urethral smears showed "diplococcii morphologically resembling gonococci" in large numbers. The corneæ themselves appeared undamaged and there was no interference with vision.

He was put on hourly irrigations of mercurochrome and ordered M & B 693 on a massive initial dosage scheme, six tablets (i.e. 3 grams) six hourly for the first twenty-four hours. For some reason this order was not carried out and the patient only received two tablets t.d.s. On the 27th his temperature rose to 101° F., but there was a marked improvement in the condition of his eyes. By the 30th the temperature was normal, the redness of the corneæ had disappeared and the discharge was so slight that the irrigations were cut down to two a day and by the 4th, eight days after admission, the eye condition was normal, the urethral discharge had ceased and he was already asking for sick leave. Vision was then better than 6/5 with either eye and no trace of damage could be detected. The M & B was continued to a total of 35 grams and he was discharged after the usual tests of cure.

The remarkable features of this case seem to me to be firstly the response to what one would have considered an utterly inadequate dose of the drug and, secondly, the extraordinary rapidity and completeness of the cure. This is the more remarkable when one considers the time and place, Bengal in the middle of the Monsoon, where any purulent condition is notoriously hard to check.

I am indebted to Colonel W. B. Rennie, M.C., M.B., A.D.M.S., P. and A. District, for permission to submit these notes for publication.

BLACKWATER FEVER AND BLOOD TRANSFUSION.

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Blood transfusion is not indicated in every case of blackwater fever nor does it in any instance obviate the need for other therapeutic measures. In the toxic polyuric and in the relapsing types of this disease, however, its value in the early stages is undeniable. The best method in these cases is one of small transfusions, 300 to 450 c.c., given slowly and repeated as often as required. The hematological data and the clinical condition of the patient are the guides to the necessity for blood transfusion, the amount of blood to be given and the frequency of administration. Citrated blood (10 c.c. of 3·8 per cent sodium citrate solution to each 100 c.c. of blood) is better than whole blood, especially in the polyuric type where there is often evidence of a lowered alkali reserve. In tropical West Africa at the present time and under the existing circumstances the founding and maintenance of a blood depot is impossible. Blood must be given as soon as it is taken. A system of voluntary donors grouped, registered and called upon when the need arises is the only practicable scheme. A limited amount of
blood only can be taken from a donor who may himself be a sufferer from malaria, an anaemising disease, shortly thereafter. Severe reactions and undesirable sequelae 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.

I am indebted to Lieutenant-Colonel W. R. C. Spicer for his permission to publish this article, to Major K. S. Thompson and Captain I. G. Cameron for their unstinted help and advice. The enthusiasm of the Theatre staff calls for no little praise.

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.