

and gender and we found no significant effect of smoking and type of antipsychotic medication, when comparing particular subgroups of schizophrenic patients.

### P0183

Gender differences in involuntary treated patients with schizophrenia

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**Background and Aims:** Available evidence suggests that, compared with women, men have earlier age of onset of schizophrenia, poorer course and medication response, fewer affective symptoms and worse premorbid social and intellectual functioning. However there is a lack of data concerning gender differences in patients treated against their will.

**Methods:** 54 male and 65 female patients, who met the criteria for an F2 disorder according to the ICD-10 at the admission were included. They were assessed three times, in the first week and at the end of first and third month after admission. A broad range of structured assessment instruments has been used to assess psychopathology, social functioning, subjective quality of life, perceived coercion concerning admission, satisfaction with the treatment, socio-demographic characteristics, etc.

**Results:** The results indicates that there is no significant difference when comparing changes in total scores in psychopathology, satisfaction with therapy and quality of life. But there is a gender discrepancy when comparing certain single items from the scales, e.g. men were more severely impaired in ratings of grandiosity and unusual thought content, while women manifesting slightly better social functioning. Also in some socio-demographic features, in the use of coercive measures and in the reasons why are they applied gender plays a role.

**Conclusions:** In the majority of observed aspects concerning involuntary treatment, we have not found radical differences when it comes to gender. However, there are distinct disparities mainly in social functioning sphere, particular quality of life components and the motives for using coercive measures.

### P0184

Aberrant brain stem function in schizophrenia

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**Background and Aims:** Earlier research has shown that schizophrenic individuals process complex sound in aberrant ways (Olsson.O., Dissertation, Lund, 2000). It has also been shown that they abnormally perceive forward and backward masking (Källstrand et al., *Psychiatry Res.* 2002 Dec 15; 11 (1-2); 115-25). Experiments described in those studies indicate that in schizophrenia, brain-stem activity is involved, where primitive sorting of sound elements takes place. Brain Stem Response Audiometry (BSRA) shows that e.g. dissimilar spectra significantly separates schizophrenics from healthy subjects (Nielzén.S., 15th AEP Congress, March 2007, p. S86). The

present study aims at demonstrating effects of loudness change of complex sound stimulation.

**Method:** Eighteen paranoid schizophrenic patients were compared with 25 healthy volunteers regarding BSRA recordings from 2048 sweeps of loud noise stimuli (76 dB) and 2048 quieter ones (73 dB). Analysis of latencies in ms and amplitudes in micro-volts of the peaks and troughs was performed.

**Results:** The amplitude of the highest peak of the region 1-4 ms was significantly lower with quiet noise for the schizophrenic group (P=.0002).

The schizophrenics showed significantly prolonged latencies of the highest peak during 4,5-9 ms with the quiet noise (P=.046); they had a significant longer latency from left than from right electrode (P=.049).

**Conclusion:** The results corroborate earlier cumulative BSRA results. These have been collected in a model – S-Detect – which is used as an objective decision support for the diagnosis of schizophrenia.

### P0185

Optimized mismatch negativity reflects deficits in schizophrenia patients in a combined EEG and MEG study

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**Background and Aims:** Mismatch negativity (MMN) and its neuro-magnetic analog (MMNm) are event-related brain responses elicited by changes in a sequence of auditory events and indexes of early cognitive processing. It consistently detects neural pre-attentive information processing deficits in schizophrenia. So far, MMN can be assessed with different methods (electroencephalography, EEG; magnetoencephalography, MEG) and different paradigms using the “traditional” oddball (20% rare deviants) or the so-called “optimum” (50% rare deviants varying in one of five parameters each) designs but the latter has not been applied to schizophrenia as yet.

**Methods:** Both designs were compared in 12 patients with schizophrenia and 12 healthy controls using MEG and EEG. Automated, observer-independent data analysis rendered the procedures suitable for clinical applications.

**Results:** The optimum design was fastest to detect MMN changes. MEG had the best signal-to-noise ratio. In addition MMN was mostly reduced in schizophrenia if measured with MEG in the optimum paradigm.

**Conclusions:** Optimized MMN paradigms - especially MMNm - improve sensitivity and speed for the detection of schizophrenia endophenotypes. Dysfunctions in this disorder may lie primary in the fast and automatic encoding of stimulus features in the auditory cortex. Of note, these MMN optimum measures may not reflect one unitary mechanism that is equally affected in schizophrenia.

### P0186

Increasing cardiovascular mortality trends in schizophrenia in Sweden

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