

not time that we studied the latter state in the present context? For example, the working party's figures indicate (Table V) that a high proportion of healthy controls also harbour the infectious agents. If adjustments are made to equate the number of cases and the number of controls we note that the ratios of cases to healthy carriers is roughly:

Para-influenza type 1	4:1
Para-influenza type 2	4:3
Adenovirus	4:1
Enterovirus	1:1
Rhinovirus M	2:3
Rhinovirus H	10:3
β -haemolytic Strep.	5:1

The investigation was not focused on this slant at all and the ratio of contacts to cases was not controlled nor stated. Nor is it clear as to what percentage of contacts had recovered from an infection or were about to develop one. One is therefore free to speculate that the number of healthy contacts could vary from 20% to 150% of the number of cases, the average being 50%—or one healthy contact to every two cases.

One would like to know more about these shadowy contacts. Did they develop to illness? If so, they should move into the "case category." If not, then they could be endowed with the mythical and neglected property called host resistance. These people should become the material to study, and the researchers should be general practitioners well versed in assessing the influence of the total environment on the patient's proneness to disease. If we could find a practical answer to the enigma of host resistance we should be well on the road to finding good health. Research into the nature of viruses causing acute respiratory disease has progressed sideways in ever-expanding circular complexity for 25 years. It is time to use a new approach by studying the neglected healthy contact not in the hospital ward nor in the laboratory of bacteriology or biochemistry, but in his home, in his work, his hobbies, his diet, his mental pursuits. In a word, we should study the ecology of this healthy contact if we wish to find a sane and satisfying answer to acute respiratory disease.—I am, etc.,

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Systemic Reaction to Bromsulphthalein

SIR,—I was interested to read Dr. T. W. Astin's account (14 August, p. 408) of a systemic reaction of bromsulphthalein, and would like to report a further case.

A 23-year-old man was admitted to hospital in July 1965 for investigation of persistent jaundice following an attack of infective hepatitis 27 months previously. Investigations showed total bilirubin 2.5 mg./100 ml. (unconjugated 1.6 mg./100 ml., conjugated 0.9 mg./100 ml.); alkaline phosphatase 15 K.A. units/100 ml.; S.G.O.T. 18 S.F. units/ml.; haemoglobin 13.6 g./100 ml.; W.B.C. 6,200/cu.mm. with a normal differential count.

On the third day of admission an intravenous injection of 285 mg. of bromsulphthalein (5 mg. per kg. body weight) was given over a period of three minutes, which is the routine time used in this department. Three minutes after the injection he complained of feeling "light-headed" and then experienced severe palpitations. He suddenly lost consciousness with

associated tachycardia—pulse rate 140/min., pallor, hypotension, B.P. 70/?mm. Hg and marked sweating of his extremities. There was no bronchospasm or skin reaction. He was unconscious for approximately three minutes but recovered quickly after the intravenous administration of 100 mg. of hydrocortisone. His B.P. and pulse rate one hour after the reaction were 120/70 mm. Hg and 84/min. respectively. On recovery he complained of severe frontal headache, nausea, and general weakness but four hours later felt perfectly normal. His B.S.P. retention was 7% at 45 minutes. He did not develop an eosinophilia, and there were no changes in his liver function tests when measured next day. On the basis of the severity of the reaction, its timing after injection, and the fact that the patient was a non-nervous subject well used to intravenous procedures he was not thought to have suffered a vaso-vagal attack.

Bromsulphthalein is phenoltetrabromophthalein sodium disulphonate and is closely related to phenolphthalein. Reactions to overdosage with oral preparations of the latter compound include circulatory collapse and loss of consciousness. Rarely severe reactions have been reported as occurring after the administration of therapeutic doses of phenolphthalein. The patient described here was not in the habit of using oral laxatives, and he gave no history of allergic disorders. He had, however, undergone a B.S.P. retention test sixteen months before the one described, so that his reaction could have been anaphylactic in origin. It would be interesting to know if Dr. Astin's patient had ever been in the habit of using laxatives containing phenolphthalein.

Now that these two cases have been described others may well come to light. If so, it may become necessary to screen patients with intravenous test doses of bromsulphthalein, particularly those who have undergone previous B.S.P. retention tests.—I am, etc.,

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Backward Readers

SIR,—In their article on reading and writing difficulties in the series "Child Care in General Practice" (21 August, p. 463) Dr. T. T. S. Ingram and Mrs. A. W. Mason discuss at length the constitutional causes, but dismiss the environmental causes in a few lines as being of no concern to doctors. This is indeed unfortunate, for, whereas a family doctor will see only one or two cases of specific developmental dyslexia during the whole of his professional life, he currently and constantly has under his care a number of families which contain a backward reader. The emotional and psychosomatic accompaniments of backward reading are quite rightly stressed in their article, but Dr. Ingram and Mrs. Mason fail to draw attention to the considerable evidence in the literature that backward reading acts as a pointer to the presence of family psychopathology. This may not be the concern of either paediatrician or educational psychologist but it properly comes within the sphere of responsibility of the family doctor. He needs to become more aware not only of the existence of backward reading and its associated emotional and psychosomatic disturbances in the child but also of the epidemiological

features and their importance in community medicine.—I am, etc.,

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E. TUCKMAN.

Image of Nursing

SIR,—Your correspondent, Dr. Margaret D. Baber, reveals in her letter (21 August, p. 481) that she has either misconstrued the proposals on nurse education put forward by this organization in the Platt report or else she has never read the document.

It is true the Report expressed the hope "that the establishment of a degree course in nursing will not be long delayed," as it is seen as a means of providing leaders and teachers of high professional standing. It does not suggest that all nurses in the future must have a university training. On the contrary the report stresses the need for a well-balanced ward team consisting of two types of trained staff—the registered and enrolled—and a ward assistant. The educational requirements for each would vary accordingly and would range from the person with no educational qualifications through those with a secondary certificate of education to the candidate with five or more "O" levels. There need be no deterrent for suitable girls on academic grounds as there is a place for all.

Apart from this, however, the nursing profession must also be able to offer a course which can attract and retain students who might otherwise have chosen to go on to some other form of higher education. Frustration can easily result unless the able candidate finds the course stimulating and challenging, and disillusionment is hardly conducive to retaining recruits. The profession must compete with other occupations in the matter of professional education and stimulation if it is to receive its share of able recruits; and the raising of certain standards need not act as a deterrent. On the contrary; they will be seen by many as an attraction.—I am, etc.,

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Pulmonary Actinomycosis

SIR,—I read Dr. B. Bisserru's letter (24 July, p. 231) and agree with him that isolated lung infection with actinomycosis is an extremely rare condition and may be missed unless the condition is kept in mind. In view of this I would like to publish the following interesting case:

Mr. A. B., a crane fitter aged 34 years, attended the chest clinic in September 1964 with a history of cough with brownish sputum and pain over the right side of the chest anteriorly, which started with an attack of so-called "influenza" one month previously. The chest x-ray revealed consolidation with a cavity in the posterior segment of the right upper lobe. The sputum was negative for *Mycobacterium tuberculosis* and the condition was regarded as a simple inflammatory one. He was put on tetracycline, and a repeat x-ray two weeks later showed considerable clearing of the opacity and only a slight haziness remained in the area. The antibiotic was stopped. However, three weeks later he again felt ill, developed pain over the right side of the chest, and noticed staining of the sputum. Radiologically there was recurrence of the opacity in the right upper zone. He was