volving hospital posts with little or no proper teaching sessions and which, one suspects, are looked upon by management committees as an easy method of filling certain less popular resident posts. This sort of training seems to fall into the same pitfall as undergraduate teaching in the past, in that it is too hospital orientated. Better results might be obtained from giving a much more prominent place to general practice in the medical school curriculum in conjunction with more responsible registrar grades in general practice after the usual house appointments.

Also if family doctors are to participate in hospital work there must be a reduction in the average practice list. This one single factor more than any other could do more to improve standards and attract doctors to general practice. It will need, however, more Government money for medical schools and for general practice.—I am, etc.,

JOHN NEASHAM

Ilkley, Yorks

Accident Flying Squad

SIR,—Dr. Roger Snook is to be congratulated on his papers on the improvement in the design of ambulances (2 September, pp. 569 and 574), a subject that has virtually been neglected by the local authorities. More especially his work on the accident flying squad is one that should be seriously considered by all those intimately associated with the accident services. The work of people such as Collins of Derby, Pym in the Thames valley area, Easton of Yorkshire, and many others has shown conclusively that the old concept that the life of a person unable to survive the journey to hospital was not salvagable anyway is invalid. I have no doubt at all that in the type of accidents dealt with by Snook and others the first ten minutes can not only preserve a life but preserve its quality.

It is pertinent to ask whether such admirable schemes should be limited to areas where there are enough enthusiasts and, very often, enough voluntary support and interest, or whether the time is not now ripe for the organization of such a service to become a national concern. This should surely be considered in the light of the reorganization of local authorities and the changes in the Health Service envisaged in 1974. Those of us interested in improving the accident service nationally should now be thinking of an overall pattern of expert mobile attention immediately available to go to the site of accidents and carry out the initial life-preserving procedures. In many areas such a service could well be based on a major accident department, but in the more rural areas remote from a major accident centre a system based on general-practitioner participation (which has in many areas already proved its worth) should be an accepted part of the scheme and encouraged. Such a national policy, in particular in association with the current plans to improve the skill and knowledge of the ambulance personnel in their initial assessment of cases, could be combined in the creation of an overall national scheme.—I am, etc.,

M. S. CHRISTIAN

Slough, Bucks

SIR,—It would seem that neither Mr. T. J. Orchard nor Dr. J. F. Redden (30 September, p. 831) dispute the need for early medical care but rather the method of organization of the Bath accident flying squad. At present ambulance men cannot carry out intubation, give infusions or drugs, or perform surgical procedures. I strongly favour upgrading ambulance training and responsibility, and one of the best ways of achieving this is for doctors to engage in the practical work of the ambulance service. One of the great benefits of medical attendance at the scene of accidents is the use of the experience so gained in training emergency service personnel. In Bath we have winter lecture-demonstration sessions and a programme of "in-hospital" training, including practical sessions on intubation and infusion. However, teaching the technique is one matter and assessing the clinical situation over a period of time another. Dr. Redden should remember that many general practitioners use intravenous techniques and may even have diplomas or experience in anaesthesia as well as experience from staffing local casualty departments, and any general practitioner wishing to develop an interest in this field is surely just as capable of learning medical techniques as anyone else.

Several factors enter into the method of transport used. The first is a matter of convenience. Having equipment and communications in the car reduces mobilization time and allows freedom of movement when on call. Travelling in a police car makes direct communications on the journey more difficult as ambulance and police radios work on incompatible systems. In this area the average distance to the incident is 5 miles (8 km) and the maximum mobilization time is 1½ min. The average mobilization time for the Derby scheme is quoted as 4 min by Dr. Keith Little (30 September, p. 807). If I drive at 45 m.p.h. for 5 miles my journey time will be 7½ minutes, and 1½ minutes for mobilization makes a total of 9 minutes for arrival at the scene. This compares with a journey time of 5 minutes at 60 m.p.h. over 5 miles (a reasonable speed for a police car) and 4 minutes (average) for mobilization, making a total of 9 minutes for arrival at the scene. In rural areas high speeds can be maintained safely by the ordinary motorist without arriving at the scene in a state of adrenal overactivity.

Contrary to Mr. Orchard's conclusions, the costing of the scheme was for all 132 accidents attended. This cost is then deducted from the Road Research Laboratory figures, for which I am not responsible. Very few of the 132 calls could be regarded as wasted. When considering the effect of early medical treatment it must be remembered that patients can and do die from simple, reversible causes as well as multiple trauma. Two of the cases (2 and 6) can be paired with fatal cases from similar pathology. It is not enough to provide fast transport to hospital in place of early medical treatment. This will not help the trapped nor the critically injured. The equipment carried is basically similar to that carried by the Derby team except for the latter's extra anaesthetic and more elaborate surgical equipment—neither of which has been needed and both of which could be easily obtained from the accident department should the occasion arise. (Chest aspiration equipment, though

not detailed, is included in the intubation set and includes chest trochairs and Heimlich valves.) I think it would be wrong to conclude that any one method of organization is best. Each scheme should be an adaptation to the needs of the particular area.

In conclusion I can only say, somewhat defensively, that the system described actually works in practice, has not interfered with normal work, and has benefited the ambulance service training already. Perhaps the greatest difficulty lies in condensing a 220-page university report containing 47 colour photographs and numerous charts and diagrams into a five-page article for publication. I invite anyone still unconvinced to inspect the scheme in its continuing form before suggesting it is unnecessary or inadequate.—I am, etc.,

R. SNOOK

Bath

Admission to Geriatric Units

SIR,—I feel that I must protest about the difficulty of placing acutely-ill old people in hospitals in this area. It is almost impossible to get emergency admissions into the local geriatric unit and they must therefore go to acute general medical beds. These are always in short supply and resident medical officers are not surprisingly reluctant to fill them with potentially chronic geriatric cases. I am not critical of any of my colleagues but of the hospital admission system. If a patient merits urgent hospital treatment it should be available, preferably in these cases in a geriatric unit. Unfortunately, with the closure of more geriatric units and private nursing homes and the increasing number of old people in the population this is a problem that is going to get very much worse in the near future.—I am, etc.,

P. KALLIS

Manchester

Rhesus Isoimmunization and Twins

SIR,—Further to our letter (2 September, p. 587) we would like to review another case of multiple pregnancy in association with Rhesus Isoimmunization.

A gravida-5, aged 27 years, was found at about 22 weeks' gestation to have a twin pregnancy. She was group O rhesus negative, probable genotype cde/cde, and her husband was group O rhesus positive, probable genotype CDe/CDe. In 1967 she had a twin pregnancy, twin one being stillborn owing to intrauterine asphyxia. In 1968 she came for her first antenatal visit at 34 weeks' gestation. She was found to have anti-C 1/64 by enzyme and 1/64 by I.A.G.T., anti-D 1/128 by enzyme and 1/512 by I.A.G.T. Intrauterine death had occurred and she was subsequently delivered of a still-born fetus with hydrops. In 1969 she had a 24-week and in 1971 a 28-week abortion of a hydropic fetus, and the antibody titres were: anti-C 1/32 by enzyme and 1/16 by I.A.G.T., anti-D 1/64 by enzyme and 1/64 by I.A.G.T.

In the present pregnancy ultrasound showed the placentas to be in the upper segment posteriorly and the fetuses lying side by side. Antibody titre was weak saline anti-C+D and anti-C 1/128 and anti-D 1/256 by I.A.G.T. Amniocentesis of both sacs was possible and the results extrapolated back to 23 weeks (Table). Plasmapheresis was begun and it was intended to attempt intrauterine transfusion of both fetuses. Unfortunately, neither fetal heart could be heard after three days. Later the patient

	Optical Density Difference at 450 mμ	Bilirubin Content (mg/100ml)			Zone (Liley)
		Total	Direct	Indirect	
Left twin	0.455	0.54	0.12	0.42	Lower III
Right twin	0.310	0.28	0.05	0.23	Upper II

aborted hydropic twins and was subsequently sterilized.

In this case, unlike the one we reported in our first letter, it was hoped that accurate assessment and adequate treatment would have been possible because of the position of the sacs, side by side, and the position of the placentas (posteriorly).—We are, etc.,

EVELYN M. McNICOL
ANDREW AULD

Robroyston Hospital,
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Detecting Sickle Haemoglobin

SIR,—Dr. James Bowman's objection to solubility tests—automated or not—for HbS mass screening purposes (9 September, p. 644) is most welcome. The defects of such tests, results of which are used for genetic counselling, cannot be exposed too vigorously if only because the whole screening/counselling procedure as it is now avidly practised has usually led, in Dr. Bowman's own words, to "socio-economic trauma through bogus education, erroneous diagnosis, and inept counselling."

Much of the socio-economic trauma is directly due to failure to draw a distinction between the sickle-cell trait and sickle-cell disease in spite of the fact that world experts like the Colonial Medical Research Committee Working Party on Sickle-cell Trait and Sickle-cell Anaemia,¹ and the World Health Organization² have clearly separated the trait and the disease.

From America, too, Dr. Beutler and his colleagues³ have commented recently on a Massachusetts law which states in part that "Every child, which the commissioner of public health, by rule or regulation, may determine is susceptible to the disease known as sickle-cell trait or sickle-cell anaemia, shall be required to have a blood test. . . ." They state some of the hazards known to them to have occurred as a result of sickle screening as (1) loss of employment because of the detection of sickle-cell trait; (2) discontinuation of medication by a middle-aged patient with cardiac disease because cardiac symptoms were falsely attributed to sickle-cell trait; (3) perforation of the appendix of a child because his abdominal pain was falsely attributed to sickle-cell disease when he had, in fact, sickle-cell trait; and (4) long delay in the adoption of a child because it was discovered to have sickle-cell trait.

In Ghana, where one in three of the population is either sickle-cell trait or haemoglobin-C trait, solubility tests have no place in surveys aimed at genetic counselling because the non-sickler is by no means necessarily a normal homozygote (AA). Moreover, as Dr. Bowman rightly pointed out, these tests are incapable of telling the sickle-cell trait (AS) from sickle-cell haemoglobin-C disease. The gene frequencies ($n_s=0.1$, $n_c=0.5$, $n_A=0.85$) in Ghana, for instance, are such that $SS=SC=1\%$ —that is, exactly the same number of sickle-cell anaemia as sickle-cell haemoglobin-C patients are expected at

birth. If a screening test cannot tell these SC patients (1% of all births) from AS individuals it is not favoured here for genetic counselling.

Finally, one other important objection to unsolicited screening is the unexpected traumatic effect on the equanimity of the family. In these days of increasing infidelity in married life how would one explain to the non-sickling parents the finding that their school child was sickling positive? Was it, in fact, a mutation?—I am, etc.,

F. I. D. KONOTY-AHULU

University of Ghana Medical School,
Accra, Ghana

- 1 Woodruff, A. W., *et al.*, *British Medical Journal*, 1957, 1, 1235.
- 2 W.H.O. Scientific Group Report. *Haemoglobinopathies and Allied Disorders*. Technical Report Series, No. 338, pp. 40, Geneva, W.H.O., 1966.
- 3 Beutler, E., *et al.*, *New England Journal of Medicine*, 1971, 285, 1485.

Jaundice after Anaesthesia

SIR,—Last year I reported¹ that we were investigating the causes of jaundice occurring within a month or so after anaesthesia, regardless of the anaesthetic agents used. We are particularly concerned to obtain evidence about hypersensitivity responses and variations in metabolism of anaesthetic agents in jaundiced patients. The first part of the investigation has been completed, but recent developments in the field of immunology have encouraged us to continue with a second phase of the study.

Blood and urine samples are needed for the investigation, and one of the team of Drs. Walton, Strunin, and myself is prepared to travel anywhere in Britain and Eire to prepare, store, and transport the necessary specimens, subject to the prior approval of the clinician responsible for the patient. I would be most grateful, therefore, to any clinician for telephone or postal notice of the occurrence of jaundice, under the circumstances outlined above, in any patient under his care.—I am, etc.,

B. R. SIMPSON

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The London Hospital,
London E.1

- 1 Simpson, B. R., *British Medical Journal*, 1971, 3, 189.

Late Onset Psychosis in Children

SIR,—In his article on late onset psychosis in children (30 September, p. 816), Dr. J. Kolvin writes that "analytical psychotherapy has so far made no contribution." However, he does not mention the great advancement in our understanding of the psychotic process as a result of the work of Melanie Klein.¹ This work is not just of theoretical interest but has important clinical applications. There exists a substantial group of adolescents suffering from schizoid personality disorders. They lead an isolated existence, have profound difficulties in forming relationships,

and at times exhibiting frankly psychotic symptoms, but it is uncommon for them to progress to schizophrenia and phenothiazines are not helpful. However, using Kleinian object-relation theory it becomes possible to understand their psychopathology and they can then be helped by outpatient psychotherapy.

With supervision I have treated 10 such patients in the last year in the Maudsley psychotherapy department, and have seen a resulting improvement in each case.—I am, etc.,

R. LUCAS

Maudsley Hospital,
London S.E.5

- 1 Segal, H., *An Introduction to the Work of Melanie Klein*. London, Heinemann, 1964.

Mechanics of Elastic Bandaging

SIR,—I was most interested in Mr. H. D. Johnson's comments on bandaging (23 September, p. 767). This is yet another light on an old problem. The physiological rationale of the "perfect" bandage has been investigated in detail¹⁻³ and it would seem from independent methods that a hydrostatic or G-suit type of stocking is best. Using hydrostatic stockings the bandage pressure at any point in the limb equals the intravascular hydrostatic pressure, independent of posture or movement. This gives maximum support and least disturbance to blood flow.

Unfortunately, appliance manufacturers have ignored the difficult technical challenge which this presents and we are left with the rather inadequate rule-of-thumb alternatives described by Mr. Johnson.—I am, etc.,

A. D. B. CHANT

Surgical Division,
University of Southampton

- 1 Chant, A. D. B., *British Journal of Surgery*, 1972, 59, 552.
- 2 Chant, A. D. B., *British Medical Journal*, 1970, 2, 235.
- 3 Wood, J. E., *Scientific American*, 1968, 218, 86.

M.A.O.I. Treatment Cards

SIR,—There are at least two cards which may be given to patients taking monoamine oxidase inhibiting drugs. There is the one circulated by the Department of Health and produced with the approval of the B.M.A. and the Pharmaceutical Society, and the one (which I use myself) issued by the Association British Pharmaceutical Industries (A.B.P.I.).

The former one, which is used by many general practitioners, does not mention alcohol or broad beans as being contraindicated. I am aware that it is the broad beans plus pods, cooked while they are young and tender, that contain the offending tyramine which has the pressor side effect on patients who are taking M.A.O.I. drugs, but the complete absence of the mention of alcohol as being contraindicated has astonished me and several of my colleagues both in psychiatry and general practice. The A.B.P.I. card is more comprehensive and contains the substances which most of us know are contraindicated. I presume that an up-to-date card will be prepared by the industry. In recent years other items of diet such as certain types of tinned fish, stewed bananas, and various types of pickled fruit and vegetables have been incriminated as causing a reaction. These reactions may be minimal and occur only in certain indi-