Animal Experiments

SIR,—I was very surprised to see in your leading article on animal experiments (25 December 1971, p. 762) the statement that animal experiments can and do cause "severe suffering." I was under the impression, apparently mistakenly, that the Home Office regulations prevented this happening. Surely there can be no justification for the suffering of laboratory animals.

Through the ages homo sapiens—the animals, could they speak, would term our species "homo rapiens"—has had all manner of specious excuses for inflicting torture on both animals and humans, often in the name of some transcendental virtue. That it is necessary in our society for these defenceless creatures to be used at all in the sad conditions of laboratory processes is regrettable. It should be done only after very careful consideration and in a manner to avoid misery and suffering. Not to do so is to negative the spirit which is held to be the basis of all our ethics and is a reflexion on us all.—I am, etc.,

JAMES NEWNHAM

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Blood Viscosity and Blood Flow

SIR,—There is just one snag in Mr. J. A. Dormandy's interesting study on alteration in blood viscosity following the infusion of dextran 40 (low-molecular-weight dextran) or Hartmann's solution (18 December 1971, p. 716). Assuming a mean blood volume of 5 litres in his experimental subjects, the rapid addition of 500 ml of intravenous fluid would lead to a temporary expansion of the blood volume of approximately 10%. I would expect this to result in a similar increase in cardiac output, and therefore also of peripheral perfusion. Though this in no way detracts from the principles demonstrated by Mr. Dormandy that peripheral arterial blood flow is intimately related to viscosity, and that dextran 40 has no special advantages over Hartmann's solution, it suggests that perhaps only half of the improved perfusion is due to reduced viscosity, increased cardiac output being responsible for the remainder.—I am, etc.,

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Amenorrhoea after the Pill

SIR,—The *B.M.J.* takes some weeks to reach Malta, so allow me to refer to your interesting leading article on amenorrhoea after the pill (27 November 1971, p. 510). I think that, apart from amenorrhoea, there is an important related risk which is not adequately realized by medical practitioners. It is the hazard of prolonged anovulation following long-term use of the pill in adolescence. I read a communication on this subject at the Nineteenth British Congress of Obstetrics and Gynaecology held in Dublin in May 1971.

In my series of 37 women treated for anovulatory infertility it was found that the group who had received no pill in adolescence, or else did so for less than six months, were much more readily responsive to treatment than the group who had been given the pill in adolescence for six months

or more. In the former group of 19 women 15 responded to clomiphene and the remaining four to Pergonal (human follicle-stimulating hormone). In the other group of 18 women only seven responded to clomiphene, then three to Pergonal, but eight were still anovulatory.

The pill is widely prescribed to adolescent girls either as a contraceptive or else to provide a facile remedy for dysmenorrhoea or irregular menstruation. It should be prescribed with great caution at this age, because it may seriously impair the subsequent resumption of regular ovulation with a consequent liability to infertility. In fact, it is probably contraindicated when there is a history of oligomenorrhoea or of irregularity in the menstrual cycle.—I am, etc.,

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Vaccination against Rubella

SIR,—The increasing use of oral contraception provides an excellent opportunity for immunizing large numbers of young women against rubella at a time when they are strongly motivated to think about the future of their potential offspring. At the second visit for prescription for the pill there is the additional advantage of the certain knowledge that no pregnancy is present. This surely is the ideal occasion on which to administer rubella vaccine.

It is clear from Dr. Constance A. C. Ross's letter (8 January, p. 109) that serological screening for rubella is impracticable, and one wonders whether it is even necessary—any more than attempts to screen for polio would be considered before administering polio prophylaxis. Rubella vaccination should be offered to all who are at risk. As pregnancy is the only known contraindication to its administration it should be given to all who may shortly become pregnant and not confined to the age 11-14, as is the present policy.

In recent years I have offered rubella vaccine to all patients who seek contraceptive advice. I explain to them that they will have to pay 20p for their prescription, as free vaccine is not provided outside the officially designated ages. They have all agreed that this is the best 20p-worth that they are ever likely to spend. Is there any reason why this inoculation should not be offered at family planning and local authority contraception clinics?—I am, etc.,

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Tropical Splenomegaly, Sickle-cell Trait, and *P. falciparum* Infection

SIR,—The tropical splenomegaly syndrome¹ is thought to be due to chronic infection with malaria, though malaria parasites are rarely demonstrated in these patients. Haemoglobin AS is thought to protect from severe *P. falciparum* infection² and tropical splenomegaly is uncommon in the presence of haemoglobin AS.³ We would like to present details of a patient with tropical splenomegaly syndrome and haemoglobin AS in whom a very scanty number of *P. falciparum* gametocytes were found only after injection of adrenaline.

The patient, a negro male aged 8 years, was born in Nigeria, and was in Biafra during the war there. He arrived in England in May 1971 and complained of abdominal pain. He had no diarrhoea, vomiting, or other symptoms, and no pyrexia. He was reported to have had worms in 1966. On admission to hospital in October 1971 he was quite well, with a normal temperature. The spleen was enlarged and firm, but not tender, and palpable three in (7.5 cm) below the costal margin. The liver edge was just palpable. A few small lymph nodes were felt in the neck, axillae, and groins. Mucous membranes were of good colour. The chest was clear.

Investigations: Haemoglobin 10.4 g/100 ml; W.B.C. 12,300 mm³ (polymorphs 35%, lymphocytes 48%, eosinophils 14%, monocytes 3%). No malaria parasites were seen in thick or thin blood films, but one hour after a subcutaneous injection of adrenaline scanty *P. falciparum* gametocytes were recognized in thick films. The sickling test was positive, and haemoglobin electrophoresis showed haemoglobin AS. The stools showed ova of hookworm, roundworm, and whipworm. Immunoglobulins: IgG 2244 mg/100 ml, IgA 87 mg/100 ml, IgM 156 mg/100 ml. Red-cell glucose-6-phosphate dehydrogenase 5.6 IU/g haemoglobin.

Other investigations revealed no important abnormalities.

The worm infestations were treated with bephenium and piperazine. The malarial infection was treated with chloroquine and primaquine. After six weeks antimalarial therapy the spleen had become much smaller and was palpable 1 in (2.5 cm) below the left costal margin.

One brother, aged 9 years, has sickle-cell trait but no malaria parasites in thick blood films. Another brother, aged 7 years, has a negative sickling test and no malaria parasites. Neither of these children has a palpable spleen.

This case has all the features of tropical splenomegaly syndrome. A specific finding in some varieties of tropical splenomegaly syndrome has been infiltration of the liver with lymphocytes, but liver biopsy was not considered justified in our patient. Reduction in the size of the spleen with antimalarial therapy is usual.^{4,7} Hyperglobulinaemia is present, but IgM is not so often raised as IgG.^{4,5,7} It is unusual for patients with tropical splenomegaly syndrome to have sickle-cell trait. Hamilton *et al.*³ failed to find any patient with sickle-cell trait in 143 patients studied for tropical splenomegaly syndrome in Uganda, but calculated that according to the prevalence rate, they should have found at least 10 patients to have haemoglobin AS. Since their report in 1969 a total of 3 of 48 patients in two series^{4,6} have been shown to have haemoglobin AS. Their assumption that tropical splenomegaly syndrome does not occur in patients with sickle-cell trait is now disproved; and their proposition that severe malaria (which is uncommon in sickle-cell trait²) may be a necessary factor in the pathogenesis of tropical splenomegaly syndrome is no longer tenable on this evidence. Although scanty malaria parasites are sometimes present in these cases, studies of the aetiology of this syndrome would be rendered easier by the more frequent demonstration of malaria parasites, and we would suggest that future studies should include examination of blood films after injection of adrenaline before

it is concluded that evidence for a malarial aetiology of tropical splenomegaly syndrome can only be indirect.—We are, etc.,

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- 1 Marsden, P. D., and Hamilton, P. J. S., *British Medical Journal*, 1969, 1, 99.
- 2 Allison, A. C., in *Immunity to Protozoa*, ed. P. C. C. Garnham, A. E. Pierce, and I. Roitt, p. 109, Oxford, Blackwell, 1963.
- 3 Hamilton, P. J. S., et al., *Lancet*, 1969, 2, 109.
- 4 Watson-Williams, E. J., and Allan, N. C., *British Medical Journal*, 1968, 4, 793.
- 5 Stuiver, F. C., Ziegler, L., Wood, J. B., Morrow, R. H., and Hutt, M. S. R., *British Medical Journal*, 1971, 1, 426.
- 6 Lowenthal, M. N., O'Riordan, E. C., and Hutt, M. S. R., *British Medical Journal*, 1971, 1, 429.
- 7 Sague, A. S., *British Medical Journal*, 1970, 3, 378.

Women in Medicine

SIR,—It is opportune to draw attention to the contribution women doctors with heavy domestic commitments can make to the staffing of the National Health Service. There is a doctor manpower shortage. Extra efforts are therefore being made by various authorities to recruit women back into medicine, to increase the amount of work they are doing, or to enable them to work more satisfactorily and satisfyingly in another branch of medicine.

The Medical Women's Federation has long been worried about the lack of encouragement, the often insuperable problems of full-time work, the inadequate re-training, and what might be called personnel management offered to women wishing to return to medicine. We support the schemes devised by the Departments of Health which enable hospital boards and local executive councils to employ women in paid part-time training posts. There are career-advice liaison officers of the Medical Women's Federation in every regional board area to help further such schemes.

More women are working part time now because they have found flexible and sensible and rewarding arrangements in both hospital and general practice. We can expect an extension of such opportunities and an intensification of recruiting activities in the immediate future. I wish to emphasize, however, that even when the way to remain in or come back into medicine has been made easier for women, and even when the need for doctors may be acute, there will be women who will feel it right for them to spend all or very nearly all of their time with their families, especially when they have very young children or disabled dependents.

The Medical Women's Federation is convinced that each woman doctor should feel free to decide what is right for her and her family. If she chooses to do active practice while she has domestic ties she should be encouraged and enabled to do so. Satisfactory compromises by which neither work nor family suffer can be worked out. Her teachers and employers and the doctor can plan such arrangements together. If she chooses not to practise medicine because her family needs her she should be able to do so without a bad conscience, knowing that her choice is respected by her colleagues and by society and that if she wishes to return to medicine later on she will be wel-

comed and will be able to re-establish herself appropriately.—I am, etc.,

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A Working Day

SIR,—You published extracts from the report of the Management Services (N.H.S.) Branch of the Department of Health on the organization of the work of junior hospital doctors (*Supplement*, 25 December, p. 87). One hesitates to criticize a report seen only as extracts, but, whatever the full report may contain, inevitably it is the extracts you publish which will be widely read.

It is reassuring to learn that the doctors were not overworked, even though going about their business in their customary way. The advice that all would do well to consider how best to use their time bears repeating but surely Management Services must know that all doctors have appreciated this at least since student days when they had to organize their time for swotting for examinations. These are almost banalities. Unfortunately there are besides disturbing themes. There is the rather curious suggestion that work, apart from on-call duty, might somehow be squeezed into "working hours," and there is the more baleful proposal that on-call duty might be very thinly spread among a minimum of doctors.

The study was made in acute hospitals, where many patients come unpredictably because they are suddenly taken ill and may suffer equally unpredictable complications before they are well again—an endlessly variable situation having little to do with standard days or working hours. Disease, like other natural phenomena, does not wait on artificial divisions of time. Men whose lives are similarly governed by events in nature do not wait either. The farmer or grower gets his harvest in no matter what hours he works; he will have had slack periods earlier in the year. The fisherman does not wait for nine o'clock to strike, as if he were selling postage stamps, after an idle period in harbour when fish are about and the tide is right. Likewise, good clinicians are not mesmerized by the hours. Why then try to compress or stretch variable work into standard hours, especially when overwork is not an issue?

Secondly, what the patient needs in his illness is "the" doctor—that is, one of the team that talked to him, examined him, and knows about him—not "a" doctor whom he has never seen before, no matter how well medically qualified that doctor may be. The difference has to be experienced to be appreciated, and involves the first duty of the doctor to his patient.

It seems that the report cannot have taken fully into account the real nature of acute medicine on the one hand and, if British medicine is to hold its high place, the training our doctors need on the other. The report hardly encourages doctors to do extra for their patients. Should they also be taught to wash their hands of responsibility and hand it to someone else who is "covering" as normal practice for days at a time? Will patients be as well served by anonymous doctors called in to cope because their doctors have done their allotted

number of hours? You, Sir, remark in your editorial (25 December, p. 766) "many doctors prefer to be called out if their own patients are in trouble." We all heartily applaud your attitude, but fear that so mild a comment will do nothing to prevent our successors being formed in a quite different mould. There is danger to standards of practice in trying to force acute disease too much into styles of management derived from office and inanimate industry; it must be made clear and resisted.—I am, etc.,

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C. J. LONGLAND

Exploitation of Consultants

SIR,—Mr. G. F. J. Williams (25 December 1971, p. 810) draws attention, very rightly, to some of the ways in which the goodwill of hospital consultants is being exploited, but then appears to criticize the Regional Hospitals' Consultants and Specialists' Association for sending out "fatuous questionnaires." We are devoting much thought and hard work to the same objectives as Mr. Williams seems to have in mind, and these questionnaires are a result. Before one can achieve any objective it is necessary, firstly, to define it; secondly, to ascertain the support for it; and, thirdly, to organize the means of achieving it.

An enthusiastic response to these questionnaires encourages us to believe that they may prove to be the best single thing that we or any other organization has yet done towards stemming the evils that Mr. Williams so ably describes. Could I persuade Mr. Williams to join us and give us the benefit of his support? It is of course his privilege to criticize from the touchline, but I do not believe his is thereby helping himself or anyone else as well as he might.—I am, etc.,

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Distinction Awards

SIR,—The following motion on distinction awards was passed by the Annual Representative Meeting 1971 by an overwhelming majority (*Supplement*, 7 August 1971, p. 89): "That a new referendum of consultants be held on the distinction awards system and that the system be renegotiated on the basis of any changes supported by the referendum."

I was extremely surprised to read (*Supplement*, 1 January, p. 3) that both the Council and the Central Committee for Hospital Medical Services had seen fit to override the decision of the A.R.M. and recommend holding a referendum not confined only to consultants. This decision is extremely important if the B.M.A. is to have any constitution of note, as it always has been my belief that no committee of the Association could blatantly disregard the wishes of the A.R.M. The suggestion not to confine the referendum only to consultants was in fact firmly rejected by the A.R.M., and in spite of this we are given to understand that the inclusion of non-consultants (senior registrars) has been recommended to the Council by the Central Committee for Hospital Medical Services.