Reynolds, 1979). I would suggest that macrocytosis and cognitive decline in Down's syndrome is likely to be related to undetected folate vitamin deficiency consequent on institutional nutrition, complicated by the gastrointestinal malabsorbtion that some Down's syndrome patients have.

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References

BEARD, M. (1978) Diseases of the haemopoeitic system. *Price's Textbook of the Practice of Medicine* (ed. Sir R. B. Scott). Oxford: Oxford University Press.

BOTEZ, M. I. & REYNOLDS, E. H. (1979) Folic acid in neurology. *Psychiatry and Internal Medicine*. New York: Raven Press.

EASTHAM, R. D. & JANCAR, J. (1983) Macrocytosis and Down's syndrome. *British Journal of Psychiatry*, **143**, 203–204.

Dependence on Pseudoephedrine

SIR: Sympathomimetic amines are a major ingredient in proprietary medications for the treatment of upper respiratory tract infections. We describe a patient dependent on pseudoephedrine.

Case report: The patient first presented at the age of 21, with symptoms of depression. This responded poorly to treatment, and continued for 12 years. In the eleventh year she was convicted of the theft of a medical prescription pad and for making a prescription for herself for Actifed. She subsequently admitted taking between 50 and 300 ml/day of this preparation — the recommended dosage is 30 ml/day. She said that she took it because it "gave her a lift". A year later she began to describe psychotic symptoms, which have lasted for four years. She had auditory and visual hallucinations and passivity feelings. These symptoms fluctuated and were variable in content; she showed none of the negative symptoms of schizophrenia. Although it was not possible to make a diagnosis of schizophrenia, she clearly suffered from depression, had an unstable personality, and had abused Actifed. Treatment included both oral and depot phenothiazines in addition to supportive psychotherapy, but her compliance was poor.

The present report is important because it shows that dependence and possibly psychosis can occur with over-the-counter preparations. Each 5 ml of Actifed contains 30 mg of pseudoephedrine hydrochloride and 1.25 mg of triprolidine hydrochloride. Dependence on amphetamines and other sympathomimetic drugs is well known. There is, however, only one report of dependence on pseudoephedrine (Diaz *et al*, 1979). Visual hallucinations on attempted withdrawal are described in that report. Paranoid psychosis after abuse of Actifed has also been described (Leighton, 1982). The patient's fluctuating psychosis is thus in accordance with previous findings.

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References

DIAZ, M. A., WISE, T. N. & SEMCHYSTRYN, G. O. (1979) Self-medication with pseudoephedrine in a chronically depressed patient. *American Journal of Psychiatry*, **136**, 1217–1218.

LEIGHTON, K. M. (1982) Paranoid psychosis after abuse of Actifed. *British Medical Journal*, **284**, 789–790.

Admission Rates and Lithium Therapy

SIR: Dickson & Kendell (1986) recorded admissions for mania and psychotic depression in Edinburgh over the years 1970–1981 and found a rise which they could not explain. They had expected a fall, because the use of long-term lithium therapy had increased ten-fold during the same period, and they felt that their findings cast doubt on the efficacy of lithium prophylaxis in ordinary clinical practice. Such a conclusion might have far-reaching consequences for patients with recurrent manic-depressive illness, and Dickson & Kendell's analyses merit close scrutiny.

It seems a dubious procedure to draw conclusions about the efficacy of a treatment given to a limited number of patients from admission rates for a much larger number. Not all manic-depressive patients receive prophylactic lithium treatment: it is given only to those with frequent recurrences and is started only after the patients have had several episodes. So even if lithium treatment were 100% effective, it could be expected to prevent only a fraction of the admissions for mania and depression.

Even so, a fall in the admission rate, albeit a small one, would be expected if lithium treatment was the only factor influencing admissions. It obviously was not; powerful forces with an opposite effect must have been at work. Dickson & Kendell examined some factors, such as change in diagnostic fashions or admission thresholds, but were unable to account for the rise. One could think of several others.

Be that as it may, the fact remains that the admission rate for mania and depression showed a pronounced rise, and the rise must have been caused by something. The moderate effect of lithium may