the best advantage. We believe that these people must be taught methods with a maximum safety factor; in other words, they must use completely sterile apparatus.

At this stage of the war it is admittedly hard to obtain and store large quantities of sterile apparatus, but the difficulty can be overcome. The Record syringe is tricky to clean and it does not stand frequent sterilization by heat; it is not an instrument for routine use. All-glass syringes are to be preferred as they are easily sterilized, complete with needle, by dry heat or by autoclaving; they also stand boiling well. Where very large numbers of specimens have to be taken, the difficulty can be met by using e.ther a needle alone or bloodcollecting tubes as figured by Stitt, Clough, and Clough (loc. cit., p. 881, Fig. 28). Dr. Shackle will remember these tubes were in routine use at Guy's Hospital over fifteen years ago. In the future one hopes that the pathological services will supply sterile evacuated venules of the Behring type, which could be recovered and used again, as now happens with the M.R.C. transfusion kits. In any event, we believe that we must take the risks of venepuncture rather more seriously than Dr. Shackle if we are to make pathological investigations safe for the patient and protect ourselves from unjustifiable criticism.—We are, etc.,

K. A. G. MENDELSSOHN. L. J. WITTS.

Radcliffe Infirmary, Oxford.

Masking Syphilis with Penicillin

SIR,—The following may be of interest.

A soldier exposed himself to venereal infection in North-West Europe on Oct. 10, 1944. He developed a discharge on Oct. 14; gonococci were cemonstrated, and 20 grammes of sulphathiazole were given in four days; the discharge ceased, but returned after three days and gonococci were present again. On Oct. 23 100,000 units of penicillin were administered in five injections of 20,000 each at three-hourly intervals. The discharge cleared rapidly, but on Dec. 13, 1944, a small ulcer appeared on the glans penis with a mild balanitis. On Dec. 13, 14, and 15 dark-ground examinations were negative and the Kahn reaction was negative on the first of these days; simple washes were applied and the sore healed in seven days. On Dec. 31 three small ulcers appeared on the margin of the prepuce and Sp. pallida were present; the Kahn reaction was negative: 2,400,000 units of penicillin were given over a period of $7\frac{1}{2}$ days, and on Jan. 8, 1945, the sores were healed. The incubation period was therefore approximately 64 days, reckoning from Oct. 10 to Dec. 13, 1944, or 82 days reckoning from Oct. 10 to Dec. 31.

This case illustrates well the effect of a comparatively small amount of penicillin in delaying the appearance of a syphilitic sore, and suggests that every case of gonorrhoea treated with penicillin should be kept under careful observation for syphilis; we do not yet know for how long this should be, but probably three months as a minimum, and it may be that a period of six months, which is routine in the Army, is safer.—I am, etc.,

T. E. OSMOND,

London, S.W.1.

Brigadier; Consulting Venereologist to the Army.

Diarrhoea in Chronic Malnutrition

SIR,-Non-infective diarrhoea associated with diminished food tolerance and generalized malnutrition is fairly common in my experience among the aged sick admitted to this hospital. These cases present features analogous in many respects to those seen in returned prisoners of war who suffer from malnutrition and dietetic diarrhoea. In combination with a controlled food intake (vitamin and mineral supplements where indicated) I have found crude liver extract to be a useful adjunct in the treatment of these cases. Four c.cm. daily is given parenterally into anaesthetized areas for a period of one week, and then on alternate days for a further week. I have found dietary restrictions unnecessary in most cases after this period. Relapse is uncommon if tolerance to a well-balanced diet is achieved. However, in those cases where clinical evidence of a vitamin-B-complex deficiency is pronounced at the outset weekly injections are continued for longer periods.

My sole case of a returned prisoner of war who showed chronic malnutrition and a non-infective diarrhoea did well with this treatment. He was free of diarrhoea by the third day and on the seventh day was demanding, successfully, a normal diet. Hypoproteinaemia, anaemia, and pitting oedema of the extremities were present in this case. In addition, there was activity in a right lower lobe bronchiectasis.

In view of the topical importance of this subject I would suggest that controlled observations might be made on the value of this therapy (if such has not already been done), particularly at centres where a sufficient number of cases present themselves.—I am, etc.,

St. Stephen's Hospital S W 10

P. HARVEY, Senior Resident Physician.

Carbachol and its Antidote

SIR,—To Prof. J. H. Burn's letter (June 2, p 781) I reply with diffidence. Any statement from so eminent a pharmacologist must command respect. I venture to submit two criticisms.

First, the undergraduates and carnivora of Oxford, who have all survived their carbachol experiences, are not patients handicapped by disease and operation. Secondly, Prof. Burn admits that if atropine injection is delayed until "carbachol has brought the patient to the point of death" all is not well. But is not such a delay inevitable, since house-surgeons have numerous duties? To the true pharmacological latent period of the action of atropine must be added other valuable moments—the resident must be found, he must decide whether the collapse is serious or not, he must find a vein.

Prof. Burn's criticism of my use of "often" in relation to hypertension observed in patients who have received 100 mg. of carbachol is quite fair. It was a lapsus calami. In the trial of the "moryl" case, in addition to the clinical records of the deceased, those of two patients who survived a dose of that magnitude were in evidence. These cases all showed gross hypertension, although atropine had not been given. I imagined that the nicotinic actions on ganglia and adrenals had been greater than the muscarinic effects. I was not certain that ventricular fibrillation could be excluded as a cause of death in the fatal case. Indeed I must dissent on a third point. I have more than once seen adrenaline produce ventricular fibrillation in cats untainted by chloroform.

I am also under the impression that the work of Starr and his colleagues showed that the action of atropine against carbachol symptoms was slower and less certain than that against other choline esters. Tot homines, quot sententiae. Atropine should doubtless be given as antidote for collapse due to a therapeutic dose of carbachol. I am not satisfied that the pressor action which seems to have obtained in the cases mentioned above would have benefited by injection of atropine. In the case of collapse due to a small dose of carbachol I should prefer as antidote a parasympatholytic agent devoid of central effect on the cardio-inhibitory centre.

There is perhaps a need for a fresh inquiry, based on clinical data, into the safety of carbachol used as a pharmacological catheter.—I am, etc.,

London, W.1.

HUGH DUNLOP.

Treatment of Impetigo

SIR.—A former teacher of mine used to say that if you were prepared to be sufficiently meticulous in the dressing of the lesions of impetigo it did not really much matter what medicament you used upon them; they would eventually get well. The authors of the article on impetigo (May 19, p. 699) seem to have come to much the same conclusion. It is certainly to their credit that they appear to be willing to spend twice daily upon each of their patients about the same length of time as they must have spent in the writing of the article; but in case some of your readers conclude that there has been no advance in the treatment of the disease in the last thirty years, I feel the following remarks are justified.

First, the authors have written Faust without Mephistopheles, for although they do not mention it, the prime "villain of the piece" in impetigo is not the poor sulphonamides but a coagulase-positive Staphylococcus aureus, and one has no right to dismiss antiseptics and "sulphonamides" without taking this