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WASSERMANN LABORATORY

Wm. A. Hinton, M. D., Director

GENERAL INFORMATION

The volume of work in this laboratory has continued at about the same rate for the past five years. During 1952-53, 554,967 tests were performed on 548,500 specimens. The average number of tests performed for the five-year period was 556,720. This year total protein and globulin tests were added to the routine testing procedures on specimens of spinal fluid.

In the intrastate evaluation of serologic tests for syphilis forty-three out of forty-seven laboratories satisfactorily performed standard tests and were recommended for approval; and one hundred and sixteen laboratories out of one hundred and seventeen satisfactorily performed rapid tests in connection with blood donor service.

A representative of the Field Service Unit, Serologic Section of the United States Public Health Service, spent three days at the laboratory during the month of January inspecting the equipment and routine activities. She complimented the methods used in processing specimens and the testing procedures, and said the method used for standardizing the indicator (antigen) used in the Hinton test was excellent.

Her recommendations and criticisms were:

1) That quantitative tests should be performed routinely on all specimens giving a positive reaction. The director of the Wassermann Laboratory does not agree with this recommendation because the effect of treatment on syphilitics depends on the kind and quantity of drugs used, the stage of the disease, the nature of the syphilitic injury, and its site. The results of serologic tests do not answer these questions which are purely clinical and hence cannot be regarded as a reliable criterion for the need or lack of need for treatment. This opinion is supported by leading syphilologists who frequently stop treatment even though serologic tests

remain positive and contrariwise advise that patients, who appear to be cured, return for periodic examinations even though their serologic tests have become negative.

2) That an additional testing procedure should be added to the present routine. A study of the results of the yearly evaluations conducted by the U. S. Public Health Service failed to prove that anything of significance would be gained by the addition of more technical procedures to those now used in this laboratory. The accuracy of the Hinton test as performed in the Wassermann Laboratory during the past eighteen years has been significantly greater on the whole than that of any other State or Federal Laboratory participating in the National Evaluation of serologic tests for syphilis. If one of the simpler and less expensive tests, e.g., the V.D.R.L. test were added to the routine it would increase the budget by approximately forty per cent.] NB.

3) The method of washing pipettes was criticized because no detergent was used regularly. A satisfactory washing machine was merely awaiting installation when this criticism was made.

The senior serologist spent two weeks at the U. S. Public Health Venereal Disease Research Laboratory in Chamblee, Georgia, observing and performing the different approved American serologic techniques used for syphilis.

Nine technicians from hospitals that are cooperating in the intrastate evaluation program were given instruction in performing the Hinton test.

Four nurses from the Boston College School of Nursing were given instruction in relation to the serology of syphilis. Conferences and demonstrations were given to six doctors from the Harvard School of Public Health.

Table I lists the number of specimens examined and the tests performed during the past five years.

WASSERMANN LABORATORY

Tests and Examinations

TABLE I.

Kind of Specimen		1948	1949	1950	1951	1952
		1949	1950	1951	1952	1953
Blood	Number of Specimens	517,683	519,668	533,398	534,324	538,513
	Tests					
	Hinton	446,727	438,820	472,986	482,534	485,760
	Hinton-Titr.-Penicillin	9,820	13,247	14,115	8,286	8,990
	Kahn Titr.-Penicillin	9,683	13,247	13,529	—	—
	Davies-Hinton Micro Flocculation	11,398	14,693	14,147	14,457	12,641
	*Brucella Abortus Agglutination	24,424	34,330	24,895	29,039	31,116
	*Glanders	33	10	12	8	6
	**Blood Bank Hinton's	25,281	25,568	7,243	—	—
Spinal Fluid	Number of Specimens	12,732	13,068	11,054	10,242	9,820
	Tests					
	Wassermann	9,883	9,950	8,033	—	—
	Davies-Hinton	12,732	13,068	11,054	10,242	9,820
	Globulin	—	—	—	—	3,578
	Total Protein	—	—	—	—	2,565
Rabies Diagnosis*	Number of Specimens	194	192	189	150	167
	Tests					
	Impressions	194	192	189	150	167
	Sections	184	186	180	144	161
	Animal Inoculations	184	172	181	147	163
Path.& Bact. Examina- tions	Number of Specimens	10	2	6	4	—
	Tests					
	Animal Inoculations	4	—	4	3	—
	Cultures	5	1	5	2	—
	Smears & Impressions	3	1	—	2	—
	Sections	5	—	1	1	—
Total Tests		550,560	566,485	566,574	545,015	554,967
Total Specimens		530,619	532,930	544,647	544,720	548,500

*Diagnostic Examinations for Division of Livestock Disease Control

**Tests for State Blood Bank.

Commissioner's
Memo. of May 18, 1951
gives form to follow

1952-
1953

WASSERMANN LABORATORY

Wm. A. Hinton, M.D., Director

GENERAL INFORMATION

Last year attention was drawn to the fact that the most noteworthy event in relation to the Wassermann Laboratory for the year 1950-1951 was a precipitous cut in the U.S. Venereal Disease funds which caused curtailment in essential activities.

Funds were secured from other sources in the Department which made it possible to retain some of the personnel who were slated for discharge. Nevertheless, no provisions have been made which assure the Laboratory of sufficient personnel to carry out adequately tests for the detection of syphilis, a public health measure which is recognized as essential by every State of the Union and by leaders in the medical profession throughout the country.

This year, beginning December 1, 1951, the Wassermann Laboratory made an important change in the technique of the Hinton test by adopting new components of the indicator (antigen). This change has given one and one-half times as many positive reactions in large groups of syphilitics (mostly treated) as the indicator previously used. Despite this prominence in the detection of the disease figures from the Boston Metropolitan Chapter of the American Red Cross indicate a remarkable freedom from false positives--less than one in nine hundred presumably non-syphilitic persons.

In the Department's State evaluation of serologic tests for syphilis forty out of forty-three laboratories satisfactorily performed standard tests and were recommended for approval; and sixty-five laboratories out of seventy-seven satisfactorily performed rapid tests in connection with blood donor services.

Several months were spent on a study of the value of a new test (Bossak, Rosenberg & Harris) for the determination of total protein in spinal fluid. The results did not warrant a change to the new method because of the confusion that seemed likely to ensue particularly in hospitals where patients have been treated and observed for many years with the old method. (Dennis & Ayer).

Table I lists the number of specimens examined and the tests performed during the past five years.

WASSERMANN LABORATORY

Tests and Examinations

TABLE I

Kind of Specimen		1947	1948	1949	1950	1951
		1948	1949	1950	1951	1952
Blood	Number of Specimens	524,765	517,682	519,668	522,398	534,324
	Tests					
	Hinton	457,747	446,717	438,820	472,986	482,534
	Hinton-Titr.-Penicillin	9,086	9,820	13,247	12,115	8,236
	Kahn Titr.-Penicillin	9,086	9,683	13,247	13,529	---
	Davies-Hinton Micro Flocl	10,091	11,398	14,693	14,147	14,457
	*Brucella Abortus Aggl.	26,956	24,424	34,330	27,895	29,039
	*Glanders	9	33	10	12	3
	**Blood Bank Hinton	20,876	25,281	28,568	7,243	---
Spinal Fluid	Number of Specimens	13,908	12,732	13,068	11,054	10,242
	Tests					
	Wassermann	11,719	9,853	9,950	8,033	---
	Davies-Hinton	13,908	12,732	13,068	11,054	10,242
<i>Shelburne Total Path. Inst.</i>						
Rabies Diagnosis*	Number of Specimens	213	194	192	189	150
	Tests					
	Impressions	213	194	192	189	150
	Sections	201	184	186	180	144
	Animal Inoculations	191	184	172	181	147
Path. & Bact. Examinations	Number of Specimens	-	10	2	6	4
	Tests					
	Animal Inoculations	-	4	-	4	3
	Cultures	-	5	1	5	2
	Smears & Impressions	-	3	1	-	2
	Sections	-	5	-	1	1
Total Tests		560,093	550,560	566,485	566,574	545,015
Total Specimens		538,886	530,619	532,920	544,647	544,720

*Diagnostic Examinations for Division of Livestock Disease Control.

**Tests for State Blood Bank.