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## **209. Oxycodone overdose is associated with the intention to self-harm among emergency department patients**

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**Objective:** The intention to self-harm via overdose (OD) is a major cause of morbidity and mortality for emergency department (ED) patients. Factors associated with the intention to self-harm after opioid overdose can help inform clinical treatment and proper linkage to mental health resources. The objective of this study is to determine the association between qualitative toxicology results and the intention to self-harm among a cohort of patients presenting after opioid overdose to participating EDs across the US.

**Methods:** Methods: This is a secondary data analysis from the Toxicology Investigators Consortium (ToxIC) Fentanyl Study, an ongoing prospective multicenter cohort at 9 participating medical centers in the US. Patients with suspected acute opioid OD are enrolled, clinical data is gathered, and residual blood samples collected as part of routine clinical care were analyzed qualitatively by liquid chromatography quadrupole time-of-flight mass spectrometry for the presence of over 1100 psychoactive substances. For this analysis, we included only patients who were categorized as “self-harm” intent versus “misuse/abuse” intent. Intention of overdose was collected via chart review. Multivariable logistic regression analysis was used to determine the association between self-harm intent (outcome) and analytes detected, adjusting for age, sex, race, and ethnicity. All analyses were conducted in R 4.2.2 and approved by a central institutional review board (IRB) (WIRB).

**Results:** Between 21 September 2020 and 13 May 2023, 1541 patients met inclusion criteria, and 836 cases had analyte results with either 1) self-harm intent or 2) misuse/abuse intent. Cases were categorized into self-harm intent (N 1410; 12.3%) or misuse/abuse intent (N 1100; 87.7%). In the multivariable analysis for the odds of the intention to self-harm, oxycodone

was associated with 12% higher odds of presenting with the intention to self-harm compared to those without oxycodone present (aOR: 1.12; 1.02, 1.23). Additionally, the presence of fentanyl was 21% less likely to be associated with the intention to self-harm (aOR: 0.79; 0.75, 0.84) compared to those with misuse/abuse.

**Conclusion:** Oxycodone was associated with a higher adjusted odds of an intention to self-harm among patients presenting to the emergency department after an opioid overdose. Clinicians should be aware that those presenting with apparent oxycodone overdose (as opposed to illicit opioids) may be related to the intention to self-harm rather than misuse/abuse.