If the country now wants abortion on demand it should say so through the proper Parliamentary channels, but until this is decided gynaecologists, who have been made the country's legal abortionists, will, in the main continue to make carefully weighed decisions in each case.

A State-registered abortionist may be the consequence of a more liberal approach, but the decision to terminate a pregnancy would, we believe, have to be made by someone who is medically qualified—and the performance of sterilisations and abortions all day without relief seems a soul-destroying activity. Nevertheless a centre specialising in contraception, abortion, and sterilisation may well become necessary, but, meantime, it should be realised that four-fifths of our specialty have now a particular responsibility to play in accordance with our understanding of the Act—the whole welfare of the woman and, not least, the preservation of life of the unborn child.

STATE OF THE N.H.S.

Sir,—The season is bleak in the workhouses of the National Health Service, and utterances from ivory towers and prestige units echo around them in a hollow fashion.

The future of the hospital patient is indeed grim—not because of consultant and junior staff action, as the Government and your editorialists would have us believe—but because of a long-standing run-down of the Health Service. This has been accelerated since reorganisation by the weight of administration and by the failure to fund hospital services properly and the activities of paramedical unions. What choice of action is there with a Government that dismantles negotiations when they come to fruition? Who recognises a minority with no political muscle and a "union" that does not contribute to Labour Party funds?

Without cohesive action we shall remain a voice in the wilderness, and many will register their disapproval by departure to the private practice sector here, in the E.C.C., or elsewhere abroad. The balance of opinion favours a rapid resolution of the problem since all appreciate the irreparable damage that will result from a protracted conflict.

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PROBENECID AND SERUM-RIFAMPICIN

Sir,—We read with interest the paper by Dr Fallon and his colleagues (Oct. 25, p. 792) describing the lack of effect of probenecid on serum-rifampicin concentrations. Following the original communication by Kenwright and Levi,1 we have studied patients on treatment with rifampicin and a control group of healthy volunteers. A test dose of 450 mg rifampicin was given alone and then with 2 g probenecid simultaneously or 20 min previously. Although there were some individuals who showed a striking increase in serum-rifampicin concentrations after probenecid, the mean peak concentration and the mean area under the concentration/time curves were only slightly increased, the differences being not statistically significant. The failure to obtain statistical significance may have arisen because of considerable variation in serum-rifampicin concentrations between subjects, even though they were all studied in the fasting state. Furthermore, since any action probenecid might have in blocking the hepatic uptake of rifampicin is likely to be dose dependent,2 the increase in the dose of rifampicin from 300 mg in Kenwright and Levi's paper1 to 450 mg in our investigation might be responsible for a considerable reduction in the effect of probenecid.

We agree with Dr Fallon and his colleagues that there is little justification in attempting to use probenecid to potentiate the therapeutic response to rifampicin.

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INTERSPECIES TRANSMISSION OF SCRAPIE-LIKE DISEASES

Sir,—A "species barrier" is a common, though not an invariable, feature of attempted experimental transmissions of scrapie and related diseases (kuru, Creutzfeldt-Jakob disease, and mink encephalopathy) to laboratory animals. It is seen either as a failure to transmit the disease within the lifespan of the host or as a very long incubation period which often shortens dramatically on second passage in the new host species. The nature of this barrier against the scrapie-like diseases is unknown, though Dickinson1 has reviewed a number of possibilities. We are investigating some of these possibilities because an understanding of the factors involved might indicate ways of overcoming species-barrier effects and provide important clues to pathogenesis and epidemiology. Such knowledge could be of great importance in studies of other degenerative encephalopathies whose etiology may involve slow-acting agents.

A specific immune response to scrapie agent has never been demonstrated.2 However, since scrapie infectivity is intimately associated with (brain and other tissue) membranes3 an immunologically stimulated phagocytosis of membrane particles in the inoculum could cause the removal of much of the associated scrapie infectivity. An in vivo response of this kind may be one factor that impedes the transmission of scrapie-like diseases to new experimental hosts, and we have examined this possibility using the transmission of hamster scrapie to mice as a model of a species barrier. A report of possible transmission of Creutzfeldt-Jakob disease to laboratory mice4 has prompted us to present our preliminary findings.

Female, albino mice were pretreated with 8 intraperitoneal (i.p.) injections (0-1 ml) of saline or of 10% homogenates in saline of normal mouse or hamster brain, before i.p. infection with scrapie. The 8 in-

2. Outram, G. W. ibid, p. 325.

jections and the scrapie inoculation were separated by a week (regimen A) or a day (regimen B). All mice were infected simultaneously with 0.1 ml of a 10% saline homogenate of pooled brains taken from clinically affected hamsters at the 4th intracerebral passage of Chandler scrapie. All homogenates were prepared in advance and stored at -20°C; samples were thawed and rehomogenised before injection. The incubation-time of scrapie was determined by “blind” scoring of mice at weekly intervals for up to 440 days after infection.

The four groups of mice that were pretreated with either mouse brain or hamster brain had longer mean incubation periods and higher proportions of survivors than the two control groups that were pretreated with saline (table). However, pretreatment with mouse brain consistently produced effects less pronounced than with hamster brain. It is significant that these effects were produced by injecting homogenates of normal hamster brain under conditions identical to those used for infection with scrapie—i.e., pretreatment with normal brain suspension in Freund’s adjuvant were deliberately avoided. Consequently these findings suggest that part of the species-barrier effect observed on intraperitoneal transmission of hamster scrapie to mice may arise from the necessity of using crude scrapie inocula, the presence of a large amount of antigenically foreign material possibly stimulating a host response which increases the effective removal of infectivity. What is not clear is whether the effects observed are due to a systemic response to hamster antigens or to a local response in the peritoneum since both pretreatment and infection were carried out by the i.p. route.

In a wider context these results suggest that immunosuppression of the host might be used to diminish species-barrier effects. However, such an approach may be self-defeating because some components of the lymphoid system may play an important role (other than as a defence mechanism) in scrapie pathogenesis, at least in mice infected by a peripheral route.9 7 In a collaborative study with Dr P. G. Cunningham (Beecham Pharmaceuticals Research Division, Betchworth, Surrey) we have obtained preliminary data suggesting that the i.p. injection of mice with suspensions of methanol extraction residue of B.C.G. just before i.p. infection with low doses of mouse-passaged scrapie can considerably shorten incubation time. We have yet to define the optimum conditions for this effect or to apply it to the interspecies transmission of scrapie by the i.p. route. However, these observations suggest that the use of drugs to modify agent/cell interactions in vivo may be useful in promoting experimental transmission of scrapie and related human diseases to other host species.

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CHOLESTEROL CONTENT OF TUBE FEEDS

Sir,—We write in defence of the dietary profession in reply to Dr Craig’s letter (Nov. 8, p. 935) on this subject. Dr Craig states that her patient had previously been having a low-cholesterol diet; it therefore seems reasonable that the doctor request a “low-cholesterol” tube feed, which no doubt would have been supplied. To prevent mishaps like this, it is imperative that the dietician department receive a written request from the doctor stating the diagnosis and type of diet required. As a profession supplementary to medicine we aim only to please and to implement the doctors’ requests to the best of our ability—if only we are asked.

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