SUBSTANCE-INDUCED PSYCHOSIS LINKED TO BOTH INFECTIONS AND SCHIZOPHRENIA

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to reduce tobacco smoking in patients with psychosis may therefore im-
reduced life expectancy in patients with psychotic disorders. Interventions
both females (aHR = 1.42; 95% CI: 1.21–1.66) and males (aHR = 1.49;
that current smoking was associated with an increased risk of death, in
63.5 years in current smokers (95% CI: 62.5 to 64.5) and 68.5 years in
(3,438 (15.9%)]. 2,434 (11.3%) participants died by the end of the obser-
(93.4%) were classified as either smokers (16,717 [77.4%]) or non-smokers
monly recorded smoking status. Cox proportional hazards models were
estimates of life expectancy at birth according to gender and most com-
2007 to 31st December 2018 was obtained. Smoking status was deter-
at risk of converting to schizophrenia. Young age was associated with a higher
conversion to schizophrenia. Self-harm was significantly linked to a
induced psychosis, with 47.4% (95% CI 42.7–52.3) converting to either schizophrenia or bipolar disorder. In study 2, we included the entire Danish population born since 1981 (n=2,256,779). These were followed in Cox proportional hazards regression models, linking hospital-requiring infections as time-varying covariates to de-
velopment of substance-induced psychosis. In further analyses, we followed those who had developed substance-induced psychosis to determine whether infections would influence the risk of converting to schizophrenia.

**Methods:** Both studies utilized the nationwide Danish registers.
In study 1, we included all people diagnosed with substance-induced psy-
from 1994 to 2014 (n=6,788). These were followed using the Kaplan-Meier method and Cox proportional hazards regression to estimate rates and predictors of conversion to schizophrenia or bipolar disorder.

**Results:** Study 1: Overall, 32.2% (95% CI 29.7–34.9) of patients with a substance-induced psychosis converted to either bipolar or schizophrenia-spectrum disorders. The highest conversion rate was found for cannabis-induced psychosis, with 47.4% (95% CI 42.7–52.3) converting to either schizophrenia or bipolar disorder. Young age was associated with a higher risk of converting to schizophrenia. Self-harm was significantly linked to a higher risk of converting to both schizophrenia and bipolar disorder.
Study 2: Infections increased the risk of substance-induced psychosis (HR=1.30, 95% CI 1.22–1.39) in the fully adjusted model. Hepatitis was the infection most strongly associated with substance-induced psychosis, at HR=3.42 (95% CI 2.47–4.74). Different sites of infections showed associations with different types of substance-induced psychosis. Finally, hepatitis increased the risk of conversion to schizophrenia with HR=1.87 (95% CI 1.07–3.26).

**Discussion:** Substance-induced psychosis is strongly associated with the develop-
ment of severe mental illness, and a long follow-up period is needed to identify the majority of cases. Infections appear to play a role in the etiology of substance-induced psychosis which is very similar to the role infections play in the etiology of schizophrenia. This lends strong support to the existence of an immune-related component to psychosis in general, and not just to schizophrenia.

**Background:** Substance-induced psychosis is an under-researched phenomenon, and little is known about its etiology (other than exposure to substances) and long-term prognosis. In this presentation, we aim to present results from two recent studies, one of which was recently published and the other is currently in the process of being analyzed. The first study investigates rates and predictors of conversion from substance-induced psychosis; the second study investigates the association between severe infections and substance-induced psychosis, including the contribution of infections on conversion to schizophrenia.

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**Background:** Schizophrenia, schizoaffective disorder and bipolar affective disorder are associated with a life expectancy at birth that is 10–20 years shorter than in the general population. The prevalence of cigarette smoking in people with these disorders is very high, but the extent to which this accounts for differences in mortality is unclear. We addressed this issue by examining the effect of smoking on life expectancy and survival in a large electronic healthcare database of patients receiving secondary mental healthcare in South East London.

**Methods:** Data on all patients with a diagnosis of schizophrenia, schizoaffective disorder or bipolar affective disorder from 1st January 2007 to 31st December 2018 was obtained. Smoking status was deter-
mined using unstructured text data extracted from electronic health records. Chiang’s method of abridged life tables was used to calculate estimates of life expectancy at birth according to gender and most com-
monly recorded smoking status. Cox proportional hazards models were used to estimate mortality risk and adjusted for a broad range of demo-
graphic and clinical variables.

**Results:** 21,588 patients were included in the study of which 20,155 (93.4%) were classified as either smokers (16,717 [77.4%]) or non-smokers (3,438 (15.9%)]. 2,434 (11.3%) participants died by the end of the obser-

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