tive and negative, disorganization, difficult contact) and non-specific for schizophrenia (depresion, anxiety and tension, excitement). One could conclude that factorial structure detected in empirical analysis of syndromes created by different diagnostic criteria and described by different diagnostic instruments may be different both in number and contents of the final factors. This problem should be carefully analysed as up to date there is no generally accepted valid definition of schizophrenia.

#### CLINICAL ASSESSMENT OF SCHIZOPHRENIC SYNDROMES (CASS) — EVALUATION OF THE NEW DIAGNOSTIC TOOL

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CASS was constructed as an auxiliary instrument for diagnosing, describing, and rating schizophrenic syndromes. It consists of four parts: (1) CASS-D: diagnostic questionnaire facilitating the diagnosis of schizophrenia according to DSM-IV and ICD-10 criteria; (2) CASS-G: scale for global rating of severity of an observed syndrome; (3) CASS-D: 13 scales for rating selected clinical dimensions of the syndrome; (4) CASS-S: 31 scales for more detailed rating of selected symptoms of the syndrome. For constructing the CASS scales dimensions (groups of symptoms sharing hypothetically common psychopathological meaning) and symptoms were selected which are either specific (e.g. ego distortion, thought disorganization or deficit symptoms) or non-specific (e.g. mood or drive changes) but important for clinical assessment of schizophrenia. All ratings are made on analogously defined 4-point (0-3) oridinal scales. Two studies were conducted to evaluate basic psychometric properties of the CASS. In the first one, each of 2 teams of 3 psychiatrists rated a group of 24-25 patients with clinical diagnosis of schizophrenia. Ratings were made by each clinician's independently after common assessment during clinical conference. In the second study, 194 consecutively admitted patients were assessed by their psychiatrist twice, at the time of admission and discharge. Results allow to state good inter-rater reliability of sum scores of the CASS scales (Kendall's W for: CASS-G > 0.86, CASS-D > 87, CASS-S > 92), and good reliability measured as internal consistency (Cronbach's alpha for CASS-D = 0.83; for CASS-S = 0.91) of its composite scales. Moderate (CASS-G: 0.37 < tau<sup>b</sup> < 0.46; 0.46 < r < 0.55) or high (CASS-D, CASS-S: 0.60 < tau<sup>b</sup> < 0.72; 0.77 < r < 0.89) correlations of CASS with BPRS, PANSS and SANS/SAPS as internationally approved standard tools seem to confirm its concurrent validity. Interesting and meaningful results of analysis of frequency, intensity, and specifity (for schizophrenia) of dimensions and symptoms analysed as well as of sum scores of the CASS scales may confirm external (content) validity of the instrument. Conclusions from principal components analysis of underlying structure of the schizophrenic syndromes described by CASS-D and CASS-S increase confidence in their internal (theoretical) validity also. Meaningful variability and range of indices of improvement between admission and discharge could be interpreted as an evidence of the CASS sensivity to change.

## ELECTRICAL BRAIN ACTIVITY REFLECTING SEMANTIC MEMORY ACCESS IN NORMAL VOLUNTEERS AND SCHIZOPHRENIC PATIENTS: EVIDENCE FROM INDIRECT SEMANTIC PRIMING

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Event-related potentials (ERPs) are a powerful tool for monitoring the working brain on-line. The goal of this study was to investigate the time course and the topography of ERPs during the performance of a semantic priming paradigm in normal subjects and schizophrenic patients. ERPs were collected with 64 electrodes while were presented with a prime and a subsequent string of characters as the target (50% words, 50% non-words). Primes and target-words were either directly related (hen-egg), indirectly related (lemon-sweet) or not related (sofa-wing). As in our previous studies, semantic relatednes had a systematic influence on N400 amplitude and latency. Moreover, the N400 component was different in patients and controls. In particular, the indirect condition distinguished patients and controls most clearly. A left frontal activation beginning about 300 ms post stimulus onset was found in both groups: Directly related target words produced more left frontal activation whereas indirectly related words produced more right frontal activation. This frontal effect confirms findings of other functional neuroimaging studies (PET, fMRI) and may reflect semantic memory activation. Schizophrenic patients showed more right frontal activation than controls. This finding is in line with larger indirect semantic priming effects in thought disordered schizophrenic patients.

# SINGLE AND MULTIPLE DOSE PHARMACOKINETICS OF ZIPRASIDONE IN HEALTHY MALES

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The pharmacokinetics of ziprasidone, an antipsychotic agent with combined antagonism at  $5HT_{2A}$  and  $D_2$  receptors, were investigated in 30 healthy male subjects using a randomized, placebo-controlled study design. Once-daily (days 1 and 18) and twice-daily doses (days 4 to 17) of placebo, and 5, 20, 40, and 60 mg ziprasidone were administered in the fed state to five groups of six subjects. The 40 and 60 mg ziprasidone groups received 20 mg on day 1 and were titrated to the final dose by day 10. Mean pharmacokinetic parameters (day 1/day 18) were:

| Dose<br>(mg)        | AUC (0-12)<br>(ng·hr/ml) | C <sub>max</sub><br>(ng/ml) | T <sub>max</sub><br>(hr) | T <sub>1/2</sub><br>(hr) |
|---------------------|--------------------------|-----------------------------|--------------------------|--------------------------|
| 5                   | 74/ 110                  | 12/ 15                      | 5.0/5.2                  | 3.2/ 4.0                 |
| 20                  | 176/259                  | 27/45                       | 4.8/3.8                  | 4.8/ 4.8                 |
| $20 \rightarrow 40$ | 315/ 658                 | 60/119                      | 3.8/3.7                  | 4.0/ 8.8                 |
| $20 \rightarrow 60$ | 215/1028                 | 34/139                      | 4.0/4.7                  | 4.3/10.0                 |

Steady-state conditions were attained after one day of dosing. Mean  $C_{max}$  and AUC (0–12) increased with increasing dose and mean accumulation ratios for the 5 and 20 mg dose levels were 1.49 and 1.48 respectively. Accumulation ratios were not calculated for the higher doses because of the titration. Longer steady-state half-lives at the higher doses were associated with increased body load of drug leading to the appearance of an additional dispositional phase. The steady-state peak to trough concentration ratios generally ranged from 2 to 5.

### MULTIPLE-DOSE PHARMACOKINETICS OF 'SEROQUEL" (ICI 204,636) IN SCHIZOPHRENIC MEN AND WOMEN

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'Seroquel' (ICI 204,636) is a dibenzothiazepine derivative currently in Phase III clinical development as an antipsychotic agent. The objectives of this study were to investigate the multiple-dose pharmacokinetics and safety of ICI 204,636 in schizophrenic men and women. Twenty-eight patients (13 men and 15 women) aged 21 to 42 years with a clinical diagnosis meeting the DSM-III-R criteria for schizophrenia entered this trial. After a 2-day washout period, patients were