

10-4
Aug. 1954
WASSERMANN LABORATORY

Genevieve O. Stuart, Senior Bacteriologist

GENERAL INFORMATION

The volume of work in this laboratory for the past five years remains at about the same level. This year 549,184 tests were performed. Hospitals and other institutions submitted 330,057 specimens for Hinton tests and private physicians submitted 151,944 specimens. Of the latter number 51,974 tests were performed for premarital purposes and 45,157 for prenatal purposes. Out-of-state premarital certificates were issued to 1374 applicants.

The material submitted for rabies examination differed somewhat from previous years inasmuch as a relatively large number of small wild animals was received. However, all of the specimens showed negative results.

In the intrastate evaluation for serologic tests for syphilis, seventy-seven hospital laboratories were approved for tests for blood donor purposes and forty-three laboratories for standard serologic tests for syphilis. Eleven technicians from hospitals participating in this program were given instruction.

Starting in January the U. S. Venereal Disease Research Laboratory offered their facilities to the States for performing Treponemal Immobilization Tests. Seventeen specimens were processed through this laboratory and reported as follows: nine reactive; four non-reactive; and four contaminated. The significance of the discrepancy of results between this test and the Hinton test cannot be determined by any data which we have.

In the interstate serologic evaluation conducted by the U. S. Venereal Disease Research Laboratory two hundred matched specimens of serum were tested. This laboratory was deemed inadequate on the basis of conflicting reports on four specimens—all were high dilutions of syphilitic serum. Since the reactivity of the Hinton test as performed in this laboratory was almost 50% more sensitive (reactive) than any of the other author tests these results are by no means unreasonable. Moreover, the use of any test of such low reactivity would constitute a great disservice to the clientele which we serve.

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SUMMARY

During the year this laboratory performed 549,184 tests. Over 490,000 of these specimens were submitted for serologic tests for syphilis. Through the cooperation of the U. S. Venereal Disease Research Laboratory at Chambliss, Georgia, the Treponemal Immobilization test was added to the routine procedures.

Specimens for evaluation of serologic tests for syphilis were sent to one hundred and twenty-three laboratories throughout the State. Instruction in the techniques of the serology of syphilis was given to technicians participating in these evaluations.

This year two hundred and sixteen heads of animals were examined for rabies. A relatively large number of small wild animals was received. However, all of the material proved to be non-rabid.

In cooperation with the U. S. Department of Agriculture and the Massachusetts Division of Livestock Disease Control an exhilarated program for the eradication of brucellosis (blood testing of cattle) was started during March of this year.

Instruction in the techniques of the serology of syphilis was given separately to the following groups: eight nurses from the Boston College School of Nursing; two students from the Harvard School of Public Health; three resident pathologists from Boston hospitals; and five student technologists from the Faulkner Hospital.

Milk samples submitted by the Medical Milk Commission of Boston were examined monthly for the presence of brucella antibodies.

A new program for the eradication of brucellosis in cattle was started in March. The U. S. Department of Agriculture cooperating with the State Division of Livestock Disease Control supplied the personnel and materials for blood testing of approximately 13,000 cattle.

Continued work on the Treponemal Immune Adherence Test has indicated its lack of specificity. However, a slight modification has been proposed, but further study of this test was interrupted by the resignation of a junior bacteriologist who was assigned to perform this test.

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Tests and Examinations

TABLE I.

Kind of Specimen		1950	1951	1952	1953	1954	1955
		1951	1952	1953	1954	1955	1956
Blood	Number of Specimens	533,393	534,324	538,513	522,122	530,229	528,913
	Tests						
	Hinton	472,886	482,534	485,763	467,977	473,048	461,404
	Quantitative Hinton	14,115	8,286	8,990	8,747	10,075	10,075
	Quantitative Kahn	13,529	-	-	-	-	-
	Davies-Hinton Micro Flocculation	14,147	14,457	12,641	12,307	11,554	11,779
	*Brucella Abortus Agglutination	24,895	29,039	31,116	33,391	35,539	37,000
	Glanders Complement Fixation	12	8	6	12	13	9
	**Rapid Hinton	7,243	-	-	-	-	-
Spinal Fluid	Number of Specimens	11,054	10,242	9,820	9,843	9,369	8871
	Tests						
	Wassermann	8,033	-	-	-	-	-
	Davies-Hinton	11,054	10,242	9,820	9,843	9,369	8871
	Globulin	-	-	3,578	4,491	4,675	3708
	Total Protein	-	-	2,565	4,292	4,284	3410
Rabies Diagnosis*	Number of Specimens	189	150	167	203	216	176
	Tests						
	Impressions	189	150	167	203	216	176
	Sections	180	144	161	188	199	158
	Animal Inoculations	181	147	163	195	212	166
Path. & Bact. Examinations	Number of Specimens	6	4	-	-	-	-
	Tests						
	Animal Inoculations	4	3	-	-	-	-
	Cultures	5	2	-	-	-	-
	Smears	-	2	-	-	-	-
	Sections	1	1	-	-	-	-
Total Tests		566,574	545,015	554,967	541,646	549,184	528,913
Total Specimens		544,647	544,720	548,500	532,168	539,814	521,451

*Diagnostic Examinations for Division of Livestock Disease Control

**Tests for State Blood Bank