standing of the reporting systems involved. On the one hand there are the cases of "paralytic poliomyelitis" notified by the clinicians to the Department of Health and Social Security.[1] There may or may not be virus isolates from these patients. Secondly, there are the weekly reports of the virus isolates from diagnostic laboratories.[2] The clinical information submitted with these *Communicable Disease Reports* is necessarily preliminary and the subsequent course of the illness frequently causes revision of the diagnosis. This is verified by the Epidemiological Research Laboratory when these reports are correlated with the official notifications for the annual poliomyelitis surveillance report. The correct figure obtained in this way is included in the annual report of the Department of Health and Social Security and represents the best estimate of the prevalence of poliomyelitis in the community as a whole.

In 1965-8 there were 110 cases and in 1969-72 only 23. Dr Wyatt's larger figure of 39 cases for 1969-72 was obtained by adding the unverified communicable disease reports and overestimates the true position. When these factors are taken into account it is obvious that strains were available from roughly half of the paralysed patients in each period (51/110 and 11/23, respectively) and that my category of "neurological disease" included all the paralytic cases. There are, of course, many defects in a study which depends on an informal arrangement for collection of strains, but it would be very expensive to set up a large prospective study of the question. Moreover, there are no figures available from the pre-vaccine era for comparison. I would certainly prefer to see available resources devoted to the promotion of polio vaccination.

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[1] Miller, D L, Reid, D, and Diamond, J R, *Public Health (London)*, 1970, **84**, 265.
[2] Public Health Laboratory Services, *Communicable Disease Reports* 1969-72.

Polyunsaturated fatty acids in multiple sclerosis

SIR,—The article by Dr D Bates and colleagues (8 October, p 932) contains an elementary error that may mislead the casual reader. In their trial one group "received eight capsules daily for Naudicelle oil (Bio-Oils Research Limited). Each capsule contained 0·6 ml of oil, giving 360 mg of linolenic acid and 3·42 g of linoleic acid daily. . . . linolenic acid . . . is the parent acid of the long-chain polyunsaturated fatty acid docosahexaenoic acid." Naudicelle capsules contain, I understand, oil extracted from the seeds of evening primrose (*Oenothera biennis* or *lamarckiana*), and this oil contains about 70% of linoleic acid (octadeca-9,12-dienoic acid or C18:2*n*-6) and 7% of γ-linolenic acid (octadeca-6,9,12-trienoic acid or C18:3*n*-6). The body cannot convert γ-linolenic acid into docosahexaenoic acid (C22:6*n*-3), which it forms from α-linolenic acid (octadeca-9,12,15-trienoic acid or C18:3*n*-3); this is the predominant fatty acid in most leaves but is not present in significant amounts in the seeds of the evening primrose.

In the nomenclature used above C18 means that the compound has eighteen carbon atoms; :3 means that it has three double bonds; and *n*-6 means that the first double bond is between the sixth and seventh carbon atoms, counting from the methyl end. The two classes of essential fatty acids (EFA, conveniently designated vitamins F_1 and F_2) belong to the *n*-6 and *n*-3 groups:

Vitamins F_1: C18:2*n*-6 (linoleic) →
C18:3*n*-6 (γ-linolenic) →
C20:3*n*-6 (dihomo-γ-linolenic) →
C20:4*n*-6 (arachidonic);
Vitamins F_2: C18:3*n*-3 (α-linolenic) . . . >
C20:5*n*-3 (timnodonic) . . . >
C22:6*n*-3 (clupanodonic).

Arachidonic, timnodonic, and clupanodonic acids are important constituents of myelin. The last two are relatively abundant in marine oils. Fish-eating people, such as Eskimos and Faroes islanders, do not get multiple sclerosis; thus the error of Dr Bates and his colleagues is the more important, since they have not in fact tried the therapeutic effect of a precursor of clupanodonic acid, and this might be much more worthy of trial.

A further reason for avoiding elementary chemical errors concerns another isomer of α-linolenic acid—namely, α-elaeostearic acid (octadeca-9,11,13-trienoic). Whereas the linolenic (*n*-3) class of EFA is very effective in lowering plasma cholesterol, elaeostearic acid powerfully raises it. In fact the only dietary fatty acids that lower plasma cholesterol are EFAs of the linoleic and linolenic classes (vitamins F_1 and F_2), and not just any PUFA.

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**Professor Sinclair sent a copy of his letter to Dr Bates and his colleagues, whose reply is printed below.—ED, *BMJ*.

SIR,—We are grateful to Professor Sinclair, who was the first to suggest that a deficiency of polyunsaturated fatty acids might be a factor in the aetiology of multiple sclerosis, for pointing out the error in our paper and for putting the biochemical record straight.

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Preoperative anaesthetic visit

SIR,—The problem of preoperative anxiety has been investigated by several authors,[1-4] but no one has been able to offer an easy solution. Part of the answer may be the booklet described by Dr Julian M Leigh and others (15 October, p 987), but it is not the only answer. I suspect that the whole issue centres around the time available to spend with the patient when a large work load means that little time is left at the end of the day; perhaps in this situation the initial patient contact and assessment should be at an outpatient anaesthetic clinic. There is no doubt that the patient gains useful information at the preoperative visit and it may offer the surgeon an additional safeguard for a small number of patients who do not understand the nature of their impending operation.[4] Quimby[5] has stressed the importance of the preoperative visit but suggests that there is a danger that statements may assume more significance than in normal circumstances.

It is also important to consider the anaesthetist as more than a soother of troubled brows: he is also a clinician. The main function of the preoperative visit is to assess the preparation and fitness of the patient for anaesthesia and surgery. Dr Leigh and his colleagues mention that 10 minutes was available to see their patients and that no patient was examined clinically. Surely this is wrong. It means that the surgeon can no longer expect the help and support of his anaesthetic colleagues in preoperative (and postoperative) assessment. The value of the preoperative visit is something each anaesthetist must decide for himself, but I feel the trend away from such visits should be firmly resisted.

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[1] Egbert, L D, *et al*, *Journal of the American Medical Association*, 1963, **185**, 553.
[2] Wilson, W E, *Anesthesia and Analgesia: Current Researches*, 1969, **48**, 605.
[3] Ramsey, M A E, *Anaesthesia*, 1972, **27**, 396.
[4] Ryan, D W, *British Journal of Clinical Practice*, 1975, **29**, 3.
[5] Quimby, C W, *Anesthesia and Analgesia: Current Researches*, 1969, **48**, 695.

SIR,—All anaesthetists should be grateful to Dr J M Leigh and his colleagues for the scientific evaluation of the preoperative anaesthetic visit (15 October, p 987). The provision of a booklet and a visit by an anaesthetic nurse are undoubtedly of some value to the patient; but I do not think there is any substitute for a visit by the anaesthetist who will be anaesthetising the patient or will, at least, be present when the patient is anaesthetised.

On arrival in the anaesthetic room the patient sees a friendly doctor with whom he has been chatting the previous day, and who, he knows, has a full knowledge of his condition. The anaesthetist, on the other hand, has acquired a knowledge of the patient's medical history, his physical capabilities and defects, the results of investigations, the vulnerable incisor crown, the drugs the patient has been taking, etc. Can all this information be acquired in a brief survey of the notes in the anaesthetic room? I am convinced that a preoperative visit by the anaesthetist is not aiming at perfection but is an essential part of the anaesthetic procedure. It should be omitted only in exceptional circumstances.

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SIR,—The paper by Dr Julian M Leigh and others (15 October, p 987) concerning the efficacy of preoperative visits in reducing patients' anxiety raises important statistical points to which your readers may like to be alerted.

The authors assessed initial anxiety levels in three groups of patients. Subsequently patients in group A were visited by "a representative of the anaesthetist," patients in group B were provided with a booklet containing essentially the same information as given to group A, and the patients of group C constituted a control group who received neither visit nor booklet. Anxiety was then assessed a second time before the patients came to surgery. There were no significant differences