appropriate for different purposes, in relation to studies of different questions. While one may agree with the idea of Teasdale and his colleagues that workers in this field should all use the same scales, perhaps one should add 'if studying similar questions'. Further, it will also be important to ensure that all who say they are doing 'exposure *in vivo*' (for example) are doing the same sort of thing, and are equally good at it. It is possible that differences in results between Oxford, London and elsewhere are due to patient differences or, as discussed here, to scaling problems; but they can also be due to differential therapist abilities. *In vivo* treatments are not everyone's cup of tea. The Oxford workers would be welcome to see what we do at Guy's.

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SALIVA LITHIUM ESTIMATION

DEAR SIR,

Professor Verghese and his colleagues (*Journal*, February 1977, **130**, pp 148–50) describe the use of saliva lithium estimations, particularly from the standpoint of psychiatry in India. In the United Kingdom there may be patients in whom an alternative to venepuncture is helpful: where frequent monitoring is necessary (for example in renal disease); when the patients' veins are difficult to puncture; when the patient has a great fear of the procedure (for example, as in one of our cases, a delusion that her illness is caused by blood loss).

Professor Verghese and colleagues may be premature, however, in recommending that saliva lithium levels are *reliable* indicators in monitoring lithium treatment. Having found that the mean of the ratio of saliva Li to serum Li in 24 samples from 10 patients was 2·22, they suggest that 'this value can be used to adjust the dosage of lithium so that a therapeutic range of saliva lithium level between 1·5 and 3 mEq per litre can be maintained'.

The range of the means of the ratios in 10 patients was found to be 1·90–2·56. This variability is certain to be clinically important. For example, the patient whose mean ratio is 2·56 and whose saliva Li falls at the lower end of the range they suggest (1·5 mEq per litre) may have a serum Li of ·58 mEq per litre, i.e. below the therapeutic level. Conversely, the patient whose mean ratio is 1·90 and whose saliva Li falls at the upper end of the range they suggest (3 mEq per litre) may have a serum Li of 1·58 mEq per litre, i.e. above the level at which toxic symptoms begin to appear.

Until more is known of the variation in the saliva/serum ratio, both between individuals and within an individual over time and for a range of plasma lithium levels (a matter which we are studying), it would seem prudent to calculate a mean ratio for each individual from at least three pairs of samples at therapeutic levels and use that in subsequent monitoring via saliva levels.

We have a further reservation. Frequently, drugs are prescribed concurrently with lithium and could alter the ratio. It is possible that the tricyclics, by reducing saliva flow, might lead to increased lithium re-uptake in the salivary duct and thus decrease the saliva/serum Li ratio.

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A CORRECTION

On page 81 of Professor A. E. Maxwell's article 'Coefficients of Agreement between Observers and their Interpretation' in the January issue, pp 79–83, equation (4) should have read as follows:

$P_1 = (3a+d-1)/2$ and $P_0 = (3d+a-1)/2$.