fatality rate) and the mortality rate per number of individual electrical treatments given (treatment-fatality rate).

Using a questionnaire, Barker⁵ and Baker⁶ investigated retrospectively nine deaths which had occurred over a two-year period in 55 hospitals as a result of E.C.T. These deaths were distributed over more than a quarter of a million treatments. Amongst the conclusions from this study (which must be one of the largest in existence) was that the E.C.T. mortality rate was extremely low—one death per 28,000 treatments, which is equivalent to a treatment-fatality rate of 0.003%. This might imply that the mortality rates from E.C.T. and that arising from tranlycypromine are of approximately the same order (0.003% as opposed to 0.001%), whereas it is of course impossible to compare the incidence of death resulting from tranlycypromine against a mortality which is expressed according to the number of E.C.T. treatments which have been administered.

Also it would seem inappropriate to compare the fatality rate resulting from a monoamine oxidase inhibitor taken several times a day, alone or in combination with other powerful psychotropic drugs, over a period of several months or years, with that resulting from E.C.T., which may also be given alone or in conjunction with drugs (usually 2 or 3 times a week for much shorter periods). Too many variables are introduced. For instance, among many other considerations the age of the patient may be much more important in relation to the E.C.T. fatality rate than to the incidence of death associated with tranlycypromine.

Far more information about this subject is required before any lasting conclusions may be drawn. The position of the elusive decimal point is, however, of considerable importance.—I am, etc.,

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J. C. BARKER.

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Attempted Suicide with Cheese

SIR,—Many reports have appeared lately dealing with possible side-effects of "par-nate" (tranlycypromine).

So far, however, I have not heard of a similar case to that of a depressed young woman recently admitted to this hospital. Prior to admission she was having tranlycypromine, and had been naturally warned about the risks of cheese concurrently with that drug. Unfortunately she suffered an acute deterioration of her illness and attempted suicide by swallowing some tablets of tranlycypromine. A few days after her admission she confessed to the staff that she had not only taken the tablets but also a "chunk of cheese." Nothing happened to her.—I am, etc.,

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J. ASENSIO.

Ampicillin in Typhoid Fever

SIR,—Your leading article on ampicillin (18 January, p. 132) states that since the discovery of ampicillin (alpha-amino benzyl penicillin, "penbritin") in 1961¹ no full-scale results of clinical trials of ampicillin in typhoid fever have been reported. I would like to draw attention to a controlled trial of ampicillin treatment in typhoid fever carried out at the Mulago Hospital, Kampala, the results of which I presented at the Third International Chemotherapy Conference held in Stuttgart, West Germany, in July 1963² and which will be published in the proceedings of that meeting. The trial was controlled in that patients were allocated to treatment with ampicillin or chloramphenicol on a random basis. The criterion for the final diagnosis and inclusion in this trial was a positive blood culture of *Salmonella typhi*. Fifty patients were studied, 25 in each group. Both drugs were given orally. Ampicillin was given in the dose of 2.25 g. per day, and chloramphenicol 3.0 g. per day, till the pyrexia subsided. Thereafter ampicillin dosage was reduced to 1.5 g. per day, and chloramphenicol to 2.0 g. per day, and this was continued for one week. Children under 10 years of age were given half the adult dose. The series consisted of 36 males and 14 females. The age range was from 8 to 50 years.

In the patients treated with ampicillin the duration of illness before the start of the treatment had great effect on the response to the drug; the early cases responded much better than the late cases. On the other hand the response to chloramphenicol was uniformly good, regardless of the duration of illness before treatment. In nine patients who were ill for less than seven days before the start of the treatment the response to ampicillin therapy was good, and the average duration of fever was five days. This was noted in all patients irrespective of the severity of the illness. In 16 patients who were ill for more than seven days the response to ampicillin therapy was slow, and the average duration of fever after the start of treatment was nine days. The average duration of fever after the start of chloramphenicol was 5.5 days, regardless of the severity or duration of the illness.

In the ampicillin-treated group nine patients responded satisfactorily; the response was slow in 13 patients and poor in three. These three all did well on chloramphenicol. Blood culture of one of these patients showed *S. typhi* resistant to ampicillin and sensitive to chloramphenicol. One patient had a relapse and responded well to another course of ampicillin. One patient died of intestinal haemorrhage. In the chloramphenicol-treated group, the response to therapy was considered good in 21 cases, slow in three, and poor in one. The blood culture of the patient who showed the poor response grew *S. typhi* organisms which were found to be resistant to chloramphenicol and sensitive to ampicillin; he subsequently did well on ampicillin.³ Two patients relapsed, but responded well to second courses of chloramphenicol. Two patients had intestinal haemorrhage, and this was fatal in one. One other patient died of intestinal perforation. Four further cases of typhoid fever were treated with the bigger dose (4.0 g. per day) of ampicillin. No improvement in the response was noted.

There were no manifestations of hypersensitivity reactions noted during the administration of ampicillin. This is at variance with the experience of W. P. U. Kennedy and his colleagues,⁴ who encountered a high incidence of hypersensitivity reactions to ampicillin.—I am, etc.,

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Trial of Oxethazaine

SIR,—The findings of Dr. G. V. Balmforth and his colleagues (8 February, p. 355) do not surprise me, for I have had some experience of the mixture of the local anaesthetic oxethazaine in a gel of aluminium and magnesium hydroxide ("mucaine"). They found that the local anaesthetic added no benefit to the plain gel in patients with a duodenal ulcer. On the other hand they also showed that the local anaesthetic mixture was no worse.

In a double-blind trial I found that mucaine was significantly superior to the same gel without the local anaesthetic in cases of heartburn of pregnancy. Since that trial ended I have used this mixture in over 50 similar cases and rarely found it not to satisfy my patient. I have also found mucaine to be useful as a symptomatic treatment of heartburn due to other causes, usually hiatus hernia, though the number of such cases in my practice is not sufficiently great to prove anything statistically. Patients with a duodenal ulcer do not often get a reflux oesophagitis and rarely complain of heartburn, so I would not expect a local anaesthetic to add any benefit to the plain gel in these cases.

The enthusiastic response new drugs sometimes evoke should not cause us to condemn them if they fail to come up to every expectation. Safe symptomatic remedies have a place in the therapeutic armamentarium of all physicians.—I am, etc.,

London W.12.

STUART J. CARNE.

Fluoridation Falsified

SIR,—I am now told by Mr. W. Stewart Ross (21 March, p. 766) "that 1½ g. of sodium fluoride would have to be ingested in water containing 1 part per million sodium fluoride" for toxicity, and that this volume of fluid cannot be drunk. The second part of this is true; the first I believe to be untrue. I cannot concede his "elementary point" until he explains why he chose two and a half bathfuls of water, rather than (say) two, as the minimum daily amount that will provide a toxic amount of fluoride. Will he please give the evidence for this figure? His 1½ g. of NaF is about 700 mg. of F; the B.D.A. states that 20 mg. of F causes chronic poisoning, and this is contained in 20 l. (about 35