assess the ability of ambulance staff to achieve successful outcomes using existing training.

All the patients included in the study were emergency cases—that is, either 999 calls or cases classed as an emergency by a general practitioner—and all had “hands on” assessment by ambulance and medical staff. To suggest that this prospectively performed study was a “table top theoretical exercise” is therefore far from the truth.

All of the patients admitted to a resuscitation area were assessed in detail, not merely the 396 who died. The patients in resuscitation areas constituted 4.6% of all the emergency cases studied in Edinburgh and 4.3% of the Glasgow cases. These figures are similar to those reported for accident and emergency departments elsewhere in Britain.

Though “abundant evidence in favour of extended ambulance skills” exists in the United States, the situation in Britain is very different. Drs Baskett and Sleet claim that “hard data” are available from centres that have had years of experience with ambulancemen trained to paramedic level. We do not know of studies of this kind that compare basic and advanced ambulance skills, and we note that Drs Baskett and Sleet do not give references for such results.

As we indicated in our paper, the benefits of advanced training will be seen mainly in patients requiring cardiopulmonary resuscitation. We do not dispute the role of early defibrillation for ventricular fibrillation, and we agree with Mr William Rutherford (28 February, p 578) that there is a strong case for concentrating resources in this area. In the absence of cardiopulmonary resuscitation by a bystander, however, the limiting factor is the time the ambulance service takes to respond. We refute the comment that “the journey times . . . leave something to be desired.” The time referred to as “journey time” in fact represents the time from the initial 999 call to arrival in hospital and not the response time of the ambulance service.

We in no way denigrated the fact that “only 54” lives might have been saved; this figure represented the maximum possible benefit, and to suggest that over 2500 lives could be saved in Britain every year is an inappropriate interpretation of our results. As the authors indicate, we took no account of the effect of extended training on morbidity. We would be delighted to hear of a scientific and reproducible assessment for morbidity in patients before they reach hospital.

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Phototherapy and dithranol treatment of psoriasis

SIR,—Dr P M Farr and coworkers (24 January, p 205) attempted to define whether ultraviolet treatment hastened the improvement in psoriasis treated by dithranol. They studied the response to three different types of apparatus: a medium pressure mercury arc lamp, an array of six 60 cm fluorescent sunlamps, and an array of six 60 cm ultraviolet fluorescent sunlamps.

I agree that both ultraviolet radiation and dithranol are effective treatments for plaque psoriasis.^{1,2} Dr Farr and colleagues’ tables II and III, however, contain clinical details that may have led to a premature conclusion about the efficacy of the different types of ultraviolet equipment studied.

Table II shows that the lesions on the non-irradiated, dithranol treated (control) arms in the patients treated with the mercury arc lamp took only 7.5 days to reach half of their initial thickness. This compared with nine days for the two other ultraviolet treatment groups.

Similarly, table III showed that the mean clearance time for the lesions on the non-irradiated arms in patients treated with the mercury arc lamp was 13.5 days, compared with 17 and 18 days, respectively, for the control arms of the patients treated with the fluorescent sun lamp and Helarium. The mean time to clearance in the irradiated arms was 13.5 days for the mercury arc lamp, 14 days for the fluorescent sunlamp tubed lamps, and 12.5 days for the Helarium lamps.

One explanation may be that the rate of clearance of psoriasis achieved with dithranol in the patients treated with the mercury arc lamp could not be improved by additional ultraviolet, whereas the psoriasis in the patients treated with the Helarium lamps and fluorescent sunlamps was clearing at a slower rate and thus the ultraviolet seemed to produce better results.

Though I accept Dr Farr and coworkers’ suggestions that improved lamps are indeed desirable for psoriasis phototherapy, I suggest that further research is needed, with randomisation of patients to the different treatment categories to permit more accurate evaluation of the potential benefits of different ultraviolet lamps.

In addition, a more suitable study would measure the effects of treatment with ultraviolet radiation and emollients alone using the different ultraviolet lamps described.¹ Dr Farr and colleagues have shown clearly the efficacy of dithranol alone in the treatment of psoriasis.

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1 Lowe NJ, Wortzman M, Breeding J, *et al*. Coal tar phototherapy for psoriasis re-evaluated: erythemogenic versus suberythemogenic ultraviolet with a tar extract in oil and crude coal tar. *J Am Acad Dermatol* 1983;8:781-9.

2 Lowe NJ, Ashton RE, Koudsi H, Verschoore M, Schaeffer H. Anthralin for psoriasis: short contact anthralin therapy compared with topical steroid and conventional anthralin. *J Am Acad Dermatol* 1984;10:69-72.

AIDS counselling and informed consent

SIR,—Dr Alan B Shrank (14 February, p 445) objects to counselling patients before he requests a test for antibodies to the acquired immune deficiency syndrome (AIDS) and does not see this as part of good history taking. If he had seriously been considering a diagnosis of AIDS surely he should be thankful that the pathologist may have protected him, and perhaps his employing authority, from the consequences of taking the specimen without fully informed consent. If the patient had subsequently been found to be positive for the human immunodeficiency virus (HIV) and his wife seropositive and pregnant after the honeymoon would Dr Shrank have been judged negligent in having failed to advise against pregnancy until after the serological results for the husband were known, especially as pregnancy may precipitate clinical AIDS in the female carrier of the virus as well as probably infecting the fetus?

Unlike Dr Shrank I have coped with a clinically well bisexual patient who, unfortunately, when tested elsewhere was found to be positive for antibodies to HIV but had no knowledge that the test was being performed until he was presented with the result. Fortunately, this patient did not commit suicide, unlike some HIV positive

patients, and he remained clinically well and had not infected his wife or child. This episode has reinforced my conviction that counselling before as well as after the test is in the patient’s interests, and only very exceptionally can it legitimately be omitted. The council of the BMA endorses this view,¹ as does the Department of Health and Social Security, whose representative has added (in a personal communication) an important note: “Although it may have been common practice in the past to test patients for all sorts of diseases without specific consent, the advent of AIDS is causing the profession to question the wisdom (and legality) of such practices.”

May we also set aside the spurious argument that compares patients positive for antibodies to HIV to patients with cancer because AIDS is, like some forms of cancer, invariably fatal; how often are patients with cancer put at risk of losing their homes and jobs as a result of innuendo? Fortunately, some doctors acknowledge that they have sexual “hang ups” that preclude them from discussing frankly and with confidence and sympathetic understanding sexual questions with the patient that need cause neither embarrassment nor offence to either party. Hopefully, more doctors will follow their peers and attend training in AIDS counselling; they will then be in a better position to help their patients.

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1 BMA. *Third statement on AIDS*. London: BMA. 1987.

Tennis elbow: conservative, surgical, and manipulative treatment

SIR,—There is a very simple cure for many patients with tennis elbow, which is little known and which is only briefly hinted at by Mr Thomas G Wadsworth (7 March, p 621).

Some years ago, when I played a great deal of tennis, I developed the typical lateral elbow in my right arm. This steadily worsened and was relieved for a day or two only after cortisone injections by an orthopaedic colleague. Rest gave no more than temporary relief, and I began to think that I should stop playing tennis. I mentioned this intention when operating at a cottage hospital one day. A general practitioner in the theatre, Dr M R Sheridan, bluntly responded: “Rubbish! Go to Briggs’s in Wood Green high street and get yourself a racquet with a bigger handle.” I took the doctor’s advice and went to Briggs’s shop as soon as I finished operating and bought a new racquet with a handle 3.75 cm larger in circumference than my existing one.

A day or two later I played three sets of tennis with Dr Sheridan. On taking my first service, I said: “I shall never be able to serve with this large handle.” My medical advisor retorted: “Shut up! You’ll be alright by the end of the first set.” He was absolutely right. Within half an hour I had adjusted my grip and never had any recurrence of trouble in the next 30 years. Lateral elbow pain is also often caused by gripping too small handles on shears and other garden tools. This can be prevented by building up the handles to the requisite thickness, and I have helped many sufferers to cure themselves in this way.

The mechanism of relief is simply explained if the position of the wrist when the hand is gripping objects of different thicknesses is studied. The smaller the circumference of the object held, the less the degree of dorsiflexion of the wrist. As progressively thicker objects are held dorsiflexion increases, reducing the tension on the forearm extensor muscle origins. It seems that with a

tight hand grip the wrist is straighter, increasing the tension at the common extensor origin and in the extensor radialis brevis. I have no doubt that the other factors referred to by Mr Wadsworth can be contributory in some cases, but my experience suggests that a little attention to the size of racket and other handles can work wonders in the relief and permanent cure of this tiresome condition in tennis players, gardeners, and other sufferers.

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Portraits from memory: Dr E C Smith

SIR,—I thank Sir James Howie (21 February, p 501) for his portrait of the late Dr E C Smith of the medical research institute at Yaba, Lagos.

As a junior officer in the Royal Army Medical Corps, newly arrived in Nigeria, I had the privilege of meeting Dr Smith and found him to be a mine of knowledge and a tower of strength in 1942, when we were confronted by so many difficult clinical and microbiological problems. His *Introduction to Pathology and Bacteriology for Medical Students in the Tropics*, published in 1939, became an immediate success in west Africa.

His kindness equalled his experience, and his lectures were full of clarity and good sense. As Sir James pointed out, the dangers of yellow fever and malaria were very serious in 1941-2, when the Lagos airfield at Apapa became one of the nodal links of the little known but vital transcontinental ferry service of the Royal Air Force, essential in providing a steady supply of front line aircraft for north Africa and the Middle East after the Mediterranean sea route was blocked by enemy forces.

Fighter planes (mainly Hurricanes) were shipped in crates from Britain to west Africa. Takoradi in Ghana and the Lagos airfield at Apapa in Nigeria served as main bases for the assembly and test flights of those single engine, one man planes. From Lagos these fighter planes were flown by civilian pilots of the Air Transport Auxiliary Group (Canadians, French, Polish, Yugoslavs, men well over the age of 40, and several women) across Africa in short hops, with refuelling every 400-500 miles at primitive landing strips. They flew in air caravans, consisting of six to eight planes following the leader, a light bomber with navigational facilities. The air route was across Nigeria, French Equatorial Africa, and Sudan, and then up the Nile valley to Luxor or Cairo. Several thousand planes were delivered thus in 1943-4, with very few losses.

As early as 1941 it became evident that the Lagos airbase was situated near a highly malarious coastal mangrove swamp. Up to 500 blood fed *Anopheles gambiae* were found daily in airmen's tents, and the weekly incidence of malaria was about 100/1000. In mid-1942 the main swamp was drained, and, as this was very successful, the work carried out by Lieutenant Colonel Alan Gilroy and his No 7 field malaria laboratory was soon extended to all swampy lands within a one mile perimeter of the airbase.

The possibility of importing yellow fever into Egypt and beyond by infected *Aedes aegypti* was even more worrying in the long run, as the only preventive action that could be taken was the immunisation of all those working at the base and the use of appropriate antimosquito measures, rather to ease our consciences than to prevent the spread of yellow fever. Much of this work was carried out under the supervision of the Royal Army Medical Corps, but the task at smaller Nigerian airfields between Lagos and Maiduguri

was enormous and beyond the available technical means or resources.

In all of the discussions and decisions agreed between the military and civilian authorities Dr E C Smith's experience, balanced views, and wide knowledge were invaluable. Though the pathology of yellow fever and other viral diseases was his main interest, his 1942 study of mortality in Lagos was of great public health importance for the government of Nigeria.

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Points

Low serum selenium concentration and glutathione peroxidase activity in intrahepatic cholestasis of pregnancy

Drs DAVID SHENNAN and C A R BOYD (Department of Human Anatomy, University of Oxford, Oxford OX1 3QX) write: We were interested in the discovery by Professor A Kaupila and others (17 January, p 150) of the association between reduced serum concentrations of selenium and intrahepatic cholestasis of pregnancy. In addition to the pronounced reduction associated with the disease, their figure 1 showed clearly that selenium concentrations in the control group fell significantly during the last trimester of pregnancy and that this fall reversed very quickly after delivery. In discussing this finding and the finding of Butler *et al*,¹ the authors consider the possibility that increased metabolism of selenium "might be responsible for the low serum concentrations . . . in patients with intrahepatic cholestasis of pregnancy." They do not comment further on the possible reasons for the fall in plasma selenium concentration during normal pregnancy. The first (discussed by Butler *et al*) is the haemodilution that occurs in pregnancy, and the second is placental transport of selenium. A pathway for the membrane transport of selenium (in the form of selenate) is present in the brush border of the human placenta.^{2,3} The findings of Professor Kaupila and colleagues in normal pregnancy, together with their observation that twin pregnancy is a risk factor for intrahepatic cholestasis, may be related to the physiology of placental transport of this essential trace element.

1 Butler JA, Whanger PD, Tripp MJ. Blood selenium and glutathione peroxidase activity in pregnant woman. Comparative assays in primates and other animals. *Am J Clin Nutr* 1982;36:15-23.

2 Shennan DB, Boyd CAR. Sulphate transport in human placental brush-border membrane vesicles: competitive inhibition by selenate. *Biochim Biophys Acta* 1986;859:122-4.

3 Boyd CAR, Shennan DB. Sulphate transport into vesicles prepared from human placental brush border membranes: inhibition by trace element oxides. *J Physiol (Lond)* 1986;379:367-76.

Hyperpigmentation of skin in patients with AIDS

Dr ROBERTO ESPOSITO and others (University of Milan, Italy) write: To the many dermatological manifestations in patients with the acquired immune deficiency syndrome (AIDS) and related syndromes described by Dr M M Walker and coworkers (3 January, p 29) we would add diffuse brown hypermelanosis of the skin. Among the 120 cases of AIDS followed up so far at the clinic of infectious diseases in Milan we have seen six men (three homosexuals and three drug abusers) who, in the most advanced stage of the disease, showed a generalised brown darkening of both exposed and unexposed areas of the body. In all cases skin biopsies showed an increase in epidermal melanin. In addition to hyperpigmentation other clinical signs of adrenocortical deficiency (weakness, weight loss, abdominal pain, hypotension) developed progressively. Concentrations of serum sodium, chloride, and bicarbonate were reduced considerably. Urinary steroid excretion and plasma cortisol concentration were at the lower end of the normal range, while stimulation tests with adrenocorticotrophic

hormone showed a response characteristic of primary adrenal insufficiency. All the patients died within three months of the development of the dermatological signs. Necropsy was performed in four cases and showed adrenal atrophy without evidence of infectious disease or neoplasia. Hypofunction of the adrenal cortex seems to be a fairly common manifestation of full blown AIDS, and the progressive darkening of a patient's skin is its earliest and most striking symptom.

Is "Lesson of the Week" really a lesson?

Dr PETER SANDERCOCK (Department of Neurology, Walton Hospital, Liverpool L9 1AE) writes: I was very disappointed to read the recent Lesson of the Week on brain abscess presenting as an intracranial gas shadow by Drs Kui Chung Lee, J P McCann, and D P Nicholls (7 February, p 365). Having presumably weighed up the risks and benefits, they undertook a lumbar puncture in a patient with impaired consciousness and focal neurological signs. Mercifully, though the patient had a cerebral abscess, transtentorial herniation did not occur. I am surprised that Drs Lee, McCann, and Nicholls did not mention the hazards of lumbar puncture in patients with focal neurological signs or impaired consciousness, which were described in a previous Lesson of the Week and in the extensive correspondence that followed.¹ While I accept that perfection may be difficult to achieve in everyday clinical practice, the authors might have referred to the hazards and emphasised this very important lesson.

1 Richards PG. Towu-Aghantse E. Dangers of lumbar puncture. *Br Med J* 1986;292:605-6.

Continued medical education must not be an optional extra

Dr PAUL PRESLEY (Cheltenham Postgraduate Medical Centre, Cheltenham GL53 7AG) writes: Dr T P C Schofield suggests that finance is a major problem for postgraduate education (28 February, p 526). In the present financial climate, with course organisers' pay demands being effectively rejected and clinical audit unpaid, extra cash cannot be expected from government sources. The section 63 budget could be reorganised, however, to reward group leaders. The government would still get something (increased standards of care and effectiveness in practice) for nothing, but this is the price of professionalism.

Comprehensive care of patients with head injuries

Dr IAN MCKINLAY (Royal Manchester Children's Hospital, Manchester M27 1HA) writes: Dr Gordon Brocklehurst and colleagues (7 February, p 345) described a comprehensive admissions policy but not comprehensive care. No details are given of their rehabilitation service, and patient outcome is scarcely dealt with. Oddy *et al* have indicated the extensive long term psychological consequences of residual disability and the impact on family and social adjustment, closely associated with cognitive impairment and personality change. Comprehensive care must address these issues as well as emergency neurosurgery.

1 Oddy M, Coughlan T, Tyerman A, Jenkins D. Social adjustment after closed head injury: a further follow up seven years after injury. *J Neurol Neurosurg Psychiatry* 1985;48:564-8.

Royal Free disease: risk of suicide

Dr P D WHITE (Department of Psychological Medicine, St Bartholomew's Hospital, London EC1A 7BE) writes: I am concerned that patients with "benign myalgic encephalomyelitis" may be considered to be suffering from either an "organic" postviral disease or a psychogenic disorder (7 February, p 327). If myalgic encephalomyelitis is regarded as purely "organic" then any psychiatric illness (whether primary, secondary or in a more complex interaction) may not be