

logists favour the use of fixatives containing mercuric chloride. These have several advantages, but the waste is usually disposed of down the sink. The biological consequences of mercury pollution are well recognized, and as industry curtails its contribution the role of pathology laboratories will become more significant, for a busy department may discharge up to 50 kg of mercury a year. In a recent article<sup>1</sup> several safe alternatives are outlined, such as the use of zinc chloride or formalin instead of mercuric chloride and the recovery of the mercury as is widely practised by radiologists in the case of silver.—I am, etc.,

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<sup>1</sup> Porter, D. D., *Archives of Pathology*, 1972, **94**, 279.

SIR,—Your leading article (30 December, p. 746) is timely. The Deposit of Poisonous Wastes Act 1972 was drafted in haste and with inadequate consultation. This explains, perhaps, the failure of the Act to recognize and utilize the longstanding and useful partnership of the medical officer of health and the public health inspectorate in the boroughs of Greater London, and instead vests all the enforcement powers with the Greater London Council. The G.L.C. is of course a body with tremendous expertise and we are glad to be able to utilize it. However, since it is the local health authority which is responsible for the public health and is also likely to receive the first intimation of illegal dumping, we feel that amending legislation should be enacted to give concurrent powers to the London boroughs. It is also important clearly to establish the role of the medical officer of health's successor in "community medicine" in these matters.—We are, etc.,

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### Rh "Null" is Not Always Null

SIR,—Recently members of two unrelated families with Rh<sub>null</sub> disease living in West Virginia were brought to our attention. The first family was referred to us for investigation when an Army private, presenting with a marked haemolytic anaemia and splenomegaly, was found to be Rh<sub>null</sub>. Of seven siblings tested, one sister, aged 25 years, was found also to be Rh<sub>null</sub>. Further investigations showed evidence of a compensated haemolytic anaemia with a reticulocytosis, mild spherocytosis, and abnormal autohaemolysis and osmotic fragility of the red cells. The cells were M+N+, S=s+, LW-, U weakly positive, and G negative. The parents, first cousins, were of the genotype R1R1 and R1r and were LW+, U+. There was no attenuation of the Rh antigens of the parents or of the six normal siblings. These findings are similar to those in other patients with the rare regulator type of Rh<sub>null</sub>.<sup>1,2</sup>

Drs. R. Sanger and P. Tippett kindly examined a sample of blood from the sister; they confirmed the typing results and agreed with us that, although the cells typed as

Rh<sub>null</sub>, there was evidence of traces of D antigen on the subject's cells. Absorption tests with six different anti-D sera and the subject's red cells showed that they were capable of absorbing anti-D activity. Heat eluates from these Rh<sub>null</sub> cells reacted with D-positive cells in the antiglobulin test using broad-spectrum Coombs reagent and specific anti-IgG, but not with specific anti-IgA or anti-IgM sera. A small reduction in the anti-D titre was observed in all the absorbed sera. A reduction in the titre of the specific anti-IgG serum was also found. Absorption studies with one example of anti-C and anti-c serum did not result in the removal of antibody activity.

The second person studied was a sister, aged 46, of the patient reported by Dr. P. Sturgeon.<sup>3</sup> Typing showed her to be Rh<sub>null</sub>, LW-, G-, and U+. Unlike the first patient's sister, absorption and elution studies of her red cells with anti-D-containing sera did not show that the antibody had attached to her cells.

This report supports the concept that Rh<sub>null</sub> disease is not as rare as previously thought and that in some, but not all, patients the presence of the D antigen may be demonstrated by conventional means.—We are, etc.,

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<sup>1</sup> Levine, P., Celano, M. J., Falkowski, F., Chambers, J. W., Hunter, O. B., and English, C. T., *Transfusion*, 1965, **5**, 492.

<sup>2</sup> Schmidt, P. J., Lostumbo, M. M., English, C. T., and Hunter, O. B., *Transfusion*, 1967, **7**, 33.

<sup>3</sup> Sturgeon, P., *Blood*, 1970, **36**, 310.

### Effects of Tranquillizers and Hypnotics on Driving

SIR,—We have been studying the persistent effects of hypnotics and tranquillizers, and are therefore interested in the investigation of Dr. T. A. Betts and others (9 December, p. 580) into the effects of different tranquillizing drugs on normal subjects' low-speed driving performance. They have shown that the latter can be impaired by five doses of drug taken over the preceding 36 hours and suggest that this may be important in relation to drug administration in patients. However, they have not investigated the sort of patient for whom these drugs might be prescribed.

Our group at the London Hospital studied normal subjects' cognitive and motor performance, using digit symbol substitution and card sorting, and found that this may be impaired by a single dose of amylobarbitone or nitrazepam given the previous night.<sup>1</sup> Because we doubted whether this observation was relevant to the usual therapeutic situation, we undertook a similar investigation on anxious patients, who received drug or placebo over seven days. These patients were tested 18 hours after the last dose and showed no impairment on the tasks. Electroencephalograms taken on the same occasion showed higher scores for drowsiness after drug than after placebo, but the scores were much lower than those previously obtained in normal subjects. (The results of this investigation are to be published in detail later.)

These results cannot be extrapolated direct to normal driving performance, but

they indicate that tranquillizers and hypnotics may effect the performance of normal subjects and anxious patients in different ways. Dr. Betts and his colleagues recommend that patients who are to take tranquillizers should be warned about possible adverse effects on their driving. However, we feel that neither their investigations nor ours are directly applicable to what in practice is the effect on driving of taking or indeed withdrawing tranquillizers in patients. Our researches strongly suggest that further studies with patients will be required before this question can be answered.—We are, etc.,

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<sup>1</sup> Malpas, A., Rowan, A. J., Joyce, O. R. B., and Scott, D. F., *British Medical Journal*, 1970, **2**, 762.

### Two Radiologists—Holland and Britain

SIR,—I opened my *B.M.J.* of 27 January and turned with eager anticipation to page 225 to read of "Two Radiologists—Holland and Britain," but was disappointed when doubts arose as to whether the comparison was between like and like. Many radiologists in Britain would not recognize the life-style and work-style of Dr. Rushton-Wilson.

"Along with his three colleagues he does at least half a day's service work a week—routine barium meals, angiograms, and so on—and he is on duty one week in four. Every day he attends clinical sessions, with the physicians, surgeons, radiotherapists, or specialist groups such as the haematological unit, and usually he goes to the necropsy demonstrations as well."

One session of service work each week is a poor return to give to the populace which pays him his salary. Clinical sessions and visits to the necropsy room are valuable contributions to one's vicarious experience, in which one can discuss other people's work, but are no substitute for personal experience, which at one session a week will be achieved but slowly.

Many of us are doing not less than one half-day of service work each day, five days a week—that, is five half-days each week. A round half-dozen of us within 30 miles of this city are doing just this service load each, each week, and possibly more. By Dr. Rushton-Wilson's standards we should be replaced by 30 whole-time consultants, each doing one half-day a week of service load. As some 90% of the hospital service load of the country is being done in non-teaching hospitals, where radiologists generally work under conditions similar to my own, the consequence would be to wreck the Health Service and introduce a demand for radiologists which would scarcely be met even if all our medical students destined for the hospital services were diverted into radiology.

Were we to reduce our service load to one-fifth of what it is now we would certainly need a day of research each week, if only as "occupational therapy"<sup>1</sup>—to keep our brains warm and check that they are still there.

Let us see more "European Counterparts," but may we not see similar articles on con-