

blood only can be taken from a donor who may himself be a sufferer from malaria, an anæmising disease, shortly thereafter. Severe reactions and undesirable sequelæ are to be avoided by a rigid adherence to the well-established rules governing the technique of blood transfusion. Routine grouping of donor and recipient is but a preliminary; direct compatibility tests are imperative. The presence or absence of agglutination must be confirmed by examination under a microscope. Absence of clumping of the erythrocytes to the naked eye is not enough. The donor's blood must, of course, be free from parasites and the fragility of its contained red cells must be within normal limits. Measures are necessary to prevent cooling of the blood during and after collection.

The Marriott-Kekwick apparatus supplied to the Army Medical Services is provided for continuous drip blood transfusion and is quite unsuitable for small volume transfusions. It is unwieldy and for its proper functioning requires a supply of oxygen. The "unit" supplied for the reconstitution and administration of dried serum or plasma, however, can be easily adapted. The 12 ounce medical flat containing 200 c.c. of sterile water is emptied, resterilized, and 30 c.c. of 3.8 per cent sodium citrate solution are added. This serves as the transfusion bottle and, partially immersed in a hot water bath, the blood is taken directly into it. It will hold 300 c.c. of blood. Gravity alone is sufficient to maintain a flow of blood if a wide-bore needle is inserted into the donor's vein. After use the unit is thoroughly cleansed and resterilized; it is then ready for further service. The simplicity of the outfit commends its use in a trying climate and under tropical conditions. If a volume of blood larger than 300 c.c. is desirable, a suitable bottle, into which the rubber bung of the component part will fit securely, will serve as the container. The Medical Research Council outfit designed for the stored-blood method would serve admirably for fresh-blood transfusions.

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### ANAPHYLACTIC REACTION ON IMMUNIZATION WITH TETANUS TOXOID.

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ON August 18, 1941, the reaction described below occurred in a healthy man, aged 24, giving no history of asthma, hay-fever or urticaria. In July, 1940, 1 c.c. of tetanus toxoid had been administered followed, after an interval of six weeks, by a similar dose, without the occurrence, on either occasion, of any reaction.

Twenty minutes after receiving 1 c.c. tetanus toxoid by the deep subcutaneous route he complained of intense itching in groin and axillæ. This irritation rapidly spread to the remainder of the skin and within a few minutes vertigo and swelling of the lips supervened. There was no difficulty in swallowing. When seen shortly afterwards the eyes were suffused, the face was flushed and there was marked œdema of the frontal and infra-ocular regions. The skin of the trunk and limbs was bright salmon in colour and numerous weals, the largest some 7 by 3 inches, were present. Temperature was normal, pulse-rate 130.

One grain of ephedrine hydrochloride caused a rapid improvement in symptoms, a second similar dose two hours later being sufficient to make the patient fit for duty.

The same batch of toxoid has been used on over 40 other occasions without reactions appearing.

#### SUMMARY

A severe reaction to tetanus toxoid occurring in a type not known to be predisposed to such reactions is described.

Quick return to normal on exhibiting ephedrine is noted.

Faulty material is excluded by the absence of reactions in other cases.

A list of references to published reports on severe reactions to immunization with tetanus toxoid is given below.

#### REFERENCES.

- COOKE, R. A., HAMPTON, S., SHERMAN, W. B., and STULL, A. (1940). *Journ. Amer. Med. Assoc.*, **114**, 1854.  
 CUNNINGHAM, A. A. (1940). *Brit. Med. Journ.*, ii, 522.  
 PARISH, J. J., and OAKLEY, C. L. (1940). *Ibid.*, i, 294.  
 WHITTINGHAM, H. E. (1940). *Ibid.*, i, 292.

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### Current Literature.

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FRIMODT-MÖLLER, C. **A Scheme of Control of Tuberculosis in India by "Organized" Home Treatment.** *Indian M. Gaz.* 1940, Oct., v. 75, No. 10, 577-81. [Summary appears also in *Tropical Diseases Bulletin.*]

The author points out the great dissimilarity between conditions in India and those in Europe in regard to the existence of facilities for controlling tuberculosis, and shows that there is no possibility of the early provision of institutions on such a scale as to be capable of receiving the mass of tuberculous persons (estimated by some as 2 millions, by others as many as 5 millions).

The scheme which he puts forward he calls "organized home treatment," the aim of which is to apply as much as possible of modern specialized treat-