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118. Race, Ethnicity, and Age Distribution of Opioid Exposures Seen by Medical Toxicologists

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Background: Traditional poisoning data sources, such as the National Poison Data System, do not collect information on race and ethnicity. Given that disparities may impact opioid use, it is important to understand race/ethnicity and age in opioid-related exposures.

Research Question: Describe race/ethnicity and age in opioid-related exposures.

Methods: This is a retrospective analysis of the ToxIC Core Registry between 2014-2021. Cases with at least one opioid exposure agent were included. Opioids reported were grouped into fentanyl/heroin, commonly prescribed opioids, medications for opioid use disorder, and other opioid agents. SAS[®] was used for statistical analysis.

Results: Between 2014-2021, 7,311 of 60,564 cases (12.1%) had an opioid exposure. For fentanyl/heroin exposure, frequency by race/ethnicity was: Non-Hispanic White 50.2%, Black/African American 17.6%, Hispanic 10.5%, Asian 0.76%, American Indian/ Alaska Native (AIAN) 0.43%, Native Hawaiian 0.03%, mixed race 0.43%, Other 0.03%, and unknown 42.9% ($p < 0.001$). For prescription opioid exposure, frequency was Non-Hispanic white 52.46%, Black/African American 11.83%, Asian 9.95%, Hispanic 8.6%, AIAN 1.4%, mixed race 0.12%, Native Hawaiian 0.35%, other 0.47%, and unknown 14.9% ($p < 0.001$). For fentanyl/heroin exposure, frequency by age was 1.43% age < two years, 0.5% ages 2-6, 0.24% ages 7-12, 4.83% ages 13- 18, 90.7% ages 19-65, 1.76% ages 66-89, and 0.03% ages 89+ ($p < 0.001$). For prescription opioid exposure, 3.28% ages < two years, 0.82% ages 2-6, 2.22% ages 7-12, 18.6% ages 13-18, 63.8%, ages 19- 65, 10.2% ages 66-89, and 0.35% ages 89+ ($p < 0.001$).

Conclusion: For ToxIC Registry patients, differences in rates of exposure to opioids (fentanyl/heroin, prescription opioids) exist by race/ethnicity and age but may be confounded by participating site location and severity of exposure necessitating toxicologist consultation. Evaluation of race/age disparities can inform future studies on contributing factors and guide targeted harm-reduction interventions to at-risk groups.