

understand immunity to erythrocytic malaria, and it is far from simple. What we just do not know is how to identify and produce in bulk the appropriate antigen(s) of experimental malarias, let alone of *P. falciparum* and other human parasites. Nor do we know how to present these antigens in a way which stimulates the immune system to best advantage without using Draconian adjuvants like F.C.A. When we have solved these formidable problems a practical vaccine incorporating blood stage antigens might become feasible.—I am, etc.,

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- 1 Freund, J., et al., *American Journal of Tropical Medicine*, 1948, 28, 1.
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- 5 Brown, K. N., et al., *Experimental Parasitology*, 1970, 28, 304.
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Withdrawal Symptoms in Newborn Infants of Epileptic Mothers

SIR,—It is a well-known fact that infants born to narcotic addicts may show withdrawal symptoms, including vomiting, though it is less well-publicized that withdrawal of other drugs may produce vomiting in the neonate. We have noticed that infants born to epileptic mothers often show drug withdrawal effects, including hypotonia, irritability, and vomiting. The vomiting tends to occur during the first two or three days following delivery and is usually confined to babies whose mothers have been having barbiturates (phenobarbitone) as their anticonvulsant medication. The last few cases we have seen here have usually settled down rapidly after a single intramuscular dose of amylorbarbitone, though one infant, whose mother had uncontrolled epilepsy necessitating large doses of many anticonvulsants, took several days to recover.

As epilepsy is a common disorder, we find that this cause of vomiting is one of the more likely in the differential diagnosis of neonatal vomiting.—I am, etc.,

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Non-invasive Investigations of the Brain

SIR,—We read with considerable interest your leading article on this subject (10 May, p. 295). We would like to comment on some of the points made in that article since we feel they need clarification.

A comparison of non-invasive investigations of the brain is implicit in the article, which follows the current trend of emphasizing the potential of the E.M.I. scanner. However, it is misleading to say that the advent of E.M.I. scanning has reduced the number of isotope brain scans carried out. So far this is not the experience in some European centres and certainly not the ex-

perience of the American centres, where in fact the opposite has happened and more frequent isotope brain scanning has emerged as a consequence of the use of the E.M.I. scanner.

The second point which needs clarification is related to the method of comparison implicit in the article. Since one should compare only "like with like," digital scanning based on x-ray technology should be compared only with digital scanning based on radionuclide technology. Indeed, computer-processed isotope brain scans produce images of high resolution and sensitivity. Data presented at a recent postgraduate symposium at Columbia University, New York, by Kuhl comparing the E.M.I. scanner and his computer-assisted tomographic brain scanner (isotope scanner) proves this point very well. So if one wants to evaluate E.M.I. scanner results one should avoid looking at the analogue brain-scanning techniques.

In spite of these "bad days" for nuclear medicine the accuracy of analogue brain scanning is generally estimated at 85%. So far as we can foresee now, this figure will improve with computer-assisted isotope scanning. This is a considerable asset for a technology which at the moment has not only passed the test of time but also offers the advantage of not employing a single-purpose machine.—We are, etc.,

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Fluorinated Corticosteroids and Dermatophytosis

SIR,—I wish to comment on your epidemiological report on an outbreak of dermatophytosis (29 March, p. 745). It is stated that "*Epidermophyton floccosum* usually causes tinea pedis or tinea cruris" and "where there is an obvious reservoir of infection, the species is quite frequently found as a cause of small outbreaks" of these conditions. It is also stated that *E. floccosum* "rarely causes the tinea corporis described" in the report and it is suggested that the infection throughout a geriatric ward came after the admission of a simpleton who was scratching vigorously.

Over the past few months I have seen several cases of infection with *E. floccosum* in the submammary area, a site only occasionally infected by this organism. All the women were using a fluorinated corticosteroid ointment or cream and all had husbands who complained of itching feet. I have also seen a 3-year-old girl with widespread tinea corporis from *E. floccosum* who was under treatment for infantile eczema with a fluorinated corticosteroid cream and whose father suffered from tinea pedis. "Tinea incognita,"^{1,2} which results from immunosuppression caused by fluorinated corticosteroid applications, is increasing in dermatological practice in South Australia. Though there seemed to be an obvious reservoir of infection in the outbreak of dermatophytosis which you report, I wonder whether the reservoir might not have been increased by the application of a fluorinated corticosteroid cream or ointment. I wonder whether the simpleton who had been scratching was treated with one of these preparations and

whether this was the ultimate explanation for the outbreak of the infection.

Fluorinated corticosteroid creams and ointments are in constant use and readily available to nursing staff. Was the simpleton's itching treated with one of these? Could inquiries be made?—I am, etc.,

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- 1 Ive, A. F., and Marks, R., *British Medical Journal*, 1968, 3, 149.
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*A correspondent in the Epidemiological Research Laboratory writes: "We have made further inquiries of the hospital where this outbreak occurred and find that fluorinated corticosteroid creams were indeed prescribed for the index case on several occasions during the months before the fungal infection was diagnosed. These preparations were used to alleviate his scratching but were not given to the other infected patients. Clearly the use of these creams may have been a factor in the spread of the infection, and we are grateful to Dr. Burry for bringing this to our attention."—Ed., *B.M.J.*

Improving the Service

SIR,—It is clear that, in part at least, 1975 will be remembered for the confrontation between the various branches of the profession and the Government. However justified our several disputes have been, at the end of the day it is still our responsibility (and for most of us our earnest desire) to provide the best possible service for our patients. Realistic remuneration and terms of service will make the profession more content, but much more than this will be required to counteract the erosion of medical standards and the constant deterioration in facilities for patient care in the foreseeable future as the N.H.S. purse-strings, in common with all others, get progressively tighter.

The simple fact, but one that successive levels of N.H.S. administration have failed to correct, is that the N.H.S. is grossly inefficient. There is far too much duplication of services, due largely to the haphazard nature in which the service has proliferated. The numerous cardiothoracic and renal transplant units within the London area illustrate this, as does the situation in Birmingham, where two major accident and emergency departments exist at separate hospitals within 2 miles of each other—with full duplication of manpower and equipment. In many large cities (and Liverpool is a prime example) there may be any number of hospitals within a 10-mile radius working far below true capacity (though most may appear "busy") but each professing to provide full emergency services 24 hours a day for a wide range of medical, surgical, and gynaecological conditions. If the premise of inefficiency is accepted, it is then easy to appreciate that proper use of medical manpower might well reveal that, contrary to popular belief, there is no true shortage of hospital doctors in this country. As it is, our ratio of doctors to patients is higher than virtually every other country.

Though the service at present is wasteful of money and manpower, it is readily available and convenient for the vast majority of patients and their relatives, for in most areas