I note from their table II that there was a marked rise in blood glucose level after the infusion of glucose which was not seen when sorbitol, fructose, or saline was given. The advantage of glucose over fructose or sorbitol is that it demonstrates by such a rise in blood sugar the presence of the "diabetic-like state," similarly encountered in some patients after acute stress by the inhibition of insulin secretion by adrenaline and sympathetic overactivity.[1] It would seem likely that had Dr Ames and his colleagues included a further group of women to whom he had given with the glucose sufficient exogenous insulin to prevent hyperglycaemia this group would also have shown a reduction in ketones but with no rise in blood lactate. Froesch[2] has pointed out that during muscular work (for example, during labour) glucose is taken up by muscle cells even in the absence of insulin. Its fate, however, is then different, in that it is almost entirely converted to lactate. Under normal conditions the lactate will be metabolised in the liver, but this is prevented when sufficient sorbitol or fructose is infused and also metabolised to lactate in the liver. In the "diabetic-like state" lactate will then accumulate in the blood.[3]

It has been my experience in treating cases of acute or chronic renal failure complicated by a diabetic response that infusions of glucose accompanied by sufficient insulin to maintain the blood sugar strictly within the normal range prevent both ketosis and lactic acidosis. The advantage of glucose is that its blood level is readily monitored, whereas, as shown by Dr Ames and his colleagues, sorbitol or fructose can produce lactic acidosis without any concomitant rise in the blood sugar. I would suggest, therefore, that glucose with added insulin would fulfil their requirements for a substrate to infuse to women in labour for the treatment of ketonaemia without raising the blood lactic acid level. When insulin is infused at a rate of about one unit per 3 g of glucose hyperglycaemia is unlikely to occur, and none of our cases has become complicated by hypoglycaemia.

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1 Porte, D, Jr, *et al*, *Journal of Clinical Investigation*, 1966, **45**, 228.
2 Froesch, E R, and Keller, U, in *Parenteral Nutrition*, ed A W Wilkinson. Edinburgh and London, Churchill Livingstone, 1972.
3 Woods, H F, and Alberti, K G M M, *Lancet*, 1972, **2**, 1354.

Cancer statistics

SIR,—Dr R F Mould's criticisms of cancer statistics (10 January, p 86) referred to the registration procedure and the Department of Health and Social Security statistical return SH3. The former is a matter for the Office of Population Censuses and Surveys; my immediate concern is to point out the inaccuracies and misunderstandings present in the criticism of the SH3 return.

There is evident confusion in Dr Mould's interpretation of the data collected in part 2 and part 3 of the form. The former records patients attending for consultation with medical staff whereas the latter is concerned with attendances for treatment not necessarily in the presence of medical staff. Patients attending for consultation do not necessarily attend a treatment department and vice versa. In general the counts in parts 2 and 3 will not correspond and the relative sizes of the consultation and treatment counts at department level will depend on specific characteristics such as the type of service provided and referral patterns.

Dr Mould appears to have been misled by the identical figures for new outpatient consultation and treatments for two of the hospitals in his sample. Far from being the typical situation, these events are due to particular features of the radiology departments concerned. In one case, for example, it is known that all patients attending the radiotherapy department for the first time do so for treatment, the need having been confirmed elsewhere.

In the absence of specific instances the allegation of general ambiguity in the instructions for completing the form can be answered only in broad terms in a letter such as this. The treatment and care of patients are the responsibility of consultants; practice varies widely and it is very difficult to reflect this in a summarised statistical report such as SH3, which offers only a broad framework for measurement of hospital activity. Detailed notes are issued annually and the inevitable compromise has to be struck between excessive detail and insufficient guidance for consistent recording. These notes are reviewed every year both in response to known changes in the provision of care and as a result of queries received, generally from hospital medical records officers. I do not, of course, claim complete accuracy for every figure on each of the 3000 returns received annually. There are problems of misinterpretation of instructions, and recording errors do occur. Each return is subject to reasonable validation centrally, consistent with the accuracy required for the uses of the return.

For hospital statistics in general a single definition of new outpatient is in use and this relates to the first consultation or the commencement of treatment for a particular complaint. In radiotherapy post-treatment monitoring may continue for years following formal discharge to the care of a general practitioner. There may be a tendency to view recommencement of treatment as a continuation of a previous episode and to fail to record this as a new episode. This will affect both consultations and treatments and hence the balance between the two will remain unchanged. However, total workload as measured by attendances will be counted correctly.

F E WHITEHEAD
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Department of Health and Social Security

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Modern obstetrics and the general practitioner

SIR,—I was surprised to find no mention in the article by Professor E Wilkes and others (20 December, p 687) of the need for GP obstetricians to become competent in the care of the newborn infant.

Now that maternal mortality has reached near rock-bottom perinatal mortality and morbidity have become a major concern to obstetricians; and if domiciliary midwifery is to survive, as I hope it will, and 24-48-hour admission to become the mode in maternity units it is the more important that those responsible for mother and baby should be able to undertake the resuscitation of either than to act as a midwife or subconsultant and also that they should be familiar with the medical management of neonatal problems, including feeding, infection, jaundice, and congenital anomalies.

It is to be hoped that in future neonatology will once more become a mandatory part of obstetric training for GPs and consultants. Otherwise, for the baby, birth will be safe only in large units with a 24-hour paediatric service.

J A DAVIS

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

Surgical policy after Cyclone Tracy

SIR,—In his "Letter from South Australia" (16 August, p 419) Professor P Rhodes states: "the surgical policy was to excise wounds and primarily suture the skin, prior to evacuation." All surgeons of the armed Services will know full well the hazards involved in dealing with traumatic wounds by primary suture, and they will not be surprised to hear that there were a number of infective complications in the patients whose wounds were so treated at Darwin. These included some cases of gas gangrene.

As consultant surgeon to the Royal Australian Army Medical Corps it is my duty to point out that it remains our policy to deal with all traumatic wounds by delayed primary closure. This means that after proper excision of the damaged tissue the wound is left open for three or four days, after which it is closed either by direct suture or by the application of split skin grafts. Only by this method are such wounds rendered safe—safe against the hazards of anaerobic infection, safe against the hazards of primitive conditions and lack of supervision during evacuation. I am sure that all military surgeons will agree that no antibiotic cover is adequate to allow the treatment of these wounds by primary suture.

The surgeons of Darwin who worked under such adverse conditions a year ago now admit freely that their policy of primary suture for such wounds should not be taken as a precedent for the future. The only safe way to manage traumatic wounds is by delayed primary closure.

DOUGLAS LESLIE

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Hypothermia associated with nitrazepam administration

SIR,—We wish to report a case of hypothermia which occurred in an elderly patient following the administration of 5 mg of nitrazepam.

A woman aged 86 was admitted to the geriatric unit of this hospital in March 1975 with a one-year history of senile dementia, malnutrition, and iron deficiency anaemia. She was transferred to our long-stay wards on 16 July after successful treatment of her anaemia but an unsuccessful attempt at rehabilitation, being disorientated in time and space, incontinent of urine, and chair/bed-bound. She was then receiving no medication. At 10 pm on 27 July she was given 5 mg of nitrazepam, having been restless and sleepless the night before. At 10 am on the following morning she was drowsy, her pulse was 56/min, her blood pressure was 105/55 mm Hg, and the skin on her abdomen, felt cold. Her rectal temperature was 33·9°C

measured with a low-reading thermometer over a five-min period. The outside temperature was very high and the room temperature was above 27°C. She was covered with two cellular blankets and allowed to rewarm spontaneously. At 6 pm her rectal temperature had returned to 35·6°C and her pulse was 60/min; by 10 pm her temperature was 37·2° C and her pulse 81/min, with an improvement in her level of consciousness.

The nitrazepam was stopped, but on the night of 29 July a night nurse mistakenly gave the patient another 5-mg dose. The following morning at about 10 am she was found to be drowsy again, her pulse was 60/min, and her rectal temperature 35°C. She was treated in the same conservative way and by 2 pm her rectal temperature was 35·6° C. This patient has remained well ever since.

At the time of this occurrence there were another nine patients aged 67-92 (mean 80) years in the long-stay wards who were receiving 5 mg of nitrazepam nightly at 10 pm. The rectal temperature of each of these patients was measured at 6 am and 10 am on eight consecutive days. In no case was a reading below 36·2° C recorded.

The Committee on Safety of Medicines has records of one case of a 58-year-old woman with moderately severe disseminated sclerosis who developed hypothermia at home with a temperature of 29·5°C after being prescribed nitrazepam 5 mg as night sedation. The manufacturers of the drug know of one case in an elderly patient in hospital several years ago who had received a 10-mg dose of nitrazepam and had later developed hypothermia, but no further clinical details are available. It would appear that this patient of ours is the first case of nitrazepam-induced hypothermia to be reported in the medical literature.

Although this complication of nitrazepam therapy may be unusual, we wish to draw the attention of the medical profession to its occurrence, especially now that the "hypothermia season" is about to begin.

M IMPALLOMENI
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Intravenous cytarabine in treatment of herpes zoster in haematological malignancy

SIR,—Disseminated herpes zoster occurring in a patient with leukaemia or lymphoma has a poor prognosis. Cytarabine has been judged to be a potent anti-herpes virus drug in vitro, as it inhibits nucleoside reductase and DNA polymerase,[1] but two controlled in-vivo studies have failed to prove its efficacy against zoster infections.[2 3] Stevens,[2] who found a greater duration of zoster dissemination in the treated group, correlated it with a cytarabine-induced depression of antiviral defences, among which are two major factors, local interferon production and humoral antibody.[4] Furthermore, the drug showed some myelotoxicity.

Cytarabine can be delivered in a non-toxic way by a single rapid intravenous injection, 15 min after which the drug is undetectable in the blood.[1] Juel-Jensen[5] claims that such injections in modest doses—3 mg/kg on the first day and 2 mg/kg on the next three days—are remarkably effective. We decided to deliver these doses by single daily intravenous rapid injection, with no other treatment except local antiseptics, to any patient with leukaemia or lymphoma presenting with disseminated zoster.

In two years 10 patients entered the study, three women and seven men aged 9-72 (mean 37) years. Nine were receiving chemotherapy when zoster appeared, directed against acute lymphoblastic leukaemia (four patients), Hodgkin's disease stage III Bb and acute myeloblastic leukaemia (two patients each), and IgG myeloma (one patient). Chemotherapy was stopped during the four days of cytarabine treatment except in one patient with Hodgkin's disease who was in very poor condition. In the tenth patient chronic lymphoid leukaemia was first diagnosed when disseminated zoster developed. Treatment was started as soon as we saw the patients—that is, on the second day of the eruption in three, the third in four, and the seventh, 11th, and 15th days in one patient each.

Extension of the zoster eruption ceased within two days of starting treatment in nine patients but continued to the sixth day in the acutely ill patient with Hodgkin's disease. Flattening and drying of the vesicles began within four days of starting treatment in all except the same patient with Hodgkin's disease, in whom it was delayed until the ninth day. In no case was there visceral involvement. The complement-fixing antibody level could be determined in six patients; it was no different from that seen in zoster patients not receiving the drug. We were not able to measure local interferon production. Finally, no patient showed evidence of myelotoxicity.

The nine good results obtained in this small series of 10 cases enable us to hope that a controlled, randomised trial of this treatment will definitely prove its efficacy.

S KERNBAUM

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[1] Weinstein, L, and Chang, T W, *New England Journal of Medicine*, 1973, **289**, 725.
[2] Stevens, D, *et al*, *New England Journal of Medicine*, 1973, **289**, 873.
[3] Davis, C, Van Dersal, J, and Coltman, C, *Journal of the American Medical Association*, 1973, **224**, 122.
[4] Stevens, D, and Merigan, T, *Journal of Clinical Investigation*, 1972, **51**, 1170.
[5] Juel-Jensen, B, *British Medical Journal*, 1973, **1**, 406.

Ethics of industrial action

SIR,—The medical profession has been in conflict with the Government for the past year and grave anxiety has been expressed by doctors in national newspapers, the *BMJ*, and other medical periodicals that the consultants' work-to-contract and the junior hospital doctors' recent restriction of service to "emergencies only" are not ethical courses of action.

Few would doubt that events of the past year have damaged the status and integrity of the profession, but no protective action whatever has been taken by the Central Ethical Committee of the BMA. It is very difficult for doctors in conflict with the State to make up their minds whether industrial action or resignation is the right course to pursue without consulting a reasoned statement of the ethical and moral position prepared by men experienced in ethical problems. Why have we not had this advice?

I understand that there is to be a meeting of the Central Ethical Committee in early February, although I urgently requested one early in December 1975. As consultants have had to commit themselves to the ballot in January on a matter fundamental to the whole future of medicine in Britain many will deeply regret that they have voted without the benefit of sound ethical advice.

No army can fight with a guilty conscience. I believe our cause is just. Provided the methods we use to defend it are honourable our profession will emerge unscathed.

P A T WOOD
Chairman,
Fellowship for Freedom in Medicine
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Goodman proposals

SIR,—We are being asked this week our views on the results of the negotiations reached as a result of Lord Goodman's intervention into the present dispute between the Government and the profession.

It is our view that the Goodman proposals are fundamentally unacceptable as they breach the important principles that have been reiterated again and again. If they are accepted by the profession then its independence is once more jeopardised. It is vital for all of us to look at the long-term future of the profession if the present proposals were implemented, and it is our view that, with particular reference to the more junior members of the profession, the Goodman proposals simply delay the achievement of a full-time salaried medical profession. The advice of the Independent Hospital Group also undermines the position of the profession and is not, in our view, at all helpful.

The consultants in this district have indicated their feelings in no uncertain fashion by submitting their undated resignations to the chairman of the local medical committee.

M WALLACE
Chairman,
Consultants Action Committee,
East Berks District
Windsor, Berks

Whole-time consultants group

SIR,—At meetings of the consultant staff in this district during the past year it has been obvious that there are differences of opinion between whole-time and part-time consultants as regards the terms of service which the Hospital Consultants and Specialists Association and the BMA should propose when negotiations are resumed with the DHSS. While it may be sensible not to overemphasise differences within the profession it seems to us pointless to ignore them, and at a time when we are being asked to embark on a form of industrial action in opposition to the consultative document many of us would like to know that our views will not be disregarded by our negotiators later on. We have therefore formed a whole-time consultants group in this district with a view to crystallising our own ideas and to draw up a list of demands which we shall ask the HCSA and BMA to accept as a basis for negotiation with the Department. We hope that similar groups will be set up in other districts and we ask any such groups already formed to get in touch with us.

We should like to emphasise that it is not our intention to set up a third negotiating body but to remain within the HCSA and BMA and to strengthen these organisations by assuring the leadership of the determination of their members and by assuring the ordinary members of the willingness of the leadership to act in accordance with their wishes.

J A AGER
and 26 other signatories

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