

MEMORANDUM

SUBJECT: Material for "Common Health"

TO: Mr. Keenan

FROM: Dr. Hinton

DATE: November 19, 1953

Enclosed please find the information which I understand is intended for publication in "Common Health." After you have read it I shall be happy to clarify any points which are not clear or otherwise change it to make it more suitable for publication.

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The Wassermann Laboratory was first established as an activity of the Department of Neuro-Pathology at the Harvard Medical School under the direction of Dr. Elmer E. Southard, who as Pathologist of the Massachusetts Department of Mental Diseases, saw the need for Wassermann tests as an aid in the diagnosis of mental diseases. In 1915 Dr. Allan J. McLaughlin, Massachusetts' first Commissioner of Public Health, realized the important role that syphilis played in the health of the citizens of the Commonwealth and sponsored legislation whereby tests for this disease were made available to all citizens of the State without charge.

Dr. McLaughlin selected Dr. William A. Hinton to direct the Laboratory on a half-time basis. Dr. Hinton was particularly well fitted for this position as he had been teaching the Wassermann technique in the Department of Neuro-Pathology at Harvard Medical School since 1912. He also had been trained in the clinical aspects of the disease under Doctors Abner Post, G. Morton Smith, and Dr. E. Lawrence Oliver, all members of the medical staff of the Massachusetts General Hospital and each was a leading American syphilologist of that time. He was also trained under Dr. J. Homer Wright, Director of the Pathological Laboratory at Massachusetts General Hospital on the pathological aspects of the disease. During the three years spent at the Massachusetts General Hospital he was asked to perform autopsies on all persons, adults and infants, known to have or suspected of having syphilis; moreover, he participated in research on cultivation of *Treponema pallidum* and its effects on rabbits inoculated with this parasite. This training had created in him an interest in every aspect of syphilis and in the individual syphilitic. This last interest, but by no means the least important interest, grew out of the aid rendered by the Social Service personnel of the Syphilis Department. His special interest, however, was in the laboratory aspects of the disease.

After his appointment as Head of the Laboratory Department of the Boston Dispensary he had abundant opportunity to study both gonorrhea and syphilis since the Boston Dispensary had one of the largest venereal disease clinics in New England. Also, for a number of years he directed the activities of the Wassermann Laboratory of the Peter Bent Brigham Hospital where he was able to observe both in-patients and out-patients and correlate the results of serologic tests with the clinical manifestations and the treatment of patients infected with syphilis. This was done largely during weekly conferences with the medical residents (assigned to the syphilis clinic) on cases which had been unusually well studied both by clinical examination and laboratory tests. This was regarded as experience probably unexcelled in America.

From the very beginning experimental work on the serology of syphilis was almost continuously a part of the activities of the laboratory. In 1919 an intrastate evaluation of laboratories was started and a paper was published on a "Standardized Wassermann Technique" for State Approved Wassermann Laboratories; so far as known the first organized evaluation program carried on in this country. As a result of researches carried on in the Wassermann Laboratory "A Glycerol Cholesterol Agglutination Test" was devised in 1927. It was extensively used by the late Dr. Tracy Mallory of the Massachusetts General Hospital who suggested that it be called the Hinton test and that it be adopted officially by the Massachusetts General Hospital. It was later modified and adopted by the Massachusetts Department of Public Health on April 1, 1934. Since 1936 evaluations of serologic tests for syphilis have been conducted by the United States Public Health Service, and the results show that the Hinton test with one exception has been more sensitive and just as specific as any of the so-called "approved" tests used in this country.

Inasmuch as there was a great need for collecting small amounts of blood from babies, Dr. John A.V. Davies of the Children's Hospital worked at the laboratory and devised the Davies-Hinton micro test. It is now used by all of the large pediatric clinics in the State. The Davies-Hinton test for spinal fluids was also devised in this laboratory and is now the routine procedure.

An intergration of the knowledge gained by many years of study of syphilis as a clinical entity, as a pathological entity, and as a social disease resulted in the publication in 1936 of a book "Syphilis and its Treatment."

There has always been considerable controversy as to the purposes of serologic tests for syphilis. Experience has shown that they serve best as an aid in the detection of this disease, but should not be used as a reliable sign in determining whether or not a patient is infectious. And more important our opinion has been that serologic tests for syphilis whether qualitative or quantitative are no reliable aid in determining the effect of treatment. There is a growing number of physicians who now share this opinion which is illustrated by the fact that they believe the duration of the infection, the nature and site of the lesion or lesions, and the kind and amount of treatment are the really important factors. These physicians do not hesitate to stop treatment even though the blood test has remained positive, nor do they always regard a patient as cured even if his blood has become negative.

From the beginning the tests have always been reported as positive, doubtful, and negative, a method recommended by the United States Public Health Service, although many thought the degree of positivity should be reported. Experience had shown that the titer would be of little value and could cause a great deal of confusion so the original method of reporting was never changed. A strongly positive, a moderately positive, nor a weakly positive are not reliable criteria for judging the severity of the disease nor for that matter any other characteristic of the disease.

In 1915 when the laboratory started about 100 tests were performed daily. Now approximately 2,000 specimens of blood and spinal fluid are tested each day. Total protein and globulin tests are also performed on specimens of spinal fluid. Since 1916 examination of animal heads for rabies, complement fixation tests for glanders and agglutination tests for Bang's disease were performed in this laboratory for the Division of Livestock Disease Control. However, the serologic tests for syphilis comprise 93% of the activities.

When premarital and prenatal laws together with regulations pertaining to blood donors were passed it was necessary to evaluate the performance of laboratories wishing to be approved to do serologic tests for syphilis. In the beginning less than 10 laboratories were evaluated, but now this program has expanded so that 117 laboratories are participating.

Teaching has always been an important function of the laboratory, particularly since its director was also Professor of Clinical Bacteriology and Immunology at the Harvard Medical School, taught in the Harvard School of Public Health, Simmons College, and Tufts College Medical and Dental School.

Dr. Hinton, who has directed this Laboratory under State auspices since July, 1915, will retire on December 31, 1953 after 38½ years of service.