acutely ill patients is highly significant (P = <.01).

These differences were not explained by medication. They were present in both 'schizomanic' and 'schizodepressive' patients and were still evident in all groups after the patients had been given follow-up diagnoses of schizophrenia, bipolar psychosis and unipolar depressive psychosis. They are partly explained by the excess of female patients in the acutely ill group. The mean figure in female acutely ill patients is higher than that in female recovered patients $(50.8 \pm 18.9, N = 16, compared with$ 39.3 ± 20.3 , N = 15) but not significantly so. In the males the acutely ill patients had significantly higher levels than the recovered patients $(45.5 \pm 14.8,$ N = 8 compared with 22.9 ± 14.3, N = 10). A regression analysis of psychopathological variables showed that auditory hallucinosis was significantly related to increased MAO (P = <.02), and affective flattening to reduced MAO (P = <.05).

Six patients with raised MAO at the time of their illness were studied again after recovery two years later. Five showed substantial falls in MAO from 58.4 to 23.2, 65.7 to 37.0, 54.1 to 36.5, 59.6 to 13.0 and 63.4 to 19.2, while the sixth patient continued to show high levels (70.8, 71.2).

This study, therefore has produced evidence that platelet MAO levels are elevated in acutely ill psychotic patients when compared with similar patients long since recovered. Although this finding was made in a series of schizoaffective patients, we do not think that it can be a characteristic feature of schizoaffective illness itself, because many schizoaffectives behave like typical manic depressives or schizophrenics in their response to treatment and natural history. It could be due to the effects of the psychosis or its treatment in reducing MAO below normal, or it could be due to the elevation of MAO at the time of the illness.

Further longitudinal studies of psychotic patients may prove helpful in resolving the controversy over the activity of this enzyme in psychiatric illness.

> I. F. Brockington F. Owen

Department of Psychiatry,
The University Hospital of South Manchester,
West Didsbury,
Manchester M20 8LR

THE CHOICE OF PSYCHOTROPIC DRUGS

DEAR SIR,

I have recently been interested in compiling a list of psychotropic drugs with which to gain detailed experience. In order to do this some guide lines are needed because of the multiplicity of therapeutic agents now available (e.g. 25 antidepressants).

Consulting standard texts (Alstead and Girdwood, 1978; British National Formulary, 1976–78; Sargant and Slater, 1972; Crammer, Barraclough and Heine, 1978) I have extracted the following general principles.

- 1. Use drugs with well established and appropriate properties rather than newer drugs.
- 2. Consider the patient's age and physical state (including pregnancy and breast feeding).
- 3. Minimize the number of drugs used and beware of drug combinations and interactions.
- 4. Take into account the patient's life style (including dangerous pursuits such as driving) when considering type, dose and frequency of administration.
- 5. Consider patient compliance and appropriate route of administration.
- 6. Avoid drugs to which the patient has had an adverse reaction and prefer those which have previously been of benefit.
- 7. Where possible, use drugs which are speedy in onset of action and low in side-effects (including addictive potential).
- 8. Do not neglect the patient's views of medication.
- 9. Do not use more than one drug of one class at once, and when a drug change is necessary go to a chemically different group.
- 10. Maintain a self-critical attitude in drug use and do not forget relative costs.
- 11. Gain experience with a few drugs thoroughly rather than with many superficially.
- 12. Careful trial of less well established treatments may be justified in refractory cases.
- 13. If blood levels can be measured, consider if this is of practical benefit.
- I would suggest that for practical purposes the above list could be condensed and the scheme thus derived be applied to each type of psychotropic agent (antidepressants, major tranquillizers, etc). My suggestions are as follows:—
- 1. Choose one or two long established drugs to use regularly ('category one drugs') and study the standard literature about them. Keep abreast of new reports about these. (For major tranquillizers, examples of category one drugs would be chlorpromazine and trifluoperazine).
- 2. Select for use as few drugs as possible ('category two drugs') to overcome the major practical deficiencies of category one drugs. (For instance, to overcome the cardiotoxicity of amitriptyline one might choose doxepin; another example would be the use of fluphenazine decanoate for schizophrenic patients who will not reliably take category one drugs).
 - 3. In choosing category two drugs prefer the

longer established drugs and study the available literature critically (extending of course beyond the information supplied by the drug company).

4. Keep up to date with the literature on new drugs but only prescribe these ('category three drugs') when category one and two drugs have failed and the condition is severe enough to warrant the potential risks of a new substance. Careful and controlled administration is the rule here.

I think that these ideas may be particularly useful to trainees.

S. V. OAKES

Midland Nerve Hospital, Elvetham Road, Edgbaston, Birmingham

References

Alstead, S. & Girdwood, R. H. (1978) Textbook of Medical Treatment, 14th Edition, pp 480-5. Edinburgh: Churchill Livingstone.

British National Formulary (1976-78) Pp 8-29. London: British Medical Association and Pharmaceutical Press.

CRAMMER, J., BARRACLOUGH, B. & HEINE, B. (1978)

The Use of Drugs in Psychiatry, pp 3-36. London:
Gaskell Books (The Royal College of Psychiatrists).

SARGANT, W. & SLATER, E. (1972) An Introduction to Physical Methods of Treatment in Psychiatry, 5th Edition. Pp 13-17. London: Churchill Livingstone.

PROGESTERONE AND PREMENSTRUAL SYNDROME

DEAR SIR,

After reading Gwyneth Sampson's paper (Journal, 135, 209-15), I had recourse to my ancient physiology textbook and read there that progesterone has very little effect when given orally. It may be that absorption is better by the vaginal or rectal route, although this strikes me as unlikely.

RICHARD H. LAWSON

The Surgery, School House, Weston Road, Congresbury, Somerset BS19 57A

DEAR SIR,

It is true that progesterone has little effect when given orally; it can, however, be given intramuscularly, vaginally, rectally or by implantation into the fat of the abdominal wall. Nillius and Johansson, reporting on several studies, found absorption of progesterone was rapid by these routes, usually resulting in high plasma levels within the first two hours and peak plasma levels within the first eight hours after administration. Plasma levels corresponding to those

encountered during the luteal phase of the menstrual cycle were attained with an i.m. injection of 25 mg progesterone in oil or 100 mg progesterone used vaginally or rectally. Langecker reviewed other studies showing that progesterone is readily absorbed rectally or vaginally. In a group of women with premenstrual syndrome studied in a metabolic unit we found progesterone administered vaginally in the same dosage regimes as in our paper produced appropriate rises in plasma progesterone levels.

G. A. SAMPSON

Middlewood Hospital, P.O. Box 134, Sheffield S6 1 TP

References

LANGECKER, H. (1968) In Handbook of Experimental Pharmacology. Vol. XXII/I. Berlin: Springer Verlag, p 264.

NILLIUS, S. J. & JOHANSSON, E. D. B. (1971) Plasma levels of progesterone after vaginal, rectal or intramuscular administration of progesterone. American Journal Obstetrics and Gynecology, 110, 4, 470-7.

THE EFFECT OF PSYCHOSIS ON GENDER IDENTITY

DEAR SIR,

The reported incidence of transsexualism in England and Wales is 1 in 66,000 with a ratio of four males to one female. The likelihood of an individual developing hypomania is greater, but the likelihood of the two together must be very small. I report a case study of a transsexual patient who developed hypomania and the effects this had on his gender identity.

This 29-year-old male to female transsexual had presented five years previously requesting a sex change operation. He had had the feeling that he was a woman trapped inside a man's body since he was 6 years old. The management of the case consisted of helping him to live and adjust as a female, including the taking of stilboestrol for a period of two years. He functioned well as a female and was reviewed at six monthly intervals.

One year ago he came to the hospital in a very disturbed state with elation of mood showing a diurnal variation, irritability, distractibility, pressure of talk, flight of ideas and grandiose delusions. A diagnosis of hypomania was made and he was treated with phenothiazines. During the psychotic phase he showed no transsexual feelings, discarded his female attire, thought the whole idea of living as a woman was ridiculous and that he was really a man. He dressed in male clothes. As the psychosis improved the transsexual feelings gradually reappeared. During this time he showed ambivalence about his gender