that all suture materials be steeped in a 1/2,000 solution of Chlorhexidine?

I would like to point out that all surgical catgut supplied by British manufacturers is sterile and preconditioned for use, and that immersion in chlorhexidine, particularly if it is an aqueous solution, could have an effect on the plybonding leading to separation of the plies and perhaps to premature or delayed absorption—not to mention loss of strength, since most catgut has an affinity for moisture and will absorb it until a peak saturation point is reached with subsequent loss of tensile strength.

Some non-absorbable sutures like silk are serum-proofed by the manufacturers for partly obvious reasons, and one of these is to reduce intercellular reaction when implanted. What will happen to this proofing after immersion in chlorhexidine, or indeed what will happen to the silk? Will it continue to fragment after due period of implantation and be absorbed by inclusion into the mononuclear phagocyte, or remain unencapsulated—a mechanical irritating body?

Investigation studies on the use of chemicals when used in connexion with suture materials have been regrettably inadequate and in my opinion detailed histological studies in animals are necessary to determine the effect that Chlorhexidine could have on them and wound healing before the acceptance of Mr. Fowler's recommendations.—I am, etc.,

J. J. F. HOWELL,
Product Director,
Ethicon Ltd.

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Iron Content of Infant Milk Foods

SIR,—As an interested party, I was pleased to read Dr. James Grant's letter (16 January, p. 193), advocating the fortification with iron of dried milks for infant feeding. Dr. Grant states that he is informed "that the official attitude is against adding iron to national dried milk because the healthy baby is provided with sufficient iron at birth to last until weaning." But this generalization often proves false. It is not true of the "healthy infant" who, for example, was born of a mother seriously anaemic during pregnancy, or who was of low birth weight, or had lost blood after birth (perhaps into a cephalohaematoma or from the cord), or who, though now growing rapidly, suffered from early infections, sometimes even seemingly mild ones. Such infants make up a not inconsiderable number of the infant population. Fortunately many of them are now ordered iron, though the regularity of its giving by the mother is a different matter. There is no doubt that prophylactic administration of iron is best secured for an artificially fed infant by incorporating the iron in his food; and it seems unfortunate that none of the national dried milk is fortified with iron. Surely such milk might be supplied both fortified and unfortified without increase in cost since it is supplied on such a vast scale. Personally I would give the fortified milk as a routine, using the unfortified milk only temporarily.

In 1932 there was no national dried milk, but I think it is clear that the "official attitude" then was that iron-fortified milk should be available and used in welfare centres. The Ministry of Health set forth the Minister's views in Circular 1290, dated

27 October 1932, which was sent to all Maternity and Child Welfare Authorities. I give below extracts from this circular:

"I am directed by the Minister of Health to state that he has received the following recommendations from the Advisory Committee on Nutrition after their review of recent research work on this subject: Having regard to the cogency of the evidence that nutritional anaemia of infants can be greatly reduced by the administration of iron and ammonium citrate, it would be proper for the Ministry of Health to give practical advice on the matter to the Medical Officers of Authorities responsible for the feeding of infants. . . .

"There appears to be ample evidence to justify the conclusion that the administration of iron and ammonium citrate to infants, or the feeding of infants with milk to which iron has been added, considerably reduces the incidence of nutritional anaemia, raises the resistance to infections, thereby reducing the morbidity rate, and improves growth. . . .

"It is understood that dried milk preparations containing added iron are already on the market, and it is suggested that those Authorities who supply dried milk for the feeding of infants should consider the desirability of obtaining supplies of the medicated kinds for use in suitable cases."

The incidence of nutritional anaemia in infants has been much reduced during the last 30-odd years largely as a result of the recognition of the frequency and the effects of such anaemia. Contributing factors to the lowering of the incidence have been: a higher standard of living and widespread treatment of anaemia in pregnant women; much earlier weaning of infants on to a diet containing meat, eggs, etc., thus providing more iron; the availability of antibiotics for the treatment of infections; earlier recognition of anaemia in individual babies; and far more administration of iron to infants.

Dr. Grant finds that anaemia is still "not uncommon." If preventible, why not prevented? A Whitehall official once observed in my hearing that "he wasn't willing to face the lion's jaws" by telling the dried-milk firms that iron was to be added to national dried milk. Perhaps the Ministry may yet re-read their Circular 1290 and supply iron-fortified national dried milk in the interests of child health.—I am, etc.,

London N.W.7. HELEN M. M. MACKAY.

Alcohol-withdrawal Syndrome

SIR,—The interesting clinical evaluation of chlordiazepoxide and promazine in the treatment of alcohol-withdrawal syndrome, reported by Dr. G. Sereny and Dr. H. Kalant from the Alcoholism and Drug Addiction Research Foundation in Toronto (9 January, p. 92), reaches similar conclusions to those of my colleagues and I and described at the International Conference on Alcoholism in Vienna in 1962.^{1,2} It also compares with a study of the use of promazine, chlormpromazine, and chlordiazepoxide in the withdrawal of alcohol from 68 patients reported by me at the International Conference on Alcoholism in London last year.^{3,4} In our series, however, we used the drugs by injection. The doses of promazine and chlormpromazine were of the order of 50 and 100 mg., which correspond to the oral dose of 50 and 100 mg. of promazine used by Sereny and Kalant. With the chlordiazepoxide, however, we used injections of 100 mg. two

hourly to a total of 600–800 mg. per day as compared with the oral dose of 25–50 mg. to a total daily dose of 200–400 mg. used in Toronto. We had no untoward result using the chlordiazepoxide in this dosage but we encountered, both with promazine and chlormpromazine, several alarming episodes of prolonged hypotension when these drugs were used in conjunction with a recent preceding period of heavy drinking. In none of these patients was there any definite evidence of liver damage.

In terms of sleep, blood-pressure, pulse-rate, tremor, hallucinations, and delirium tremens (the criteria used by Sereny and Kalant) we had no doubt as to the advantage of using chlordiazepoxide as compared with the other two drugs or a placebo injection.—I am, etc.,

London S.W.3.

NOEL H. MOYNIHAN.

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- ¹ *Brit. med. J.*, 1962, 2, 1135.
- ² Moynihan, N. H., *Arbeitstagung über Alkoholismus*, Separatum, 1962, Wien.
- ³ *Brit. med. J.*, 1964, 2, 502.
- ⁴ Moynihan, N. H., 1965, in press.

Toxic Insecticides

SIR,—A possible toxic effect of insecticides which has not attracted much attention is anosmia.

I have seen a nursing sister who used an insecticide spray in September 1962 for the first time. The main active constituent of the spray was pyrethrum, which does have some slight neurotoxic properties. Whilst using the spray the patient developed an attack of sneezing with watery rhinorrhoea, nasal obstruction, and anosmia. An allergic rhinitis had evidently developed, and skin tests showed a strongly positive reaction to pyrethrum. No other allergens were found. The allergic rhinitis was completely controlled by antihistamines, and the nasal airway returned to normal. Despite this, however, the anosmia has persisted. Full rhinological examination has been negative apart from the anosmia, and the patient was admitted to a neurosurgical unit for investigation, but no intracranial cause for the anosmia was found. It would seem probable that the pyrethrum has damaged the olfactory nerve endings in the nasal mucosa.

Although the allergic properties of pyrethrum are well known, I have been unable to find any reference to its toxic action on the olfactory nerve endings. It would be interesting to know if any of your readers have encountered similar cases.—I am, etc.,

Birmingham 15.

D. J. BRAIN.

Reasons for Emigration

SIR,—Dr. John Seale (12 December, p. 1522) is continuing to attack the National Health Service over the problem of emigration of doctors, using parts of the recent monograph by Abel-Smith and Gales¹ to support his conclusion that the Health Service is responsible for the high emigration rate. When all of the facts presented by Abel-Smith are considered, it can be seen that this conclusion is unjustified.

Of Abel-Smith's conclusions Seale says: "Although few doctors [living abroad who answered a questionnaire] expressed general objections to the principle of a National Health Service, the findings . . . confirm my