documented in the narrative of the notes they may not be apparent on a rapid skim through the notes and an entry about resuscitation status that is not the most up to date may be found. A sheet at the back of the notes giving sequential decisions on resuscitation status perhaps solves this problem, but if the sheet is not updated the information can be misleading.

I would be interested to know whether any other departments have managed to find a system that really works in a busy department (at least 1100 admissions a year per consultant). I also wonder whether, if communication between doctors and nurses is accurate (and this can easily be audited), the requirement for the consultant to generate updates in the notes each day results in unnecessary bureaucracy.

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1 Calman KC. *Health service commissioner—annual report for 1990/1991; resuscitation policy*. London: Department of Health, 1991.

Falling sperm quality

EDITOR,—It has been suggested that environmental factors, possibly acting in fetal and early neonatal life, may be having long term adverse effects on the male reproductive system,¹ and that this is leading to an observed deterioration in semen quality² together with an increase in the incidence of congenital malformations of the male reproductive tract, and in the incidence of testicular cancer. Although this is currently little more than a compelling hypothesis, if true it has very profound implications for those involved in fundamental research as well as those involved in the clinical care of men with reproductive disorders. We thus read with great interest the paper by Peter Bromwich and colleagues,³ together with the associated editorial by Stephen Farrow.⁴

Bromwich and colleagues make much of the statistical observation, well known to workers in the field of andrology, that measures of human semen quality are seldom normally distributed, and thus correctly point out that the mean is an inappropriate measure of central tendency to use. We entirely agree, although it is interesting that the authors do not in fact test their own observation that a sample of 235 sperm concentrations is log normally distributed; thus their advocacy of the geometric mean (the antilog of the mean of the log data) as the preferred measure of central tendency is open to discussion.

The hypothesis advanced by Sharpe and Skakkebaek was that factors active in fetal and early neonatal life may adversely affect the subsequent spermatogenic capacity of a given individual.¹ If this is true, and if the effect is genuinely becoming more pronounced, the trend in semen quality would be related to the time of the man's birth, rather than the time of any one ejaculation.

To examine this issue, we have looked at data on 3729 semen samples submitted by a large group of semen donors born between 1940 and 1969. These donors were selected only on the basis that they had an initial sperm concentration greater than $20 \times 10^6/\text{ml}$, and all semen analyses were performed in one laboratory, using the same technique throughout.⁵ When the distribution of the data was examined, it did not differ from a gamma distribution (Kolmogorov-Smirnov $d=0.011$, $P>0.05$). We then grouped the samples by year of donor's birth, and plotted the median (interquartile range) sperm concentration for each group (figure). When we compared these groups by using Kruskal-Wallis analysis of variance by ranks, the apparent fall in sperm concentration from a

Median (interquartile range) of sperm concentration in 3729 semen samples from semen donors, grouped according to the donor's year of birth.

median of 128 in men born in the 1940s to a median of 75 in men born in the late 1960s was significant ($H=99.85$, $P<0.0005$). Thus we do not accept that the evidence for a fall in sperm concentrations is unconvincing.

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Smoking during pregnancy and congenital limb deficiency

EDITOR,—Using a multivariate analysis that adjusted for education and birth order and showed an association cited as significant at $P=0.017$, Andrew E Czeizel and colleagues conclude that "maternal smoking during pregnancy raises the relative odds for terminal transverse limb deficiencies."¹ The relative odds cited for this association is 1.48, but the lower limit of the 95% confidence interval for the relative odds is 0.98, which implies non-significance. Testing for the significance of the association with the method referenced² should entail use of a χ^2 statistic with one degree of freedom. Use of a χ^2 statistic with 52 degrees of freedom suggests that they were testing something else, probably the significance of the goodness of fit to the model used. If so, their conclusions are unjustified.

Use of the word "raises" in the main conclusion implies that causality has been shown. This is surprising since elsewhere Czeizel and colleagues state that the association "may or may not" reflect a causal relation. The conclusion is also incorrect since confounding has not been excluded as a possible explanation. The fact that the odds ratio fell from 2.14 to 1.48 after adjustment for just two factors suggests that residual confounding may be important. So also does the observation that various factors (for example, poor diet, coffee intake, and socioeconomic status) were noted to differ in frequency between the cases and the controls and yet no attempt was made to adjust for

them. Using cigarette related markers in a further study will not, as the authors suggest, help to resolve whether the relation is causal unless confounding variables are properly controlled for. It remains unproved that smoking during pregnancy is teratogenic.

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Cervical smear uptake rates

EDITOR,—F Azeem Majeed and colleagues highlighted substantial variations in cervical smear uptake rates between practices in Merton, Sutton, and Wandsworth Family Health Services Authority.¹

Our analysis of cervical smear uptake rates in practices in the City and East London Family Health Services Authority area shows very similar results. In the 5.5 years preceding 30 June 1993, 66% of women in City and East London had a cervical smear, compared with 64% in Merton, Sutton, and Wandsworth for 5.5 years preceding 31 March 1992. Our data also show clear "target heaping": 40% of practices achieved the 50% target, 31% achieved the 80% target, and 29% failed to reach a target (the figures for Merton, Sutton, and Wandsworth were 47%, 22%, and 31%, respectively).

The similarity in the figures for City and East London and those for Merton, Sutton, and Wandsworth are particularly interesting given the considerable differences between the two areas. For example, the 1991 Jarman underprivileged area scores² for the constituent boroughs in East London were 62 for Hackney, 55 for Newham, and 73 for Tower Hamlets; the figures for Merton, Sutton, and Wandsworth were 14, 1, and 25 (St Mary's Hospital Medical School, personal communication), suggesting a much lower overall level of deprivation.

It is important to consider a wider range of practice characteristics than were examined by Majeed and colleagues. We have identified further large differentials in the uptake rate by introducing other measures of practice resourcing and population deprivation (table). Combining variables produces even greater differentials. For example, practices with (at least) one female principal, one nurse, and one practice manager have an uptake rate of 77%, while those with no female principal, nurse, and no practice manager have a rate of 47%.

Cervical smear uptake rates in City and East London and Merton, Sutton, and Wandsworth

Practice characteristics	Uptake rate (%) (No of practices) in City and East London	Uptake rate (%) in Merton, Sutton, and Wandsworth
No of female principals:		
None	70 (72)	67
1	56 (91)	49
Computerised:		
No	67 (98)	65
Yes	55 (65)	51
No of principals:		
2	58 (68)	51
3	59 (48)	56
≥ 3	72 (47)	72
No of nurses:		
None	69 (98)	
1	53 (65)	
No of practice managers:		
None	72 (75)	
1	54 (88)	
Proportion of practice list attracting deprivation payments:		
< 90%	76 (15)	
≥ 90%	58 (69)	

Analyses of this kind are beset by problems of colinearity, particularly of variables pertaining to practice organisation. "Female partner in the practice" is the only such variable entered into the multiple regression model of Majeed and colleagues. This variable is, by virtue of its construction, highly correlated with partnership size. Our data suggest that both these variables have an independent effect of similar magnitude.

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Thalidomide may be a mutagen

EDITOR,—On the basis of two men accepted as damaged by thalidomide who fathered babies with similar defects, W G McBride raises the hypothesis that thalidomide may be a mutagen.¹ Andrew Read quite rightly dismisses this as "almost certainly unfounded."² In addition to the reasons given by Read, it is important to recall that many children were accepted as thalidomide damaged on the basis of a clinical opinion and in the absence of any evidence of exposure to thalidomide in utero during the sensitive period of embryogenesis.

The father's defects in McBride's case 1 are quite atypical for thalidomide, which affects the digits from the radial to the ulnar side—that is, the thumb is the first to be affected. The father's defects in case 2 are neither illustrated nor adequately described to allow an opinion.

Approximately 350 children have now been born to beneficiaries of the UK Thalidomide Trust, of whom two have limb defects. McBride's hypothesis is without any scientific foundation and should not be allowed to stir up inappropriate anxieties among those who believe themselves to have been damaged by thalidomide.

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Snoring and sleep apnoea

EDITOR,—Ian Mortimore stated that "operative treatment for snoring by uvulopalatopharyngoplasty . . . may be associated subsequently with appreciable morbidity and death" as the surgery may prevent the effective use of nasal continuous positive airway pressure in the future.¹ We dispute this.

We agree that many simple snorers probably progress over the years to sleep apnoea; there is evidence to support this.² We do not currently know whether surgical intervention has any beneficial or harmful effect on this progression but it does reduce snoring and daytime sleepiness in snorers, whether or not they have apnoea.^{3,4}

We know of no anecdotal or other evidence

to support Mortimore's claim that previous uvulopalatopharyngoplasty may prevent the effective use of nasal continuous positive airway pressure, though some doctors have used this theoretical argument against surgery in the treatment of simple snoring. We intend to test this theory by using nasal continuous positive airway pressure in some of our patients who have had uvulopalatopharyngoplasty.

In Bristol we have taken another approach to surgery for snoring and use a punctate diathermy of the soft palate. This procedure works well, reducing snoring by provoking fibrosis within the soft palate and stiffening it. Its main advantage over uvulopalatopharyngoplasty is that normal anatomy is maintained so that "failure of nasal continuous positive airway pressure" is not possible. We are currently reviewing our series of patients treated this way and hope to publish our results soon.

Douglas advised against referral to ear, nose, and throat surgeons for snoring "unless the patient has gross abnormalities of the upper airway."⁵ Many "simple" snorers with only subtle airway abnormalities can benefit from surgery and seem quite willing to cope with the relatively short term cost of pain and potential voice and regurgitation problems referred to by Douglas.

If the patient is referred to an ear, nose, and throat surgeon only when the physician detects gross anatomical abnormality or not at all on the basis of an unproved theory that it might affect the use of nasal continuous positive airway pressure in future, many patients will be denied effective treatments for this surprisingly debilitating condition.

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Training in medical emergencies

EDITOR,—R J Burden and J Handel voice fears felt commonly by junior medical staff, particularly by newly qualified doctors undertaking their first post as a preregistration house officer.¹ I agree that formal training in the management of common medical emergencies would improve the quality of medical training and should be encouraged. But "all new trainees" starting jobs in which "emergencies regularly feature" surely include all preregistration house officers.

The final year of undergraduate medical training is the time to equip trainee doctors formally with the skills and knowledge to deal competently with all common emergencies. As a newly qualified doctor about to enter my preregistration year, I know that this aim is not achieved in many cases. This is especially so with cardiopulmonary resuscitation, a skill in which training is still inadequate² despite the skills of junior medical staff having repeatedly been shown to be poor.^{3,4}

Hopefully, the General Medical Council's recommendations on undergraduate medical training⁵ will go some way to ensuring that all new

doctors are adequately prepared to deal with common medical emergencies. The keys to this are sufficient formal teaching (preferably by an accident and emergency specialist), proper practical training (for example, in cardiopulmonary resuscitation by a resuscitation training officer), and good exposure to clinical emergencies (on attachment to an accident and emergency department and while shadowing a house officer). These steps might go some way to ensuring that all doctors are better prepared for emergencies at a more appropriate stage of training.

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Practice nursing

EDITOR,—In reply to Mark R Williamson's suggestion that practice nurses should be freed from having to take blood,¹ I would point out that many of the seemingly routine tasks carried out in general practice allow staff to form relationships with patients; this bond will be of particular benefit at times of severe illness, trauma, or emotional distress. Furthermore, routine tasks done by practice nurses often give patients the opportunity to clarify earlier discussions with their doctor, and several studies have suggested that patients use nurses to explain what has been said by the doctor.^{2,3}

For patients with chronic diseases who receive hospital based care but whose condition is monitored by a general practice, the practice nurse may be the only health professional they see for three months or more. Such chronic diseases may cause problems with everyday living on which an experienced nurse can offer care and advice, thus contributing towards an improved quality of life.

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New start dates for medical posts

EDITOR,—Graham Winyard¹ claims that the directive² to change start dates for house officers will not result in departments having a two day shortfall in senior house officers unless current postholders choose to leave their posts on 31 July.

This is correct, but he fails to realise that many senior house officers are obliged to leave their posts on 31 July. Senior house officers entering general practice are not covered by the directive (BMA, personal communication). Consequently they are obliged to start their new posts on 1 August and therefore leave their current posts on 31 July. An