

in a New York City hospital, and to determine the impact of the COVID-19 pandemic.

Methods. This IRB-approved study reviewed the medical records of 1101 child and adolescent patients that were psychiatrically hospitalized between June 1 2018 and November 30 2021 at Mount Sinai Morningside. Sociodemographic and clinical information was collected and analyzed using SPSS.

Results. In this sample, 29.4% of patients received psychotropic polypharmacy. The polypharmacy group contained a higher percentage of males, White patients, and fewer Asian/South Asian patients. They had on average more hospitalizations, a longer hospitalization period, and were more likely to be diagnosed with an impulsive/behavioral disorder, developmental disorder, or bipolar spectrum disorder. The polypharmacy group were twice as likely to receive medication for agitation while hospitalized. A regression model identified positive predictors of polypharmacy as having a history of violence and a higher number of psychiatric hospitalizations. Negative predictors included non-White race. White patients had the highest average number of medications and Asian/South Asian patients had the lowest. No impact of the COVID-19 pandemic was found.

Conclusion. Psychiatric polypharmacy is extremely common in the child and adolescent population that requires psychiatric hospitalization. Increased behavioral needs, such as episodes of violence, as well as greater illness severity, as indicated by greater number of hospitalizations, may be the driving factors behind polypharmacy. Further investigation is indicated to determine other contributing causal factors and to track long-term consequences of psychiatric polypharmacy.

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Safety and Tolerability of KarXT (Xanomeline Trospium): Pooled Results From the Randomized, Double-Blind, Placebo-Controlled EMERGENT Trials

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Introduction. In prior studies, the dual M₁/M₄ preferring muscarinic receptor agonist xanomeline demonstrated antipsychotic activity in people with schizophrenia and Alzheimer's disease, but its further clinical development was limited primarily by gastrointestinal side effects. KarXT combines xanomeline and the peripherally restricted muscarinic receptor antagonist trospium chloride. KarXT is designed to preserve xanomeline's beneficial central nervous system effects while mitigating adverse events (AEs) due to peripheral muscarinic receptor activation. The

efficacy and safety of KarXT in schizophrenia was demonstrated in the 5-week, randomized, double-blind, placebo-controlled EMERGENT-1 (NCT03697252), EMERGENT-2 (NCT04659161), and EMERGENT-3 (NCT04738123) trials.

Methods. The EMERGENT trials enrolled people with a recent worsening of positive symptoms warranting hospitalization, Positive and Negative Syndrome Scale total score ≥ 80 , and Clinical Global Impression–Severity score ≥ 4 . Eligible participants were randomized 1:1 to KarXT or placebo. KarXT dosing (xanomeline/trospium) started at 50 mg/20 mg twice daily (BID) and increased to a maximum of 125 mg/30 mg BID. Safety was assessed by monitoring for spontaneous AEs after administration of the first dose of trial drug until the time of discharge on day 35. Data from the EMERGENT trials were pooled, and all safety analyses were conducted in the safety population, defined as all participants who received ≥ 1 dose of trial drug.

Results. A total of 683 participants (KarXT, n=340; placebo, n=343) were included in the pooled safety analyses. Across the EMERGENT trials, 51.8% of people in the KarXT group compared with 29.4% in the placebo group reported ≥ 1 treatment-related AE. The most common treatment-related AEs occurring in $\geq 5\%$ of participants receiving KarXT and at a rate at least twice that observed in the placebo group were nausea (17.1% vs 3.2%), constipation (15.0% vs 5.2%), dyspepsia (11.5% vs 2.3%), vomiting (10.9% vs 0.9%), and dry mouth (5.0% vs 1.5%). The most common treatment-related AEs in the KarXT group were all mild or moderate in severity.

Conclusions. In pooled analyses from the EMERGENT trials, KarXT was generally well tolerated in people with schizophrenia experiencing acute psychosis. These findings, together with the efficacy results showing a clinically meaningful reduction in the symptoms of schizophrenia, support the potential of KarXT to be the first in a new class of antipsychotic medications based on muscarinic receptor agonism and a well-tolerated alternative to currently available antipsychotics.

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S.C.O.P.E. : Schizophrenia Clinical Outcome Scenarios and Patient-Provider Engagement Platform The Interactive Long-Acting Injectable Antipsychotics Selector

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