

**Abstract**

Psychiatric readmissions contribute to a significant cost and healthcare burden to physicians, hospitals, and the healthcare system as an entity. Furthermore, as part of the Affordable Care Act, the Centers for Medicare and Medicaid Services (CMS) began to reduce financial coverage to hospitals with overwhelming rehospitalization rates. The purpose of this study was to do a systematic analysis on inpatient psychiatric readmission data and identify co-morbidities and risk factors that lead to high readmission rates. The data collection includes 163 patients with a total of 348 readmissions over the span of 90 days at one inner-city hospital in the Chicagoland area. Study findings suggest that higher rates of readmission are linked to cocaine abuse in both male and female populations. Diagnosis of bipolar in females and schizoaffective disorder in male populations were the among the highest for readmission. Key social factors such as homelessness and low socioeconomic status were identified to contribute to a large proportion of psychiatric readmission burden. However, an overwhelming amount of information was missing due to unobtained labs and lack of current patient social history. By using this data as well as data from electronic medical records (EMRs) to further investigate and identify other features of at-risk patients, hospitals can potentially address these markers to lower readmission rates. Ultimately, a higher understanding of the patients' needs can be understood and can help develop standardized plans of care for prevalent psychiatric illnesses in these populations.

## Prescription Stimulant Misuse and Abuse: Characterization of Exposures Managed by United States (US) Poison Centers

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**Abstract**

The National Poison Data System (NPDS), is the data warehouse for the 55 US regional poison centers. While the primary role of a poison center is to provide medical management to the public and healthcare providers, a standardized database is used to collect case data. These data are routinely used to evaluate drug safety, including characterization of prescription medication misuse and abuse. While an effective therapy for attention deficit/hyperactivity disorder (ADHD), prescription stimulant medications (RxStim) may be misused and abused, a behavior that has been noted as an emerging public health concern particularly in relation to polysubstance abuse. The objective of this study was to characterize

intentional exposures to RxStim in patients age >12 y of age as managed by US poison centers from Jan 2015- 31 Dec 2019.

NPDS cases of intentional exposure to a RxStim in a patient >12 y managed from Jan 2015-Dec 2019 were included for analysis. Intentional exposures are defined in the NPDS manual as exposures that involve a purposeful action. These include intentional misuse, intentional abuse and intentional unknown cases. Intentional suspected suicide cases were excluded.

A total of 12,972 cases met inclusion criteria, of which 62.5% involved a male patient. Most patients were aged 13–19 y (34.7%) or 20–39 y (50.5%). Over one-half (53.3%) of cases were intentional abuse, 29.1% intentional misuse, and 17.6% intentional unknown. While most exposures were via oral route of administration (90.7%), 9.5% were via inhalation/intranasal and 2.4% via injection (multiple routes may be reported). Other substances in addition to a RxStim were involved in 48.2% of cases, including benzodiazepines (11.2%), alcohol (8.8%), marijuana (5.1%), cocaine (3.7%), methamphetamine (3.0%) and atypical antipsychotics (2.5%). The majority of cases resulted in significant medical outcome (60.3%). This included 39.3% with a moderate effect (medical attention indicated, not life-threatening), 6.1% major effect (life-threatening), 1.0% death and 14.0% lost to follow-up but judged as a potentially toxic exposure. Another 22.4% reported minimally bothersome effects. Admission to a healthcare facility was reported for 1 out of 3 cases and another 36.3% were treated/evaluated/released from a healthcare service. An average of 2.3 clinical effects were reported per exposure, the most common being neurological effects (53.2%; examples include agitation, drowsiness/lethargy, confusion, hallucinations/delusions, tremor), cardiovascular effects (50.8%; examples include tachycardia, hypertension), and gastrointestinal effects (9.4%; examples include vomiting, nausea). RxStim misuse and abuse cases managed by US poison centers most often leads to significant medical outcomes which require medical attention. The role of these medications in polysubstance abuse is concerning and suggestive of needed strategies to address this increasingly important public health concern.

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## Substance Use Trajectories: Nonmedical Use (NMU) of Prescription Stimulants via Non-Oral Routes of Administration Among Adults Recruited from Reddit

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