usually well-conceived publications that are so characteristic of the English medical man's sane outlook.

Dr. McLaughlin's careful paper collapses on two most important points:

(a) The control group of children are those who live at home. Now these children come from a better type of home both from the point of view of mother's character and also financial stability, and they are therefore not true controls. Nobody is going to deny that the children living at home under the care of their mothers will be finer and fitter than the poor little soul bundled out of home at 7.30 a.m. come sun, come rain, inadequately washed, and often inadequately fed. But what are we going to do with the illegitimate child of the mother "forced to go to work"? These represent the majority of the children in day nurseries of which I have experience, not the absurd picture of the masculine mother in Dr. F. Gray's letter (June 21, p. 899). The "business executive" does not send her child to the day nursery. The day nursery children are certainly much better looked after in the nursery than allowed to run riot in the streets with the penny bun for lunch, or looked after by an already overworked neighbour.

(b) It is of course agreed that children *en masse* are more prone to infections one from the other. Why not, therefore, agitate against the kindergarten that the middle-class parents use? Obviously because it is unnecessary—unnecessary because those children come from a healthier and wealthier home than their more unfortunate brothers and sisters and can therefore withstand the onslaughts of infectious illness. Yet the day nursery and the kindergarten are strikingly similar. This, to my mind, proves that it is not the day nurseries that are at fault but rather the homes from which the nursery children are drawn.

I come now to my final point. In no papers that I have seen has there been an attempt to stamp out nasopharyngeal infections in the day nursery. Surely a healthy nose and throat will give the child a greater chance of avoiding infectious illnesses. Why not administer a routine nose drop as soon as the ubiquitous mucopurulent stream is seen tracking down the upper lip?

I should like to end with an appeal for a saner and less prejudiced outlook on the question of the children of the mother "forced to go to work." It will become even more urgent in the future as more and more women go into industry.—I am, etc.,

London, W.C.2.

J. Z. GARSON.

Treatment of Acute Mastitis

SIR,—While agreeing with Dr. J. MacLeod's treatment of acute mastitis (June 14, p. 865) by penicillin intramuscularly, I feel that routine stilboestrol is neither necessary nor desirable. I avoid using stilboestrol unless a milk fistula is present and the mother has stopped breast-feeding. From the figures given below the result is gratifying. The value of breast-feeding cannot be overrated, and we must avoid using any method whereby milk production is likely to be curtailed. The breasts can be adequately emptied by a breast pump.

The prevention of acute mastitis begins before the baby is born. Although the hygiene of the nipple is well known to the profession, it is sadly neglected in certain areas. In the majority of cases the aetiological factor is ascending infection from the nipple through the ductal system by *Staphylococcus aureus*, probably originating in the patient's skin. The use of penicillin cream during lactation is not desirable. It may have detrimental effects upon the baby, producing stomatitis and interfering with sucking. The introduction of penicillin has revolutionized the treatment of acute mastitis. It is no longer necessary to make large radial incisions into the breast to break down loculi to produce one abscess cavity from which pus can freely discharge on to the surface. The complications occurring after this method are haemorrhage, secondary wound infection delaying healing, and milk fistula. Frequent and repeated dressings are both painful and tiring for the patient. Secondary suture means another operation and anaesthetic.

The principles of treatment of mastitis by penicillin are based on the pathology of the condition. All cases of mastitis and breast abscesses commence either as a diffuse suppurative or segmental mastitis. Penicillin acts by producing a localized suppurative mastitis. Depending on the quantity of pus present, either complete resolution or a chronic pyogenic abscess may occur. Thus, penicillin produces changes of chronicity, and when nature fails in severe cases to absorb the pus it is essential to realize this early and evacuate the abscess. I have used several methods to evacuate

the pus, having localized it in necessary cases by giving penicillin, 100,000 units in 1 ml. saline, twice daily for two to three days.

Penicillin Given I.M. b.d. in All Cases	No. of Cases	Organisms	Average No. of Days for Healing to Occur	Remarks
Incision and open drainage	20	<i>Staph. aureus</i>	16	1 milk fistula, 2 haemorrhage, 1 secondary infection with <i>Bact. coli</i> Slow healing of incision
Incision, with primary suture of wound, with corrugated rubber drain through it	3	" "	14	1 recurrent abscess
Incision, evacuation of pus, instillation of penicillin solution, and primary suture	2	" "	12	Low grade infection of healthy area
Incision, dependent drainage, and primary suture of wound	3	" "	12	Residual induration
Incision, instillation of penicillin through penicillin tube, and primary suture around tube	3	" "	10	Low grade infection in healthy skin
Incision, penicillin tube through dependent area, and primary suture of wound	3	" "	11	Induration
Tenotomy incision and penicillin tube	20	" "	7	"
Multiple tenotomy incisions and penicillin tubes	1	" "	7	"
Secondary suture	Nil			

As the results of tenotomy incisions and penicillin tubes have been uniformly good in the 21 cases, I trust you will allow me more space to describe the methods. The smallest possible incision is made over the centre of the abscess with either a tenotomy knife or a narrow Bard Parker scalpel. The pus is gently expressed, and a narrow rubber tube stretched on sinus forceps is introduced into the abscess cavity. No suture is required to hold the tube in position, as the skin contracts tightly on it. Penicillin solution, 2,000 units per ml., is injected down the tube until the abscess cavity is filled. The tube is then spigoted. Penicillin, 100,000 units per ml. in saline, is given i.m. twice daily. The contents of the abscess cavity are aspirated twice daily and replaced by penicillin solution. After two to three days the aspirated fluid is clear and usually sterile. The tube is then removed and a penicillin dressing applied. In the event of the resulting cavity filling up again the contents can be gently expressed through the resulting sinus. Healing is generally complete on the sixth day, leaving a residual thickening in the breast. A good support is all that is now required, and after one to two weeks the thickening will have completely disappeared. If desired, short-wave diathermy will hasten this process.

In the presence of multiple abscesses separate tenotomy incisions and penicillin tubes for each abscess treated as above will give similar results.

I wish to thank Mr. Hugh Reid and Mr. A. C. Brewer for allowing me to carry out this treatment on their patients.—I am, etc.,

Liverpool.

R. MARCUS.

Treatment of Acute Osteomyelitis in Children

SIR,—It would appear from the letter of Drs. J. Trueta and M. Agerholm (June 21, p. 899) on the treatment of acute osteomyelitis in children by penicillin that they have approached the paper by Messrs. T. Twistington Higgins and Denis Browne and Dr. Martin Bodian (May 31, p. 757) with an air of complete disbelief. Having seen some of the results obtained at the Hospital for Sick Children, Great Ormond Street, and at Oxford, I am convinced of the efficacy of both the methods that are being advocated, but "each in its own place." It would seem to be wiser to take this broader view rather than to read more into the text than is apparent. Many of the remarks of Trueta and Agerholm appear rather out of context, especially those relating to surgery. Only two, or possibly three, of the Great Ormond Street cases warrant classification as "open surgery"; two could properly be described as cases of incision of superficial abscesses in an area in which the Oxford method is hardly applicable—as examples, in fact, of the time-honoured method of "free incision and free drainage" of a pointing abscess.

Aspiration is difficult, but the fact that repeated aspirations were needed does not imply that the method was unsuccessful. Many aspirations were needed in order that the amount of pus

present should constantly be minimal. Is it indeed certain that new pus does not form after drilling of a bone? With regard to dosage of penicillin: That advocated by Great Ormond Street does seem to be unnecessarily low. Presumably this is because the series was begun at a time when there was a dearth of the drug, and the dosage was continued because it was found to be adequate. It is a fact that immediate improvement occurred (i.e., within 24 hours) in the majority of the cases. Penicillin must obviously be given to infants by intermittent injection, and the fewer these are the better, provided that an adequate concentration be obtained and the best possible results, for trauma undoubtedly upsets infants and makes handling of them more difficult as regards feeding, etc.

Mobilization does not really form a large part in the treatment recommended. It is rather a suggestion that complete immobilization is unnecessary, and that simple methods are adequate in the acute stage. Certainly there would be little weight-bearing in the infant age group, and it is probable that the risk of pathological fracture is less than the dangers and difficulties involved in plaster immobilization in infants. With regard to positive blood cultures: this may be rather a false percentage, for no doubt some difficulties were experienced in obtaining some or sufficient blood in all cases. This point is not made clear in the article.

It would seem reasonable to accept, with reservations, the principles both of the Great Ormond Street and the Oxford series. It might be wise to use the Oxford method in older patients with severe infections, while the Great Ormond Street technique seems certainly to be adequate in the less severe cases, and in all infants in whom operations should not be undertaken too lightly, and in whom the difficulties of feeding, hydration, and so on have such an important bearing on the ultimate recovery. A dosage scheme dependent upon body weight would appear to be rational and desirable. Such a scheme has been started by Great Ormond Street in this series, and, though it has not yet attained general acceptance, it would seem to be more reasonable than a mere routine dosage for any patient of any weight and any age.—I am, etc.,

London, W.1.

IAN P. TODD.

Myiasis of Palpebral Conjunctiva

SIR,—I was interested to read Dr. T. E. M. Wardill's letter (May 3, p. 615) regarding myiasis of the palpebral conjunctiva. The following case came to my notice recently and may be of interest.

CASE REPORT

A soldier aged 20 reported sick on the evening of May 27 with an inflamed eye of a few hours' duration. He told the medical orderly that he could feel something moving about under the lid, and as the orderly could see something moving on the conjunctival surface he informed me.

On examination an acute conjunctivitis of the affected eye was evident, and on evertng the lids, to my surprise, a number of very tiny maggots were just visible. With characteristic dislike of light they wriggled away into the conjunctival fornices, but eventually half a dozen maggots were removed by wiping the palpebral conjunctiva with cotton-wool. One maggot was examined on the point of a needle, and its form was then clearly discernible. On questioning the man he stated that a fly had buzzed into his eye at 10 o'clock that morning, and the eye had become inflamed in the afternoon.

Following removal of the maggots his eye became more comfortable and the following day was quite normal.

The predominant fly around here is *Musca domestica*, but I am unable to say whether this might be the culprit or not.

I am indebted to Lieut.-Col. D. B. Seymour-Price, R.A.M.C., for permission to publish this case report.—I am, etc.,

M.E.L.F.

P. DRANSFIELD,
Lieutenant, R.A.M.C.

Acute Non-specific Diarrhoea and Dysentery

SIR,—I read the article by Dr. G. R. Kershaw on the above subject (May 24, p. 717) with pleasant anticipation, hoping to gain some new light on this difficult subject. I was disappointed to find that he appears to have drawn his conclusions after a few years' clinical observation, controlled by only a few full pathological investigations, and with an incomplete knowledge of the extensive literature already published. I have been investigating these cases at sea, as occasion offered, over the last twenty years. In most epidemics I have plated out the faeces, picked off non-lactose-fermenters, and put them through the appropriate sugar media, and tested their agglutination with

standard dysentery and salmonella antisera. I have never identified any pathogen from these cases.

In my paper in the *Lancet* (1938) reviewing this subject the question of chills, cold drinks, etc., was considered, but, after careful investigation, was not thought to be the whole answer, and no pathogen was found. My bacterial results were checked by the late Prof. Eyre, of Guy's Hospital. Drinking water was excluded after a research on the *Bact. coli* content of water in ships' tanks extending over a period of 18 months (Royds Jones, 1936). I note that Dr. Kershaw also exonerates water (after two analyses). Knowledge gained during the war when carrying troops in convoy allowed us to go a stage further (Royds Jones, 1943) and exclude food, water, and a food handler "carrier." It was due to this last letter that I was asked to meet the Director-General of Hygiene at the War Office, who kindly supplied me with a large quantity of media for an extensive research. Unfortunately owing to the progress of the war our route was changed, and we never again got these large epidemics in which 400 to 600 men were affected in one night, and I have not been able to proceed further. Incidentally, the majority of men affected were those sleeping in mess decks, both in hammocks and on the deck, and not those sleeping on open decks, where chilling would have been greatest, although some patients came from each.

My tentative suggestions at the time were either (1) a virus as the cause, or (2) a saprophyte becoming pathogenic at this temperature, for which there is some experimental evidence—Kligler, I. J. (1936), and Robertson and Weld (1932). I discussed the virus theory with a few first-class virus workers, and they at that time were inclined to discredit the suggestion. However, both American and Canadian workers had published papers suggesting a virus as the cause. Now British authorities are more inclined to favour this theory, as witness several articles published recently and your own annotation (Feb. 1, p. 187) about six months ago. I regret that I cannot give exact references to the recent literature, as I am now at sea.—I am, etc.,

Banbury, Oxford.

H. M. ROYDS JONES.

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Primary Malaria in London

SIR,—The article by Drs. C. Blaxland Levick and M. E. MacGregor (May 31, p. 764) on "Primary Malaria in London Children" prompts me to write and bring to your notice a further case of this illness in an adult which I encountered during the week of publication of the original article.

The patient was a woman, aged 36, residing in Kensington and a Foreign Office Civil Servant employed at Eastcote. I saw her at home first on Thursday, May 22, 1947, when she was complaining of nausea with frequent vomiting, frontal headache, and lacrimation, back pain, and sweating. It was her belief that she had some form of "gastric flu." Her temperature was 101.4° F. (38.5° C.). The following day she was little better, and her temperature had dropped to 99° F. (37.2° C.).

On Saturday, May 24, she was moved to friends in Hampstead who were able to look after her better. She was feeling very much better, apyrexial, and thought she had recovered. Sunday evening, however, she developed a recurrence of her symptoms, which were now very much more definite in character and followed the typical stages of malaria, the temperature rising to 102.4° F. (39.1° C.).

Blood slides which were taken the following day when she was apyrexial proved negative; but those taken next day in the middle of a rigor were kindly examined for me by Dr. H. O. Hughes at the Middlesex Hospital, who reports that the films showed scanty trophozoite ring and amoeboid forms, and gametocytes of *Plasmodium vivax* (benign tertian malaria). She has since been given mepracine and remained free of symptoms.

Her history is interesting. Apart from travelling to and from her work daily she had not been out of London since last Christmas. She was born in India and resided in Calcutta till 1937, when she came to this country, and never had any form of antimalarial therapy given her at any time. The only illness in the past had been German measles, and 3-day fever when she was a schoolgirl aged 12—that is, 24 years ago, and a most unlikely factor in this illness. Her only contact with malaria