Inpatient GHB withdrawal management in an inner-city hospital in Sydney, Australia: a retrospective medical record review

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Introduction and Aims: Regular consumption of gamma-hydroxybutyrate (GHB)/analogues may result in dependence complicated by a withdrawal syndrome. This study examines characteristics associated with delirium and discharge against medical advice (DAMA), in the context of implementing a GHB withdrawal management protocol.

Design and Methods: Admissions (January 2017 – March 2021) were included if they were ≥18 years old, admitted for GHB withdrawal, with documented recent use. Demographics, medications, onset of delirium, ICU admission, and DAMA were determined. Exploratory analyses were conducted to examine factors associated (p<0.2) with delirium and DAMA.

Results: 135 admissions (91 patients) were included; 46.2% (n=42) male, median age 31 years (range: 19-53). Three admissions (2.2%) were admitted to ICU. Medications included diazepam (n=133 admissions, 98.5%), baclofen (n=114, 84%), olanzapine (n=70, 51.9%), and phenobarbitone (n=8, 5.9%). Delirium (n=21 [16%] admissions) was associated with higher daily GHB consumption (Odds Ratio [OR] 1.02, 95% confidence interval [95%CI] 1.00-1.04, p=0.097); while duration of GHB use (OR 0.92, 95%CI 0.83-1.01, p=0.085), methamphetamine use (OR 0.24, 95%CI 0.08-0.73, p=0.013), and time to first dose of diazepam (OR 0.80, 95%CI 0.66-0.98, p=0.032) were inversely associated. DAMA (n=41 [30%] admissions), was associated with time to first dose of baclofen (OR 1.04, 95% CI 0.99-1.08, p=0.099); while being female (OR 0.32, 95%CI 0.12-0.82, p=0.018), and receiving a loading dose of diazepam (OR 0.45, 95%CI 0.17-1.16, p=0.097) were inversely associated.

Discussions and Conclusions: This study adds to the literature supporting the safety and feasibility of diazepam and baclofen for the management of GHB withdrawal. Prospective, randomised trials are required.

Disclosure of Interest Statement: This study received no funding. RL is a medical student at Notre Dame University, Sydney, and contributed to the data collection as part of her independent research project. JB is funded by an NHMRC Investigator Grant (1196560) and Medicines Intelligence CRE Fellowship (1196900). All other authors have no relevant conflicts of interest to declare.