Reprinted from Journal of Bacteriology Vol. 47, No. 2, February, 1944

## **NOTES**

THE COMPARATIVE VALUE OF HUMAN PLASMA AND HUMAN WHOLE BLOOD FOR TESTING THE COAGULATING POWER OF STAPHYLOCOCCI

## GEORGE H. CHAPMAN

Clinical Research Laboratory, 604 Fifth Avenue, New York 20, N. Y.

Received for publication November 29, 1943

Because of the scarcity of rabbits many bacteriologists use human plasma for testing the coagulating power of staphylococci. However, it takes longer to clot than does rabbit plasma and the clots are less firm than are those of rabbit plasma.

It was found that human whole blood clotted more easily than did the corresponding plasma. A series of 78 cultures that clotted rabbit plasma were tested as follows. The 8-hour growths from Bacto proteose lactose agar were emulsified in Bacto tryptose phosphate broth (which enhanced the clotting power). An equal quantity of whole blood was added. Plasma from the same person's blood was used in a duplicate series of experiments. The tubes were shaken and placed in the incubator and inspected periodically.

The clots of whole blood appeared earlier (average 80 minutes) than did those of plasma (average 100 minutes). The whole-blood clots became firm while only one-fourth of the plasma clots were firm in 3 hours.

Two cultures clotted plasma but not whole blood and 5 cultures clotted whole blood but not plasma. It is suggested, therefore, that broth cultures or broth suspensions be tested with whole blood and that any cultures that fail to clot the blood within 2 hours be retested with plasma. After incubation both sets of tubes should be allowed to stand on the laboratory table 24 hours and then re-examined.