Monitoring illicit drug exposure in adults aged 50 years and over: results from emergency department toxicosurveillance across five Australian states

Jennifer L. Smith[1,2], Courtney Weber[2,3,4], Ellie Kotkis[2,3], Daniel M. Fatovich[1,2,3,5], Jennifer L. Schumann[6,7,8], Paul Dessauer[9,10], Nadine Ezard[10,11,12,13], Katherine Z. Isoardi[14,15], Sam Alfred[16,17], Viet Tran[18,19,20], Shaun L. Greene[21,22,23]

[1]Medical School, The University of Western Australia, Perth, Australia, [2]Centre for Clinical Research in Emergency Medicine, Harry Perkins Institute of Medical Research, Perth, Australia, [3]East Metropolitan Health Service, Perth, Australia, [4]School of Population and Global Health, The University of Western Australia, Perth, Australia, [5]Emergency Medicine, Royal Perth Hospital, University of Western Australia, Perth, Australia, [6]Victorian Institute of Forensic Medicine, Melbourne, Australia, [7]Department of Forensic Medicine, Monash University, Melbourne, Australia, [8]Monash Addiction Research Centre, Monash University, Melbourne, Australia, [9]Peer Based Harm Reduction WA, Perth, Western Australia, [10]The National Drug & Alcohol Research Centre, University of New South Wales, Sydney, Australia, [11]The National Centre for Clinical Research on Emerging Drugs, University of New South Wales, Sydney, Australia, [12]Alcohol and Drug Service, St Vincent's Hospital Sydney, Sydney, Australia, [13]New South Wales Drug and Alcohol Clinical Research and Improvement Network, Sydney, Australia, [14]Clinical Toxicology Unit, Princess Alexandra Hospital, Brisbane, Australia, [15]Faculty of Medicine, University of Queensland, Brisbane, Australia, [16]Royal Adelaide Hospital, Adelaide, Australia, [17]School of Medicine, Adelaide University, Adelaide, Australia, [18]Royal Hobart Hospital, Tasmanian Health Service, Hobart, Australia, [19]Tasmanian School of Medicine, University of Tasmania, Hobart, Australia, [20]Menzies Institute for Medical Research, University of Tasmania, Hobart, Australia, [21]Department of Emergency Medicine, Austin Hospital, Melbourne, Australia, [22]Victorian Poisons Information Centre, Austin Health, Melbourne, Australia, [23]Department of Critical Care, University of Melbourne, Melbourne, Australia

Presenter's email: *jennifer.smith@uwa.edu.au*

Introduction: There is a growing population of older Australians who use drugs and experience disproportionate physical and psychosocial harms. We examined analytically confirmed pharmaceutical, traditional illicit and novel psychoactive substances (NPS) in people aged ≥50 years presenting to sentinel Australian emergency departments (ED) between April 2020-April 2025.

Methods: Demographic, ED presentation and toxicology data across 28 EDs and five states were extracted from the Emerging Drugs Network of Australia (EDNA) and EDNA Victoria clinical datasets.

Results: We identified 728 ED presentations aged ≥50 years. The median age was 54 years (range 50-90) and 537 (74%) were male. 596 (82%) arrived by ambulance and 187 (26%) were admitted to the intensive care unit (ICU). Traditional illicit drugs were identified in 567 (78%) presentations (854 total detections), most frequently methylamphetamine (469, 64%), heroin (172, 24%) and gamma-hydroxybutyrate (163, 22%). 144 (20%) had co-detected methylamphetamine and gamma-hydroxybutyrate. At least one NPS was detected in 70 (10%) presentations (93 total detections). Novel benzodiazepines (38 presentations, 47 detections) and ketamine derivatives (20 presentations, 21 detections) were most common. Eight nitazenes were detected (6 presentations). Sedative/hypnotic and opioid pharmaceuticals were identified in 420 (58%) and 344 (47%) presentations respectively.

Discussions and Conclusions: Polysubstance exposure was common, with over one-third of presentations involving two or more illicit drugs and frequent co-detection of pharmaceutical sedatives and opioids. High ICU admission may reflect increased respiratory

and cardiovascular co-morbidities in older adults, increasing risk of illicit drug and polypharmacy-related harm.

Implications on communities, practice, policy: ED toxicosurveillance data may aid evidence-based healthcare and harm reduction strategies for this priority population. Meaningful translation should be facilitated by those with lived/living experience, and considered in the broader context of increased pain management needs and access to appropriate withdrawal and aged care services.

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