57. Prevalence of HIV among patients presenting with acute opioid toxicity

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Background: People living with HIV have higher rates of substance use compared to the general population, but it's unclear what factors are associated with HIV among patients presenting to the ED with opioid overdose. The objectives of this study are to: (1) determine the prevalence of HIV in a sample of patients presenting to the ED with opioid overdose; and (2) identify demographic (age, sex, race, and ethnicity) and behavioral factors (current drug use patterns and route of drug use) associated with HIV.

Methods: The Toxicology Investigators Consortium (ToxIC) Fentalog Study is a regionally diverse multi-center toxico-epidemiology study, which consists of patients presenting to 10 participating EDs with suspected acute opioid toxicity from 9/21/ 2020 to 5/1/2023. In addition to chart review of medical records, waste serum, drawn as part of routine clinical care, is collected and analyzed using liquid chromatography quadrupole time-of-flight mass spectrometry for the presence of over 1,000 novel psychoactive substances, drugs of abuse, and therapeutics. A central IRB approved this study with waiver of consent. The prevalence of HIV was determined and stratified by injectable vs. non injectable drug use. Medians and interquartile ranges (IQR) were obtained and compared between the HIV positive and negative groups. Logistic multivariable regression was performed to assess for confounding variables. All analyses were conducted in R v4.2.1.

Results: Among the 1,319 subjects identified, 762 (57.8%) were HIV negative, whereas 41 (3.1%) were HIV positive. The HIV status was unknown in 516 (39.1%). Males accounted for 70.5% of the HIV negative group, compared with 78% of the HIV positive group (P . NS). 332 (42.3%) of the HIV negative group had no psychiatric comorbidities, compared with 11 (26.8%) in the HIV positive group (P . 0.05). The median (IQR) age of the HIV negative cohort was 39 (23) years, compared with 57 (15) in the patients with HIV ($P<0.001$). IDU was reported in 44 (10%), 2 (8%), and 60 (20.8%), of the HIV negative, HIV positive, and HIV unknown individuals, respectively (P . 0.02). Utilizing multivariable regression, age was the only associated factor with HIV status (OR: 1.04; 95% CI: 1.02, 1.07), with older ages more likely to be HIV-positive compared to younger ages. Although race was statistically significantly associated with HIV status in the unadjusted regression (Black vs. White race: OR: 3.11; 95% CI:1.54, 6.49), this association was not significant when accounting for age, sex, ethnicity, and IDU.

Conclusion: Adults presenting to the emergency department with acute opioid toxicity should be considered high-risk for HIV, regardless of the route of drug use. IDU was common among individuals regardless of HIV status, which presents a modifiable risk factor for HIV prevention. The rate of HIV

positivity in this population was approximately 10-fold higher than the US average (0.3%). The median age of HIV positive individuals presenting with opioid toxicity was significantly older than the rest of the population in this study.