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**Background and Aims:** Studies in children suggest that neurocognitive performance is a possible endophenotype for ADHD. We wished to establish a first connection between key genetic polymorphisms and neurocognitive performance in adults with ADHD.

**Methods:** We genotyped 45 adults with ADHD at four key candidate polymorphisms for the disorder (DRD4 48 bp repeat, DRD4 120 bp duplicated repeat, SLC6A3 40 bp VNTR, and COMT Val158Met). We then sub-grouped the sample for each polymorphism by genotype or by the presence of the (putative) ADHD risk allele and compared the performance of the subgroups on a large battery of neurocognitive tests.

**Results:** The COMT Val158Met polymorphism was related to differences in IQ and reaction time, both of the DRD4 polymorphisms (48 bp repeat and 120 bp duplication) showed an association with verbal memory skills, and the SLC6A3 40 bp VNTR polymorphism could be linked to differences in inhibition.

**Conclusions:** Our findings contribute to the complicated search for possible endophenotypes for (adult) ADHD.

#### S41.04

The possible association, in adolescence, between attention deficit and hyperactivity disorder and attempted suicide – a pilot study

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Adolescent suicide is a worldwide troubling phenomenon that has high comorbidity, including impulsivity, depression, and personality disorders. Attention Deficit Hyperactivity Disorder (ADHD) includes attention, impulsivity and hyperactivity. Comorbidity includes depression and substance abuse, and has a higher rate in adolescents and adults. Studies considering the association between these phenomena are surprisingly rare. This pilot study estimated the percentage of ADHD in a population of adolescents who attempted suicide. Population included all adolescents (12-18 yrs.) who were brought to local ER after attempting suicide. Assessment included an interview according to the DSM-IV criteria, the Strengths and Difficulties Questionnaire parents (SDQ-P) the Conners' Rating Scale parents (CRS-P), and Kiddie-SADS. Test Of Variables of Attention (TOVA) with methylphenidate (MPH) challenge was done after the clinical evaluation to those diagnosed as ADHD.

**Results:** 45 suicidal adolescents were registered in the ER and were assessed. 23 adolescents completed the assessment. Male: female ratio was 5:18 accordingly. The prominent diagnoses included ADHD (65%), depression (43%), cluster B personality disorders (35%), and Conduct Disorder (13%). ADD/ADHD ratio was 43/22 (66%:34%). Some suffered from more than 2 diagnoses and 1 had no diagnosis at all. 47.6% were diagnosed as hyperactive by SDQ-P, and 70% as ADHD by CRS-P. 14/15 (93%) were evaluated as ADHD by TOVA and most responded well to MPH. Five patients

were diagnosed before the study as ADHD, but only three were medicated. These results, though primary, suggest a significant relationship between the two disorders and indicate a need to further study this correlation

#### S41.05

A 6 month study of the adherence, effectiveness and safety with methylphenidate adults with ADHD

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**Background and Aims:** Once daily (q.d.) osmotic release oral system (OROS) methylphenidate has demonstrated to be as efficacious as three times a day (t.i.d.) immediate release (IR) methylphenidate in children with attention deficit hyperactivity disorder (ADHD) but with superior adherence. However, although ADHD continues into adulthood, data in adults are lacking. Effectiveness, adherence to treatment and patient's satisfaction were studied in adults with ADHD before and after switching from methylphenidate IR to OROS presentation.

**Methods:** Seventy newly diagnosed adults with ADHD were treated with t.i.d. methylphenidate IR and, after 3 months, were switched to q.d. OROS formulation and were followed up during 3 additional months. Effectiveness was evaluated with the ADHD Rating Scale (ADHD-RS) and the Clinical Global Impression Improvement (CGI-I) Scale, adherence to treatment with the Simplified Medication Adherence Questionnaire (SMAQ) and patient satisfaction with the treatment. Effectiveness, adherence and satisfaction were compared before and after treatment switch.

**Results:** ADHD-RS score changed from 34.6 (10.9) at baseline to 25.1 (9.1) while receiving IR methylphenidate and to 15.1 (7.2) while on OROS formulation. Furthermore, methylphenidate switch was associated with an increase of the rate of patients repondents to treatment, from 28.6% to 91.4%. The administration of methylphenidate OROS was associated with better scores in all items of the SMAQ. Methylphenidate OROS was preferred by 97% of patients. All differences were statistically significant. In conclusion, switch from t.i.d. IR to q.d. OROS methylphenidate was associated with an improvement in adherence, patient's satisfaction, and effectiveness.

### S42. Symposium: EPOS-FIRST RESULTS OF THE COMPLETED STUDY

#### S42.01

The European prediction of psychosis study - concept and design

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**Background:** Early detection and indicated early intervention in the initial prodromal phase should considerably improve the course of psychoses. Yet, the benefits of such programmes still require an evidence-based evaluation on the basis of a sufficient sample-size.

**Objective:** This report presents an overview on the concept and design of the European Prediction of Psychosis Study (EPOS) an European 4-country naturalistic field-study of the initial Prodrome.

**Materials and Methods:** Across six participating centres (Germany: Cologne, Berlin; Finland: Turku; The Netherlands: Amsterdam; United Kingdom: Birmingham, Manchester), 16 to 40 year old putatively prodromal persons attending specialized services or general psychiatric services underwent multi-level baseline, 9-months follow-up, and 18-months follow-up examinations. Inclusion criteria were the presence of APS, BLIPS, at least 2 of 9 Basic Symptoms (BS), and Familial Risk or Schizotypal Personality Disorder plus Reduced Functioning (FR+RF). In addition, psychopathological, neuro-cognitive, neurobiological, psychosocial, and service and treatment-related assessments were carried out.

**Results:** A substantial part of more than 250 subjects included into the study participated in their respective baseline, 1st follow-up, and 2nd follow-up examinations. A high percentage presented themselves with BS and/or APS, a smaller percentage with BLIPS or FR+RF. The rates of transition into psychosis and the levels of psychopathology, distress and functional decline found among this patient group underline the need for indicated early recognition and intervention.

**Conclusions:** EPOS provides for the first time a sound data base allowing an evaluation of the applicability and cost-benefit ratio of early detection and intervention programmes in Europe.

## S42.02

EPOS - sample characteristics, transition rates and psychopathological predictors

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**Background and Aims:** A main objective of EPOS is to provide a valid multifactorial model for the prediction of psychosis. One major element of such a model should be the clinical state.

**Methods:** In a European multicentre study, persons fulfilling clinical criteria thought to indicate an increased risk for psychosis (PAR) were assessed amongst others with different psychopathological instruments covering the whole spectrum from basic symptoms to frank psychotic symptoms. Inclusion criteria comprised attenuated positive symptoms (APS), brief limited intermittent psychotic symptoms

(BLIPS), cognitive basic symptoms (CogDis) and a combination of family risk and reduced functioning (S&T).

**Results:** 246 PAR were included into the study, mostly by APS or CogDis. Analysis of demographical data showed a high amount of functional impairment, resulting e.g. in low mean GAF scores ( $51.0 \pm 11.8$  SD), and of non-psychotic axis-I disorders. In September 2006, the hazard rate for a conversion to psychosis was 15.3 at 12 and 20.0 at 18 months after baseline assessment. According to the inclusion criteria, the highest rate of conversion was observed among PAR with BLIPS. On a dimensional level, a low GAF score was among the best predictors of conversion.

**Conclusions:** The transition rates of EPOS were in line with recent studies. A first analysis of clinical data supports the notion that the functional state should be an inherent part of any set of clinical risk criteria. Further analysis will consider the contribution of single symptoms or symptom combinations and the impact of symptom duration.

## S42.03

Premorbid adjustment in persons at high risk for psychosis

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**Background and Aims:** The main aim of the European Prediction of Psychosis Study (EPOS) is to study a large sample of young patients who are at risk of psychosis and to estimate their conversion rate to psychosis during 18 months follow-up. The present presentation aims to describe premorbid adjustment in the patients at risk of psychosis.

**Methods:** In six European centres (Cologne, Berlin, Turku, Amsterdam, Birmingham, Manchester), 246 psychiatric patients at risk of psychosis were examined. Risk of psychosis was defined by occurrence of basic symptoms, attenuated psychotic symptoms, brief, limited or intermittent psychotic symptoms or familial risk plus reduced functioning during the past three months. Premorbid adjustment was measured by the Premorbid Adjustment Scale (PAS) and correlated with patient's baseline and outcome measures. Psychiatric patients without prodromal symptoms (not at risk) and healthy subjects, studied in one centre, acted as comparison groups.

**Results:** PAS scores were poorer in the patients at risk of psychosis than in patients without prodromal symptoms or in healthy controls. In adolescence, differences in PAS scores were greater than in childhood or in adulthood. Within patients at risk of psychosis, men had poorer PAS scores than women. Childhood, adolescent and adulthood PAS scores associated extensively with patient's clinical and functional state at baseline examination. Adolescent and adulthood PAS scores correlated also with conversion to psychosis.

**Conclusions:** Disturbed premorbid psychosocial development, especially from adolescence on, may indicate vulnerability to and onset of psychosis.