Synopsis for EU-GEI WP5 Publication

Synopsis no.: S5.11

Preliminary title: Impairment in neurocognition as predictors of transition to psychosis

Contact info for the person(s) proposing the synopsis

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Publication category: 3
Publications from a single work package involving only some parties (or in some cases only one party) in the Work Package

Working and writing group: Gabriele Sachs, Harald Aschauer, Monika Schlögelhofer, Iris Lasser, Bernadette Winklbaur, Paul Amminger

Work Packages involved: WP 5

EU-GEI Partners involved from whom candidate co-authors (*additional to working and writing group*) should be nominated: All WP 5 partners who have collected neurocognitive data (CU, AMC, UMHRI, RCSI, UB, UK, LMU, UOM, Wingz, EIB and Dr. Barrantes).

Objectives (scientific background, hypothesis, methods, and expected results):

Scientific background:
Neurocognitive impairment is a common feature of schizophrenia (Fioravanti et al. 2012) and is already present at the first episode of psychosis and in individuals at ultra-high risk (UHR) for psychosis. Furthermore, impairments are observed in social cognition both in patients with schizophrenia (Green et al. 2011; Fett et al. 2011) and in UHRs (Addington & Psikulic 2013). Recent research has shown significant associations between neurocognitive and social cognitive domains in UHRs (Yong et al. 2014). Only very few studies have examined the relationship between neurocognition and social cognition (Chung et al 2008; Stanford et al 2011; Hur et al. 2013). The aim of the present multicenter study is to detect impairment in neurocognition as predictors of transition to psychosis.

Hypotheses:
1. Neurocognitive functioning in UHRs is impaired as compared to healthy controls.
2. Neurocognitive impairment predicts transition to psychosis.

Methods:
The sample will consist of all UHR participants recruited from the EU-GEI study. Neuropsychological, demographic, and clinical data collected at baseline from participants with ultra-high risk of psychosis and follow-up of these cohorts to establish which participants have developed persistent psychotic symptoms or schizophrenia, with repetition of baseline neuropsychological assessments.

Expected results:
We expect to identify neurocognitive and social cognitive deficits in UHRs and associations between neurocognition and clinical variables to create a Risk Assessment Chart tool for predicting which high-risk participants will later develop schizophrenia.

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Data needed for the study: (please list the EU-GEI WP5 instruments) Demographic data, CAARMS, Trail making test, AVLT, Verbal fluency, Digit span, GAF, CGI, Combined Social Scales
Plan for statistical analysis (overall strategy): T-test to determine whether baseline data are different from each other; Pearson Correlation to measure the association of different variables; Cox Regression analyses to investigate the neurocognitive and social cognition measures and rate of transition to known psychosis in the UHR participants.
Other analyses/methods: N/A
Involvement of external Parties (non EU-GEI): None
IPR check (Intellectual property rights): N/A
Timeframe: Once data is received it is expected that data checking and cleaning will take approximately 1 month, analysis will take approximately 3 months and drafting of the paper will take 2 months.
Additional comments: N/A