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91. Access to opioid treatment facilities in opioid overdose patients by race and ethnicity on behalf of the ACMT Toxicology Investigators Consortium (Toxic)

Alexa Camarena-Michel^a, America Elias Martinez^b, Christopher Hoyte^a, On behalf of the Toxicology Investigators Consortium (Toxic)^a

^a Rocky Mountain Poison Center; ^b University of Denver

Background: Opioid Treatment Programs (OTPs) have been shown to be effective in the treatment of opioid use disorder (OUD). Studies on OUD have found that the majority of patients with OUD and patients who participate in OTPs are non-Hispanic and Caucasian. The reasons for low participation in OTPs by racial/ethnic minorities is likely multi-factorial and not completely understood. Limitations such as distance to OTPs may preclude enrollment in an OTP. Therefore, the primary purpose of this study is to evaluate distance to nearest OTP by race/ethnicity

Objectives: This study characterizes the racial and ethnic composition of a sample of opioid overdose patients and measures the distance to the closest OTP from the presenting hospital. Additionally, the five most common opioid toxicities associated with hospital presentation and medical outcomes were characterized by race/ethnicity.

Methods: This study was a retrospective analysis of data extracted from the American College of Medical Toxicology (ACMT) Toxicology Investigators Consortium (Toxic) registry. Patients presenting between 2014 and 2020 with intentional opioid toxicity requiring naloxone administration were included. Hospitals outside of the US, patients 2-6 years old, and patients without age range or race/ethnicity data available were excluded. Recorded patient race/ethnicity were collected along with presenting hospital site, opioid type, and medical outcome. Using the hospital address as a proxy for patients' neighborhood demographics, median distance to the nearest certified OTP as listed by the SAMHSA directory was reported across various races/ethnicities. Two sample Kolmogorov-Smirnov testing was used to compare median distances for non-Hispanic Caucasians to other races/ethnicities. Chi-squared testing was performed to compare types of opioid toxicities and severe medical outcomes between non-Hispanic Caucasians and racial/ethnic minorities.

Results: A total of 459 patients were included in the data analysis. Of these, 316 (69.9%) were male, 142 (30.9%) were female and one whose gender was not recorded. The majority of patients (85.4%) were in the 19-65 age range. Hispanics had a significantly higher median distance to OTPs when compared to non-Hispanics ($p < 0.0001$) yet no statistically significant difference was found between Caucasians and non-Caucasians. The most common opioid overdose was heroin (194, 42.3%). Patients with "other" race compared to Caucasians had higher rates of fentanyl overdose ($p = 0.002$). Hispanics compared to nonHispanics presented with higher rates of fentanyl overdose ($p < 0.0001$). Compared to Caucasians, Asians and non-Caucasians had

higher rates of acute kidney injury (AKI) ($p = 0.0242$), Black/Africans had higher rates of respiratory depression ($p = 0.043$), American Indian/Alaska Natives had more referrals for addiction medicine ($p = 0.0289$), and Black/Africans had higher rates of death ($p = 0.0402$). When compared to non-Hispanics, Hispanics had higher rates of acute lung injury (ALI) ($p = 0.006$) and had higher referral rates to addiction medicine ($p < 0.0001$).

Conclusions: A robust analysis of data evaluating access to opioid treatment programs across various races and ethnicities reveals the need for ongoing investigation. This analysis further elucidates the interplay between race, ethnicity, and distance to OTPs, types of opioid overdoses and medical outcomes. Further analysis may identify limitations to OTP access in vulnerable patient populations and inform public health efforts.