deal with the pre-employment and annual x-rays of employees from the industries in the neighbourhood. It could also deal with employees of local authorities, school teachers, usually employed by local authorities, pregnant women from local authority antenatal clinics, and children found to be Mantoux-positive as the result of routine annual tuberculin testing. It is a waste of everyone's time to carry out M.M.R. x-ray examination on children under 15 without the preliminary tuberculin test, and, as Drs. Lissant Cox and A. L. Cochrane and Professor J. Crofton say (Journal, March 24, p. 684), merely swells the numbers.

Two important groups that should certainly be covered by the M.M.R. surveys are immigrants and vagrants. Although there is some division of opinion upon the political implications of surveying immigrants, the methods are perfectly simple. No immigrant should be taken on for any job of any sort until he produces a "clear" mass x-ray card. The Ministry of Labour would hold the duplicate. Vagrants would not be entitled to any assistance until they were able to produce a "clear" card, but in neither case would the patient suffer, because he would be given immediate treatment if he was found to have any disease. By all means let us have immigrants, but they must not be unknown carriers of infection.

I believe that if all these groups were x-rayed annually as a condition of employment and no one was penalized by employer or union because of his disease and its effect upon his working capacity, not only would a large number of cases of tuberculosis and carcinoma of lung be found but a useful nucleus of public opinion in favour of annual M.M.R. would be formed.—I am, etc.,

London, S.E.5.

## KENNETH MARSH.

## B.C.G. Trial

SIR,—May I comment briefly on some of the historical aspects of the Medical Research Council B.C.G. trial reported in your issue of February 25 (p. 413)?

In this connexion I would draw your attention to some events which occurred so long ago as 1943, when, at a meeting of the Tuberculosis Association (now the British Tuberculosis Association), it was unanimously agreed, following upon a discussion on B.C.G. by international experts, that the Minister of Health be approached with a view to conducting a trial in this country. Nothing further could be done until the end of the war, but shortly after its close a memorandum on B.C.G. was prepared by Professor W. H. Tytler for a joint committee of the Tuberculosis Association, the Joint Tuberculosis Council, and the National Association for the Prevention of Tuberculosis, for the consideration of the then Minister of Health and the Secretary of State for Scotland. In 1947 the Research Committee of the B.T.A. was inaugurated and immediately set about drawing up a practical scheme for B.C.G. trials, which was made available to the Ministry of Health.

In the report of the B.C.G. trial, no mention is made of the B.T.A. and the part it has played over a long period of years in initiating such a trial. Much of the credit for this forward-looking outlook must go, therefore, to the old tuberculosis officers and sanatorium medical officers of the pre-National Health Service days, and to the two other organizations associated with the memorandum, and I hope that it will be possible for you to find space to draw attention to these facts.—I am, etc.,

London, W.1.

W. E. SNELL.

## Cerebrał Hypoxia

SIR,—I have read with interest the article on this subject by Drs. D. E. Argent and D. H. P. Cope (*Journal*, March 17, p. 593), but feel that hypothermia should be included in the treatment of the cerebral hypoxia and oedema which may follow cardiac arrest, particularly if this does not respond to dehydration therapy. At least one patient with hyperpyrexia and convulsions following a cardiac arrest has recovered completely after therapy with hypothermia.—I am, etc.,

Hull.

W. N. ROLLASON.

## Coagulase-positive Staphylococci

SIR,-In their recent article Dr. J. Brodie and his colleagues (Journal, March 24, p. 667) reach conclusions which are specious but absurd. They compare types of coagulasepositive staphylococci found in the nasopharynges of nurses during their period of pre-training with types found in the same nurses during their period of ward training. They conclude that some types of staphylococci can spread in hospital more readily than others, but do not know whether this is due to a faster rate of growth of the one or to an inhibitor of the other. Surely the difference found is due to the extensive use of antibiotics in hospital. In the absence of data indicating the types of staphylococci which cause disease in hospital, the efficacy of the various methods of spread of infection, and the flora of the possible sources of infection, it is unjustifiable to conclude that the "nurse nasal index" indicates anything other than the ability of some types of staphylococci to colonize the nasopharynges of nurses working in hospital wards. In particular, there is no evidence that it bears any relationship to the rate of cross-infection in the hospital.

In the article there is neither comparison of the types of staphylococci found in the nasopharynges of hospital patients and of healthy patients outside hospital, nor consideration of the widespread use of antibiotics in hospital. It is suggested that both are relevant. Since antibiotics sterilize the nasopharynx, subsequent colonization can take place only by antibiotic-resistant organisms, and it is likely that the patient's new nasopharyngeal flora will be reflected in the nasopharyngeal flora of the nurses who are contacts. Thus swabbing of nurses' noses might possibly provide corroborative information about the flora of a recent epidemic, but it could hardly assist in the investigation of a present one. It might help to estimate the value of control measures in preventing colonization of the nurses' nasopharynges, but if this is not connected with the crossinfection rate in the ward its value is nil. The contention that such investigations are valueless is supported by a fact which the authors describe as puzzling: "A feature of the epidemiology of staphylococcal disease acquired in hospital is the relative infrequency of outbreaks of manifest disease in wards staffed by nurses who show a high nasal carrier rate for coagulase-positive staphylococci." Surely this indicates quite simply that precautions and conditions in hospital are such that nurses who are nasal carriers are unimportant vectors of staphylococcal infection and that the nasal swabbing of nurses is unlikely to be profitable.

It was decided to investigate the extent to which antibiotics are used in hospital. Inquiry was made in the general surgical and medical wards of a Glasgow hospital concerning the number of patients, at present in hospital, who had received penicillin and/or wide spectrum antibiotics during their stay in hospital. The result of the survey is summarized in tabular form : the table shows the number of patients in general and surgical wards of a Glasgow hospital who receive no treatment with antibiotics (N.T.); penicillin alone (Pen. alone); penicillin and at least one wide spectrum antibiotic (Pen.+W.S.); wide spectrum antibiotics alone (W.S. alone); and the total number of patients who receive at least one antibiotic (Total).

	N.T.	Pen. Alone	Pen.+ W.S.	W.S. Alone	Total
Surgical: Male Female Both	  48 63 101 (60%)	16 12 28 (15%)	14 14 28 (15%)	11 7 18 (10%)	41 33 74 (40%)
Medical: Male Female Both	  57 51 108 (70%)	14 17 31 (20%)	9 3 12 (8%)	3 0 3 (2%)	26 20 46 (30%)
Surgical and medical: Male Female Both	  105 114 219 (65%)	30 29 59 (17%)	23 17 40 (12%)	14 7 21 (6%)	67 53 120 (35%)