REPLY TO 'DAPSONE COMPLIANCE USING ISONIAZID-MARKED FORMULATION'

Sir,

In his analysis of the data set out in our paper[1] Dr Huikeshoven should have compared the dapsone/creatinine (D/C) ratios of individual urine samples giving positive isonicotinic acid tests with the *means* of such 'compliant' ratios—and not with the highest individual values. This would have revealed that in only one instance (patient 12) did the lowest value fall below 73% of the mean value—and in this case it was actually 72% of the mean! If these lowest compliant D/C ratios had been due to isoniazid-marked capsules having been ingested on the previous day, they might have been expected to have been only about half of the mean compliant values. We therefore believe that the mean compliant D/C ratios were probably not unreasonable estimates of the true values that ideally should be determined after giving courses of daily supervized doses.

Dr Huikeshoven suggests that a simpler approach would be to give daily supervised dapsone doses to the patients in their homes. However, in the city of Hyderabad where our study was conducted (and probably most cities in developing countries) home visits are far from simple. At least half our patients refuse permission for their homes to be visited for fear that it might reveal to their neighbours that they had leprosy. When patients are willing, their homes are often very hard to find, even when addresses have been taken carefully by staff who know the area well. During working hours patients are often working far from home. Furthermore, daily home visits, in our experience, can embarrass even patients who agree to once a month visits. We consider Dr Huikeshoven's suggestion impracticable except for small numbers of carefully selected patients.

We do nevertheless accept Dr Huikeshoven's criticism that our method for monitoring dapsone compliance, though more precise than simply measuring D/C ratios, is still limited by variability in the rates at which dapsone is eliminated from the body by different individuals. The same limitations would apply to interpreting the results obtained by any procedure for monitoring dapsone compliance whether it be quantitative or qualitative.

The great attraction of using qualitative urine tests for monitoring dapsone compliance, including the spot-test procedure advocated by Dr Huikeshoven, is their potential simplicity. Their major disadvantage is that the positivity of urine samples is inevitably markedly affected by diuresis.[2] The problems posed by the effects of diuresis are virtually overcome in the quantitative D/C ratio method,[3] but it is inevitably a more complicated procedure. In the end the choice concerning which type of method to use is clear, precision *or* simplicity. It is impossible to have both.

J N A STANLEY & J M H PEARSON

Dhoolpet Leprosy Research Centre
Karwan
Hyderabad, 500 006
India

G A ELLARD

National Institute for Medical Research
The Ridgeway
Mill Hill
London NW7 1AA

References

1 Stanley JNA, Pearson JMH, Ellard GA. An investigation of compliance using an isoniazid-marked formulation. *Lepr Rev*, 1983; **54:** 317–25.

2 Ellard GA, Gammon PT, Helmy HS, Rees RJW. Urine tests to monitor the self-administration of dapsone by leprosy patients. *Amer J Trop Med Hyg*, 1974; **23:** 464–70.

3 Ellard GA. Profile of urinary dapsone/creatinine ratios after oral dosage with dapsone. *Lepr Rev*, 1980; **51:** 229–36.