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