

## **GHB-related emergency department presentations, hospitalisations and police seizures in NSW**

*Krista J. Siefried<sup>1,2,3</sup>, Jonathan Brett<sup>1</sup>, Jared Brown<sup>4</sup>, Christine Harvey<sup>4</sup>, Una Cullinan<sup>5</sup>, Thanjira Jiranantakan<sup>4</sup>, Janette L. Smith<sup>4</sup>*

*<sup>1</sup> Sydney Drug and Alcohol Service, St Vincent's Hospital, Sydney NSW Australia, <sup>2</sup> National Drug and Alcohol Research Centre, University of New South Wales, Sydney NSW Australia, <sup>3</sup> The National Centre for Clinical Research on Emerging Drugs (NCCRED), Australia <sup>4</sup> Centre for Alcohol and Other Drugs, NSW Ministry of Health, St Leonards NSW Australia, <sup>5</sup> NSW Health Pathology, Forensic and Analytical Science Service, Lidcombe NSW Australia*

Presenter's email: Krista.Siefried@svha.org.au

**Introduction:** *Consumption of gamma-hydroxybutyrate and its precursors (collectively denoted GHB) has remained low in Australian household survey data. However, emerging data suggest ambulance attendances and emergency department (ED) presentations have substantially increased recently. Here, we present trends in ED presentations and hospital admissions in NSW for patients aged 16 and over, and trends in police seizures of GHB analysed by FASS.*

**Methods:** *Keyword searches identified ED presentations related to GHB and to other specific drugs (including alcohol, methamphetamine and cocaine) across 88 public hospitals in NSW (2015-2024). Statewide hospital admission data were searched for episodes with GHB-related diagnostic codes (2015-2023). Data were aggregated by age, sex, location, time, and other epidemiological variables. Results of NSW Police drug seizures analysed by FASS were searched (2009-2024) for GHB samples, and aggregated over time.*

**Results:** *The rate of GHB-related ED presentations increased more than 4-fold over time, a faster increase than that observed for any other measured drug, with a shift to an older cohort of patients over time. Among patients aged 16-24 years, approximately 50% are female; the proportion of females decreases as age increases. The proportion of cases at inner Sydney hospitals has decreased over time, as has the proportion of cases presenting on weekend nights and early mornings. The rate of GHB-related admissions has increased over time, as has the proportion of admissions with a withdrawal code. 32% of admissions had a GHB dependence code assigned. Police seizures of GHB have increased over time, with shifts in the dominance of substances from gamma-butyrolactone to 1,4-butanediol observed in FASS results.*

### **Discussions and Conclusions:**

*Changes to patient demographics and substances used require updated public health interventions. Responses are required that address younger female or regional patients who are consuming GHB.*

**Implications for Practice or Policy:** *Public health campaigns for GHB harm reduction have historically focused on men who have sex with men. Shifts amongst younger females require harm reduction messaging that reaches this population. Evidence-based clinical guidelines for management of withdrawal are required, particularly to guide practice in contexts with less historical experience of managing withdrawal (e.g. outside of urban areas).*

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