

once acknowledged throughout the world as first class, is now moribund. Voluntary donors, whose altruism you rightly praise, might well feel that their efforts and generosity are being squandered. I agree that our blood transfusion service requires an injection of capital and forward planning on a national basis, but I disagree that there has been a steady decline in it since the late 1950s.

I have worked in various sections of our blood transfusion service since 1940 and I think that the period of greatest progress has been the past seven years. Firstly, there has been the change from glass bottles to plastic packs which has facilitated the production of various blood components and plasma fractions. I have witnessed the preparation of large quantities of cryoglobulin precipitate to meet the demands of our regional haemophilia centre, and of adequate amounts of anti-D immunoglobulin for the prevention of Rh haemolytic disease. Banks of frozen red cells have been established, total screening of donations for the hepatitis B antigen has been introduced, tissue typing has been developed, and platelet concentrates, some coagulation fractions, specific immunoglobulins, and albuminoid preparations may have been provided. All these developments have required planning and money. More financial help is now required to continue this progress.

There are two important practical issues you do not mention. One concerns management, the other the clinician. Many of the processes in modern transfusion practice involve freshly donated blood and continue during the evening and throughout the night. Management is unwilling to recognize that these processes require skilled staff working unsocial hours. The financial reward for this type of work in the N.H.S. compares most unfavourably with industrial processing. The clinical issue is the need to use red cells rather than whole blood. You refer to progress in America, where it has been found that the provision of enough blood components depends on the willingness of clinicians to use red cells in many clinical situations in which they formerly used whole blood. I have found that most of my clinical colleagues are willing to do this in expectation of receiving more blood components. Already 40% of our intake of blood is being accepted by hospitals in the form of red cells. Rightly, however, clinicians expect to receive in return for this co-operation large quantities of a variety of components. We are making good use of that valuable commodity, donor blood. Now we require to make the optimal use, and this can be achieved only by effective national planning and by a large volume financial transfusion.—I am, etc.,

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SIR,—The views and statements attributed to my coauthor, A. J. Culyer, and me in your leading article (27 July, p. 212) are, to say the least, serious distortions of our actual position. Our monograph¹ sought to show that, contrary to the opinion of the late R. M. Titmuss, blood was in fact an economic good and therefore fully amenable to normal economic analysis. In the course

of our monograph we pointed out that on the basis of no evidence whatsoever Professor Titmuss had asserted that "in the U.K. there was no shortage of blood."² In order to test medical opinion on this point we conducted the postal survey which you choose to describe as "extraordinary." We, however, made no claims of scientific rigour for this exercise but rather pointed out that it offered "no more than a subjective and impressionistic indication of adequacy" demonstrating "the need for more detailed investigations than we have been able to undertake to date."¹

Since we wrote in 1968 there has been, to my knowledge, no further survey (extraordinary or otherwise), and so I should be most interested to learn of the source of your statement that "there is no shortage of voluntary donors in Britain." You may well be right. I, however, simply admit to not knowing. It is not in any case true that our conflict with Professor Titmuss "rests on the assumption . . . that there is a genuine national shortage of blood." Rather it rests on the nature of giving as against selling and on the whole role of economic analysis within the social context.

In 1968 we claimed that if our monograph "has done nothing else it has demonstrated that prediction is difficult and planning is impossible without more information than anyone until recently appears to have considered worth collecting, let alone publicizing."¹ This observation at least appears to have your support.—I am, etc.,

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¹ Cooper, M. H., and Culyer, A. J., *The Price of Blood*. London, Institute of Economic Affairs, 1968.

² Titmuss, R. M., *Choice of the Welfare State*, p. 15. London, Fabian Society, 1967.

Hypothermia, Thrombosis, and Acute Pancreatitis

SIR,—In reply to Dr. D. MacLean's letter (25 May, p. 446) there are a few points to be clarified.

Firstly, it is agreed that ischaemia even without thrombosis could conceivably produce pancreatitis in accidental hypothermia. Nevertheless, in the case which Dr. Hoffbrand and I reported (30 March, p. 614) pancreatic venous thrombosis was present.

Secondly, Dr. MacLean states that in his experience patients with accidental hypothermia have signs of an acute abdomen only in the presence of associated perforated gastric or duodenal ulcers with peritonitis or mesenteric vascular occlusion with small-bowel gangrene. Our patient had neither of these conditions, yet signs of an acute abdomen were present. Dr. MacLean's failure to elicit signs of an acute abdomen in his patients could possibly have been due to insensitivity of the patient related to the severity of the hypothermia and the level of consciousness—or to the absence of thrombosis.

Thirdly, necropsy in our case showed an extremely florid and extensive acute haemorrhagic pancreatitis with lipophages seen histologically as far away as in the paraoesophageal lymph node, and it is doubtful whether the patient would have survived long enough to develop secondary hypo-

thermia as Dr. MacLean suggests, though it is agreed that secondary hypothermia can occur from a primary serious underlying illness, with venous thrombosis as an epiphenomenon, if time permits.

Finally, Dr. MacLean is referred to the letter from Dr. Hoare and his colleagues immediately following his own.—I am, etc.,

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Swimmers' Ears

SIR,—Your leading article (27 July, p. 213) tends to give an untrue picture of ear problems in Scuba diving, or at least so far as the British Sub-aqua Club is concerned.

The medical standard required of divers is high and examination includes a careful study of the ears. Any prospective diver with chronic otitis externa would be dissuaded from diving and those with collections of cerumen would be advised to have them removed. In the event, normal Scuba diving does not seem to produce otitis externa, possibly because the exposure rarely lasts longer than about three-quarters of an hour at a time. Furthermore, it is doubtful whether the ear becomes full of water on deep diving as the compression of the wet suit over the ear may be responsible for keeping much of the water out.

Your advice that "Vaseline-coated ear plugs might help" goes against all present teaching for underwater activities. The presence of a plug in the external auditory canal will, at depth, lead to a condition known as reversed ear, in which haemorrhagic blisters may form between the plug and the eardrum. This in itself is likely to cause a considerable otitis externa.—I am, etc.,

A. M. BIRT

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** Certainly ear plugs could be dangerous for divers, and this recommendation in our leading article was a mistake. However, they can be of value for swimmers troubled by otitis externa.—Ed., *B.M.J.*

SIR,—I was interested to read your suggestion (27 July, p. 213) that divers with otitis externa might be helped by using Vaseline-coated ear plugs, for I have always understood that such appliances are considered to be hazardous. The comparatively small head of water encountered by a diver, even while plunging from the side of a pool, could drive the plug deeply into the meatus with consequent barotrauma to the drums. If he were fortunate not to experience this painful occurrence while actually diving the chance of barotrauma from the suction on removing such well-greased plugs from the external canal may not only be painful but could lead to drum rupture.

Those who are accustomed to skin-diving or aqualunging will know the importance not only of a clear eustachian tube but also of a clear external auditory meatus in order that adequate pressure equalization manoeuvres may be carried out. The insertion of plugs would prevent this. May I suggest that there is no place for Vaseline-coated ear