We have been carrying out a series of studies into this problem. In this presentation questions will be addressed about the nature of outcomes after acute treatment and factors contributing to them. In a prospective longitudinal study, predominantly of inpatients, remission below major depression was achieved within 15 months in all but 6%. However, 40% relapsed in the next 15 months. An important finding was the presence of residual symptoms reaching 8 or more on the Hamilton Scale in 29% of remitted subjects, 78% of whom subsequently relapsed. Residual symptoms are an important outcome in depression which has received insufficient attention. In a second follow up study at 18 months of a new sample, aftercare received following discharge from hospital has been examined. Data obtained include full details of medication prescribed and taken, all other forms of treatment and care, compliance, attitudes and satisfaction.

FUNCTIONAL PSYCHOPATHOLOGY AND THE DIAGNOSTIC PROCESS IN PSYCHIATRY

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Functional psychopathology is an important though greatly neglected and underdeveloped component of the diagnostic process in psychiatry. The functional approach provides a much more precise and detailed picture of the psychopathology of a given patient than nosological and syndromal diagnoses can. Moreover, in this manner the unsurmountable problems caused by comorbidity in defining a mental condition, can be circumvented. Since many psychological dysfunctions are measurable, often in truly quantitative terms, functional psychopathology provides psychiatric diagnosing with a solid scientific foundation.

Functional psychopathology of a psychiatric condition is a prerequisite for, what I have called "verticalisation" of psychopathological phenomena, while "verticalisation", in its turn, is a prerequisite to target biological and psychopathological research much more accurately than has been possible so far.

Finally, the functional approach provides an opportunity to investigate the relative merits of the nosological disease model and the reaction form model of mental disorders for biological research in psychiatry. The latter model has been disregarded for a long time; I would rather say, for too long.

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[2] Van Praag, H.M. (1996) Over the mainstream — Diagnostic Requirements for Biological Psychiatric Research, Eur. Psychiatry, submitted.

S30. Gender and dementia

Chairman: L Whalley

OESTROGEN MAY AFFECT MOOD AND MENTAL STATE BY AN ACTION ON SEROTONIN$_{2A}$ RECEPTORS AND SEROTONIN TRANSPORTER

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Oestrogen exerts profound effects on mood and mental state. Low levels of oestrogen in women are associated with postmenopausal depression, postnatal depression and the depressive symptoms of the premenstrual syndrome. Sex differences in schizophrenia may also be related to oestrogen. Previous studies have shown that oestrogen stimulates a significant increase in dopamine$_2$ (D_2) receptors in the striatum and we have now shown that in the rat oestrogen stimulates a significant increase in the density of 5-hydroxytryptamine$_{2A}$ (5-HT$_{2A}$) binding sites in anterior frontal, cingulate and primary olfactory cortex and in the nucleus accumbens, areas of the brain concerned with the control of mood, mental state, cognition, emotion and behaviour. Our investigations have also demonstrated that oestrogen stimulates a relatively massive increase in the concentration of the serotonin transporter mRNA in dorsal raphe nucleus and that this corresponds with an increase in serotonin transporter binding sites in this nucleus as well as other areas of the rat brain concerned with behaviour. These findings provide a possible neuropharmacological explanation for the effect of oestrogen on mood and mental state, and the efficacy of oestrogen therapy or 5-HT uptake blockers, such as fluoxetine ("Prozac"), in treating major depression and the depressive symptoms of the premenstrual syndrome. Our findings also suggest that the psychoprotective effects of oestrogen in schizophrenia may be mediated by 5-HT$_{2A}$ as well as D_2 receptors.

Further molecular pharmacological studies are in progress to determine the precise mechanism of action of oestrogen, and neuroimaging studies are being carried out to determine whether oestrogen has similar effects on the serotonin transporter in the human brain.

S31. The long-term outcome of psychiatric disorders

Chairmen: J Angst, C Duggan

SUICIDE IN YOUNG SCHIZOPHRENIC PATIENTS, A CASE CONTROL STUDY

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Schizophrenia is a life-shortening disease and suicide turns out to be the major cause of death. The aim of our study is to identify possible risk factors for suicide in young schizophrenic patients.

We studied a large cohort of 870 DSM-III-R young schizophrenic patients (Age < 30 at index admission), consecutively admitted between 1973 and 1992. The mean duration of follow-up was 11 years and all patients were located. We adapted a matched case control design with matching for: sex, age and subtype. Lifetime psychiatric history was obtained for both cases and controls.

At follow-up 7.2% (N = 63) of all patients committed successful suicide, this is 9.1% for males and 4.2% for female patients. The S.M.R. for suicide is 39.7. 81% used a high-lethal mean and 52% died during an inpatient stay. 77% of the suicides were male. The mean age of suicide was 28.5 years.

Major risk factors are: N admissions > 4 ($p < 0.000$); short duration hospital stay ($p < 0.000$); past suicidal behaviour ($p < 0.000$) and attempts ($p < 0.000$); negative attitude towards treatment, fugues ($p < 0.000$), acting-out ($p < 0.000$), non compliance ($p < 0.000$); major loss ($p < 0.000$); psychosis ($p < 0.000$); depression ($p < 0.000$). Other risk factors are: IQ > 100; discharge against advice; use of antidepressants; living alone at index admission; residential psychiatric care. Odds Ratios are calculated for every risk factor.

Based on these risk factors we developed hypothesis on suicidal

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