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 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.

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