similar uptake of ^{14}C -cholesterol in Schilder's disease and control cells when cultured in labelled medium for 13 days.

The difference between our results and those of Burton and Nadler (1974) are unexplained. Clearly more studies are required.

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Intramuscular versus oral phenytoin

Sir,

The use of intramuscular phenytoin was recommended for seizures in the review article on bacterial meningitis by Hambleton and Davies (*Archives*, 1975, **50**, 675).

Prior reports comparing oral versus intramuscular administration have shown conflicting results. Recent evidence (Serrano and Wilder, 1974; Serrano *et al.*, 1973) has shown that a portion of injected phenytoin is released immediately and the remainder is released over a prolonged period; the half-life is prolonged and drug levels are low. In addition, experimental studies (Wilensky and Lowden, 1973) have shown crystallization of diphenylhydantoin and haemorrhage in the injection site. Serrano and Wilder (1974) showed this to be a variable finding but with chromatographic analysis phenytoin was retained at the injection site at 24 hours.

In seriously ill or unconscious patients in whom adequate levels are required, phenytoin must be given *intravenously* with its recommended caution. There appears to be little place for the use of intramuscular

phenytoin because of variable blood levels and potentially harmful effects on muscle. Should it be necessary, the duration of intramuscular injections should be short and blood levels should be monitored to achieve the desired therapeutic range.

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We showed the letter from Dr. D'Souza to Dr. Davies and Dr. Hambleton, who replied as follows:

We are grateful to Dr. D'Souza for drawing our attention to the fact that release of a portion of intramuscularly injected phenytoin may occur gradually over a prolonged period. This makes it, as he says, an unsuitable drug for the immediate treatment of fits. However, we suggested either intravenous diazepam or intramuscular paraldehyde for this, to be followed by short-term anticonvulsant therapy such as phenobarbitone or phenytoin. If oral treatment is not possible, as is so often the case in the very sick infant or child, then intramuscular phenobarbitone would be the drug of choice after the initial treatment.

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Blood urea levels in artificially-fed infants

Sir,

Dale *et al.* (1975) report high levels of blood urea in artificially-fed infants, confirming the results of a previous study by Davies and Saunders (1973). This finding was a surprise to us, for it is in disagreement with our daily experience in hospitalized infants fed on artificial milk, and prompted us to check plasma urea, sodium, and protein in 22 consecutive infants (14 male, 8 female) aged between 14 days and 3 months. All were convalescent from benign, nondigestive, disorders, and were fed on powdered half-skimmed cow's milk formulae prepared at the usual 15% concentration, either alone (15 infants), or with additional cereals and infant food (7 infants).