hypothesis represents one of the few viable notions of aetiology and a new treatment approach. It deserves to be investigated thoroughly and with carefully designed studies in which adequate provisions are made for the heterogeneity of this condition (Singh & Kay, 1976; 1983).

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References

SINGH, M. M. (1979) Celiac-type diets in schizophrenia. *American Journal of Psychiatry*, **136**, 733.
—— & KAY, S. R. (1976) Wheat gluten as a pathogenic factor in schizophrenia. *Science*, **191**, 401–402.
—— & —— (1976) Wheat gluten-schizophrenia findings. *Science*, **194**, 449–450.
—— & —— (1983) Study of gluten effect in schizophrenia. *Archives of General Psychiatry*, **40**, 345.

Psychiatric Disorder in the General Hospital

SIR: Mayou & Hawton (*Journal*, August 1986, **149**, 172–190) are right in asserting that there have been few systematic studies about differences in the prevalence of psychiatric disorder in the many types of in-patient and out-patient units within the general hospital. The paucity of data is most apparent in the setting of emergency departments. In a descriptive study of psychiatric emergencies in a general hospital setting, we studied 352 patients presenting psychiatric emergencies over a four-month period (1.86% of all attenders). Only 26 (7.4%) of these patients were already registered with the outpatient services of the psychiatry department, the rest being new patients. The case detection increased by 550% with the continuous presence of a psychiatrist in the emergency room—in contrast to "on-call' cover. Inaccuracies of identification were made by non-psychiatric physicians in approximately 14% of cases. Despite detection, physicians had the tendency not to refer patients to the psychiatrists-on-call. In only 34% of the patients screened, were the non-psychiatric physicians able to make a correct diagnosis of the psychiatric illness. In two-thirds of all patients, non-psychiatric physicians were unable to suggest any management for the psychiatric emergency.

Males outnumbered females in a ratio of 2:1. The majority of the patients (77%) were referred to emergency services by relatives and friends or patients themselves. Two-thirds of the patients were brought owing to the severity of the clinical condition and the rest, one-third, for medico-legal and social reasons. Approximately 80% of our patients sought consultation within one month of the onset of the illness episode. About 40% of those using psychiatric emergency services had long-standing problems of more than one year's duration. Only 10% had a history of hospitalisation for psychiatric illness in the past; and only 20% of the patients had visited emergency services more than once in the past one year. Thirty-one per cent had neurotic disorders, 26% had functional psychotic illnesses and 18% had alcohol-related problems.

There is considerable psychiatric morbidity in the emergency-rooms of general hospitals, much of which is unrecognised by non-psychiatric physicians. There is a need for improved research designs in studies of the epidemiology of psychiatric emergencies in general hospital settings, as psychiatric emergency services represent one of the chief entry points into the network of mental health services.

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Hydroxylated Metabolites of Tricyclic Antidepressant in the Elderly

SIR: We read with interest the report by Kutcher *et al* (*Journal*, June 1986, **148**, 676–679). These findings are consistent with our own experience with nortriptyline in a similar population.

Like 2-hydroxydesipramine, the 10-hydroxylated metabolite of nortriptyline is pharmacologically active (Bertilsson *et al*, 1979). In elderly depressed patients, average unconjugated plasma concentrations of 10-hydroxynortriptyline are higher than in younger patients taking equivalent doses, despite comparable concentrations of plasma nortriptyline (Young *et al*, 1984). There are also marked inter-individual differences in plasma 10-hydroxynortriptyline/nortriptyline ratio in this population. We reported development of symptoms and signs of congestive heart failure in an elderly patient with moderate plasma nortriptyline concentrations but high plasma 10-hydroxynortriptyline (Young *et al*, 1984). We also noted that, in 18 geriatric depressed in-patients, plasma 10-hydroxynortriptyline concentrations or combined plasma 10-hydroxynortriptyline and nortriptyline concentrations, but not plasma nortriptyline concentrations alone, differentiated

those patients who developed quinidine-like effects during treatment (Young *et al*, 1985).

Taken together, our own preliminary findings and those of Kutcher *et al* suggest that further study of hydroxylated metabolites of tricyclic antidepressants is warranted in geriatric patients. Their contribution to toxic and therapeutic effects, and to changes in neurobiological measures during treatment, are open to further investigation; these issues might be studied to advantage in elderly patients.

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References

BERTILSSON, L., MELLSTROM, B. & SJOQVIST F. (1979) Pronounced inhibition of noradrenaline uptake by 10-hydroxymetabolites of nortriptyline. *Life Sciences*, **25**, 1285–1292.

YOUNG, R. C., ALEXOPOULOS, G. S., SHAMOIAN, C. A. & KUTT, H. (1984) Heart failure associated with high plasma 10-hydroxynortriptyline levels. *American Journal of Psychiatry*, **141**, 432–433.

——, ——, —— & —— (1984) Plasma 10-hydroxynortriptyline in elderly depressed patients. *Clinical Pharmacology and Therapeutics*, **35**, 540–544.

——, ——, —— & —— (1985) Plasma 10-hydroxynortriptyline and ECG changes in elderly depressed patients. *American Journal of Psychiatry*, **142**, 866–868.

Diagnostic Value of Schneider's First Rank Symptoms in Schizophrenia

SIR: Kurt Schneider (1959) claimed that certain "first rank symptoms" (FRS) were pathognomonic of schizophrenia in the absence of organic brain disorder. Recent investigations have argued against this assertion, but most of the studies have considered FRS collectively and the value of individual symptoms has not been explored much. The frequency of FRS in schizophrenics ranges from 28–72% (Mellor, 1982). This variation is probably due to differences in the diagnostic criteria used and methods employed in eliciting FRS.

We conducted a pilot study based on fifty consecutive admissions to evaluate the prevalence and diagnostic implications of FRS. All the patients, irrespective of their diagnosis, were interviewed by one of the authors (MG) for the presence of FRS as early as possible after admission. The findings were recorded on a questionnaire specially prepared for the study and based on Mellor's definitions of the FRS. The patients were later seen by the first author (HDC) to confirm the findings and diagnosis. Diagnostic labels were given according to DSM-III (1980).

The distribution of 50 patients (23 males, 27 females; age range: 21–86 years) according to the diagnostic categories was as follows: schizophrenic disorders 24; psychotic disorders not elsewhere classified 6 (schizophreniform disorder 2, brief reactive psychosis 1, schizoaffective disorder 1, atypical psychosis-schizophrenia onset after age 45, 2); affective disorders 9 (mania 2, major depression recurrent 4, atypical depression 1, dysthymic disorder 1); organic mental disorders 3; anxiety disorders 2; adjustment disorders 5; and personality disorders 2. FRS were present in 26 patients distributed as follows: schizophrenic disorders 17; psychiatric disorders not elsewhere classified 4; affective disorders 2; organic mental disorders 2; and personality disorders 1.

The analysis of data on schizophrenics with FRS produced the following results. (a) The majority of patients with schizophrenia had 2 or more symptoms, maximum 9 symptoms; only 3 had 1 symptom each. (b) The symptoms more commonly reported (in order of frequency) were: 'made' affect (11), thought insertion (10), thought broadcasting (9) and voices arguing (7). (c) Auditory hallucinations were reported by half the patients, the commonest being voices arguing, but always accompanied by a symptom of passivity. (d) 16 patients with schizophrenia had one or more passivity experiences. (e) Delusional perception was reported only by 3 patients. (f) The commonest association between any two symptoms was between thought insertion and thought broadcasting.

The findings suggested that FRS, though observed in other disorders at times, were much more common among schizophrenics. Passivity phenomena were the commonest. Auditory hallucinations alone were of no diagnostic value. Similar observations were made in patients with schizophreniform disorder and schizophrenia after the age of 45.

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References

AMERICAN PSYCHIATRIC ASSOCIATION (1980) *Diagnostic and Statistical Manual of Mental Disorders, 3rd Ed.* (DSM-III). Washington, D.C.: American Psychiatric Association.

MELLOR, C. S. (1982) The present status of first-rank symptoms. *British Journal of Psychiatry*, **140**, 423–424.

SCHNEIDER, K. (1959) *Clinical Psychopathology*. Engl. Transl. New York: Grune & Stratton.