five of the possible women in the fertile age group in his practice by approaching those taking oral contraceptives, despite the fact that only three out of 459 women refused to provide a blood sample. Many women use contraceptive methods which do not require medical supervision. Some use nothing. Some will not be currently at risk of pregnancy, but will be in the future.

Goodman's system⁵ of vaccinating all girls in the practice aged 11-14, identified from the age-sex register, is ideal. However, if GPs rely on vaccination at school (with the current 70% uptake), the back-up facility of offering blood tests to all women in the fertile age group (15-44), with vaccination of seronegatives, needs to be available. This requires an age-sex register and is a major undertaking. Only a few well-organised practices will be able to achieve this. Thus in the long run the school-girl programme is of vital importance in reducing the incidence of congenital rubella and full support must be given to increasing the uptake.

SAM ROWLANDS

Dorking, Surrey RH4 1LB

¹ Dudgeon, J A, *American Journal of Diseases of Children*, 1978, **132**, 748.

² Banatvala, J E, in *Recent Advances in Clinical Virology*, ed A P Waterson, p 173. Edinburgh, Churchill Livingstone, 1977.

³ Clarke, M, et al, *Lancet*, 1979, **1**, 1224.

⁴ Gringras, M, et al, *British Medical Journal*, 1977, **2**, 245.

⁵ Goodman, M, *GP Update*, 1976, **12**, 527.

Value of cytology for detecting endometrial abnormalities

SIR,—We read with concern the original article by Mr J W W Studd and others "Value of cytology for detecting endometrial abnormalities in climacteric women receiving hormone replacement therapy" (31 March, p 846) and feel that this paper should not pass unchallenged. The study appears to us to be ill designed and the interpretation of the results appears misleading.

The value of a pathology report depends on the status and expertise of the pathologist who makes it. In this study no consideration has been given to these important factors. Both consultant histopathologists involved in this study probably have had many years of experience of interpreting endometrial biopsy material. It is unlikely that the same claim can be made by the cytologists. The technique of obtaining endometrial aspirates with the Isaac aspirator is new to this country and criteria for cytological diagnosis of endometrial cell samples have not yet been clearly defined. We have organised a trial of the aspirators at several different centres in the country to try to establish their accuracy for routine cytodiagnosis, based on cytological-histological correlation of over 500 cases, of which an appreciable proportion will have abnormal pathology. We hope to establish a consensus of opinion regarding reliable cytological criteria.

Until a cytologist is experienced in interpreting endometrial aspirates he is in no position to embark on a comparative study of this kind. Thus the conclusion drawn from the study that the Isaacs endometrial cell sampler cannot be advocated for routine use is premature. It is unfortunate that such a statement should appear with so little reliable evidence, especially as the authors themselves claim that cytology was superior in one case.

One of only three adenocarcinomas in the study was detected by cytology and missed by curettage. Surely a new technique deserves a wider trial before being condemned as unsatisfactory, particularly when other studies^{1,2} have shown encouraging results.

DULCIE COLEMAN

A R MORSE

R ELLICE

Department of Pathology,

Department of Obstetrics,
St Mary's Hospital,
London W2 1NY

¹ Hutton, J D, et al, *British Medical Journal*, 1978, **1**, 947.

² Isaacs, J H, and Ross, F H, *American Journal of Obstetrics and Gynaecology*, 1978, **131**, 410.

Minor operations in general practice

SIR,—While Dr J S Brown (16 June, p 1609) is to be congratulated on showing how an enthusiastic and suitably experienced general practitioner can perform minor surgery in his practice premises, I must take issue with him over the amount of money he feels that he has saved the area health authority. At no time did Dr Brown question why certain classes of patient were kept in hospital for several days over the period of operation, and yet he could perform the same operation on an outpatient basis from his own surgery. Many hospitals have day theatre facilities and all the operations which he lists could be performed in such facilities without requiring the patient to stay overnight in hospital. Therefore his calculations of the cost of hospital treatment for patients are biased by the average stay of certain classes of patient in hospital. I find it surprising, for instance, that a patient having a wedge resection of nail bed under local anaesthetic would be expected to stay in hospital an average of seven days. It would be almost impossible to justify this length of stay when day theatre facilities are available and it is extremely difficult at times to arrange the admission of patients with acute conditions because of the lack of hospital beds.

Apart from this problem with the data in the article, Dr Brown does not appear to be comparing like with like in that so far as the general practitioner is concerned he has costed only the equipment required, whereas the hospital costs must include an element for staff salary and other facilities which are provided.

It is unfortunate that Dr Brown should have chosen to justify his work by a false costing analysis rather than by the virtue of showing the range of minor surgery that it was possible for a general practitioner to perform outside hospital premises.

S M LORD

Accident and Emergency Department,
Walton Hospital,
Liverpool L9 1AE

SIR,—I would like to congratulate Dr J S Brown on his article "Minor operations in general practice" (16 June, p 1609), but as an orthopaedic surgeon I feel that I must comment on those operations which he has performed but which are traditionally done by my specialty.

Decompression of carpal tunnel, wedge resection of toenail, excision of synovium, excision of ganglion, and release of trigger

finger are all operations which are commonly done as day cases. This being so his total should be reduced by £6853. Furthermore, I doubt whether any benefit is ever derived from aspirating a ganglion or a bursa as the contents soon reform. This would therefore reduce his total by a further £65.

I am sure that Dr Brown is saving the hospital budget money but would suggest that this is certainly not more than £8000, and probably less.

J S BLACKBURN

London W1N 3FA

Saving asthmatics

SIR,—I agree very much with Drs I W B Grant and A R Luksa (30 June, p 1791) in their recommendation of easy access to hospital for asthmatic patients or self-admission in emergency. For nearly 20 years asthmatic patients under my care have been given a card which states that they are to be admitted to one of my outpatient clinics without prior appointment if they arrive by 4 pm, or if they present at accident and emergency with asthma they are to be admitted immediately to one of my beds. They also have my secretary's telephone number. There has been no abuse of these facilities—indeed mere possession of the card is said by many to be therapeutic. Sufferers from asthma do not like having to deal with strange doctors because of their extreme sensitivity to domination and rejection, which all too often they court unconsciously; and this factor may lead them to hang on perilously long at home if their own general practitioner is off duty or away on holiday. This is because they are averse to calling one of his partners, whom they may fear will be brusque, or in inner cities submitting to the Russian roulette of the faceless deputising service. Junior staff and accident and emergency departments need to be briefed fairly frequently if the above method is used, because nurses and doctors are always changing and a patient receiving an angry rebuff such as "I have never heard such nonsense" can be tipped even further into status asthmaticus.

I came to the above practice through a gradual understanding of the psychosomatic aspects of asthma and being impressed by the effectiveness of the friendly open-door approach adopted by Hans Heckscher in Copenhagen 30-40 years ago.

J W PAULLEY

Ipswich, Essex IP1 3PJ

Pathogenesis of pelvic inflammatory disease

SIR,—Your recent leading article on the pathogenesis of pelvic inflammatory disease (16 June, p 1588) highlighted many of the complexities surrounding its aetiology. Secondary infection with anaerobes greatly complicates bacteriological assessment. A contribution to the solution of these difficulties may result from studies using cervical cytology to detect *Actinomyces israelii*.

This potentially pathogenic anaerobe has been identified only in patients with a foreign body in the genital tract, usually an intra-uterine device.¹ Neither symptoms nor clinical evidence of pelvic inflammation are invariable on first detection of the organism.² However,

severe, even fatal, pelvic actinomycosis can develop in association with usage of the IUCD.^{3,4} Further investigation and follow-up of asymptomatic patients with actinomycosis-positive smears may provide some answers concerning the role of anaerobic bacteria in the pathogenesis of pelvic inflammation. Studies with these aims are being conducted in centres in the United Kingdom and the United States.

M CHARNOCK

Joint Academic Unit of Obstetrics,
Gynaecology, and Reproductive
Physiology,
London Hospital Medical College,
London E1 4DG, and
Medical College of St Bartholomew's
Hospital,
London EC1A 7BE

¹ Gupta, P. K., Hollander, D., and Frost, J. K., *Acta Cytologica* (Baltimore), 1976, **20**, 295.

² Spence, M. R., et al., *American Journal of Obstetrics and Gynaecology*, 1978, **131**, 295.

³ Charnock, M., and Chambers, T. J., *Lancet*, 1979, **1**, 1239.

⁴ Hager, W. D., and Majumdar, B., *American Journal of Obstetrics and Gynaecology*, 1979, **133**, 60.

What is to be done with the XYY fetus?

SIR,—Five years ago the *Lancet*¹ carried a leading article entitled "What becomes of the XYY male?" Its conclusion concurred with that of other critical reviews of the literature²⁻⁴ appearing about that time—namely, we cannot answer that question in the absence of better-designed studies. Regarding the myth of the XYY male as an aggressive inborn criminal, however, it was concluded that the evidence already seemed reassuring. Whatever the reason for the reported excess of XYY males in maximum security special hospitals, the evidence did not support a direct causal explanation. Studies of selected samples of the 99.9% of XYY males who exist outside special hospitals did not produce any convincing evidence of increased susceptibility to aggressiveness, violent criminality, or any other serious behavioural deviancy. In most surveys where XYY males were identified, the only distinguishing feature was their increased height.

This state of knowledge has not been changed by later studies, which are referred to your leading article (9 June, p 1519). Before debating the question of whether or not to "tell the parents" about an XYY fetus, is it not necessary first to establish whether there is anything of significance to tell other than our lack of knowledge? If selective abortion of XYY fetuses is to be considered purely on the basis of a statistical association between presence of a particular genotype and incarceration in a special hospital, then the next question which we must ask is "What is to be done with the XY fetus?" The ratio of male to female convicted "violent" offenders in 1977 in England and Wales was 9:1,⁵ and for those entering penal institutions 26:1.⁶ However, even at the height of the eugenics movement it is improbable that society would have tolerated selective abortion of males on the grounds of gender differences in crime statistics.

The implications of a doctor counselling expectant parents about termination of pregnancy when the fetus is XYY on the basis of the "facts" presented in your article are far reaching in that (a) the evidence relating to these facts is at best equivocal; (b) the expectant parents are unlikely to have any personal experience or other sources of sound knowledge about the XYY male on which to

base their decision about termination; and (c) the problem, which it is suggested might be prevented through selective abortion, is not a medical problem but a social problem.

Your article left unanswered the question "what if the parents then refuse to agree to an abortion?" yet there are firmer grounds for speculating about the behavioural prognosis of this fetus than of one who escapes prenatal or postnatal detection of an XYY genotype. In contrast to the lack of evidence for directly attributing any type of behavioural deviancy to the XYY genotype, the effect of adult expectations on a child's behaviour has been experimentally demonstrated⁷—and it does not cease after the age of 4 years, as might be inferred from your leading article.

W FARRANT

Institute for Social Studies in
Medical Care,
London NW3 2SB

MAJ HULTEN

Regional Cytogenetics Laboratory,
East Birmingham Hospital,
Birmingham B9 5ST

¹ *Lancet*, 1974, **2**, 1297.

² Hook, E. B., *Science*, 1973, **179**, 139.

³ Borgaonkar, D. S., and Shah, S. A., in *Progress in Medical Genetics*, vol. X, ed A. G. Steinberg and A. G. Bearn, p. 135. New York, Grune and Stratton, 1974.

⁴ Beckwith, J., and King, J., *New Scientist*, 1974, **64**, 474.

⁵ *Social Trends* 9, p. 204. London, HMSO, 1979.

⁶ *Social Trends* 9, p. 205. London, HMSO, 1979.

⁷ Rosenthal, R., and Jacobson, L., *Pygmalion in the Classroom*. New York, Holt, 1968.

SIR,—With regard to your leading article (9 June, p 1519) on the XYY fetus, I would like to comment on the Edinburgh study¹ that you mention. Although this work is currently in press, I believe that the control group used was based on the first child born on a Monday morning. I feel that this control group is totally unrepresentative of the general population and so the high mean IQ of this group of 115.7 is an interesting finding.

I feel it important to note that the first baby born on Monday morning is more likely to have had a full-term, non-induced delivery following few complications during pregnancy. Unfortunately this means that the comparisons that the Edinburgh study made between XYY boys and controls are biased in favour of there being more deviance amongst the XYY group in view of the privileged position of the control group, which is not representative of the general population.

SIMON WILKINSON

Royal Edinburgh Hospital Young
People's Unit,
Edinburgh EH10 5HF

¹ Ratcliffe, S. G., Axworthy, D., and Ginsborg, A., in *Birth Defects Original Article Series*, in press.

Pneumoperitoneum associated with artificial ventilation

SIR,—Dr Bruce Summers (9 June, p 1528) attributed the pneumoperitoneum in three of his four patients to leakage through minute ruptures in alveoli subjected to the stress of artificial ventilation.

We reported a similar combination of complications including pneumoperitoneum in two children.¹ We came to the conclusion that the important event was damage to the mucous membrane at the insertion of the endotracheal tube, so that air was pumped into the interstitial tissue by the ventilation.

We agree that this complication is likely to

be more common than reports suggest. It deserves to be more widely known so that unnecessary deaths can be prevented by discontinuing ventilation through the endotracheal tube and using alternative means.

J K SCOTT

Chest Clinic,
Pinderfields General Hospital,
Wakefield, West Yorks WF1 4DG

¹ Scott, J. K., and Viner, J., *Postgraduate Medical Journal*, 1975, **51**, 654.

"Diuretic escape" and "rebound oedema"

SIR,—The short report by Dr M K Chan and others (16 June, p 1604) leads me to believe that they do not fully understand the principles of diuretic treatment in oedematous states. It also introduces two terms, "diuretic escape" and "rebound oedema," which can only lead to confusion and would best be forgotten.

It is axiomatic that the urinary sodium excretion of a patient treated with frusemide does not exceed the sodium intake indefinitely. If it did, death from sodium depletion would be inevitable. In fact a new steady state is reached at which sodium excretion equates with intake, due to the homeostatic mechanisms which the authors mention. Often this new steady state is reached when oedema has resolved, and the diuretic treatment is considered successful. The figure in Dr Chan's report illustrates this well. During continuous frusemide treatment the urine sodium excretion returned convincingly to baseline levels on day 42, and it then oscillated around this value. The authors term this "diuretic escape," and I suppose one could say that "renal escape" had occurred by analogy with the phenomenon observed during mineralocorticoid treatment, although I doubt whether this would serve a useful purpose. However, the term "diuretic escape" is distinctly misleading, because the patient has not "escaped" from the therapeutic effect of frusemide. Approximate calculation from the figure (assuming constant sodium intake) reveals that the patient had lost at least 1600 mmol sodium. There is nothing in the report to suggest that he would not have maintained this new steady state indefinitely had frusemide been continued, and the figure in fact depicts an eminently satisfactory diuretic response.

If those factors which led to oedema formation have not been modified it is entirely predictable that sodium retention will follow discontinuation of frusemide, and that oedema fluid will reaccumulate. There seems no need to call this inevitable event "rebound oedema." The patient has certainly become "dependent" on the diuretic in the sense that he will be oedematous without it, but he was equally dependent on frusemide before he was given the drug! There is no evidence that "oedema was perpetuated" by the diuretic. The factors which led to oedema formation had not been modified, and it would be just as logical to incriminate frusemide in oedematous patients who have never taken the drug.

I agree that long-term diuretic treatment has hazards and that over-treatment should be avoided. It is sensible to attempt gradual reduction of potent diuretic treatment from time to time, but if the factors promoting oedema have not altered the attempt will fail. If oedema is severe enough to warrant symptomatic treatment frusemide is a very