have over 0.5 IU/ml and only 1% have over 3.0 IU/ml. Since these reference preparations are of equine origin and contain IgM antibodies as well as IgG class antibodies we carried out a further survey, with 3000 random donor samples, against a prepared human serum kindly assayed for us by Dr Sheffield at the National Institute for Biological Standards and Control as 2.0 IU/ml. In this second series we found that only 4.9% of donors had antitoxin levels over 0.01 IU/ml and only 0.58% over 2.0 IU/ml. The overall incidence of donors with detectable antibody (≥ 2.0 IU/ml) is 1 in 200 or 0.5%. These small proportions of random donors with diphtheria antibodies may be important to transfusion services which wish to prepare human immunoglobulin (anti-diphtheria) both for therapeutic and for biological standard preparations. Adults immunised or boosted in the manner described by your correspondents may be a better source of antitoxin.

RUTHVEN MITCHELL
ARCHIBALD BARR

Glasgow and West of Scotland
Blood Transfusion Service,
Law Hospital,
Carluke, Lanarkshire

¹ Barr, A., *et al*, *Journal of Clinical Pathology*, 1975, **28**, 969.

Birth impairments and financial incentives

SIR,—In her comments on uptake of antenatal services in Britain (23 September, p 899) Minerva is guilty of a non sequitur. It is probably true that babies of women who do not attend before 20 weeks have a much higher than average chance of dying in the perinatal period, but it does not follow that were such women bribed to attend earlier they would do so, nor that if they did so their babies' perinatal mortality would fall: associations are not necessarily causal and English women may not respond to bribery like French women. (Incidentally, the French do not claim that the improvement in their perinatal mortality rate is the result of better attendance at antenatal clinics—though it may be.) If we want women to care for themselves, the first essential is caring for them as persons to enhance their sense of their own dignity and value.

JOHN DAVIS

University Department of Child Health,
St Mary's Hospital,
Manchester

Health education in schools

SIR,—Dr V L Irwin (7 October, p 1022) states that most children leave school without knowing even a basic series of medical facts, probably owing to the ignorance of their educators. Sex education is of particular interest in this context.

We have recently completed a study in secondary schools throughout Dublin which included an analysis of completed questionnaires by students on the subject of sex education. The questionnaires were distributed before and after a basic sex education programme set up by a university department of obstetrics and gynaecology. Apart from knowledge scores (which showed a uniformly depressing level of sexual knowledge), a series of attitude questions revealed some interesting

information. The students (age group 14-18 years), although previously receiving information mostly from teachers, the clergy, or the home, stated a preference for attaining this particular form of knowledge from doctors. It seems that, in certain areas such as sex education, an outsider appears more suitable to the student than the teacher or parent. This was reinforced by the fact that the popularity of the doctor increased after the lecture, as demonstrated by an even higher percentage of students asking for this form of education.

The obvious place for a large percentage of health education is the biology class or the home, but at present it would appear that (in Dublin at any rate) parents and indeed teachers are neither attractive nor adequate in the area of sex education. We would suggest that school councils and health education boards may occasionally gain fruitful advice and opinions on education programmes from the people who are of primary concern—the students themselves.

CYRIL A THORNTON
R K BRENNAN
ALAN D H BROWNE
PETER C DENHAM

Department of Obstetrics and
Gynaecology,
Royal College of Surgeons in Ireland
Unit,
Rotunda Hospital,
Dublin

AID

SIR,—The British Pregnancy Advisory Service is reported (*Guardian*, 14 October) as setting up AID clinics at which "women with or without partners will be eligible." This latter suggestion could have disastrous consequences to the child, whose welfare should be the most paramount consideration. In over 30 years' experience of this work I have concluded that AID should not be offered except to a two-parent family (excluding lesbians) with a stable marriage and able to offer the child a loving background, both parents having a minimum life expectancy which will ensure their joint presence and support until at least adolescence is over.

Neither should AID be undertaken without facilities for adequate infertility investigations of both parents. Some 20-30% of wives of sterile men have been found to be infertile, while in other cases the men referred for AID were not sterile when full investigations were carried out and they did not require it.

The provision of AID to suitable candidates must be preceded by at least the same standards of counselling and investigation of the background as is undertaken for adoption—it is, after all, semi-adoption!

BERNARD SANDLER

Manchester

Soft tissue sarcomas

SIR,—The conclusions reached by Dr M B McIlmurray and Professor M J S Langman (23 September, p 864) over soft tissue sarcomas and intramuscular injections are similar to those I have come to after study of material in two long-established cancer registries. From the Connecticut Cancer Registry, set up in 1935, through the courtesy of the late Dr Barbara Christine and her colleagues, and from the New York State Cancer Bureau, set

up in 1941, by courtesy of Dr Peter Greenwald and Dr N J Vianna, I was able to obtain the figures of all soft tissue sarcomas (numbering several hundreds) by age, sex, site, type, and year of diagnosis. In the analysis of this material the striking feature was the stability of the incidence of the soft tissue sarcomas over the whole period covered by these registries up to the mid-seventies in respect of all the features analysed. Fluctuations in sites and types were minimal, and such as occurred usually reflected changes in interpretation and nomenclature rather than true differences in occurrence. Yet in the decades since these cancer registries were set up the number of intramuscular injections given, especially into the buttocks with the introduction of the antibiotics, have increased enormously. This applies to the injections not only of intramuscular iron and aluminium compounds but also of a variety of compounds with a great variety of bases.

So unless the incubation period is extremely long—and this is not a feature of the published cases of soft tissue sarcomas following intramuscular injections—the conclusion to be reached is that, if there is a risk, it is absolutely minimal and can for all practical purposes be disregarded. Certainly no patient should be denied a therapeutic benefit from an intramuscular injection because of fear of a soft tissue sarcoma developing.

J N P DAVIES

Department of Pathology,
Albany Medical College,
New York

Activation of occult amoebiasis by corticosteroids

SIR,—We read with interest the three case descriptions by Striver and Goud (5 August, p 394) concerning activation of occult amoebiasis by administration of systemic corticosteroids, and wish to report a similar case.

A 19-year-old Vietnamese man was referred to the renal clinic with a history of nephrotic syndrome of one week's duration. He had been in Australia for two years and before entry had spent six months in a refugee camp in Thailand. Renal biopsy showed minimal-lesion glomerulonephritis, and prednisolone 60 mg/day was prescribed. His nephrosis remitted, but returned four weeks later after he precipitously stopped taking the drug. Remission was again achieved after restarting prednisolone. Four days later he presented with a three-day history of right iliac fossa pain and tenderness, and a provisional diagnosis of acute appendicitis was made. At laparotomy the appendix was normal but a perforated caecal ulcer was found and removed. The ulcer had been completely sealed by appendices epiploicae. Histological examination of the ulcer showed intense inflammation in the submucosa, with numerous *Entamoeba histolytica* seen superficially. Occasional organisms were also present within the serosal inflammatory exudate. Subsequently a liver isotope scan and ultrasound examination were both normal. Antibody to extract of *E. histolytica* was demonstrated in the patient's serum by double diffusion on the day of operation, but was negative by haemagglutination six weeks later. Serum IgE measured five weeks after surgery was 9480 IU/ml (upper limit of normal 200 IU/ml), consistent with extensive parasitic infection. He was given a three-week course of metronidazole and made an uneventful recovery. He is at present in good health, and continues to take prednisolone (15 mg/day).

This case, and those previously described by Striver and Goud, emphasise the need for

screening for amoebiasis in patients from endemic areas who may require systemic therapy with corticosteroids. The difficulties in screening such patients, especially those who are asymptomatic, have been emphasised recently.¹ This man's serology was positive for *E histolytica* just four days after the onset of symptoms of perforation, implying an immune response which antedated the acute event. We therefore suggest that screening of both faeces and blood for evidence of amoebiasis is desirable in this group of patients.

A J GIJSBERS JOHN A MILLAR
K O'SULLIVAN N M THOMSON
JOHN P DOWLING D SCOTT

Prince Henry's Hospital,
Melbourne,
Australia

¹ Krogstad, D J, Spencer, H C, jun, and Healy, G R,
New England Journal of Medicine, 1978, **298**, 262.

Homes for tuberculous homeless alcoholics

SIR,—It was a relief, for once, to see your publication drawing attention to the plight of the single homeless. All too often they are callously treated, or ignored altogether. Take, for instance, the Housing (Homeless Persons) Act of 1977, under which they are not considered a priority, and therefore are entitled only to "advice" (sic).

Your leading article (21 October, p 1107) notes the difficulties of men discharged to common lodging houses where heavy drinking is prevalent and inmates are obliged to walk the streets for much of the day. Voluntary organisations such as the Cyrenians are setting up small projects where these men may live together in a "family" (and dry) environment—or at least trying to. The Cyrenians and other groups are continually being frustrated in their attempts to help the single homeless by the refusal of local councils to grant planning permission. Exeter and Cardiff City Councils are two recent examples of apparently caring groups whose caring stops at the single homeless person. I'm glad that the *BMJ* is not another.

STEPHEN GLASCOE

General Practice Unit,
Welsh National School of Medicine,
Cardiff

Salicylate poisoning in dermatological therapy

SIR,—We would like to report a case of salicylate poisoning from the percutaneous absorption of salicylic acid. A boy aged 12 years was admitted to the paediatric unit of this hospital on 15 September because of severe ichthyosis and asthma. On this occasion he was admitted because of exacerbation of his dermatitis of two weeks' duration. On admission he was started on salicylic acid, 2% in simple cream, applied to all areas of the body twice daily. On the third day in hospital it was increased to 5%, and on the fifth day to 10% concentration. He developed symptoms of salicylate toxicity three days after starting the 10% salicylic acid. The plasma salicylate level was 3.3 mmol/l (46.0 mg/100 ml). The salicylate therapy was immediately stopped and he was started on intravenous fluids and bicarbonate, and complete clinical and biochemical recovery was obtained within 48 hours of the diagnosis being made and

salicylate therapy being stopped. We suggest, therefore, that salicylic acid may cause systemic poisoning when applied to large areas of the skin and that this possibility should be kept in mind when treating cutaneous disorders. As far as we can ascertain, the British medical literature contains no description of poisoning attributed to salicylic acid used on skin. We wonder whether others have seen similar cases.

JOHN B ASPINALL
K M GOEL

Southern General Hospital,
Glasgow

The telephone in general practice

SIR,—In a leading article on this subject (21 October, p 1106) you suggest fuller use of the telephone for consultation. Might I suggest that one reason why this is avoided is the doctor's fear of overuse by the patient, particularly the neurotic patient. In a study of 143 patients after myocardial infarction for the purpose of evaluating rehabilitative methods, essential clinic or home visit appointments were made following hospital discharge and patients knew clearly when these would be. The telephone number of the clinic was given to the patient and his wife for interim direct contact with the doctor or nurse, but the telephone was used infrequently and at no time unnecessarily. Patients admitted that the knowledge that direct contact was available was often sufficient in itself to relieve anxiety.

LORNA D NAISMITH

Coronary Rehabilitation Clinic,
Southern General Hospital,
Glasgow

Current vital statistics

SIR,—Dr A M Adelstein in his article "Current vital statistics: methods and interpretation" (7 October, p 983) notes the paucity of international data relating stillbirths and infant mortality to birth weight. He has a table which shows, by birth weight, neonatal death rates for England and early neonatal rates for Sweden, but he also states that no more comparable statistics are available. This is not strictly true, because early neonatal mortality rates are available for both England and Sweden and neonatal rates also are available for Denmark and Poland.

International comparisons of mortality among low-birth-weight infants (<2500 g)

	England and Wales ¹	Mortality rate		
		Sweden ²	Denmark ³	Poland ⁴
1974				
Stillbirth	95.6	83.7	52.0	
Perinatal	180.1	178.0	128.6	
Early neonatal	93.4	103.0	80.8	
Neonatal	101.4	Not available	91.7	
1975				
Stillbirth	87.2	Not yet available		
Perinatal	170.4			68.2
Early neonatal	91.2			222.2
Neonatal	98.6			165.2
1976				
Stillbirth	85.3	Not yet available		
Perinatal	156.6			65.9
Early neonatal	77.9			213.6
Neonatal	86.5			166.8
				192.4

*Stillbirth and perinatal rates per 1000 total births; early neonatal and neonatal rates per 1000 live births.

¹ DHSS Annual Returns LHS 27/1.

² Statistiska Meddelanden Series HS.

³ Medicinsk Fødselsstatistik.

⁴ Rocznik Demograficzny.

The table below indicates some comparisons that are possible from routinely published data, but it is most important that the data be interpreted with caution because of international differences in definition and customary practice in birth and death registration. This applies particularly to infants of very low birth weight.

P O D PHAROAH

Department of Community
Health,
London School of Hygiene and
Tropical Medicine,
London WC1

Side effects of colapsase

SIR,—We have recently treated a patient with the regimen of sequential colapsase (asparaginase) and high-dose methotrexate for refractory acute leukaemia, as reported by Boh-Seng Yap and others (16 September, p 791). We encountered complications which are not mentioned in their report, but which have appeared in previous publications on the use of colapsase and should be borne in mind when using this regimen.

The patient was a 30-year-old Caucasian male with acute lymphatic leukaemia who first presented in October 1976 and was admitted on 4 October 1978, having relapsed for the third time. There were 89% lymphoblasts in the bone marrow. At the time of admission investigations revealed the following: haemoglobin 11.1 g/dl, white cell count $103.4 \times 10^9/l$ (blasts 60%, smear cells 22%), platelets $103 \times 10^9/l$, sodium 140 mmol(mEq)/l, potassium 4.1 mmol(mEq)/l, bicarbonate 29 mmol(mEq)/l, urea 3.8 mmol/l (22.9 mg/100 ml), creatinine 125 $\mu\text{mol/l}$ (1.4 mg/100 ml), urate 0.88 mmol/l (14.8 mg/100 ml). There was no glycosuria.

On 4 October he was started on allopurinol 300 mg a day; and on 6 October he was given methotrexate, 100 mg intravenously, followed three hours later by colapsase derived from *Escherichia coli* (Crasnitin), at a dose of 40 000 units intravenously. There was little initial reaction to the treatment but throughout the following night he vomited persistently, had diarrhoea, and became dyspnoeic and oliguric. On examination he was dehydrated and had Kussmaul respiration. The results of our investigations on 8 October were: haemoglobin 8.4 g/dl, white cell count $68 \times 10^9/l$, platelets $27 \times 10^9/l$, sodium 117 mmol(mEq)/l, potassium 8.9 mmol(mEq)/l, bicarbonate 13 mmol(mEq)/l, urea 42 mmol/l (253 mg/100 ml), creatinine 710 $\mu\text{mol/l}$ (8.03 mg/100 ml), glucose 42.6 mmol/l (768 mg/100 ml). He was treated with continuous infusion of soluble insulin, intermittent intravenous sodium bicarbonate, rehydration, and blood transfusion. On 10 October sodium was 131 mmol/l(mEq)/l, potassium 5.0 mmol(mEq)/l,