

## Letter to the Editor

### COMPARATIVE VALUE OF ACTIVE AND PASSIVE SURVEILLANCE OVER TIME IN TREATED LEPROSY PATIENTS, IN THE PREVENTION OF FURTHER DISABILITY

Editor,

Van Brakel *et al.* have recently made a strong case for using the EHF score (Eye-Hand-Foot score) as a means of monitoring changes in impairment status in individuals or groups of people over time. It would provide at least a crude measure of the effectiveness of prevention of impairment activities.<sup>1</sup> It is a simple score, the components of which are already collected in most leprosy control programmes.

At ALERT, the WHO Impairment Grades have been recorded for each eye, hand and foot at regular intervals for all patients on treatment and the EHF score can therefore be calculated by summation for each patient at various points after diagnosis. Some preliminary results of using the EHF score over time were reported at the International Leprosy Congress in Beijing and we would like to point out some of the most relevant findings.

Many leprosy control programmes, including ALERT, have previously had a policy of active surveillance after release from treatment (RFT) in order to detect possible relapses as early as possible. Patients were given an annual appointment for review and were actively sought if they failed to attend.

With multiple drug treatment (MDT), relapses have been extremely rare, so it is no longer deemed cost-effective to have active follow-up. Patients are now advised to report back to the health unit each year, or at any time if they develop any health problem, especially any sign of recurrence or worsening of their leprosy. This is termed passive surveillance and no action is taken if the patients do not attend.

A disadvantage of the change from active to passive surveillance is that the opportunity for early detection of reactions and neuritis (especially silent neuritis) is lessened and this may become more important with shorter treatment courses.

At ALERT, a cohort of patients in an MDT evaluation study is being followed up actively, while all others are followed passively. This situation gave us the opportunity to assess whether active surveillance of patients after RFT prevents further disability, as compared with passive surveillance.

### Methods

The study compared two groups of patients, both of whom were released from treatment 5 years ago. In all, 223 patients in the ALERT MDT Field Evaluation Study (AMFES) were seen every 6 months under a scheme of active surveillance. Another 184 patients in another supervisory area formed a cohort that was not followed actively.

The study was carried out in central Ethiopia. All patients in specified areas released from treatment during the period 1990–1992 were included in the study.

The AMFES patient data are already collected routinely and computerized. The non-AMFES patients were traced for assessment of impairment status. During the assessment the following procedures were carried out: VMT, ST, noting the presence of ulcers and other damage, allocation of impairment grading according to the WHO guidelines of 1988.<sup>2</sup>

**Table 1.** Numbers of patients attending in each year after RFT (*n* = 116)

Follow-up year	1	2	3	4	5	Never
Patient attendances	22	18	16	13	4	66

The findings of the review were recorded with basic patient information and impairment status at start and RFT. EHF scores were calculated for status at start, RFT and the 5-year review.

**Results**

Sixty-eight (37%) of the 184 patients in the passive surveillance cohort could not be traced because of a change of address or death. One hundred and sixteen patients in this group were therefore assessed; 63 (54%) were multibacillary. Table 1 shows how often these patients had attended for review on a voluntary basis.

Of the 223 patients actively followed up, 108 (48%) were multibacillary. The difference in classification was not significant. There was no significant difference between the groups in their impairment status at the start of treatment or in the change in status before RFT, as illustrated in Table 2. This was expected, as both groups were treated in exactly the same way until RFT.

Table 3 shows the change in status, assessed by the change in EHF score, during the 5 years after RFT.

Odds ratio for deterioration when no active surveillance was carried out (adjusted for age, sex and classification, by multiple logistic regression analysis): 1.9 (95% CI: 1.2–3.3; *P* < 0.01).

**Discussion**

Under the passive surveillance system, 116 patients were supposed to attend their clinic every year for 5 years to be checked for VMT, ST and disability grading, but very few patients came for follow-up.

The number of attendances is more than 116, because some patients came more than once, while 66 (56.9%) did not attend during the 5-year period; they were seen at the end of the 5 years as part of this study. Thus while passive surveillance is reasonable in theory, in practice many patients did not attend voluntarily for follow-up examinations. In Ethiopia, the distances people have to travel to their nearest clinic may be large and this may partially explain the low voluntary attendance rate.

In this study, active surveillance, which is expensive, only slightly reduces further disability. We suggest that more effort should be put into educating and supporting patients before they are released from treatment, so that they understand that further damage may occur, how to recognize it and what steps to take if it occurs.

The main conclusion from this study is that the EHF score is a useful method of assessing any such intervention, whose main purpose is to prevent further impairment. It has previously been used to assess

**Table 2.** Change in status between diagnosis and RFT

	Deteriorated (%)	Same (%)	Better (%)
Passive surveillance ( <i>n</i> = 116)	19 (16)	70 (60)	27 (23)
Active surveillance ( <i>n</i> = 223)	26 (12)	143 (64)	54 (24)

**Table 3.** Change in status after 5 years surveillance

	Deteriorated (%)	Same (%)	Better (%)
Passive surveillance ( <i>n</i> = 116)	43 (37)	59 (51)	14 (12)
Active surveillance ( <i>n</i> = 223)	52 (23)	138 (62)	33 (15)

change between the start of treatment and RFT.<sup>1,3</sup> It is a simple indicator, which can be used to measure the level of impairment in groups of patients over time.

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## References

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- <sup>2</sup> WHO Expert Committee on Leprosy. *Sixth Report*. Technical Report Series 1988; 768.
- <sup>3</sup> Reed NK, van Brakel WH, Reed DS. Progress of impairment scores following commencement of chemotherapy in multibacillary leprosy patients. *Int J Lepr*, 1997; **65**: 328–336.