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T137. Socio demographic and clinical characteristics in first episode psychosis
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Background: In this study the relation between socio-demographic variables, alcohol and substance use, the environmental factors such as traumatic life events and psychotic symptoms in the first episode psychosis patients were examined.

Methods: The study sample consisted of 60 First Episode Psychosis patients and 60 healthy control subjects. Psychosocial risk factors were assessed using Social Environment Measurement Tool, Life Events Scale, Tobacco Alcohol Use Scale and Substance/Marijuana Use Scale. In addition to the clinical evaluation of the patient group PANSS, the Young Mania Symptoms Scale and Insight Scale were used for detecting psychiatric symptoms. 

Results: We found statistically significant differences regarding the last year life events, birth season, obsessive compulsive symptoms, familial liability of schizophrenia and psychosis in 1st degree relatives, and attempted suicide in patients with first psychotic episode compared to healthy controls. 

Discussion: Family liability and substance use were significant risk factors related to psychotic symptoms in patients with first episode psychosis.

T138. Schizophrenia-spectrum disorders and violent reoffending: a national cohort study of convicted prisoners
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Background: There are more than 10 million currently imprisoned, of which around 4% have schizophrenia-spectrum disorders according to systematic reviews. In the US and UK, over one-third of released prisoners are reconvicted for a new crime within 2 years. Evidence on whether schizophrenia-spectrum disorders increase the risk of reoffending is inconsistent. With large numbers of individuals with psychotic disorders in jails and prisons, clarification of this association is important to inform mental health services in criminal justice and on release from custody.

Methods: We undertook a longitudinal cohort study of 47 326 prisoners who had been imprisoned since January 1, 2000 and released before December 31, 2009 in Sweden. Data on diagnosed psychiatric disorders were obtained from both inpatient and outpatient registers. Socio-demographic and criminological factors were obtained from other population-based registers. Hazard ratios (HRs) for violent reoffending were calculated by Cox regression.

Results: 1237 (3%) of the men 130 (4%) of women had schizophrenia-spectrum disorders. A significantly increased hazard was also found for male prisoners with schizophrenia-spectrum disorders after adjustment for socio-demographic and criminological factors (adjusted HR = 1.20 [1.09-1.33], but not in the women (HR = 0.74 [0.45-1.20]). Comorbid substance use disorders increased these hazards (Adjusted HR in the men = 2.68 [2.41-2.98]).

Discussion: Contrary to expert opinion and previous research, we found that schizophrenia-spectrum disorders are independent risk factors for violent reoffending in male prisoners. National violence prevention strategies should consider the role of prison psychiatry.

T139. Predicting clinical outcomes in psychotic disorders using electronic case registers and natural language processing
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Background: It is not possible to reliably predict clinical outcomes in psychotic disorders. Existing research studies are based on relatively modest sample sizes and may not be representative of everyday clinical practice. Clinical information is widely recorded in the form of electronic health records (EHRs). The majority of useful data are stored in unstructured free text entries. However, the large volume of free text means that it is not feasible to manually read through records to identify data of interest. Automated information extraction methods such as natural language processing (NLP) offer the opportunity to quickly extract and analyse large volumes of meaningful data from free text EHRs. I present a summary of three studies using this approach to investigate clinical outcomes in people with schizophrenia.

Methods: Dataset: South London and Maudsley NHS Trust (SLaM) Biomedical Research Centre (BRC) Case Register comprising anonymised EHRs of over 250,000 people. NLP development: The software package TextHunter was used. All sentences containing keywords relevant to the constructs investigated were extracted using a support vector machine learning (SVM) approach. Predictor variables: presentation to high-risk clinical services, cannabis use (NLP-derived) and negative symptoms (NLP-derived). Outcomes: number of days spent in hospital, frequency of hospital admission and antipsychotic treatment failure. Covariates: age, gender, ethnicity, marital status and diagnosis. Statistical analysis: multivariable logistic, negative binomial, linear regression and mediation analysis using STATA.

Results: (i) Clinical outcomes of FEP in high-risk services (n = 2,943): 164 patients with FEP (5.6%) presented to OASIS, a clinical service in South London for young people with an at-risk-mental-state (ARMs) for psychosis. Presentation to the high-risk service was associated with 17 fewer days spent in hospital (95% CI -33.7, -0.3) and a lower frequency of admission (incidence rate ratio: 0.49, 0.39-0.61) in the 24 months following referral, as compared to patients who presented to conventional services. (ii) Cannabis and treatment failure in FEP (n = 2,026): Cannabis use was present in 46.3% of people with FEP. It
Discussion: It was possible to use EHR data extracted using NLP to investigate associations with clinical outcomes of psychosis in large sample sizes which would otherwise have been unfeasible to investigate using direct patient recruitment. These findings are important for mental healthcare services as they suggest that early detection of psychosis in high-risk services may be associated with better outcomes, and that greater attention should be given to cannabis use and negative symptoms in people with established psychotic disorders. The NLP tools developed in these studies also have the potential to support real-time clinical decision making at an individual patient level.

T140. A comparative study on the prevalence rate and treatment of agitation among Chinese newly hospitalized schizophrenics between psychiatric hospitals and general hospitals
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Background: Agitation is frequently reported with newly hospitalized patients suffering from schizophrenia, and may result in substantial adverse outcomes for themselves, others, and property. This study was designed to investigate the prevalence rate and treatment of agitation among newly hospitalized schizophrenics between psychiatric hospitals and general hospitals.

Methods: We conducted a non-interventional, multicenter, observational study in 10 psychiatric hospitals and 4 general hospitals. Information about agitation and treatment of all enrolled patients were investigated including general demographic data, disease characteristics, Clinical Global Impression–Severity (CGI-S), Positive and Negative Syndrome Scale–Excited Component (PANSS-EC), Modified Overt Aggression Scale (MOAS) and prescription.

Results: 1. Of 1512 patients enrolled in the study, 1400 (92.6%) were eligible; the prevalence of agitation among psychiatric hospitals was significantly higher than that of general hospitals (35.40% vs. 23.4%). The general hospitals intramuscular medication most frequently prescribed was haloperidol (12.5%), whereas the psychiatric hospitals had higher proportion of intramuscular medication (P < 0.01) and a combination of oral medication with intramuscular medication (P < 0.001).

Discussion: Our study indicated that, in China, the prevalence of agitation among psychiatric hospitals was significantly higher than that of general hospitals (64.30% vs. 52.8%, P < 0.01). In addition, patients in the psychiatric hospitals experienced a significantly older age, longer illness duration, more numbers of hospitalizations and higher CGI score, higher proportion of history of aggressive behaviors and involuntary admission than the general hospitals. These findings suggest that the psychiatric hospital group were more likely to be in more complex situations, higher risk of uncooperativeness and refractory schizophrenia, which may contributing to the different treatment. For the agitation sample, the psychiatric hospitals were more inclined to use intramuscular medication in managing this condition with schizophrenia, mainly haloperidol and ziprasidone. While no one used ziprasidone intramuscular in general hospital, compared with the high intramuscular availability and deficient clinical practice play a role. As to clozapine, the use frequency in psychiatric hospitals and general hospitals was 9.8% and 23.4% respectively. Over the last decade, there was a falling trend in using frequency of clozapine in China. Since its unique advantages in psychiatric illness, it is significant to avoid the low utilization of clozapine and improve the rational use in the indication.