Presented at the 2024 Annual Meeting of the College on Problems of Drug Dependence – Montreal, Canada

T78. Prevalence of Fentanyl Among Middle and Older Adults With Nonfatal Opioid Overdose

Alyssa Falise ¹, Kim Aldy ², Jeffrey Brent ², Paul Wax ², Rachel Culbreth ², Alex Krotulski ³, Shao Li ², Sharan Campleman ², Barry Logan ³, Stephanie Abston ², Adrienne Hughes ⁴, Rob Hendrickson ⁴, Alexandra Amaducci ⁵, Bryan Judge ⁶, Joseph Carpenter ⁷, Michael Levine ⁸, Diane Calello ⁹, Christopher Meaden ⁹, Jenni e Buchanan ¹⁰, Joshua Shulman ¹¹, Evan Schwarz ⁸, Alex Manini ¹²

¹ American College of Medical Toxicology, ² University of Colorado School of Medicine, ³ Center for Forensic Science Research and Education at the Fredric Rieders Family Foundation, ⁴ Oregon Health and Science University, ⁵ Lehigh Valley Health Network/USF Morsani College of Medicine, ⁶ Corewell Health, Michigan State University, ⁷ Emory University School of Medicine, ⁸ University of California-Los Angeles ⁹ Rutgers New Jersey Medical School, ¹⁰ Denver Health Medical Center, ¹¹ University of Pittsburgh School of Medicine, ¹² Icahn School of Medicine at Mount Sinai

Aim: Middle and older adults (MOAs) experienced a four-fold increase in the rate of fatal opioid-related overdoses between 2000-2020, despite having the lowest rates of overdose among all age cohorts. Nonfatal overdoses presenting to the emergency department (ED) provide practitioners with unique opportunities for intervention. Therefore, we aimed to investigate patterns of non-fatal opioid-related overdoses among MOAs.

Methods: The Toxicology Investigators Consortium (ToxIC) Fentalog Study is an ongoing project with ten participating institutions throughout the United States. Adults aged 18+ years old presenting to the ED with suspected opioid overdose are included if serum samples were available during routine clinical care. Clinical data is extracted by chart review. Blinded toxicological analysis is performed by the Center for Forensic Science Research and Education to identify drugs and metabolites present. This analysis considered only MOAs aged 50+ years old who presented to the ED with an opioid-related non-fatal overdose between September 21, 2020 and August 15, 2023 (N=380).

Results: Of patients aged 18 years old and older, 28.5% were MOAs, with an average MOA age of 61.2 years old (range: 51-89, SD=7.0). Majority were male (76.1%), and 41.6% were non-Hispanic Black, 31.8% non-Hispanic White, and 17.1% Hispanic. Fentanyl and fentanyl analogs were most commonly detected (76.6%), followed by prescription opioids (39.7%) and illicit/non-fentanyl opioids (11.58%). Approximately 56.8% of overdoses with fentanyl and/or fentanyl analogs contained1+ analogs(mean=1.1,range=1-3), while the most commonly reported prescription opioid was methadone (21.6%) and the most common illicit/non-fentanyl opioid was heroin (10.6%).

Conclusions: Fentanyl was the most commonly detected drug among MOA ED patients with confirmed non-fatal opioid overdose. Future research is needed to identify effective, age-friendly harm reduction strategies that can easily be initiated in EDs post non-fatal overdose.

Financial Support: Research reported in this publication was supported by the National Institute on Drug Abuse of the National Institutes of Health under Award Number R01DA048009 (PI: Alex Manini).

Supplemental funding is provided by the Centers for Disease Control and Prevention (Award Number 3R01DA048009-04S1) to increase the project's testing capacity. The content is solely the responsibility of the authors and does not necessarily represent the official views of the National Institutes of Health or the Centers for Disease Control and Prevention.