

recovery without further treatment over two weeks, losing all delusional features and regaining normal emotional expression. No withdrawal symptoms were noted. She was discharged from hospital on 8 January 1976 and remained well when seen as an out-patient four weeks later.

Similar psychosis from abuse of 'Benzedrex' inhalers has previously been reported on three occasions in a total of four patients (1, 2, 3). Each had chewed the propylhexedrine strip for its stimulant effect. Three had continued the habit for several months, while the fourth consumed the contents of eleven inhalers in ten days. The clinical features in each case resemble those of amphetamine psychosis, with variable auditory and visual hallucination, paranoid delusions, loss of affect, difficulty in concentration, and sleep disturbance. In all previous reports there is a past history of psychiatric illness—two cases of amphetamine psychosis and one each of manic-depressive psychosis and schizophrenia. This and our patient's family history of schizophrenia suggest the possible uncovering of a latent schizophrenic tendency, as is sometimes thought to be the case in amphetamine psychosis. There was no evidence of schizophrenia following recovery in this case.

'Benzedrex' inhalers are readily available over the chemist's counter. Our patient was in the habit of attending several shops to obtain the necessary supply. Like previous addicts, she started the practice at the suggestion of others who had experience of it, rather than through its use as a decongestant. Abuse, although probably limited, clearly does occur. 'Anahist', a proprietary preparation containing the sympathomimetic phenylpropanolamine, has also been reported as causing a psychotic reaction (4). Non-scheduled preparations must still be considered in the differential diagnosis of psychotic states.

D. MCINTYRE

Royal Infirmary,  
Glasgow G4 0SF.

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#### MAINTENANCE THERAPY IN CHRONIC SCHIZOPHRENICS

DEAR SIR,

Dr Johnson's account (*Journal*, March 1976, p 246) on the relatively high relapse rate of schizophrenic patients treated by long-acting injectable neuroleptic drugs leads me to remark that since we,

in this area, started this type of treatment in 1966 it has been the universal practice for a community nurse to visit patients at home where they have their injection. This has produced a refusal rate which has averaged 4 per cent over the years and which is, I believe, rather lower than can be achieved by encouraging patients to come to clinics to have their injections. Although such a method may appear expensive, the money saved by keeping patients out of hospital more than pays for the extra nurses' salaries.

ALAN C. GIBSON

St Anne's Hospital,  
Haven Road, Canford Cliffs,  
Poole, Dorset BH13 7LN.

#### THE POWER OF A TEST FOR SEASONALITY OF BIRTH WITH REFERENCE TO SCHIZOPHRENIA

DEAR SIR,

It seems to be well established that the births of people who later develop schizophrenia occur seasonally (Dalén, 1975; Hare, 1975). The cause of this is unknown and more work will be needed to test

- (a) how widespread this phenomenon is, and
- (b) whether a similar phenomenon exists in regard to the sibs of schizophrenics.

In testing these points, researchers may wish to know the power of their procedures to detect, at statistically significant levels, seasonality of the same magnitude in further samples. Hare (1975) considers the size of the sample necessary to detect the effect at the 5 per cent and 1 per cent levels: these sample sizes vary according to the chance we wish to have of detecting the effects (the 'test power'). It is conventional to set test power at 0.8 (Cohen, 1969, p 51): in other words, we want our test to have 4 chances in 5 of detecting the effect at a preset level of significance. The four parameters (1) test power, (2) significance level, (3) 'effect size', and (4) sample size are inter-related: if three are set, the fourth can be evaluated. We may set test power at .8, and the significance level at .05. The effect size is defined (Cohen, 1969, p 210) as

$$e = \sum_{i=1}^m \frac{(P_{ii} - P_{oi})^2}{P_{oi}}$$

where

$P_{oi}$  is the proportion in cell  $i$  posited by the null hypothesis,  $P_{ii}$  is the proportion in cell  $i$  posited by the alternative hypothesis and reflects the effect for that cell, and  $m$  is the number of cells (four for quarters of the year).

Now Hare (1975) suggests that the seasonality has a deviation of about 8 per cent. Let us accordingly