aeruginosa has been found repeatedly in these situations.—We are, etc.,

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Respiratory Infection in Early Childhood

SIR,—It is encouraging to see that Dr. P. S. Gardner and his colleagues (11 November, p. 316) and your leader-writer (p. 307) are now advocating the use of blood gas and acid-base measurements in the management of the child with severe respiratory infection. However, it is of little use demonstrating the presence of a major degree of respiratory acidosis unless the facilities for treatment are readily available, and this means intermittent positive-pressure ventilation (I.P.P.V.) through a nasotracheal tube. This point does not seem to be emphasized enough in either of these articles.

I would agree that this type of therapy is easily undertaken only in a hospital with facilities for intensive care, but this should not be taken to imply that I.P.P.V. is an extremely difficult technical exercise. A number of centres in Great Britain have this well established as part of a routine service, and it may not be entirely coincidental that two centres reporting series of I.P.P.V. free of major technical troubles have been those where there has been considerable co-operation between paediatricians and paediatric anaesthetists.¹

The number of children with respiratory infections requiring I.P.P.V. is probably not great, and it is therefore important that experience gained in the operating-theatre in the management of infants with respiratory distress syndrome, apnoeic attacks, or after major surgery, and in older children with status epilepticus, meningitis, tetanus, etc., should be concentrated. This may well mean channelling admissions to larger centres, but it seems unlikely that there will be much progress in further reducing mortality in a number of diseases in children unless this is done.

Surely we have now reached a stage when a children's hospital should find prolonged I.P.P.V. no more unusual or difficult than caring for the more severely ill child with, say, pyloric stenosis or intussusception.—I am, etc.,

Royal Aberdeen Hospital for Sick Children,
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REFERENCES

- ¹ Reid, D. H. S., and Tunstall, M. E., *Anaesthesia*, 1966, 21, 72.
- ² Rees, G. J., Stead, A. L., Bush, G. H., and Jones, R. S., *Brit. med. J.*, 1966, 2, 1611.

Brand Names of Drugs

SIR,—We have read with some concern your editorial attitude (7 October, p. 1) towards the Sainsbury Committee's recommendations that brand names should be abolished for new medicines. In our view too much emphasis has been put on the theoretical advantages of this proposal, while too little weight has been given to the economic and practical considerations.

Firstly, on the economic side, let us assume that a company has developed a useful new product but is required to market it under an

officially approved name. If it were patentable (and often, for a variety of reasons, it is not) the fact that imitators could use the original name would greatly encourage them to obtain a compulsory licence, as they are able to do under section 41 of the Patents Act. Thus the lack of trade-mark protection would swiftly lead to fragmentation of the originator's market, since doctors are unlikely always to specify on their prescriptions the name of the originating company, however great its reputation. The greatly enhanced financial risks involved for the developer would be bound to constitute a severe deterrent to long-term investment in pharmaceutical research in this country. As to export markets, there are many countries where products cannot be sold under brand names unless these have first been registered in the product's country of origin. In any event, the difficulties already explained of establishing a clear lead for the developer's original product in this country would undoubtedly prejudice its export potential.

For the N.H.S., however, the savings from the abolition of brand names would be negligible. There are only a small number of cases where branded products are more expensive than similarly formulated unbranded medicines. It is calculated that savings, if such branded products were eliminated from N.H.S. prescribing, would be something of the order of 0.5% of cost of the pharmaceutical services.

Nor would the abolition of brand names significantly reduce the numbers of differently named preparations on the market. Out of the 2,150 or so branded prescription medicines listed in *Medindex* at the beginning of 1967 there were some 1,780 different formulations each based on different chemical entities. That is, abolishing brand names could reduce the number of differently named preparations only by less than a fifth. Brand duplication is very much the exception, but the fact that it can occur provides for the possibility of competition leading to superior formulations.

In practical terms it is possible that the difficulties of prescribing and dispensing in the absence of brand names have been treated too lightly because there has been too little distinction drawn between the terminology for the chemical *ingredients* and that for the *preparations* which are formulated from one or more such ingredients. For the former, the approved name is unambiguous. For the latter, difficulties would arise from the absence of brand names in at least three ways: firstly, in describing special formulations, such as delayed release capsules, aerosols, or specially flavoured mixtures acceptable to children; secondly, and more particularly, in the case of small but significant variations between such formulations—for example, with capsules designed to release their medicament at different rates; and, thirdly, in identifying specially formulated presentations which were only subtle improvements over the "official" preparations. In theory each could be described in a phrase describing the formulations, coupled with the approved name and that of the manufacturer. In practice this would probably add to the confusion, rather than decrease it. Many of us must have recollections of this type of nomenclature from our time in the Services.

Finally, we do not accept that legislative controls, relying on severe penalties for

improperly formulated medicines, provide the best way of ensuring uniformly high standards of pharmaceutical quality. We believe that the manufacturers' pride in their own products, when marketed under their own brand names, provides a much stronger incentive.

General practitioners are busy men, and the use of brand names can be convenient as well as logical in their prescribing. We believe that the medical profession should give very careful consideration before supporting proposals to abolish brand names for medicines.—I am, etc.,

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Abortion and Conscience

SIR,—Dr. Myre Sim in his letter on abortion and conscience (4 November, p. 297) complains that doctors have no reliable evidence to guide them in their interpretation of the various clauses of the new Abortion Act.

The World Health Organization¹ defines health as follows: "Health is a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity." This definition is surely relevant when one is considering whether or not to advise termination of pregnancy.

Dr. Sim quite rightly feels that the doctor who advises a termination of pregnancy should have a clear conscience that the dangers threatening the pregnant woman are real. Should he not feel that the doctor who advises against termination of pregnancy also has a clear conscience that no dangers threaten the patient? It is ironical that his letter should appear but a few pages after an article (p. 271) describing 48 days' intensive hospital treatment of a woman who died from complications of a self-induced abortion.—I am, etc.,

Aland, Finland.

PETER DARBY.

REFERENCE

- ¹ Constitution of the World Health Organization, *Chron. Wld Hlth Org.*, 1947, 1, 29.

Institutional Care of the Mentally Subnormal

SIR,—Professor T. McKeown and Dr. I. Leck (2 September, p. 573) have drawn attention yet again to the shortage of facilities generally for the subnormal. These studies have much to commend them, and their accuracy, especially in relation to the needs of adult patients, is not in doubt. However, should their findings be applied to the needs of patients under 16 years of age any future planning based on them can only have disastrous results. Whatever the authors themselves may have intended, their results will certainly be quoted and used by those intent on reducing costs, and therefore some of their omissions should be mentioned. My remarks here refer only to children.

The singular lack of hospital accommodation at the time of their survey for children in Birmingham is mentioned, and it is suggested that this shortage is overcome by it being "a relatively compact area in which

paediatric and psychiatric centres do a considerable amount of investigation which might elsewhere be done in hospitals for the subnormal." Unfortunately, none of these statements is in keeping with the facts. Apart from its "compact" nature not being obvious to me, "centres" in Birmingham have been unable to carry out all the investigations necessary, while in other parts of the country hospitals for the subnormal are generally not equipped to carry them out either.

In the light of the unqualified statement that only seven of the 1,652 patients in hospital were thought to need "medical investigation or treatment of any kind necessitating hospital admission," the expenditure of £2m. on Lea Castle Hospital must appear to be the best blatant outrage to the taxpayer since the cancellation of "Blue Streak." Even more ridiculous, however, is the fact that 560 of its 660 places are already occupied, over 200 by children, more than half of whom come from Birmingham and who were in fact awaiting admission at the time of McKeown and Leck's survey but were obviously overlooked. The number of children awaiting admission to hospitals for the subnormal in Birmingham at the time of McKeown and Leck's survey was I believe over 100, and at present four requests per month for the permanent care of severely handicapped children are received from that half of the city served by this hospital alone.

The establishment of a "multi-disciplinary assessment centre" in this hospital (a report on this is in preparation) and the demand for this indicates the lack of an assessment service for these children in the city of Birmingham in the past. Requests have been received from paediatricians, E.N.T. departments, the school medical service, and general practitioners, so that these children would not appear on the waiting-lists of hospitals for the subnormal. McKeown and Leck's survey could therefore not have encountered this particular group even if it had reviewed the waiting-lists for this or any other hospital for subnormal children. The provision of this service in this hospital has become necessary because previous attempts at assessment had failed at one or other of the existing paediatric, psychiatric, or school clinics. Our experience suggests that Pilkington's 10%¹ is far more realistic than that of McKeown and Leck.

The behaviour of a number of these children is such that the ophthalmological, audiological, and even x-ray studies often require to be carried out in sleep or under general anaesthetic, while adequate psychological assessment can be achieved only by continuous observation over a minimum period of two weeks. Our experience has shown that many of these children cannot be tolerated for more than a few hours in general paediatric wards, and many who have already been returned to schools and training centres had been previously designated "not assessable," "untreatable," or, in desperation, "impossible."

The handicaps for which assistance is most commonly requested are varying degrees of cerebral palsy, deafness, blindness, speech retardation, or combinations of these, often, but not necessarily, associated with behavioural disorders and intellectual retardation. The staff involved in these assessments have been drawn from various specialties—paediatrics, orthopaedics, ophthalmology, otology, biochemistry, psychology, and psychiatry—assisted by specialist teachers, a speech therapist, and a physiotherapist. The waiting-list for such assessments after four months is now over 25, and demand is increasing. None is accepted without one of three consultants deciding that it is impossible elsewhere. Several children are accepted following assessment for varying periods of treatment

or diagnostic teaching, for which special units have been established in the hospital. The majority, however, have so far been returned to the community with recommendations on placement and management.

The service outlined here is far from complete at present, but it would be quite unrealistic to suggest that, even in its present form, it could be carried out adequately on these children anywhere but in the context of a hospital specializing in the treatment and management of the severely handicapped child.

Despite their underestimate of the need, it should be remembered that McKeown and Leck do suggest that the provision of such facilities in hospitals for the subnormal is most desirable. From our brief experience of the demand, this is indeed fast becoming a necessity. Inevitably, however, the cost per patient in such hospitals must rise, and until the controllers of hospital finances are made aware of the need for this progress it can never be achieved. Estimates of the cost per bed in hospitals for the subnormal in the past few years have varied from £10 to £12 per week, whereas provision of the most basic service on the lines suggested above would amount to from £16 to £20 per week. Personal experience, however, has made it apparent that the treasury and finance departments of regional boards have not yet become aware of the necessity for any such increase. The Minister, in his recent directive on "the upgrading of hospitals," indicated his awareness of the need for a rise in standards, but, apart from expressing a pious hope that this might come about, makes no mention of meeting the increased cost. Until hospitals for the subnormal are given the necessary financial support, and until they cease to be looked upon as a "last resort" for the hopeless, neither these advances nor the wishful thinking of the Minister will ever materialize.

Finally, if any justification should be necessary for this expenditure on the handicapped child, it could be mentioned that at least half of these entering hospital at 5 years of age or under can expect to survive for possibly 50 or more years. At a conservative estimate this will cost £30,000 per patient. Surely it cannot require a great deal of foresight to become aware of the advantages of an increase in expenditure, which will then amount to only half the cost in a city general hospital, or one-third that of the teaching-hospital bed, and which could enable 10–15% of these children to be discharged after one or two years, in some cases with no further expense to the hospital service.—I am, etc.,

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REFERENCES

- 1 Pilkington, T. L., in *Report of the Annual Conference of the National Association for Mental Health*, 1966, p. 50. London.
- 2 *First Report of the Joint Working Party on the Organization of Medical Work in Hospitals*, 1967. H.M.S.O.

Ventricular Aneurysm

SIR,—Your leading article (11 November, p. 312) on ventricular aneurysms prompts us to record a physical sign that we have not infrequently observed after extensive cardiac infarction, especially in women. This consists in a lifting or rocking movement of the fourth and sometimes also of the third rib which can be followed by the palpating finger from the costo-chondral junction right out to

the axilla. In a number of cases the movement is visible and we have, in one case, recorded it with a cinecamera. The sign may persist for two or three months, but can also be permanent. Although it more commonly follows anterior wall lesions, we have on at least one occasion observed it after a postero-diaphragmatic infarct.

We can offer no ready explanation for this phenomenon, which has not, to our knowledge, been described before. The fact that it is not due to localized outpouching is clearly shown on radioscopes, when the movement transmitted to the examiner's hand is visible at sites well clear of the left cardiac border.—We are, etc.,

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Errors in Blood Transfusion

SIR,—Once again a transfusion catastrophe has received nationwide publicity,¹ and, in so far as it is fatal cases which are reported, we can draw no comfort from the knowledge that the incidence of incompatible transfusion is higher than this annual event would imply. I would suggest that a re-emphasis of certain facts relating to the practice of blood transfusion will not come amiss at this time. Having regard to the complexities of the subject, it might be thought surprising that more difficulty was not encountered, but there is a common theme running through most of these reported accidents. The incompatibility is in the ABO system and results not from technical incompetence but from clerical error.

I believe that a heavy responsibility rests upon the pathologist in respect of both the technical and clerical aspects of this problem. The problem of safeguarding identification of patients clearly varies from one hospital to another, but I cannot help feeling that more attention should be paid to this aspect of transfusion practice. Many hospitals have devised their own internal system; others have not, or at best have failed to enforce it.

Some years ago, at a meeting of the Association of Clinical Pathologists, I demonstrated a system which we have now operated successfully for many years at the Royal National Throat, Nose, and Ear Hospital. We use a three-part label which follows the colour coding employed by the National Blood Transfusion Service. An example is shown in the Figure. When blood is prepared the first and third part are completed and part three is detached and secured to the blood bottle. If there is no state of emergency requiring the immediate issue of the blood parts one and two are sent out on a report form indicating that the blood is available. Before the blood is issued part two has to be completed and returned to

The label in three parts:—

Part 1	Part 2	Part 3
GROUP	GROUP	GROUP
A Rh POSITIVE	A Rh POSITIVE	A Rh POSITIVE
Name _____	Please supply X matched blood for _____	No. _____
No. _____	Name _____	X matched with serum of _____
	No. _____	Name _____
	Signature _____	No. _____
		Date _____
Attach to Form.	Return to Laboratory	Attach to bottle