SALIVARY LITHIUM

DEAR SIR,

Several recent articles have emphasized both the usefulness and the possible pitfalls of use of salivary Li levels as a substitute for plasma Li levels in the monitoring of Li therapy (Ravenscroft *et al*, 1978; Verghese *et al*, 1977). One important possible problem with salivary Li monitoring is the question of whether anticholinergic drugs added to Li therapy might affect salivary secretion and thereby change the apparent saliva Li/plasma Li ratio. We studied saliva and plasma Li concentrations in 28 patients receiving Li therapy alone on 41 different samplings, and in 11 patients receiving Li plus a drug with anticholinergic properties (trihexyphenidyl, at least 5 mg, chlorpromazine or thioridazine, at least 100 mg, or tricyclic antidepressants, at least 100 mg) on 15 different occasions. The mean ratio was slightly but not significantly higher in patients on Li therapy alone ($2.2 \pm .5$, $x \pm SD$) versus patients receiving Li plus an anticholinergic ($1.9 \pm .5$, $x \pm SD$). Thus anticholinergic supplementation is probably of only small concern to the clinician following patient saliva Li levels.

The ultimate question, however, regarding saliva Li levels is not whether they accurately predict plasma levels. The goal is prediction of clinical response and prediction of toxicity. Just as some studies have claimed that intra-erythrocyte levels reflect brain Li concentration better than do plasma levels, salivary Li may represent post-membrane Li concentration and may conceivably *better* guide the clinician than plasma levels. We really need a controlled study of Li therapy with one group adjusted on the basis of saliva Li and the other group on the basis of plasma Li. The groups should be compared for clinical outcome and incidence of toxicity.

JACOB BANNET
JACOB AVNI
Hadassah-Hebrew University School of Medicine
EMIL WEISSENBERG
Ministry of Health, Institute of Standards
RICHARD P. EBSTEIN
R. H. BELMAKER
Jerusalem Mental Health Center—Ezrath Nashim, P.O.B. 140, Jerusalem, Israel

References

RAVENSCROFT, P., VOZEH, S., WEINSTEIN, M. & SHEINER, L. B. (1978) Saliva lithium concentrations in the management of lithium therapy. *Archives of General Psychiatry*, **35,** 1123–7.

VERGHESE, A., INDRANI, N., KURUVILLA, K. & HILL, P. G. (1977) Usefulness of saliva lithium estimation. *British Journal of Psychiatry*, **130,** 148–50.

GHQ AND PSYCHIATRIC CASE

DEAR SIR,

I apologise for my delay in commenting on the recent controversy in your columns about the validity of the General Health Questionnaire (*Journal*, August 1978, **132,** 191), and hope that my present temporary address will be accepted in extenuation. Corser and Philip's original article (*Journal*, February 1978, **132,** 172) came to some non-controversial conclusions about the GHQ: namely that a high score does not necessarily indicate psychiatric illness or *vice versa*, and that being in a state of illness at one point in time does not mean that an individual will continue in that state.

There are two separate uses of a GHQ score, and the authors do not appear to distinguish between them. If it is required to discover information about an individual patient in a consulting setting, then the use of a screening test will be to alert the clinician to the possible existence of a psychiatric illness in that patient. Establishing that the patient is a case and attaching a diagnostic label are left to the clinician. The individuals described as 'true positives' in the various validity studies of the GHQ have *diagnosable* psychiatric disorders.

On the other hand, the GHQ scores of a group of respondents may be used to study the covariation between disturbance and other variables within that group, or to compare the amount of disturbance between two groups of patients. How well the screening test works in a given setting will depend upon the prevalence of illness in that population. In Dr Corser's study, 20 (16 per cent) of the 119 new arrivals to his practice had high scores, which means that one would predict a probable prevalence of psychiatric illness in that population of 16.7 per cent. At this prevalence, the proportion of those with high scores who are likely to be found to be cases at subsequent interview—usually called the 'hits-positive rate' of the test—will be 75 per cent. That is to say, there are likely to be 1 false positive for every 3 true positives. (The formulas for these conversions, and a fuller discussion of the validity of the GHQ, may be found in the *Manual of the General Health Questionnaire*, NFER, London, 1979).

In their subsequent letter the authors make the novel suggestion that many of the items of the GHQ are personality traits. Like Dr Philip himself, I was influenced by the work of Graham Foulds, and designed an instrument that measured deviations