

Subject: Standardization of Wassermann Test.

At the meeting held Feb. 19, in the State House, it was decided by 11 laboratories representing private, municipal, and health laboratories including our own, that a standard Wassermann technique be employed. These laboratories represented approximately 100,000 tests per year. The standard technique decided upon was that used by the State Wassermann laboratory and involved the use of the following reagents:

1) 0.85% salt solution.  
2) 5% suspension of sheep's corpuscles in .85% salt solution.  
0.5cc of these diluted cells is used in the test.

3) Amboceptor. Is an anti-sheep immune substance obtained by injecting washed sheep's corpuscles into a rabbit. The amboceptor is diluted so that 0.25cc causes complete hemolysis of .5cc of a 5% suspension of washed sheep's corpuscles in the presence of .5cc of a 10% solution of complement. This quantity represents essentially one unit of amboceptor. Twice this amount is used in the test.

4) Complement. Is a 10% solution of guinea pig's serum in 0.85% salt solution. The age of the complement employed is never less than three hours old nor more than twenty-four hours old and is never exposed to sunlight or room temperature for more than four hours during the maximum length of time that the complement is available for use. During the remaining time it is kept in the ice box. The amount of complement necessary to hemolyze 0.5cc of a 5% suspension of sheep's corpuscles in the presence of two units of amboceptor is determined. Twice this amount is used in testing unknown serums and spinal fluids.

5) Patient's Serum. 0.1cc of serum to be used in the test and 0.2cc serum to be used in the serum control. Serums are to be heated at 56°C for a half-hour before they are tested. Spinal fluids are to be used in the quantity of 1.00cc of unheated specimens and twice this amount in the spinal fluid control.

6) Antigen: One is an accurately standardized antigen prepared by the State Wassermann laboratory and distributed without cost to approved Wassermann laboratories throughout the state. This antigen is a cholesterolized alcoholic extract of human heart. Directions for use will accompany each lot of antigen distributed.

It was decided that three antigens be used. Any discrepancies in the results obtained with the antigen furnished by the State and the antigens originally used by the approved laboratory are to be reported to the State laboratory. In all doubtful cases, recourse to clinical history is to be taken either by the State laboratory or the other laboratory involved, as an aid in checking the results.

7) It was further decided that the total quantities be diluted with salt solution so that the total bulk for the test would equal approximately 2.5cc. This represents one-half the original Wassermann quantities.

Further, it was agreed that the Wassermann laboratory would supply serums from known cases of syphilitic and negative serum in sufficient numbers to aid in the process of standardization.

It was decided to have frequent meetings to discuss various problems which arise from Wassermann work. It would appear from the success of this first meeting that an association of laboratories will be formed, the purpose of which will be to maintain the highest standards of Wassermann work.

NOTE: Accompanying the first lot of antigen distributed to each of the laboratories, will be enclosed a protocol such as is herewith attached.