

SIGNIFICANCE OF THE "DEFAULTER" IN THE ASSESSMENT OF EFFICIENCY OF TREATMENT IN GONORRHOEA*†

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In the assessment of treatment for gonorrhoea most attention is properly paid to its effect on the disease but, except for the matter of therapeutic side-effects, little notice is taken of its influence on the patient himself. The main criterion of the success of a particular regime is therefore the number of treatment successes observed in those patients who attend for follow-up, and the significance of the defaulter may be largely ignored.

Hitherto, insufficient attention has been paid to certain characteristics common to many patients in venereal diseases clinics which present special problems in management. First is a history of previous venereal infection: 30 per cent. of the male patients attending the West London Hospital with gonorrhoea gave a past history of previous attendance at a venereal diseases clinic; this figure is much in accord with that given by Barrett and Burton (1953) from the United States of America. The reasons for this have been admirably brought out in a group discussion reported by Dalzell-Ward, Nicol, and Haworth (1960) that the pattern of a person's sexual behaviour changes very little during his sexual lifetime and that a person tends always to move in the same sexual environment. The patient who has experienced several attacks of gonorrhoea and the methods of its management is more likely to default than is the new patient so as to avoid those elements of the follow-up regime which he may have judged in the past to have been unnecessary or unpleasant and without obvious immediate benefit to him.

This second characteristic, the desire to cease to attend for observation as soon as the patient considers himself to be cured, is notorious. Barrett and Burton (1953) found that approximately 50 per cent. of their patients defaulted within one week

of treatment and the proportion among our own cases at Hammersmith is almost as large. Unfortunately, the patient may be a very poor judge of his clinical condition and it is not infrequent in examining a patient who claims he is cured to discover an obvious urethral discharge containing gonococci. The assumption that patients who default from observation have selected themselves out on the grounds of cure of their venereal disease is an entirely unreasonable one, as was well illustrated in the Blue Star investigation of syphilis by Smith and Price (1957). These workers pursued their defaulters with great diligence and found among them the same incidence of treatment failure as in those who had remained under observation. Defaulters who are not cured of their disease contribute to the feed-back to the unknown pool of infectious cases in the general population (Willcox, 1965), and for good epidemiological control of gonorrhoea it is of great importance that both the treatment failure rate and the rate of default should be minimal.

An additional factor encouraging default may be intrinsic in the nature of the treatment. For example, 4-hourly intramuscular injection of crystalline penicillin maintained for 48 hours might be a very effective treatment for gonorrhoea, but it is highly unlikely that many outpatients would nowadays complete such a course of treatment and the high default rate consequent upon the unpleasantness of the therapy would be out of proportion to its efficacy. As a further example, an injection may be larger than that administered during a previous attendance for treatment and the unsophisticated but experienced patient may judge this to be more effective, and therefore requiring shorter surveillance.

In the conduct of double-blind trials based on random selection of cases, the influence of certain factors will be evened out and the significance of default after treatment may be overlooked.

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When comparing the efficacy of two or more treatments in the routine therapy of gonorrhoea, it is suggested that a comparison of defaulter rates should be made, and that, in addition to observations on patients returning for follow-up, assessment should also involve calculation of the maximum number of defaulting patients who might still be infected. This figure may be expressed as a percentage of the number of patients originally treated as follows:

Number of patients originally treated	..	n
Number of defaulters	x
Number of patients observed after treatment	$n - x$	
Number of cases of treatment failure observed	y	
Number of possible treatment failures among defaulters expressed as a percentage of the original group treated	$\frac{100 \ xy}{n \ (n-x)}$

The lower the figure thus obtained the better the epidemiological control achieved by the particular treatment regime.

Summary

The significance of default rate as a function of treatment is discussed. It is suggested that, in the

assessment of a treatment regime for gonorrhoea, the default rate be taken into account by calculating the maximum number of defaulters who are possibly still infected and expressing this figure as a percentage of the number originally treated.

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La signification du "défaillant" dans l'évaluation de l'efficacité du traitement de la blennorragie

RÉSUMÉ

La signification du taux des "défaillants" comme une fonction du traitement est discutée. Il est suggéré que dans l'évaluation de la posologie dans la blennorragie, le taux de non-comparution doit être tenu compte en calculant le nombre maximum des "défaillants" qui sont possiblement encore infectés et en exprimant ce chiffre comme un pourcentage du nombre de malades traités à l'origine.