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91. Descriptive Characteristics Of Persons Who Use Fentanyl Within The ToxIC Core Registry, 2014–2022

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Background: Illicitly manufactured fentanyl (IMF) has reshaped the sphere of the United States' (US) illicit drug supply (IDS). Powdered IMF and counterfeit pills containing IMF (CP) seizures increased 710.2% and 4,850.4% from Q1 in 2018 to Q4 in 2021, respectively. Further, the proportion of CP seizures increased from 13.8 to 29.2%. In 2021, 106,699 drug overdose (OD) deaths occurred in the US with synthetic opioid-involved OD deaths increasing 21.8% from 2020 to 2021, primarily driven by IMF. From 2020 to 2021, OD death rates increased among those aged 25 years with the largest increase occurring among ages 35–44 years. We examined consultations involving fentanyl in the Toxicology Investigators Consortium (ToxIC) Core Registry, a case registry of medical toxicology consultations, from January 2014–December 2022.

Methods: We limited the analytical sample to consultations involving intentional exposure and acute opioid withdrawal as the reported reasons for the medical toxicology encounter. Patient demographics, suspected CP involvement (i.e., specific mentions of pills or tablets, "Blues", "M30s", or "Street Xanax/ Percocet" within the record), and annual counts are described. Descriptive analysis was performed in SAS 9.4.

Results: Overall, from 2014–2022, 1,225 consultations involving fentanyl were identified: 66% intentional exposures (n . 808) and 34% acute opioid withdrawals (n . 417). Proportionally, consultations increased annually, nearly quadrupling from 2014 (2.6%) to 2020 (9.7%), more than doubling from 2020 to 2021 (22.2%), and increasing again in 2022 (38.6%). Within the analytical sample, 16.1% were suspected to involve CP: 6.4% of intentional exposures and 34.8% of acute opioid withdrawals. Among suspected CP involvement, 73.1% of exposures mentioned CP terms (n . 38) while 53.8% of withdrawals reported pills or tablets(n . 78). Among patients who used fentanyl, nearly one in five exposures were aged 12–19 years (n . 151, 19.0%) while two in five were aged 20–34 years (n . 318, 40.1%). Nearly one in four withdrawals were aged 30–34 (n . 98, 23.7%); more than half were aged 20–34 years (n . 215, 51.9%). Age ranges shifted over time with the largest proportion of 2014 consultations comprising patients aged 50 years (n . 19, 65.5%) to 30–34 years (n . 99, 21.0%) in 2022. Patients aged 30–34 years increased from 6.9% of the sample in 2014 (n . 2) to 21.0% in 2022 (n .99). Patients aged 25-29 years first presented in 2016 (n . 6, 15.4%) and remained steady through 2022 (n . 78, 16.5%)(range: n . 11, 13.8% to n . 25, 21.4%). Further, patients aged 12–19 years were first captured in 2015 (n . 4, 13.8%) and remained present through 2022 (n . 36, 7.6%) (range: n . 36, 7.6% to n . 27, 23.1%). Over time the concentration of cases shifted, with patients aged 20–39 years comprising 13.7% of 2014 consultations (n . 4) compared to 60.6% in 2022 (n. 286).

Conclusion: Among persons who use fentanyl within the ToxIC Core Registry, 2014–2022, represented ages have shifted to younger patients over time and followed similar trends among reported OD in the US. Further, many consultations were suspected to involve CP. Fentanyl test strips and naloxone are invaluable tools in combating OD with the ever-increasing presence of fentanyl in the IDS.