

ADVANCES IN VENEREAL DISEASE CONTROL

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Every community, every State, and every Nation has its individual venereal disease control problem, yet these separate problems blend into a single, unified world problem of epidemiology in this day of extensive and rapid travel when no community is truly isolated from any other.

The international character of venereal disease control has already been established in practice as well as recognized in theory. This is true particularly in the Western Hemisphere with respect to the exchange of information regarding source and spread of infections. In North America, Canada and the United States exchange epidemiologic data; Mexico and the United States cooperate in venereal disease control along their United States-Mexico Border through the Pan American Sanitary Bureau, an outstanding example of successful international cooperation in problems of health. Similarly, the United States exchanges epidemiologic data with other nations in the Western Hemisphere, and most of the other American Republics participate in cooperation in venereal disease control through the work of the Pan American Sanitary Bureau, the cooperative health services of the individual republics, and the American Social Hygiene Association.

During the War the United States Public Health Service developed a system for forwarding to appropriate health agencies throughout the world the names and addresses of persons reported as contacts of infected patients under health jurisdictions of the United States.

The importance of international cooperation in venereal disease control was stressed by delegates from many countries attending the National Conference on Postwar Venereal Disease Control at St. Louis in November of 1944.

Exchange of medical information, as well as epidemiologic data, among health authorities of different countries is another useful means of international cooperation in venereal disease control. The Venereal Disease Division of the Public Health Service has made freely available to physicians and health agencies of other nations information regarding new treatment methods used in the United States.

Now that the war is over the exchange of venereal disease information among the communities of the world should be even more free and widespread than ever before, and cooperation in control work should be extended.

Out of the war period have developed new techniques which have been found useful in venereal disease control in the United States; these will be summarized here briefly so that others may consider them.

Most important has been the development of short schedules of therapy for both syphilis and gonorrhoea. Very high rates of cure have been obtained in the treatment of gonorrhoea with 150,000 to 200,000 units of penicillin administered in one to four intramuscular injections. The single-injection doses are administered in an oil-wax mixture. Aqueous solutions of penicillin are administered in four doses of 50,000 units each, injected an hour apart.

Intensive treatment of syphilis is now being administered to patients in special hospital facilities at a rate of 180,000 patients per year—the equivalent of approximately one-fourth of all syphilis cases reported during a year. The schedule of intensive therapy most widely used at present consists of 8 injections of an arseni-

cal drug, 1,200,000 units of penicillin, and 3 injections of bismuth. The penicillin is given intramuscularly in the amount of 16,667 units in 2 cc. of solution every 3 hours for 72 injections, over a period of 9 days. The arsenical drug is administered intravenously at the rate of one mg. per kilogram of bodyweight, but not to exceed 60 mg. per injection, on the 1st, 3rd, 5th, 7th, and 9th days of treatment. A total dosage of 200 mg. of bismuth subsalicylate is administered intramuscularly, in 3 equal doses on the 1st, 5th, and 9th days of treatment. It is probable that further studies of this schedule of therapy may suggest more nearly optional time-dosage relationships, and that the schedule may be modified.

Progress in the intensive treatment of syphilis has been made principally in the network of special hospitals known as rapid treatment centers established throughout the United States during the past few years specifically for the purpose of rendering non-infectious large numbers of venereal disease patients. The centers were established originally as a war time measure to meet the threat of possible widespread increase in infections. After many months the centers had demonstrated their value and it became obvious that they should be regarded as an important new part in the long range venereal disease control program rather than as a mere war time expedient. Consequently the Congress authorized the financing and administration of the centers as a normal rather than as an emergency part of the public health program, and appropriated \$5,000,000 for the fiscal year 1946 to subsidize the maintenance and operation of existing centers and for the establishment of new centers as required. Provision was made, further, for the payment of fees to hospitals by providing inpatient care for venereal disease patients in areas where the size of the problem did not warrant the establishing of hospitals devoted exclusively to the treatment of venereal disease.

Under contract proposals which have been approved so far, 52 individual centers in 31 States and the rental of beds in more than 300 general hospitals in 10 States are provided for.

All together, the rapid treatment hospitals, special wards, and rented beds form a network which could provide inpatient facilities for the intensive treatment of all cases of infectious syphilis reported each year. Of the 182,000 infectious or potentially infectious cases of syphilis reported during 1945, 52,000 were treated at rapid treatment centers and the remaining 130,000 were treated elsewhere; an increasing proportion of these cases undoubtedly will be treated in rapid treatment facilities in the future.

Venereal disease control statistics for fiscal year 1945 show the growth in importance of rapid treatment centers.

The 373,288 cases of syphilis and the 301,828 cases of gonorrhoea reported by all sources to State health departments during the year represented 21 percent decreases, respectively, compared with cases reported in 1944. Clinic admissions for syphilis were 278,369, a decrease of 22 per cent; clinics admitted 200,176 gonorrhoea cases, 36 percent more than were admitted in 1944. Included in these clinic admissions were rapid treatment center admission of 61,898 cases of syphilis and 67,326 cases of gonorrhoea, increases of 407 percent and 318 percent, respectively.

The number of cases of primary and secondary syphilis reported was 78,015, and the number admitted to clinics was 51,631, including 22,985 admitted to rapid treatment centers; the number of early latent cases reported for the first time was 104,752, and the number admitted to clinics was 98,438 including 29,825 admitted to rapid treatment centers. (Cases reported to State health departments are cases reported for the first time. Clinic admissions and rapid treatment center admissions include cases which may have been reported previously.)

The number of clinics receiving Federal, State and local financial assistance during the year was 3,477, which was 155 fewer clinics than in the previous year.

The development of the rapid methods of treating both gonorrhoea and syphilis has placed the status of the medical aspect of venereal disease control far in advance of that of other factors. Perhaps the greatest single deficiency is that of the casefinding process. Obviously, with the efficient medical measures available, venereal diseases could now be reduced to a negligible minimum if a large enough proportion of existing infections could be found promptly and brought to treatment.

Contact investigation, however, is not the sole nor even the principal method for finding venereal disease infections. Education of the public regarding the manner in which venereal diseases are acquired and the symptoms of the diseases, so that persons who may have been exposed or suspect that they may have been infected will go voluntarily to a physician or clinic for medical examination, has proved to be the most effective single means of bringing venereal disease patients to treatment. A recent study of the contributions of various casefinding methods to the number of new admissions to 180 clinics served by a Public Health Service regional tabulating unit showed that persons who voluntarily seek diagnosis and treatment of venereal disease constitute the largest single group of infected patients coming to treatment. The study of reasons for admission to the 180 clinics showed that a third of all venereal disease patients admitted during a year came of their own accord—because of the presence of symptoms or the suspicion of infection.

The value of public education in casefinding has been shown even more strikingly in demonstrations conducted in several communities. In a demonstration program in New Orleans a concentrated campaign of public information and education brought to treatment more cases of gonorrhoea than the total number of cases reported during the two preceding years.

A comparable campaign was conducted in the city of Birmingham and Jefferson County, Alabama, where more than 30,000 persons with evidence of syphilis were discovered as a result of the 45-day blood testing program. During the course of the blood testing program 3,000 persons were treated for gonorrhoea. About 271,000 persons, or about 92 percent of the population of Jefferson County between the ages of 14 and 50 years presented themselves for blood testing. A state law in Alabama requires blood testing of all persons between these ages. The success of the Birmingham program was in part at least, attributable to intensified public education and information activity, for in no case was it necessary to invoke the law directly in order to obtain the blood test.

A third demonstration, including a tuberculosis survey as well as syphilis casefinding, was completed November 30, in the city of Savannah and Chatham County, Georgia. More than 71,000 persons—from a population of 125,000 of all ages in the County—voluntarily received chest X-rays and blood tests during the 45-day Savannah-Chatham demonstration. The results of blood serologic tests were positive for about 11,000, and doubtful for about 5,000 of the persons tested. As a by-product of the blood testing program, 285 cases of gonorrhoea also were discovered. The survey discovered in 45 days a number of cases of syphilis which ordinarily would not be discovered in months or years, and in the opinion of the health officers who participated in this program represents a most economical method of case-finding. It is estimated that the survey, conducted by the Chatham County Health Department in cooperation with the Georgia State Department of Health, and the U. S. Public Health Service, cost approximately \$70,000 which would represent an individual cost of about 50¢ for each blood test and each chest X-ray.

It seems probable that the New Orleans, Birmingham, and Savannah-Chatham demonstrations represent the first phase of an intensive casefinding device which

will be employed in many other cities; the second phase, which remains to be developed and tested, is that of keeping communities free of infection after they have been surveyed.

Since the beginning of the war, mass blood testing on an enormous scale has been utilized as a syphilis casefinding device in connection with the mobilization and demobilization of the Armed Forces. Blood testing of Selective Service registrants resulted in the discovery of about $\frac{3}{4}$ of a million young men whose physical examinations indicated they were infected with syphilis. As a result of follow-up and treatment by State and local health departments approximately 273,000 of these men were reclaimed and made available for service in the Armed Forces, if called and otherwise acceptable.

Early in the war, plans were made by the Army, the Navy, the Coast Guard, and the Public Health Service for assuring the return of demobilized service men to civilian life without venereal disease in an infectious stage. As the rate of demobilization increased, representatives of the U. S. Public Health Service were stationed in Army Separation Centers throughout the country to interview separates whose blood serologic tests for syphilis show positive or doubtful results, and to direct these men to private physicians, clinics, or rapid treatment centers for further diagnosis and treatment if necessary.

Although the venereal disease control program in most parts of the United States has been based chiefly upon the fundamental epidemiologic principle which is the basis of the control of all communicable diseases—the finding and treating of infected persons to eliminate the sources of new infections—supplementary control measures have not been neglected. These supplementary control measures may be classified as (1) efforts to reduce the number of uninfected persons who become exposed (a) by persuading uninfected persons not to expose themselves and (b) by influencing infected persons not to infect others, and (2) efforts to reduce the number of new infections resulting from whatever exposures occur—namely encouraging the use of prophylactic methods.

Persuading uninfected persons not to expose themselves constitutes a part of the broad social hygiene objectives through activity in the field of public education, education in the schools, in the home, and in the church.

Influencing infected persons not to expose others can be accomplished, at least to some extent, by direct explanation to and education of patients when found. It can be accomplished, in some cases, by enforcement of quarantine laws and by prostitution laws.

Reduction of the number of new infections resulting from whatever exposures occur by persuading those who expose themselves to use prophylactic methods has been achieved quite successfully in the Armed Services. In the civilian population, however, prophylaxis is of value principally to the individual as a means of avoiding infection, but it has limitations, and the idea of widespread public education regarding prophylactic methods has not been fully accepted by all segments of the population.

A recent development, which in the future may prove to be of considerable value in venereal disease control, is inquiry into the psychological and psychiatric aspects of that kind of sexual behaviour which commonly is referred to by the rather inexact term "promiscuity." It is obvious, of course, that the incidence of venereal disease infections could be greatly reduced if the number of persons with whom individuals had sexual relations could be greatly reduced. For many years this aspect of venereal disease control has been regarded as a purely moral problem. However, psychiatrists have long recognized the fact that there is a realm of sexual promiscuity which is as much of a medical problem as it is a moral problem. There are individuals who are promiscuous in the extreme sense

of the word, beyond any range of mere lax morality and who may be regarded as pathologically promiscuous.

The small number of psychiatric studies which have been made among venereal disease patients indicate that a significant proportion of the individuals whose sexual behavior resulted in the acquiring of a venereal disease infection were motivated by efforts to cope with psychological maladjustments which are not related directly to expression of the sex impulse. One such study¹ indicated that psychiatric treatment of the promiscuous venereal disease patient may be an effective preventive measure to reduce the spread of venereal disease, and that mental hygiene may be an important means of reducing promiscuity before venereal disease infection occurs. Further studies of mental hygiene and psychiatric aspects of venereal disease control are contemplated.

Success of venereal disease control in the future appears to depend upon:

1. Perfection and extension of methods for finding and bringing to treatment of individuals harboring a venereal disease in an infectious stage.
2. Enlisting the active participation of a larger proportion of all physicians in private practice in the treatment of gonorrhoea and in the finding of both gonorrhoea and syphilis cases.
3. Treatment of early infectious cases of syphilis by intensive inpatient therapy, or development of intensive treatment methods which can be administered readily by private physicians in their offices or in the homes of the syphilis patients.
4. Application of education, of mental hygiene, and of other influences which affect behavior, to the end of reducing promiscuous sexual activity which spreads venereal disease infections.
5. Continuation and expansion of international cooperation in venereal disease control.

¹ Lyon, Ernest G., M.D.; Jambor, Helen M.; Corrigan, Hazle G., and Bradway, Katherine P., Ph.D.: An Experiment in the Psychiatric Treatment of Promiscuous Girls, 1945. San Francisco: Psychiatric Service, San Francisco City Clinic, City and County of San Francisco Department of Public Health.

Tolerância aos leprosos em Portugal.—Conclue F. da Silva Correia (Clín. Hig. & Hidrologia, 103, ab. 1945), com Rocha Brito e Silva Carvalho, que em tempos idos os leprosos em Portugal eram tratados com bem mais carinho do que na maior parte dos países; que para os atrair às gafarias, (que já existiam antes do século XI,) lhes eram concedidas regalias e privilégios, muito disputados, não só por eles, mas até por sãos, e que para os prender às instituições, se lhes exigia, para terem direito a razão, que doassem às gafarias importante parte dos seus bens, que perdiam se acaso fossem expulsos por terem cometido faltas graves; que eram defendidos de abusos, explorações, agressões, etc; que a entrada na gafaria, pelo menos na de Santarém, era precedida de exame médico, assistido por leprosos, sempre que a existência da lepra não era evidente; que era corrente os próprios lázaros intervirem nos julgamentos, na eleição dos administradores dos seus bens e na vigilância da administração; que os municípios desde, pelo menos, o último quartel do século XIV, superintendiam na administração, tendo a protecção aos leprosos o carácter dum verdadeiro serviço sanitário público, em cuja execução o Rei intervinha, directamente, mais ou menos, conforme as circunstâncias e os lugares. Ao terminar, põe em destaque a importância relativa que as gafarias tiveram entre os estabelecimentos-hospitalares medievais portugueses, sem pretender esgotar o assunto, nem sequer referir tudo o que tem sido já publicado em trabalhos exaustivos.