

Plasma specimens were secured by taking blood into tubes containing sodium citrate (final concentration 0.1%). A separate portion of each blood sample was allowed to clot for control tests on the serum. The citrated blood tubes were centrifugalized at once and the plasma collected.

Experiments showed that for the proper performance of the test inactivation of the plasma was necessary. Heating at 56°C. for only 10 minutes was found to be sufficient.

After inactivation the plasma must be recentrifugalized very briefly to remove a heavy amorphous precipitate. The supernatant clear plasma may then be used immediately for the test.

The reaction of the plasma as compared with that of the serum of 212 individuals has been tested by the Kline method. There was an agreement in the reading of the serum and plasma reaction in 76.9% of cases. Of the remaining 23.1% of cases, 6.1% showed minor differences in degree of positivity with a consistently stronger reaction in the plasma; in 9.5% the serum was definitely negative, while the plasma was moderately positive; in the final 7.5% of cases there occurred a doubtful reaction (\pm) in either serum or plasma with a negative reaction in the other. For all practical purposes the slight discrepancy in the last group may be disregarded; if this were done, the total percentage of agreement between serum and plasma readings would be raised to 84.4%. All the instances in which the plasma gave a definitely positive test, while the serum gave a negative reading, occurred in cases of treated syphilis or in individuals with clinical stigmata of the disease.

Our experience has led us to believe that the marked sensitivity of the plasma reaction may be advantageous in the diagnosis of early syphilis and in instances where the test is employed as a therapeutic guide. However, this same heightened sensitivity may occasionally lead to a doubtful reaction in the citrated plasma of normal individuals. Therefore, in its present form, the Kline test upon the plasma must be regarded as a presumptive, rather than a definitive diagnostic procedure.

By actual trial under the working conditions of our out-patient department, we have found that the total time required to perform the plasma test described, from the taking of the blood sample to the final report, for one specimen, averages about 30 minutes. When blood specimens from a number of patients are to be examined in the routine of clinic practice, it is easily possible for a single worker to handle the plasma specimens nearly as fast as they can be secured, and to complete the tests in an average time of about 5 minutes per test.