THE EPIDEMIOLOGICAL CONTROL OF VENEREAL DISEASE*

BY

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In 1943 I was given the interesting but difficult task of conducting the Joint Committee on Venereal Disease, on which were represented the Admiralty, War Office, Air Ministry, Ministry of Health, the Department of Health for Scotland, the Home Office, the Metropolitan Police, and the Canadian and United States Armies. I will refer later to the work of this Committee, which was confronted with an extremely difficult situation having international implications. Though it met in an atmosphere charged with emotion, by reason of highly coloured press reports appearing both in this country and across the Atlantic about social conditions in London, the proceedings of the Committee were invariably marked by the most helpful and friendly spirit on all sides.

There can be few subjects larger and more involved than venereal disease, and in which it is easier to make mistakes of real importance. Nor does its narrowing down to the aspect of epidemiological control do much to simplify it, as it is impossible to discuss its epidemiology without considering many problems of a highly technical nature. I would, therefore, like to limit my remarks to observations and suggestions which may stimulate discussion and perhaps indicate the way in which a medical administrator with certain responsibilities in regard to the control of these diseases views the problems and difficulties of the specialist in venereal diseases.

I always try to regard the venereal diseases as merely a group, though admittedly a very special one, of the communicable diseases against which the health services of the country are constantly fighting. This attitude is not rendered any easier by the moral

questions involved, the conspiracy of silence which has hampered our work in the past but is now happily in course of suffering defeat, and the social implications of infection which can indeed be lessened by wise education but are an inseparable concomitant of diseases spread by sexual intercourse.

Statistical Trends

In studying this group of communicable diseases—as with all infectious diseases indeed—one of the first things we need to know is its extent and distribution, by sex, age, and locality; and at once we encounter peculiar difficulties. Not only are the venereal diseases not notifiable in this country, but the ordinary methods for securing notification seem to carry with them a strong possibility, at least, of defeating their own object. It is often argued against this view that compulsory notification has been successfully employed in several foreign countries, notably in Sweden and in parts of the United States of America, but this success seems to me open to doubt in certain cases, and it depends inevitably on the public attitude, which varies with national characteristics and customs.

As you all know the efforts of venereologists and workers in public health were strikingly successful between the two wars, the number of cases of early syphilis dealt with at the treatment centres, for instance, having been reduced to 4,986 in 1939, a low record and over 45 per cent. less than in 1931. Then, when hopes of further reductions were running high, came the late war with the rise inevitable in such circumstances, beginning slightly in 1940, but rising to a maximum in 1945 (5,527 for females as against 1,421 in 1939—an increase of nearly 389 per cent.). I have

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quoted the figures for females because of the well known difficulties in the case of males due to recruitment to the armed forces, but there seems little doubt that the trend is the same as for females. The figure I have given for females in 1945 represented a rise of 1,143 over that for 1944, and though the full figures for 1946 are not yet available it is clear that the increase in syphilis in 1946 was proportionately greater than that of any of the years immediately following the 1914-18 war, but such a rise occurred, we must remember, as long after the First World War as 1920, and should not I think occasion too much pessimism. After all we still have considerable numbers of infected men coming back home, not only for demobilization but also on leave from the B.A.O.R., where conditions have not been too good.

The variations in the incidence of gonorrhœa are even more difficult to trace, owing to the greater frequency with which cases of this disease are treated privately. In the opinion of our expert advisers at the Ministry there was probably an increase in the incidence of gonorrhœa in males up to 1941, followed by a progressive decline, whereas in females the rise in incidence continued until 1944.

We are therefore confronted by the same sort of situation as after the 1914-18 war, but this is only superficially true as the circumstances are in reality greatly changed in three important respects: we now have new and powerful remedies which we did not possess in 1919; we already have improved facilities for treatment; and there is good reason to hope that the new National Health Service will enable us to use our facilities to much greater advantage than in the past.

New Remedies

First, then, let us consider briefly the new remedies. The sulphonamides undoubtedly caused a revolution in the treatment of gonorrhœa, but as with all revolutions there have been accompanying dangers and drawbacks. The rapid disappearance of symptoms in cases treated at the centres led to discontinuance of attendance in many cases before a cure was effected, and undertreatment has led to the emergence of sulphonamide-resistant strains. Though the alarm occasioned by the early reports from Italy has been partly allayed by our later experience at home,

yet the reality of the danger of sulphonamide-resistance will not, I think, be denied. On the other hand the markedly reduced incidence of impaired vision and blindness following the introduction of the sulphogamides in the treatment of ophthalmia neonatorum must be regarded as a solid gain for which we may be thankful.

Even more thankful should we be for the discovery of our second new and more powerful ally, penicillin, which has revolutionized the treatment not only of gonorrhœa but also of syphilis, even admitting that the time has not yet come when we can safely abandon the use of other older remedies in the treatment of this latter disease. But, to take gonorrhœa first, we seem at last to have a remedy in penicillin which when used properly can avoid to a very great extent the two drawbacks to the use of the sulphonamides—discontinuance of treatment and the creation of resistant strains—as a very large proportion of cases can be cured in a single day. We must, however, still be on our guard here, as penicillin tablets are being prescribed for the treatment of this disease, with the consequent possibility of thus creating penicillin-resistant strains, a danger on which it would be interesting to know the views of venereologists. Are we then in sight of a reduction of gonorrhœa to a position of relative unimportance, or will the spread of resistant strains dash all our hopes? Even if we succeed in killing the gonococcus easily and quickly in most cases, women may still be left with secondary infection, which to the patients themselves is the disease, whatever the change in bacterial flora we may have effected. Being at the Ministry the medical officer responsible for all matters concerning the antibiotics—or, as we prefer to call them, the anti-infective substances—I am firmly convinced that we are entering a new and unknown world and that the ultimate effect of eliminating, say, penicillin-sensitive organisms when non-penicillin-sensitive organisms are also present is still unknown, both as regards the individual and the community. Also, is the efficacy of penicillin in gonorrhœa going to encourage patients to risk infection subsequently? Who can tell? In the case of syphilis our difficulties are undoubtedly greater, and I should not be surprised to find that many specialists are unable to share the early optimism of the

American authorities in this matter. Whether we shall eventually be able, with improved methods of administration, to replace the older remedies entirely by penicillin I am not rash enough to guess, but for the present a more cautious view is taken by the Ministry of Health. Nevertheless a reduction of the treatment period from about a year to ten weeks thanks to penicillin is an enormous gain; and equally important, to my mind, is the possibility of being able to treat cases in out-patient departments by the use of either depot injections of oil-wax or ethylolate suspensions, or two massive doses daily of penicillin solutions.

General Measures for Control

I would turn now to general measures for bringing the disease under control, picking out for consideration a few individual aspects about which there is still a great difference of opinion.

Public Education.—Let me take first the subject of public education, in the methods of which very important changes took place during the war years. In 1942 we eventually persuaded the B.B.C. and the Press to make an experiment in frankness, though they had considerable misgivings which proved quite groundless, for public opinion had advanced much further than they suspected between the wars. The salutary effect of such propaganda is very difficult to evaluate, but I for one cannot doubt its reality. One evidence of such an effect is the increasing number of non-venereal cases attending treatment centres, from 39,008 in 1939 to 72,689 in 1944. This may be explained as being due either to the increased awareness of the public in general, in which case it can be deduced that a larger proportion of patients suffering with venereal disease attended the centres than would otherwise have been the case; or to an increased nervousness of the apprehensive and suggestible individuals in the population, with consequently no significant effect on those really suffering from these diseases. I think it is extremely difficult to determine which explanation is the correct one, and I cannot help feeling that it is right in the meanwhile to continue propaganda on the present lines, whilst keeping a close watch to exclude features which would attract especially those persons for which the service is not primarily designed.

I am aware, of course, that a considerable burden is being placed on already overworked venereologists by this increased inflow of persons to the centres, especially as a large proportion of such persons—I have been told that it may amount even to 50 per cent.—require treatment for some non-venereal condition. At the same time it is obviously within the objectives of the new National Health Service to secure treatment for such patients, and the remedy seems to be to refer them to other appropriate departments rather than to discourage their attendance.

Contact-tracing and Follow-up.—Perhaps no aspect of control is more important than contact-tracing and follow-up, and in this connexion I would say a word about that highly controversial measure Regulation 33B. I am not ashamed to own that I played a large part in its production and that I still believe that it was worth while. In fact even if it had had no other effect than to secure the treatment of a limited number of anti-social or mentally defective sources of infection it would in my opinion have been justified, especially in war-time, but its stimulating effect on contact tracing has, perhaps, been equally valuable. This latter result was, of course, greatly enlarged by the encouragement given by the Ministry to Medical Officers of Health to take action on the receipt of a first notification. In 1945 of the 8,757 persons reported as contacts once under this Regulation 3,893 were traced; of these, 3,117 were persuaded to submit to examination. Considering the limited field covered by this procedure and the staff difficulties of medical officers of health, this is far from being a negligible contribution to the ascertainment and eradication of the disease. The figures for those cases on which two or more reports were received are, of course, far smaller, viz. 1,030, of whom 294 were persuaded to undergo examination and 483 were served with Form 2, resulting in 401 of these latter persons being examined. In connexion with this work many social workers have been appointed by Local Authorities, not only to trace those reported under the Regulation and persuade them to submit to examination and if necessary treatment, but also to persuade voluntary patients to get their contacts to come for examination, to follow up defaulters, and to help patients to

overcome all the innumerable social difficulties in the way of regular attendance at the centres. This service, though of course in existence before the Regulation was devised, has certainly derived a valuable stimulus from its passage.

None will deny, I think, that so far as local contacts go the patient himself is the best tracer, but the contacts are not always local, and anyhow the patient needs encouraging and the contact has to be followed up in many cases, so these social workers are vitally necessary. Should they be health visitors, venereal disease almoners, or who? The general opinion, I believe, and certainly my own, is that the ordinary women officers of the Local Authority, that is, health visitors, school nurses, tuberculosis visitors, or persons combining several of these functions, are the most suitable persons to trace the contacts in the first instance, as their visit to a house excites no particular remark and it is easy for them to make some banal enquiries and wait their opportunity to introduce the subject of venereal disease. But the special training and experience of the venereal disease almoner makes her ideal in most instances for following up defaulters—a somewhat inappropriate word perhaps for persons who often fail to continue attendance through no fault of their own.

Joint Committee on Venereal Disease

There are finally three subjects on which my Joint Committee on Venereal Disease made recommendations.

Blood-testing.—First they recommended that efforts be made to secure the adoption of the principle of routine blood-testing for syphilis in the case of every pregnant woman, and that the laboratory services should be extended accordingly and welfare authorities be urged to use them. This recommendation was made not with the idea of considering every woman who gave a positive blood test as being syphilitic, but rather as requiring full examination to establish a diagnosis. This seems to me a very reasonable attitude, and I hope that in time such an examination will become a routine throughout the country. I am, of course, keenly alive to the necessity of a

high standard of laboratory work in this connexion.

Congenital Syphilis.—Secondly, they recommended the compulsion of parents and guardians of congenital syphilitic infants and children to secure for such children continued treatment until the risk of late effects is eliminated. Further they recommended compulsion of parents of syphilitic infants and children, and of infants suffering from gonococcal ophthalmia, to themselves undergo examination and any necessary treatment to prevent further transmission of these diseases to these or other children. Such a measure was regarded by the Committee as being a form of compulsion for which quite special justification could be alleged and one which would, they believed, meet with widespread public support. In this sense it was independent of other kinds of compulsion which the Committee were not prepared to recommend at the time, but which they did not wish to exclude permanently. The Minister's Medical Advisory Committee, on the recommendation of a Venereal Disease Sub-Committee, accepted the principle of my Committee's recommendation on this point, but thought it "doubtful whether the elaborate legal and administrative arrangements necessary would be justified by the results obtainable." Consequently no action was taken on our recommendation.

Prostitution.—Lastly (they made many other recommendations which cannot be dealt with here) they recommended that the Ministry of Health be urged to institute immediately a thorough investigation into the whole subject of prostitution with a view to putting the public in possession of the facts, and thereby educating public opinion and securing its support of measures designed to reduce the danger of the spread of venereal disease by prostitution in all its forms. This seemed to me a most important recommendation and I had hoped, with the aid of one or two others, to carry out such an investigation myself. Unfortunately pressure of work made this impossible, though I still hope it may take place. I am a firm believer in the efficacy of giving the public the plain unvarnished facts when any action is required that cannot succeed without their active support. It may perhaps be objected that the facts with regard to prostitution in

this country are well known to all those interested, or secondly, that no practical action could be taken which is not already being taken, even if a public demand should be created.

With regard to the first of these objections it may be interesting to note that, although all the members of the Joint Committee on Venereal Disease were experienced and knowledgeable workers in this field, many of the facts presented to us by the representatives of the Metropolitan Police and the Home Office were new to us. As regards the second objection, whilst we found the legal and administrative problems presented by prostitution even more complicated than we had

supposed, yet we felt that certain measures which would not in the present state of public ignorance be tolerated by Parliament or the electorate would be likely to win support if all the facts were known, and that an important advance would be possible not only, or perhaps chiefly, by means of legal enactments, but by public support for the implementation of existing powers and public condemnation of practices now tolerated through ignorance or indifference.

I wish I could say more on this important and difficult subject, but I wish even more that I were in a position to give the full facts, free from emotion or prejudice, scientifically—but mercilessly.

DISCUSSION ON THE PRECEDING PAPER

DR. G. L. M. McELIGOTT (the President) said that Sir Weldon had given them a most interesting address. The most impressive result of sulphonamide treatment was the great decrease in the number of complicated cases of gonorrhoea. A careful survey, carried out at St. Mary's Hospital at the end of the first year of sulphonamide therapy, had shown that the incidence of complications of gonorrhoea, in both men and women, was only about one eighth of what it had formerly been.

With regard to oral penicillin tablets, he saw that such tablets were now on the market. One great danger was that they might not be taken as directed, and that if they became as easy to obtain as the sulphonamides had become there was a danger that syphilis might be masked.

He did not agree with the suggestion that non-venereal cases should invariably be referred to other departments of the hospital, which often did not have the facilities for dealing with these conditions. In most hospitals the best place for treating trichomonas infestation was undoubtedly the venereal diseases department. Another point was that the tests for the exclusion of gonorrhoea in women would often take as long as the curing of the original complaint.

MR. A. J. KING said that he was particularly glad that Sir Weldon had stressed the importance of telling the public the whole truth and nothing but the truth.

Inevitably there must be a divergence of viewpoint between the public health expert and the clinician. The public health expert was apt to take the attitude that one only had to find the patients—to shepherd the sheep into the fold, so to speak—and 100 per cent. cure was certain and the problem was solved. A great deal of money had been spent on propaganda which would have been better spent in promoting the study of the fundamental pathology of these diseases, of which

a great deal was still unknown. Even careful and conscientious treatment left a proportion of cases with latent infectious disease. This applied particularly to the group of diseases which are called primary "non-specific" infections. These were communicable and gave rise to serious complications. They were, moreover, recurring diseases which, on the whole, were not very susceptible to treatment.

Which diseases were to be included among the venereal diseases? The problem was a very much greater one than the official pronouncements on the subject suggested, and the proposal that those patients who were not suffering from syphilis, gonorrhoea, or chancroid, should be turned over to other departments of a hospital was not a practical one. The other departments of the hospital would wish to have nothing to do with them, and if such a course were attempted it would result in extraordinary confusion, and the patients would be the sufferers. With regard to the methods of compulsion which were being advocated, was it not a fact that for the most part the only patients who refused examination and treatment when told that they were probably infected were the dull and backward, the mentally defective, and the psychopathic? When these patients were brought for treatment it often happened that they stayed for a day or two and then disappeared. Nothing could be done about such patients unless they could be detained in proper institutions. Just to get them into hospital was quite ineffective; they had to be kept in, and there was no provision for that in 33B.

Most would probably agree that the parents of infected children should be compelled, at the least, to see that their children were brought regularly for treatment. Again, those parents who were difficult in this matter were usually of the defective type, and it was not easy to deal with them. There was a case for having some regulation whereby such