

OUR PRIZE COMPETITION.

DESCRIBE THE TECHNIQUE FOR TAKING BLOOD FOR EXAMINATION FOR TYPHOID BACILLI. WHAT ARE THE SPECIAL POINTS TO OBSERVE IN THE SUBSEQUENT CARE OF THE PATIENT?

We have pleasure in awarding the prize this week to Mrs. G. Firth Scott, of Ladbroke Grove, London.

PRIZE PAPER.

There are two methods commonly in use for examining the blood of patients suspected of typhoid (or enteric) fever. The technique of each is given below:—

1.—The Agglutination, or Widal Reaction. When this test is to be made, the following articles will be required: a small spirit lamp, sharp triangular needle, rubber band, sterile wool, pure alcohol, several "Wright's Capsules."

The patient, lying in bed, is asked to allow his arm to hang swinging loosely over the bedside for a minute or two. This is to ensure a good flow of blood into the hand. Before again raising the arm, the rubber band is wound fairly tightly around the base of the thumb. The surface of the thumb is cleansed with cotton wool moistened with alcohol, and the needle sterilised by passing through the flame of the spirit lamp. Have ready a Wright's Capsule with both ends broken off. Prick the thumb (the best place is about $\frac{1}{4}$ th of an inch away from and below the nail), and immediately a drop of blood appears apply the bent end of the glass capsule in such a way that the blood runs into it. When full, the capsule is re-sealed in the flame, taking care to seal the dry or straight end first and to avoid heating the blood. If the blood ceases to run freely before one capsule is sufficiently full, the band should be undone and the process repeated with a second capsule. The thumb should not be subjected to much local squeezing; as this way somewhat affects the quality of the blood cells. The sealed capsules are then preferably placed in an incubator at 37°C., to hasten the separation between the serum and the clot. The clear serum is drawn off with a sterile glass pipette, and kept in the ice chest until required for the actual test. Some bacteriologists prick the lobe of the ear instead of the thumb, but if the patient is at all anæmic or nervous, the thumb is easier to manipulate.

2.—The cultural examination of the blood for the B. Typhosus is usually carried out as follows:—

The bacteriologist will require a spirit lamp, a bottle of iodine and collodion, a sterilised

hypodermic syringe and needle in sterile bowl, sterile wool, rubber band, receiver, clean towel, alcohol. The patient will have the arm bared of clothing, and the area chosen (usually that of the median basilic vein) cleansed with wool and alcohol after a band of rubber has been wound round above the site for puncture. In a few moments the vein will be plainly visible, distended with blood. With all aseptic precautions the hypodermic syringe is inserted into the vein and the bulb of the syringe drawn steadily out until about 5cc. of blood has been drawn up. The assistant then releases the rubber band and the bacteriologist withdraws the syringe. When possible he will immediately transfer the blood to appropriate culture media (e.g., oxbile, agar, and glycerine tubes), otherwise it should be protected from heat and contamination and "sown" into the tubes as promptly as may be. The patient's arm should be painted over the puncture with a little iodine and a small piece of sterile wool soaked in collodion used to seal up the needle prick.

In either of these methods the nursing care of the patient is the same, except that in the latter case the nurse should take care to see the punctured vein does not bleed after the withdrawal of the needle. Warmth, fresh air, a recumbent position, and the diet ordered by the physician in charge of the case, are the special points to be observed.

HONOURABLE MENTION.

The following competitors receive honourable mention: Miss A. Morgan, Miss Susan Lambert, and Miss Mary Craig.

QUESTION FOR NEXT WEEK.

Describe the mechanism of the ear. For what conditions should the ear be syringed? Describe methods of preparation.

WAR ON PEDICULUS VESTIMENTI.

We hear numerous warnings of the dirt and danger of the house-fly, but with typhus raging in Central Europe, how about *Pediculus vestimenti*, the certain carrier of infection? All infected clothing—and there is more about than meets the eye, as many a district nurse can testify—should be subjected to disinfection. This can be done without destroying the clothing by apparatus such as that employed by the British Army during the war. Public authorities should be called upon to instal such apparatus wherever it can be employed. Public Health Nurses should have access to such apparatus in every district.

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