or in collaboration. Just over half of the senior registrars (N.H.S.) were so engaged, and for this latter group a major limiting factor was inadequate time, many not being able to take the one day a week for study and research to which they were entitled under the N.H.S. study leave regulations.

On the basis of the survey's findings it is clear that senior registrars in all regions should have the leave to which they are entitled in order to pursue research, while those with a major project which could not be undertaken on a part-time basis should be given long periods of full-time study leave. The Oxford Regional Board's enlightened action in this respect could well be universally adopted.

The complete report of the survey's findings "Psychiatrists in Training" is to be published as one of the Royal College of Psychiatrists' "Special Publications" later this year.—I am, etc.,

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SIR,—The difficulty of developing psychiatric research seems to be a universal problem. The personal account given by Dr. N. B. Malleson (29 April, p. 289) commenting on your leading article "Research on Psychiatry" could be signed by many Latin-American researchers, but it would have an even less happy ending. When they are faced with the bare fact that they also have "children to support" they plunge into private practice and not simply into another research subject. (It happens that social psychiatry, to give an example, is not a feasible private enterprise).

The scarcity of psychiatrists devoted to research in Britain (about 40 on a full-time basis, according to Shepherd¹) may be reasonably linked with the paucity of the available funds. There is a saying often heard in Latin America, allegedly said by Houssay, "Research is a privilege of rich men and free countries."—Could it partially apply to the free and highly developed England?—I am, etc.,

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¹ Shepherd, M., *British Medical Journal*, 1969, 4, 161

Speaking Valve for Attachment to a Tracheostomy Tube

SIR,—Most patients with long-term tracheostomies may be fitted with uncuffed silver tubes with standard speaking valves enabling them to converse. Short-term cases and those being weaned from ventilators may have their tube cuffs deflated when breathing spontaneously and be able to talk by occluding the tube with their fingers. In any case these patients can communicate by writing.

There is, however, a special problem with the patient who not only requires prolonged weaning but who also has paralysed limbs. One such case recently in this hospital was a patient with polyneuritis. As his respiratory muscles improved he could maintain spontaneous ventilation for periods of one to two hours, during which time humidified

Fig. 1

air was provided through a "cigar" type humidifying tube fitted into the Nosworthy end of a Portex tracheostomy tube. Communication was, however, limited to lip-reading. There did not appear to be an easily obtainable device which would enable him to speak while receiving humidified air, and allow ventilation during his times on the ventilator. It was decided, therefore, to adopt a non-return valve for this purpose.

The most convenient valve available was that on the Ambu bag, being of a flap principle, light, and easily adapted. The cap was removed from the expiratory port and the port occluded by a spigott (Fig. 1). The cuff of the tracheostomy tube was released and the valve fitted to the tube. This then enabled the patient to breathe in through the valve but expiration was through his larynx only. A Y-piece was connected to the inspiratory port with one arm leading to the humidifier (Fig. 2). The patient was able to talk adequately with this valve during his times of weaning from the ventilator.

This adaptation of the Ambu valve is simple to make and will fit any Nosworthy-ended tracheostomy tube.—I am, etc.,

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Effect of Intravenous Infusion of Acetylsalicylic Acid on Renal Function

SIR,—We report a study of glomerular filtration rate and para-aminohippuric acid (P.A.H.) clearance in eight healthy subjects given a new intravenous preparation of acetylsalicylic acid Aspegic (lysine acetylsalicylate 0.9 g, glycine 0.1 g).

Eight patients aged between 22 and 46 years recovering from a minor illness and having no signs of renal disease were studied. The nature of the trial was fully explained to them, and all gave informed consent. Priming doses of inulin and P.A.H., calculated according to body weight and diffusion space, were given at time t_0 , then a constant intravenous infusion at a rate of 2 ml/min (Braun perfusor) was given throughout the 130-minute period of the experiment to maintain the blood concentrations of inulin and P.A.H. at a steady level. The experiment was conducted in three phases:

Phase 1 or Control Period.—After a 30-

Fig. 2

minute equilibration period, three urine collections at 10-minute intervals were made (u_1 , u_2 , u_3).

Phase 2 or Experimental Period.—At 60 minutes an intravenous injection of 1 g acetylsalicylic acid was given and a constant infusion of acetylsalicylic acid at a dose of 1 mg/kg body weight/minute was started. Urine collection (u_4) corresponding to the time of change over from control to experimental period was not subjected to the chemical analyses set out in the protocol. Three urine collections were made at 10-minute intervals (u_5 , u_6 , and u_7).

Phase 3 or Post-experimental Period.—The intravenous infusion of acetylsalicylic acid was stopped and urine collections were made at 10-minute intervals (u_8 , u_9 , and u_{10}). 20 ml blood samples were taken before the start of the experiment (S_0) and then at 45, 60, 100, and 130 minutes (S_1 , S_2 , S_3 , and S_4).

Fig. 1

The volume of each urine sample was measured and expressed as ml/minute. The blood and urinary concentrations of creatinine, inulin, and P.A.H. were estimated, and blood salicylic acid was measured in samples S_2 , S_3 . The clearances of creatinine, inulin, and P.A.H. were calculated for each period.

Acetylsalicylic acid produced a significant reduction in the glomerular filtration rate and P.A.H. clearance as studied by these methods. Creatinine clearance and inulin clearance diminished by 30% and 32% respectively compared with the normal values obtained in the control period.¹ P.A.H. clearance dropped by 33% during the experimental period. This effect of aspirin on renal function was only transitory and it faded away after the intravenous infusion of acetylsalicylic acid was stopped (Fig. 2).