Health Centres

SIR,—I have recently read with great interest an account in the lay Press of a scheme at Dartford, Kent, whereby four practices, involving eight doctors, have been merged into one. Three main surgeries have been provided, and the arrangement enables each doctor to have one day off per week, together with alternate Saturdays, night duty being by rota. Some time ago I put forward a plea in these columns for the early establishment of health centres and regular working hours under the proposed State Medical Service, so I am naturally pleased to see that some others at least share my views. It would be very interesting to have the views of other medical men on this project, and it is to be hoped that the Dartford doctors will be good enough to inform the profession as a whole of the success or otherwise of their scheme in due course.

After eight years of general practice in various parts of the country I must confess myself unable to understand or appreciate the "freedom" which we are supposed to enjoy at present and which so many doctors, writing each week in this *Journal*, are so afraid of losing. Most of us already take N.H.I. patients, whom we are bound to attend at all times, and are in addition the virtual slaves of the rest of the community. In theory one can accept only the patients one desires; in practice, as everyone knows, one must take all and sundry. This being the case, I cannot believe that it is fear of "control" which is the true reason for the widespread opposition to any form of State service; nor can one assume that the reason is financial, since the overhead cost of running a practice nowadays is so great that the profits are, in general, extremely modest.

It is unfortunate that in the past we have represented ourselves to the public—falsely, I think—as a race of supermen, to whom leisure and a certain amount of private life meant nothing, and that we have allowed them to persist in the mistaken belief that a patient must always have the same doctor, whatever the circumstances. No one can doubt that a proper system of health insurance will be of inestimable value to the community, but it is also clear to every general practitioner that under such a scheme the amount of work will be enormously increased. It is not too much to say that the medical man already has one of the most harassing jobs in the world. Under a State service, unless some suitable provision is made, we know instinctively that our lives will be quite intolerable.

I do not wish to appear dogmatic, but it does seem to me that this is one of the main reasons for the existing distrust and apprehension. I have yet to meet a colleague who believes that the present quixotic system is right or necessary; yet how seldom does one hear the fact mentioned in public. Possibly this is due to fear of the fatuous retort (usually made by some person with ample leisure): "Why did you become a doctor?"

With regard to the direction of doctors, which will obviously be necessary in some form to ensure a proper distribution, I think it is clear that with fixed hours, and the removal of surgery premises to a health centre, this innovation would lose most of its distasteful character, as it would enable the doctor to live where he pleased within reasonable distance of the centre. In conclusion, I would like to express my admiration for the pioneer action of the Dartford doctors and to express my hope that their project will be a success. So far from opposing the new Health Service, it appears to me that the time has come for us to confess our limitations and to request the Minister of Health to provide us with conditions which will no longer be a grave menace to our health and happiness and a constant source of anxiety to our dependants.—I am, etc.,

Llandudno Junction, Caernarvonshire.

H. DAKIN.

Supply and Demand

SIR,—It seems to be a matter of general agreement that the successful working of a National Health Service (in whatever form it finally emerges) will require an increased number of doctors. The formation of Regional Appointment Boards, therefore, leads to some interesting speculations. One early result might be that Scottish, Welsh, and Northern Ireland graduates would be prevented from leaving their own countries, which, presumably, would have first claim on their services if required. If in addition the Government of Eire were to ban the export of doctors, the question would then arise of whether

the population of England could receive adequate medical attention.

Further, consideration of their own needs by Provincial Boards might lead to a situation in which graduates, qualifying in the provincial universities, would be tied to their own districts; and, under a rigid appointments system, doctors from the Dominions might find it difficult to enter English medicine by "free-lancing" in resident posts at the various special hospitals in London. What would be the ultimate fate of English medicine and surgery without these convergent and enriching streams? Perhaps, after all, there is still something to be said for the much abused *laissez-faire* and its often forgotten concomitant *laissez-passer*.—I am, etc.,

Bournemouth, Hants.

T. R. AYSLEY.

Soluble Sulphonamide Compounds

SIR,—The soluble sodium salts of sulphapyridine, sulphathiazole, sulphadiazine, etc., introduced first in 1939, have been exceedingly useful preparations for intravenous injection, especially in the unconscious patient. Their great disadvantage, as is now well known, is their high alkalinity and consequent liability to cause irritation and even necrosis in the tissues unless they are highly diluted. This property is occasionally dangerous—as when, by some inadvertence, these preparations are injected undiluted into the theca, the brachial artery (in mistake for a vein), or the subcutaneous tissue (in mistake for a muscle). From these respective causes I have seen permanent sciatic palsy, loss of an arm, and deep sloughing ulcers of subcutaneous tissue and skin. It would seem therefore that these preparations would by general agreement be superseded as soon as a neutral preparation, proved to be harmless and equally efficient, could be obtained. This I consider has been done.

My colleagues and I have injected the preparation known as "soluthiazole" intravenously or intramuscularly whenever a sulphonamide injection was indicated in this hospital for over two years. We are quite satisfied that this preparation is harmless intravenously, intramuscularly, and even when injected, as sometimes happens, deeply into the subcutaneous tissue. The pH value is around 7. The solution is not, however, isotonic. It is hypertonic. Accordingly we have not used it, nor, indeed, have had occasion to use it, in contact with mucous or serous membranes. The first preparation which we tried had a tendency to crystallize out in some of the ampoules, but I understand that the preparation now in use has been slightly modified to obviate this defect, and we have seen no trace of crystallization in any of our ampoules for more than a year. The ampoules of 5 ml. each containing 1 g. of sulphathiazole should be kept at room temperature, not in the cold.

During the course of my teaching of students and post-graduates I have been struck by the almost universal ignorance that the problem of the production of a soluble neutral preparation of sulphonamide in concentrated form and completely satisfactory for intravenous and intramuscular injection has been solved. Hence this letter.—I am, etc.,

London, S.E.13.

H. STANLEY BANKS.

Lung Puncture and Artificial Pneumothorax

SIR,—The annotation headed "Pleural Gas Analysis" (Jan. 4, p. 21) makes reference to induction of artificial pneumothorax and raises the interesting question of the frequency of lung puncture during this operation. During the induction of well over one hundred artificial pneumothoraces during the last year I have had two cases of *tension* pneumothorax, which followed the inductions within a few hours. In these cases emphysematous bullae were found on the lung surface at subsequent thoracoscopy, and probably the development of the tension element in these cases was due to puncturing these bullae.

That a leak of air at the lung surface does, however, much more frequently occur when it is punctured than these two cases suggest I have no doubt, because I have often been struck by the greater degree of collapse of the lung seen when screening the patient after induction than could be accounted for by the amount of air introduced. Since the great majority of artificial pneumothoraces very soon "stabilize" themselves without any tension element developing, some mechanism must be at work to close this puncture hole. I think it can

simply be accounted for by the relaxation of the previously stretched lung surface afforded by its collapse, which allows the edges to appose sufficiently to close the gap even during inspiration. A simile would be the pin prick in a piece of stretched sheet rubber that closes when the tension is released. In the case of the punctured emphysematous bulla, on the other hand, elastic tissue is reduced in its wall and the lung relaxation will not assist the closure of the puncture to the same degree. Especially will this be the case on inspiration, when the lung surface will be more stretched than on expiration even when partially collapsed. Thus a "ball valve" mechanism is not difficult to visualize where air is admitted to the pneumothorax space during inspiration but cannot escape during expiration, producing an ever-increasing air pressure within the pleural space.

The opportunities for puncturing the lung at induction are great, and I think the incidence is high. Most tuberculosis workers must have been struck by the number of times the lung has obviously been punctured with no attendant ill effects. However carefully the induction is done, air may be withdrawn into the novocain syringe when making sure the needle is not in a vessel, or lung pressures may be obtained on the manometer with the induction needle itself penetrating the lung. I would suggest, therefore, that in the great majority of cases it does not matter if the lung is pierced, as the mechanism described above protects the patient from ill effects. Although my series is very small and no definite conclusions can be drawn from it, it is, I think, significant that emphysematous bullae were discovered in the two cases developing a tension element. Although the lung was pierced in many other cases (as proved at induction or later by screening) no bullae were discovered on the lung surfaces at subsequent thoracoscopy.—I am, etc.,

London, N.W.10.

PETER STRADLING.

Epidemic Gastro-enteritis

SIR,—I take the liberty of encroaching upon your space to make a few remarks about the recent outbreaks of "enteritis" which are occurring in maternity units throughout the country. We have had sporadic cases since August, 1944, though no case was fatal and all responded to treatment. It is mostly the nursing mothers who become affected, and it is also noticeable that the nursing staff, especially new pupil midwives, are susceptible.

The onset in mothers is sudden. The patient may be quite well in the morning and yet some hours later may complain of a feeling of nausea. This is seldom followed by vomiting (though occasionally, yes), but appetite is lost and the sight of food aggravates the nauseous feeling. This is followed shortly by a feeling of abdominal discomfort, which in turn is followed by abdominal pain of a colicky nature (umbilical region). Examination of the abdomen at this time shows a certain amount of meteorism to be present and also a "splashing" sensation in the caecal area. Watery stools are passed and may number anything from three to eight daily.

Patients who exhibit these symptoms are generally in the third to the eighth day of the puerperium. The condition clears up in about four days, and its cessation is abrupt.

For those who may be interested I give the routine treatment. At the onset of symptoms nothing in the way of diet is given except milk and soda-water for 24 hours or 48 hours. At the same time two tablets (1 gramme) of sulphasuxidine is given every four hours for 48 hours. If pain is prominent and the stools very frequent tincture of opium 15 min. (0.9 ml.) is given t.i.d. This generally leads to cessation of all symptoms in 36–72 hours. Occasionally treatment is preceded by the administration of ol. ricini 2 dr. (7 ml.) on the assumption of a toxin being present in the gastro-intestinal tract.

Bacteriological examination of faeces has been abandoned—all findings having been negative. Analysis of the water supply (to exclude metallic poisoning) was done, and a rough examination of the kitchen utensils failed to show any possibility of solvency of metals. We are ignorant of the cause, but are inclined to think that food—especially "frozen meat"—may be involved.

In regard to the newborn babies we have been fortunate (so far). Isolated cases have and do occur. Breast-fed babies are not immune, and indeed a relation can readily be established between "infected" nursing mothers and their babies. Our worst case was one of a breast-fed infant. My own opinion is that while the mother is "incubating" or developing the "toxin" a minimal amount may escape through the milk to the infant, and while the amount is not

sufficient to cause symptoms as yet in the mother, it is sufficient to cause disturbance in the baby. A careful watch is kept in the nurseries, and as soon as an infant develops an "unusual" relaxation of stools the following treatment is adopted.

No milk of any description is given. Ol. ricini 15 min. (0.9 ml.) is administered and 0.5% saline with glucose is given by mouth, sufficient being given to satisfy basic fluid requirements—that is to say, 2½ oz. (71 ml.) per lb. body weight in 24 hours. At the same time sulphasuxidine 0.25 g. is given 6-hourly for a minimum of 36 hours. When symptoms abate half-strength boiled breast milk is given (which is sometimes acidified by adding 2–3 min. (0.12–0.18 ml.) of B.P. HCl dil.). The feeds are increased daily.

It would be interesting to hear the treatment from other units.—I am, etc.,

Burnley, Lancs.

ANTHONY EUSTACE.

Aspiration of Acute Pleural Effusions

SIR,—Experience in consulting practice and in hospitals, civil and military, suggests that there is not a little uncertainty as to the indications for aspirating an acute pleural effusion. It may be due to the natural desire to prove an effusion diagnosed on clinical signs, coupled with faulty teaching of the inexperienced. Removal of a sample for demonstration to students and for pathological examination is legitimate in a teaching hospital. Aspiration is quite another matter and may be detrimental to the patient. Liaison between clinical teachers should enable every student to see aspiration of the pleural cavity (for this or for some other condition) at least once in his career, and most house-men to perform it. The indications should be clearly taught. I believe them to be as follows:

- (1) Dyspnoea at rest, particularly if increasing.
- (2) Circulatory embarrassment from mediastinal displacement, particularly if increasing.
- (3) Any suspicion of pus—for example, unduly toxic appearance, coated tongue, rapid loss of weight, swinging temperature. It should be noted here that the temperature may be very high with clear effusions, but that it seldom varies by more than two degrees in the day.
- (4) An effusion which shows no sign of absorption at the end of three weeks, particularly if fever is not diminishing. Removal of part will often lead to absorption of the remainder, or examination of the liquid may raise the question of tuberculous empyema or of neoplasm.
- (5) An underlying pulmonary condition requiring artificial pneumothorax treatment. Then it is important to air-replace the effusion before pleural adhesions develop.

I have seen a rise of temperature and increase of effusion so frequently after needling the chest in the acute stage that I prefer not to withdraw even a sample unless one of the above conditions exists, or unless there are strong reasons to suppose that the pleurisy is due to something other than tuberculosis.—I am, etc.,

St. Leonards-on-Sea, Sussex.

E. A. WOOD.

Intra-articular Injection in Osteoarthritis

SIR,—Over the last eight years at the Charterhouse Rheumatism Clinic and in their private practice members of the staff have treated several thousand cases of arthritis by Grant Waugh's method of intra-articular injection.¹ Some hundreds of these were for disease of the hip-joint. I entirely agree with Dr. Vernon Hetherington's warning (Dec. 28, 1946, p. 1007) that for these a prolonged treatment is necessary, and also with his remarks on Dr. Mawson's paper (Nov. 9, p. 691), which is certainly too optimistic.

The object of this letter is to draw the attention of your readers to the advantage of using acid potassium phosphate (A.P.P.)² and acid magnesium phosphate (A.M.P.)³ rather than lactic acid for the larger joints, as the effect of the injection is more prolonged; consequently the treatment, which is by no means painless, need not be administered so often. I make no claim that the salts are more effective than the acid, as we have made no comparative tests, but merely that the effect is more prolonged.

In practice, for a hip-joint, 20 ml. of A.P.P. is used on the first occasion, as A.M.P. is sometimes followed by considerable local reaction. A fortnight to three weeks later 10 ml. of A.M.P. is injected, and thereafter the interval is judged by the tendency to relapse, which may be from a month to six weeks. Usually six or eight injections are sufficient.