hydrocortisone 17-butyrate was not included in this part of Dr Munro's and Miss Wilson's experiments.

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¹ Hendrikse, J C M, and Moolenaar, A J, *Dermatologica*, 1973, 147, 191.

Aeromedical evacuation of the seriously ill

SIR,—The excellent article by Wing Commander H F Oxer (20 September, p 692) has drawn attention to the problems involved in aeromedical flights. Having assessed a patient as suitable for transportation by air the doctor or hospital is often faced with the problem of organising a suitable flight. The St John Ambulance aeromedical service operates a unique voluntary 24-hour international emergency travel service by air ambulance charter or by airline scheduled flights for the escort of patients to or from any part of the world and within the UK. Air ambulance flights are particularly useful for seriously ill patients who may require considerable in-flight care. There is the additional advantage of being able to land at a much greater number of airports, the patient thus having to travel shorter road distances between airport and hospital.

The St John aeromedical service charts the following aircraft: HS125 jets, Cessna Golden Eagles, Navajo Chieftains, Islanders, Aztecs, and Senecas. Each aircraft has advantages and disadvantages compared with the others but with the range of aircraft available a comprehensive service is provided. On every flight a volunteer team of two or three air attendants (selected from a register of doctors, nurses, and lay members, all of whom have undergone additional aeromedical training) take standard medical packs which include oxygenation, automatic ventilation, resuscitation, intubation, and intravenous equipment. At present the service covers the whole of Western Europe and North and West Africa.

When escorting cases on airline scheduled services the St John service makes the necessary booking arrangements for stretcher fittings or sitting patients and for dealing with customs and immigration, the Foreign Office, embassies, and consuls. All St John air attendants carry the necessary international health documents. Patients are escorted to or from any part of the world and the air attendant will, if necessary, accompany the patient from the hospital bed in Britain to the hospital bed in the destination country or vice versa. I should be pleased to supply further information on request.

D H CLARK

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Rhesus sensitisation associated with IUD in pregnancy

SIR,—The title and conclusion of the above article by Dr J S McCracken (20 September, p 684) suggest that the intrauterine device (IUD) was the agent responsible for causing sensitisation and production of antibody in the Rh-negative mother. However, there are other more likely explanations for the sensitisation. She could have been sensitised

by the 1967 full-term pregnancy and not stimulated by the subsequent abortions, or she could have been sensitised by one of the abortions, even the second one, which could represent a failure of anti-D γ -globulin. Again, women have been known to become sensitised and produce antibody in a first pregnancy and thus her last pregnancy could have sensitised her and produced the antibody before term irrespective of the IUD. Allo-sensitisation and production of antibody in the same pregnancy are rare, however, and this would argue against the IUD as a likely cause.

In view of the other possibilities and the rarity of antibody appearing in the first sensitising pregnancy, we would consider the evidence against the IUD to be extremely weak.

MALCOLM D BLACK
JEAN Y MACDOUGALL

Law Hospital,
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Patients or criminals?

SIR,—If, as your leading article (11 October, p 70) states "a single institution cannot . . . set out to be a therapeutic community and at the same time have the security of a prison," then what kind of community is a hospital such as Broadmoor supposed to be?

For obvious reasons much attention is rightly given to the needs of those patients who are likely to leave Broadmoor in the near future. No one would dispute the fact that such patients need psychotherapy, and to be well enough to leave is one of the goals. But what of the needs of those who are unlikely to leave?

It is a bleak outlook if a single institution, such as this hospital, cannot be both a therapeutic community and at the same time have the security of a prison. Patients who live in a hospital "without limit of time" live in a secure setting, though, in the interests of humanity, they also have a right to live in a therapeutic community. To this end the therapeutic energy of all professional disciplines converges.

If the concept of a "therapeutic community" is sacrificed on the altar of "security" (or vice versa), then an essential quality of the life within Broadmoor Hospital would be lost. Patients who may never leave and, vicariously, the wider community would be the losers.

MURRAY COX

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Crowthorne, Berks

Epidemiology of poliomyelitis in Scotland

SIR,—We wish to correct from 11 to 10 the number of poliomyelitis cases in Scotland during 1970-4 reported in our letter (2 August, p 304), because of a late corrected diagnosis of meningioma in one of the serologically diagnosed cases. This illustrates the uncertainty of virological diagnosis when patients are investigated too late for successful virus isolation or detection of unequivocal rising antibody titres. The high titres of antibody in this patient may have been due to known close contact with children who had recently received oral polio vaccine.

Despite the difficulty of interpretation, the finding of unchanging but unusually high antibody titres should not be ignored since

in some cases it provides the only virological evidence available, suggesting "recent infection," the significance of which must be interpreted in the light of the associated clinical and epidemiological data. The practical lesson remains—the need for clinical awareness of the possibility of poliomyelitis and for the prompt submission of appropriate stool and blood specimens to facilitate early virological confirmation.

We are grateful to Dr W J Patterson, Community Medicine Specialist, Ayrshire and Arran Health Board, for notifying us of the altered diagnosis and providing other information about this case.

N R GRIST
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Enteric-coated aspirin overdose and gastric perforation

SIR,—The short report of enteric-coated aspirin overdose and gastric perforation (11 October, p 85) will no doubt be added to the apocrypha of aspirin toxicity, but certain aspects of the case and case report make it very unlikely that this was "a case of fatal gastric perforation due to Safapryn." The following doubts immediately spring to mind.

The patient was being treated for arthritis with Safapryn six tablets, phenylbutazone 300 mg, ampicillin 1 g, and ethylestrenol 2 mg daily and nitrazepam 5 mg nightly. Why do the authors immediately attribute the gastric erosions and perforations to enteric-coated aspirin when phenylbutazone is a perfectly respectable gastric irritant, and since when have ampicillin and ethylestrenol been used for treatment of arthritis, even of arthritis unspecified? More important, what role did a paracetamol overdose of 16.75 g play in this 83-year-old patient's sudden deterioration and death? As the residues of 67 Safapryn tablets were found in the stomach it implies that she ingested 67×250 mg of paracetamol. The blood paracetamol level is well within the toxic range, although to assess critically this level one would need to know the temporal relation between her overdose—presumably unknown—and death and also her renal and hepatic function. Death may occur with paracetamol overdoses of 5-20 g, and liver damage may be expected after the ingestion of more than 15 g.¹ No comment is made on the histological appearances of liver and kidneys.

In conclusion, the gastric ulcers and perforations found may well have been terminal events following a fatal paracetamol overdose, and the enteric-coated aspirin residues little more than innocent bystanders.

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¹ Proudfoot, A T, and Wright, N, *British Medical Journal*, 1970, 3, 557.

Low-dose heparin and prevention of venous thromboembolic disease

SIR,—Your leading article (23 August, p 447) on low-dose heparin and the prevention of venous thromboembolic disease covers the subject well but calls for some comment when it moves on to consider other prophylaxis.

lactic measures. The article gives only brief mention of the Cardiff trial using dextran 70 (19 April, p 109), which was specifically designed (in relation to homogeneous groups, double-blind assessment, and accurate documentation) to avoid some of the problems of the multi-centre heparin trial raised by your leading article. Since it was shown that dextran gave an equal degree of protection against serious thromboembolic complications, logistic considerations are important. Hence where shortage of nursing staff makes the thrice-daily heparin regimen difficult to maintain dextran is a logical alternative, since it makes no extra demands on the Health Service.

The statement, "perioperative bleeding in the patients given dextran was not a problem," is not a true summary of our findings, which in fact were again very similar to experience with subcutaneous heparin. That is, while no significant increase in overall bleeding may be seen in a large series clinical experience strongly suggests that occasional patients bleed excessively with both regimens. Failure to recognise this is likely to lead to either method being abandoned prematurely, and clearly there is still need for the ideal prophylactic measure to be developed. However, the recommended support by the Medical Research Council for a clinical trial comparing heparin with dextran would most likely be unprofitable. When trials of 800 and 4000 patients give such similar results for the two methods an astronomical number of patients would need to be studied to show any small difference which may exist.

L E HUGHES
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Calf haematoma: a new sign

SIR,—Physical signs are often as valuable as invasive investigations. Two patients showed the interesting crescent sign reported by Dr D A Tibbutt and Mr A J Gunning (26 October 1974, p 204). Both cases had a calf haematoma and also a systemic disorder.

A lorry-driver, aged 28, developed swelling and pain in his right knee five days after having a sore throat. His right ankle became swollen a week later and a crescentic bruise with sparse purpura appeared below the lateral malleolus. The bruise and oedema disappeared 10 days later, but he then had anaphylactoid purpura on his legs and buttocks. His blood pressure, blood count, urine, plasma proteins, and chest x-ray picture were normal. His ECG did not show the changes described in more acute cases of the condition.¹ In this case the calf ecchymosis was aggravated, if not caused, by the periangitis of Schönlein's purpura.

A man, aged 53, noticed some small red spots on both ankles. They persisted for four weeks. Two months later he still had one red spot on his right shin, with right-sided ankle oedema and crescentic bruising below the lateral malleolus. He had stopped smoking 30 years previously after recovering from malaria, hepatitis, and infectious mononucleosis. He had no varicose veins. His haemoglobin, ESR, autoimmune tests, and chest x-ray picture were normal. His white blood count was $4500 \times 10^6/l$ with 12% of eosinophils. The bruise and swelling resolved in two weeks, and the eosinophil count was then 1% only. The skin lesion healed in three weeks. Tissue for biopsy was not taken. He developed a large left-sided pleural effusion nine months later, however, and biopsy of a lymph node showed lymphocyte-depleted Hodgkin's disease. The erythema nodosum-like rash and later calf

haematoma were probably early manifestations of the lymphoma.

The crescent sign adequately differentiates between calf haematoma and deep vein thrombosis, but an underlying medical condition needs also to be excluded. Earlier treatment of case 2 would have been possible if case 1 had been seen first.

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¹ MacGregor, G A, and Vallance-Owen, J, *Lancet*, 1957, 2, 572.

Use of bacteriological investigations by general practitioners

SIR,—Dr D J Rodger's letter (4 October, p 42) questions the yield from general practitioner bacteriological investigations. The results from our pilot study, undertaken earlier this year, on specimens of vaginal discharge from two practices may prove of interest.

Varying types of swabs and slides from 20 women with vaginal discharge were taken by two of us in practice and examined at the Middlesbrough General Hospital. Bacteriological examination of the material from dry swabs showed one patient with trichomonas, three with monilia, and two with pathogenic organisms from the 20 specimens submitted. Swabs from the same 20 patients sent in Stuart's transport media, however, showed three patients with trichomonas, eight with monilia, five showing pathogenic organisms, and the remaining four with normal flora. Reports on slides from these patients sent to the cervical cytology laboratory yielded three trichomonas and six monilia infections.

We consider these results prove the need to use transport media for vaginal discharge specimens submitted from practice.

P MORTIMER
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D S STRACHAN

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Laparoscopy explosion hazards with nitrous oxide

SIR,—We were intrigued by the letter from Professor J S Robinson and others (27 September, p 764) concerning explosion hazards during laparoscopy with nitrous oxide (N_2O). Several points, however, need to be seen in perspective. Diathermy is used in only a small proportion of laparoscopies. For example, in this hospital sterilisation by tubal diathermy has accounted for less than 30% of over 3000 laparoscopies performed in the last three years.

Our reasons for preferring N_2O to carbon dioxide (CO_2) have already been published.¹ CO_2 insufflation during laparoscopy is not as innocuous as Professor Robinson and his colleagues imply—indeed cardiac arrest has occurred. We know of no entirely satisfactory way of countering the "pharmacological effects" of CO_2 in this situation. The use of a gas of high water solubility for laparoscopy may be more relevant than is generally supposed. During hysteroscopy we found a significant difference between N_2O and CO_2 with respect to possible pulmonary em-

bolisation.² In this situation the difference in water solubility of N_2O and CO_2 may be the crucial factor. Even during laparoscopy, however, intravascular administration of the insufflating gas is not unknown. The use of gases of low water solubility, therefore, will almost certainly lead to tragedy.

The Birmingham findings therefore pose a dilemma. N_2O is safer than CO_2 for laparoscopy with respect to detrimental cardiovascular changes. The use of diathermy may alter the balance, with regard to an explosion, in favour of CO_2 . It seems, therefore, most important that gas measurements should be carried out during laparoscopy to establish whether explosive mixtures of hydrogen and methane are indeed present in the abdominal cavity. Perhaps Professor Robinson and his colleagues are in a position to provide this information so that a reasoned judgment may be made of the risks.

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¹ Corall, I M, et al, *British Journal of Anaesthesia*, 1974, 46, 925.
² Hulf, J A, et al, *British Medical Journal*, 1975, 1, 511.

Management of acute asthma

SIR,—Your leading article (11 October, p 65) is remiss in not mentioning the role of subcutaneous adrenaline in the management of acute asthma. There can be little doubt of the ease with which subcutaneous adrenaline can be given to young persons compared with intravenous drip transfusion and repeated intravenous doses of hydrocortisone or slow intravenous injection of aminophylline. Because of ease in administration and lack of frequent and severe side effects, subcutaneous adrenaline should be the initial treatment of choice in young patients with acute asthma.

F HARRIS

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NHS superannuation: lump sum

SIR,—From 1972 a married man receives 3/80ths towards his lump sum for each year of service but prior to 1972 1/80th. The employee pays 6% per annum, which is the same contribution as before 1972. Could someone please tell me why we are given the "privilege" of buying 2/80ths for each year before 1972 instead of receiving what is already our due?

F J FLINT

Sheffield

** The Secretary writes: "Despite the strongest representations from the BMA the Secretary of State for Social Security has refused to pay the full unreduced lump sum retiring allowance for years of service before 25 March 1972. The "privilege" of buying the 2/80ths was offered instead. It remains the view of the BMA that the full lump sum should have been paid for all service without having to "buy" it.—ED, *BMJ*.