Cannabis use in psychotic patients linked to 50% higher hospital admission risk

And may contribute to antipsychotic drug treatment failure, suggest researchers

Cannabis use among people experiencing a first episode of psychotic illness is linked to a 50 per cent heightened risk of hospital admission—including compulsory detention (sectioning)—as well as longer inpatient stay, reveals the largest study of its kind, published in the online journal BMJ Open.

Cannabis use was also linked to higher numbers of prescriptions for different antipsychotic drugs, the findings show, suggesting that it may contribute to treatment failure, say the researchers.

Cannabis use has been linked to an increased risk of psychotic episodes before, particularly if used during the teen years, but it is not clear if it has any impact on relapse risk in those with long term psychosis.

The researchers therefore mined the anonymised electronic health records of 2026 people treated for a first episode of psychosis at one of the largest providers of mental health services in Europe between 2006 and 2013.

They did this to find out the prevalence of cannabis use recorded within a month of the first visit for early intervention treatment and to track subsequent treatment and outcomes for up to five years afterwards.

Cannabis use was recorded in the records of almost half (46.3%) of those using early intervention services within a month of the start of treatment. Use was especially common among single men, aged between 16 and 25.

Use of the drug was associated with a 50% increase in the frequency of hospital admissions, with an average of 1.8 admissions up to five years after the first service visit, compared with non-users who averaged 1.2 admissions over the same period.

And it was associated with an increase in the risk of compulsory detention in hospital under the Mental Health Act—45% of those who used cannabis compared to 34% of those who didn’t.

Use of the drug was also associated with a significantly longer hospital stay, particularly once two years of the monitoring period had elapsed. Length of stay progressively increased from an average of 21 extra days within three years, to 35 additional days within five years among cannabis users.
Furthermore, cannabis use was associated with a greater likelihood of being treated with clozapine, an antipsychotic used for schizophrenia that is difficult to treat, and a higher number of prescriptions (up to 11) for different antipsychotics.

The electronic records data did not provide enough information to be able to tell whether the number of different prescriptions was prompted by poor treatment response, poor compliance, unpleasant side effects, or admission to hospital following a relapse, say the researchers.

But many different antipsychotic prescriptions are indicative of treatment failure they suggest, and point towards an association between cannabis use and increased risk of hospital admission linked to treatment failure.

This is an observational study so no firm conclusions can be drawn about cause and effect, added to which the researchers were not able to determine the amount or frequency of cannabis use among mental health service users from their electronic health records.

Nevertheless, they conclude that their findings “highlight the importance of ascertaining cannabis use in people receiving care for psychotic disorders and prompt further study to investigate the mechanisms underlying poor clinical outcomes in people who use cannabis, and strategies to reduce associated harms.”