late effects of their treatment.

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1 Sainsbury JRC, Anderson TJ, Morgan DAL, Dixon MJ. ABC of breast diseases: breast cancer. *BMJ* 1994;309:1150-3. (29 October.)

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Series editor's reply

EDITOR,—As Margaret Daly and colleagues state, we made clear in the text that with modern machinery the incidence of skin reactions, telangiectasia, and rib damage is rare. The illustrations represent extremes of the range. The legend below the photograph of the patient with osteoradionecrosis makes clear that the patient was treated 30 years before, by a combination of treatments that is no longer used. An illustration of a patient with an excellent cosmetic result after breast conservation was submitted with the article but was not included by the series editors because of lack of space. When the series is published in book form this illustration will appear.

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Breast pain

EDITOR,—While I agree that breast pain is rarely a symptom of breast cancer,¹ it is common in patients with breast cancer who have received radiotherapy. With the increasing use of conservation surgery and radiotherapy the incidence of symptomatic breast pain after radiotherapy to the intact breast or the chest wall flaps after local

excision or mastectomy for breast cancer is probably at least 20%,² and mild discomfort may be experienced even more commonly. The pain is usually a late onset phenomenon, developing anything from a few months to several years after treatment.

This problem is frequently encountered in both hospital and general practice, and failure to recognise the syndrome can lead to much anxiety for the patient and often fruitless and unnecessary investigations.

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1 Mansel RE. Breast pain. *BMJ* 1994;309:866-8. (1 October.)

2 McCormick B, Yahalom J, Cox L, Shank B, Massie MJ. The patient's perception of her breast following radiation and limited surgery. *Int J Radiat Oncol Biol Phys* 1989;17:1299-301.

Management of sinusitis

Is a self limiting condition

EDITOR,—The second summary point in the review on diagnosing and managing sinusitis states that "acute sinusitis should be treated with decongestants and antibiotics for 10-14 days."¹ Such proposals should be founded on clinical trials, but no such trials are mentioned. As far as I know, only three randomised placebo controlled clinical trials of antibiotics in acute maxillary sinusitis have been published; two of them were performed in general practice.^{2,4}

The first trial was done in an ear, nose, and throat clinic.² Double blinding was incomplete; after 10 days a slight but significant effect of the three antibiotics used was noted. The authors concluded that "the general impression is that therapeutic outcome differs so little among the groups that factors other than the treatment outcome must be more important for the consideration of treatment choice e.g. pharmacokinetics, administration, dosage, treatment cost, number and types of side effects." The trials in general practice were done in the 1970s with doxycycline³ and ampicillin⁴; there was no clear difference between the effect of antibiotics and placebo.

Acute maxillary sinusitis in primary health care can thus be managed as a self-limiting disease: antibiotics should be considered only for patients at risk or for sinusitis that persists for more than five days.

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1 Evans KL. Diagnosis and management of sinusitis. *BMJ* 1994; 309:1415-22. (26 November.)

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3 Rantanen T, Arvilommi H. Double-blind trial of doxycycline in acute maxillary sinusitis. *Acta Otolaryngol* 1973;76:58-62.

4 Nörrelund N. Behandling af sinusitis i almenpraksis. *Ugeskr Læger* 1978;140:2792.

Sinusitis and rhinitis, or rhinosinusitis?

EDITOR,—Kathryn Evans's comprehensive review of sinusitis considers chronic sinusitis to be an infective condition and one that should be distinguished from rhinitis.¹ The distinction between rhinitis and sinusitis is an artificial one. Nasal mucosa is contiguous with sinus mucosa, and pathology of one can be expected to affect the other.² The same aetiological classification should be considered for chronic sinusitis as for chronic rhinitis.³ Consequently, while chronic sinusitis

may be due to infection, with or without predisposing factors, it may be due solely to allergy, structural abnormalities causing epithelial opposition with secondary neurogenic oedema,⁴ or a large group considered together at present as "other" disorders. This group includes mucosal hyperreactivity, whether intrinsic or resulting from environmental agents and idiopathic causes, as may also affect the lower respiratory tract. In particular, as well as in the thickened bronchial mucosa of people with asthma, eosinophils have been demonstrated in nasal mucosa from patients with non-allergic, non-infective rhinitis and in sinus mucosa from patients with chronic sinusitis with and without polyps. Of the first 800 patients in our series undergoing endoscopic sinus surgery for chronic rhinosinusitis, 325 (41%) had concurrent intrinsic lower respiratory tract disease, of whom 194 (60%) had asthma. All these conditions may predispose to infection but often cause chronic sinonasal symptoms and abnormalities in computed tomograms without infection.

We do not distinguish rhinitis from sinusitis and we diagnose patients with more than eight weeks of sinonasal symptoms as having chronic rhinosinusitis. This is a spectrum of disease, ranging from predominantly rhinitis to predominantly sinusitis with or without polyposis. Not all patients will present with purulent rhinorrhoea, and we do not advocate routine use of antibiotics. The recurrence of mucosal pathology in 23% of non-polypoid cases of chronic rhinosinusitis after restoration of normal sinus ventilation and mucociliary clearance with medical treatment and functional endoscopic surgery⁵ suggests that factors other than infection are solely responsible in many cases.

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1 Evans KL. Diagnosis and management of sinusitis. *BMJ* 1994; 309:1415-22. (26 November.)

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Clinical guidelines

EDITOR,—Gene Feder focuses on the controversies regarding the development and implementation of and adherence to clinical guidelines.¹ A considerable problem arises when more than one guideline exists for the same clinical activity. Guidelines on the interval at which cervical screening should be carried out are an obvious example.

In 1988 a health circular on cervical screening issued by the Department of Health and Social Security suggested that all women aged 20 to 64 should be invited for screening and that they should be recalled at least every five years. Although the circular expired on 31 December 1992, the computers of most family health services authorities are still set to recall women every five years and a large proportion of general practitioners screen women at five year intervals when previous smears have yielded no abnormality.

A report of the Intercollegiate Working Party on Cervical Cytology Screening in 1987 recommended three yearly screening.² Guidelines produced under the auspices of the National Coordinating Network also suggested three yearly screening in women between 20 and 64.³ Recommendations of the

intercollegiate working party are largely followed in hospital practice. Contradictory advice about the interval for screening leaves many women confused and is unlikely to improve compliance with the screening programme.

In the absence of a national consensus an agreed policy is needed, at least at district level, on such basic issues. All concerned need to be made aware of the existence of such a policy; only then can adherence to it be monitored.

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1 Feder G. Clinical guidelines in 1994. *BMJ* 1994;309:1457-8. (3 December.)

2 Department of Health and Social Security. *Cervical cancer screening*. London: DHSS, 1988. (HC(88)1 and HC(FP)(88)2.)

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Treatment for oesophageal achalasia

EDITOR,—The fact that a patient with a huge air filled oesophagus due to achalasia, reported on in *Minerva*, died after seven months from rupture of the oesophagus having declined surgery is regrettable.¹ He might have been simply and effectively treated by peroral balloon dilatation of the cardia.²

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1 Hill EL, Donnelly JP. *Minerva*. *BMJ* 1994;309:1522. (3 December.)

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Measuring visual acuity in general practice

Agreement is needed on what constitutes acceptable primary ophthalmic care

EDITOR,—J C Pandit's short paper on the measurement of visual acuity in general practice apparently shows the inadequacies of general practice in reaching acceptable standards of care.¹ The real issue, however, is what should be expected of ophthalmological assessment in primary care. This issue will not be resolved by confrontational or adversarial attitudes between primary and secondary care. Perhaps the Royal Colleges of Ophthalmologists and General Practitioners should agree on what constitutes acceptable primary ophthalmic care and how this may be achieved. What standards should be met, and what skills should a general practitioner have? When should these skills be taught, by whom, and in what setting? Should the system change to permit direct referral to ophthalmologists by optometrists?

General practitioners' confidence in dealing with eye problems has been shown to be low,^{2,3} but why this is so and how confidence could be improved are not known. A recent review discussed how general practitioners may improve detection and treatment of visual failure and suggested that change may be brought about by more formalised training and more delegation to others.⁴

A study from Nottingham found that general practitioners measured the visual acuity in only a tenth of patients with eye problems,² making it difficult to interpret the importance of Pandit's findings. Measurement of visual acuity, although