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### **116. Prevalence of Laboratory Confirmed Hallucinogens within an Emergency Department-Derived Opioid Overdose Cohort**

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**Background:** Hallucinogen and illicit dissociative drug use remains a public health concern due to the potential for altered behavior; psychological dependence; and, toxic or delayed mental health effects, often related to the adulteration or complete chemical misrepresentation of the drug to the user. Recent social media discussions around ‘microdosing’ and other forms of unregulated, self-medication for wellness or therapeutic use, highlights the continuing need to identify changing use patterns within the population.

**Research Question:** What is the prevalence of exposure to hallucinogens among a group of adult emergency department (ED) patients presenting with a suspected opioid overdose?

**Methods:** This study utilizes data from a prospective, on-going multicenter consecutive cohort of ED patients age 18+ with suspected opioid overdose presenting at eight US sites within the Toxicology Investigators Consortium Fentanyl Study. Cases with complete clinical and analyte data (waste blood analysis via liquid chromatography quadrupole time-of-flight mass spectrometry) through September 2022 were included.

**Results:** Of the 537 eligible patients, 8.9% (n=48) tested positive for one or more hallucinogens/illicit dissociative drugs. PCP analogues represented most cases (75.0%, n=36). Ten cases (20.8%) lacked any opioid analytes; all were PCP+. Identified dissociative and hallucinogenic stimulants included MDMA (n=3), mCPP (n=6), and ketamine (n=2). Common analytes in the opioid negative cases included synthetic cannabinoid (MDMB-4en-PINACA), adulterants (phenacetin, levamisole), natural cannabinoids, and methamphetamine. Among opioid positive samples, 89.5% case samples (n=34) indicated fentanyl/fentanyl analogues. Common prescription opioids were methadone (42.1%, n=16) and tramadol (15.8%, n=6). At least one dose of naloxone was administered to both the opioid negative (80%) and positive (88%) patients (p=NS).

**Conclusion:** Under one-tenth of patients presenting to the ED with a suspected opioid overdose tested positive for hallucinogenic/dissociative drugs, with the prevalence of actual opioid positive cases reported in one-half of this patient subset.

