

## **Cannabinoid Exposure in Infants and Young Children**

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### **Abstract**

#### **Introduction:**

In November 2022, Missouri became the 21<sup>st</sup> state to legalize recreational marijuana. Legalization in other states has led to increased unintentional exposures in pediatric patients, meaning that accidental exposures in children may be on the rise in Missouri. Despite data regarding toxic cannabinoid exposure in young pediatric patients being on the rise, data is still limited due to the nature of both toxicology and pediatric studies. The objective of this study is to analyze the prevalence, methods, and outcomes associated with single-substance cannabinoid exposures in neonates, infants, and young children that were reported to a poison center in the past 10 years to assist future outreach efforts.

#### **Methods:**

The NPDS was searched for cannabinoid exposures that were reported to the Missouri Poison Center between January 1, 2012, and December 31, 2021 in patients age 0 to 5 years old. Records were refined by limiting the results to only single-substance ingestion of cannabinoid products of any kind. Data that was collected for this study includes year of overdose (2012-2021), age, sex (male, female, or unknown), state/county of exposure (county only recorded for MO and IL cases), level of health care facility (HCF), management site, medical outcome, reason for exposure, route of exposure, clinical effect, substance, and therapy provided.

#### **Results:**

Patient population was 51.8% male with a median age of 2 years old. Yearly prevalence is positively trending starting in 2019. Prevalence data in Missouri suggests that exposures reported to the Missouri Poison Center have the greatest likelihood of happening in counties with metropolitan areas (St. Louis, Kansas City, Jefferson City, etc). A majority of confirmed medical outcomes seen in these cases were either no effect or minor effect (65%). Most cases were caused by unintentional ingestion (97.6%) of edible cannabinoid products (36.8%); of all edible products that weren't listed as 'unknown', cannabinoid infused candy was the most common (54.2%). Most reported cases did not experience any clinical effects (33.5%); of the cases that did report effects, the most common clinical effects seen were mild in nature and included CNS depression plus other associated neurologic symptoms.

#### **Conclusion:**

Data collected shows need for future education efforts as well as ways to implement these efforts. Changing culture regarding cannabinoid use will affect all pharmacists, meaning continuing our own educations will prove vital in these up-coming years.