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CORRESPONDENCE

Correspondents are urged to write briefly so that readers may be offered as wide a selection of letters as possible. So many are being received that the omission of some is inevitable. Letters should be signed personally by all their authors.

Whooping-cough vaccine

SIR,—In the summary of your edited version of the statement by the Joint Committee on Vaccination and Immunisation (20 September, p 687) it is stated that "further data on the prevalence of whooping cough and the incidence of adverse reactions have shown no reason to change" the policy of offering pertussis vaccine in infancy. It was unfortunate that you were unable to print the whole statement, but, as you correctly imply, the committee was uncertain of the nature and extent of reactions to the whooping-cough vaccine in present use in the United Kingdom and accordingly has set up a committee to investigate the matter.

It is well known that there is considerable under-reporting of all adverse reactions to immunisations.[1] Doctors do not like to report complications associated with a procedure which they have recommended, and in any event such complications are usually so rare that they may go unrecognised. (It is of vital importance that the Department of Health and Social Security should try to improve the methods of reporting adverse reactions, and not enough attention has been given to this.) At the present time we do not know how many cases of brain damage may be related to the use of pertussis vaccine in the UK.[2] Edsall[3] makes light of these complications, but can he assure us that the collapse and persistent screaming which sometimes follow immunisation are not central in origin and that the cerebral anoxia which may be associated with these conditions may not produce some brain damage? Edsall questions my guess[2] that brain damage following immunisation with the pertussis vaccines which were in use in the mid-1960s could have been of the order of 1-2 in 10 000 and notes that this guess has "not as yet been substantiated." My data related to two cases of post-pertussis-vaccine encephalopathy which I personally saw during a period of 10 years in Belfast in about 30 000 immunised babies; the rate from Gosling's data from the south of England[4] was remarkably similar. In supplying "unsubstantiated" data from the USA Edsall does not appear to appreciate that it is not acceptable to extrapolate from data obtained with different vaccines used at different places in different countries at different times.

The joint committee states that adsorbed vaccine is less likely to cause adverse effects; this relates to local reactions and was based on a small study by Butler *et al.*[5] We have no idea if the available adsorbed vaccines used in the UK will produce less central nervous system damage than non-adsorbed vaccines, but in Sweden serious reactions (encephalopathy, convulsions, etc) reported up to 1965 were all associated with adsorbed vaccines. After 1963 no adjuvant was used in the vaccines used in Sweden and since 1965 no serious reactions have come to notice.[6] As I said, it is unwise to extrapolate.

I support the recommendation of the joint committee because the as yet unpublished Public Health Laboratory Service data suggest that the presently available British pertussis vaccines may be effective and essentially areactogenic. The publication of these data is anxiously awaited, but in order to allay alarm it would seem sensible for the DHSS to analyse now and publish the data on children who have developed severe reactions to whooping-cough vaccine which are on the files of the Association of Victims of Immunisation.

My own personal position has already been made clear.[7] While I agree that pertussis vaccine should be "offered" in infancy, I believe that it should be used selectively. Until we have the promised PHLS data, I would not recommend the vaccine for infants living in communities where there is good maternal and medical care but I would strongly recommend its use in communities where there is overcrowding and poor maternal and medical care. Deaths from whooping cough occur mainly in babies in social class V, and in assessing risks one must look at specific epidemiological situations—for there are obviously groups at high and low risk to whooping cough as there are with many diseases. Immunisation procedures should vary with the epidemiology and risk of the disease.

While there is evidence that good vaccines can prevent or modify an attack of whooping cough, I do not think that there is any convincing evidence that whooping-cough vaccine has had much, if any, influence on the natural history of the disease over the years.[8] In 1959 the Chief Medical Officer[9] wrote, "A striking change has taken place in the whooping cough position in the last two years. We can point to better housing, good nutrition, ready access to medical and nursing care and more efficacious therapy as factors." Perhaps better social conditions are more important than whooping-cough vaccine in controlling that disease. Be that as it may, there must be greatly increased effort to obtain 100% immunisation of *all* children against diphtheria, tetanus, poliomyelitis, and measles, and any doubts about the efficacy of whooping-cough vaccine must not influence the acceptance of vaccine for other diseases.

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1 Roden, A T, *Proceedings of the Royal Society of Medicine*, 1974, **67**, 380.
2 Dick, G W A, *Proceedings of the Royal Society of Medicine*, 1974, **67**, 371.
3 Edsall, G, *Practitioner*, 1975, **215**, 310.
4 Dick, G W A, in *Proceedings of the International Conference on the Application of Vaccines against Viral, Rickettsial and Bacterial Disease of Man, 1970*, p 418. Washington, DC. Pan-American Health Organization, 1971.
5 Butler, N R, *et al*, *British Medical Journal*, 1969 1. 663.
6 Tiru, M, Informal Consultation on Pertussis, Utrecht, 9-11 December 1974.
7 *World Medicine*, 1975, **10**, 8.
8 Dick, G W A, *Update*, 1974, **9**, 39.
9 *Report on the State of the Public Health.* Annual Report of the Chief Medical Officer for the Year 1959. London, HMSO, 1960.