schizophrenia and predominantly negative symptoms ($n = 487$). Symptom networks were tested at baseline for severity and on change with mixed models for the total sample, as well as in amisulpride and control samples.
Results: Within baseline and endpoint networks: symptoms grouped into Affect, Poor responsiveness, Lack of interest, and Apathy-inattentiveness; the most central symptom was Decreased Spontaneous Movements and least on Grooming and Hygiene. These networks did not statistically significantly differ. For the adjusted change score networks Affect, Poor responsiveness and Lack of interest remained, but Apathy-inattentative symptoms split. In the total group, amisulpride and placebo on Poverty of Speech was the most central item. In the total and amisulpride groups the least central item was Grooming and Hygiene, whereas in the placebo group it was inappropriate affect. The placebo and amisulpride networks did not significantly differ.
Discussion: This is first study to consider negative symptoms as a network. Results demonstrated: (I) a replicable negative symptom system; (II) symptoms with high centrality (e.g., poverty of speech) that may be future treatment targets.

S62. Outcomes of maintenance antipsychotic treatment versus discontinuation strategies following remission from first episode psychosis: a systematic review and meta-analysis

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Background: Although remission of symptoms is common in patients with first episode psychosis, evidence to guide prophylactic treatment with antipsychotics post remission has been limited to placebo controlled trials with relatively short follow-up until recent trials investigating discontinuation strategies.
Methods: We performed a systematic review of the literature using the Cochrane guidelines as a framework. We included prospective, parallel control group or experimental studies that specifically compared maintenance antipsychotic treatment in first episode psychosis samples to those in which a discontinuation strategy or intermittent treatment strategy was employed. Studies were included if patients were defined as in remission of psychotic symptoms prior to the commencement of the comparison and relapse rates were reported for at least 6 months. MEDLINE, Embase, PsycINFO, and all Cochrane library bibliographic databases were searched from their date of inception to February 2015. Primary outcome was relapse rate; secondary outcomes included hospitalization rate, symptoms, functioning and side-effects. We performed a meta-analyses, and meta-regression where possible in order to test potential explanations of our findings.
Results: 9 studies were included in the review, which in total included 751 participants; average length of follow-up was up was 2.06 years. There was a greater risk of relapse in the discontinuation groups compared to the maintenance treatment groups (overall risk difference (RD) of 0.25). The pooled risk difference was lower when hospitalisation was considered as the outcome (RD 0.12). There was heterogeneity in study results. Subgroup analysis suggested that the pooled RD of relapse was lower in studies with a longer follow-up period, a targeted discontinuation strategy as opposed to placebo, studies with a higher relapse threshold and studies with a larger sample size. Meta-regression demonstrated that the results were only significantly different for targeted discontinuation versus placebo trials, and smaller versus larger trials. A narrative review only, was possible for other outcomes, which highlighted differences in quality of life and functional outcomes between maintenance and discontinuation groups.
Discussion: There is a higher risk of relapse and hospitalisation in those who undergo a graded or intermittent discontinuation strategy compared to a maintenance antipsychotic therapy. However the effect size is relatively small in first episode psychosis patients. These differences are lower than previous studies and might be explained by smaller differences between more real world strategies that include graded discontinuation as opposed to placebo. Few studies include functioning as an outcome but there appears to be no functional benefit reported for maintenance therapy in these trials.

S63. Prediction of transition to psychosis in patients with a clinical high risk for psychosis: a systematic review of methodology and reporting

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Background: Meta-analyses suggest that among help seeking patients with a clinical high risk (CHR) for psychosis only about one third develop psychosis within 5 years and about one third is having a clinical remission within 2 years. Hence, in order to improve clinical decision making in these patients, recent research efforts have been increasingly directed towards estimating the probability of developing frank psychosis on an individual level using multivariable clinical prediction models. However, despite considerable research efforts in this area, no psychosis risk prediction model has yet been adopted in clinical practice. One possible reason for the lack of progress in this area could be the widespread use of poor methods. Thus, the aim of this study was to systematically review the methodology and reporting of studies developing or validating models predicting psychosis in CHR patients using rigorous quality criteria.
Methods: A systematic literature search was carried out (up to September 18, 2015) in order to find all studies that developed or validated a multivariable clinical prediction model predicting the transition to psychosis in CHR patients. Data were extracted using a comprehensive item list which was based on the recently published Checklist for critical Appraisal and data extraction for systematic Reviews of prediction Modelling Studies (CHARMS) and current methodological recommendations of text books and articles on clinical prediction modelling.
Results: Eighty-six studies met the inclusion criteria. Although all included studies had applied a multivariable prediction model, most of them did not directly aim at developing a model for clinical practice. Instead, they made use of these models for hypothesis testing or aimed at evaluating the predictive potential of certain predictors or assessment domains. Consequently, only 7 studies (8%) were classified as model development studies and 79 (92%) as predictor finding studies. None of the retrieved studies performed a true external validation of an existing model. The average number of events per considered predictor variable (EPV) was 1.8 and 3.1 in model development and predictor finding studies, respectively. Only 2 studies (2.5%) had an EPV of at least 10, which is the recommended minimum for sufficient power. Internal validation was carried out in only 13 studies (15%) and six of these used inefficient or severely biased methods, such as split-sampling or cross-validating only the final model and thereby not taking into account the uncertainty introduced by variable selection. Other frequently observed modelling approaches not recommended by methodologists included univariate screening of candidate predictors, stepwise variable selection with low significance threshold, categorization of continuous predictor variables, and poor handling and reporting of missing data.
Discussion: Our systematic review revealed that poor methods and reporting are widespread in prediction of psychosis research. Since most studies relied on relatively small sample sizes, did not perform internal or external cross-validation, and applied modelling strategies that are prone to overfitting and overoptimistic predictive performance estimation, the results of these studies must be interpreted with great caution. To enhance progress, future studies should develop prediction models in accordance with current methodological recommendations and guidelines, such as the recently published Transparent Reporting of a multivariable prediction model for Individual Prognosis Or Diagnosis (TRIPOD) statement.