Gamma-Hydroxybutyrate (GHB) Withdrawal

GHB (or 1,4-BD or GBL) withdrawal can be severe and life-threatening. Aggressive, early titrated loading with GABA receptor agonists is crucial.

Withdrawal from GHB and its precursors [1,4 butanediol (1,4-BD) or gamma- butyrolactone (GBL)] is clinically identical, and can be severe / life-threatening

Withdrawal is similar to ethanol and/or benzodiazepine withdrawal but occurs more rapidly – within hours of last use and can last up to 2-3 weeks

Previous withdrawal symptoms can be a guide to the character of the likely withdrawal that will manifest

Withdrawal delirium can be severe and difficult to manage

Early recognition and aggressive management are key

Patients at risk of delirium/severe withdrawal:

- short time intervals between dosing (< 4 hours)
- waking up during the night to dose
- high daily doses (> 15 mL)

Clinical features:

Mild – anxiety, diaphoresis, restlessness, tremor, insomnia

Severe –hallucinations, disorientation, paranoia, seizures, delirium, muscle rigidity

Rare – hyperthermia, rhabdomyolysis, acute renal failure

Management: Patients at risk of delirium/severe withdrawal (see opposite for risk factors) OR those patients presenting with established severe withdrawal require aggressive early management (discuss with a Clinical Toxicologist). Severe withdrawal may require inpatient Rx for up to 14 days.

Mainstay of treatment is rapid loading with GABA receptor agonists including benzodiazepines and/or baclofen.

Large, frequent doses are usually required to minimize progression to delirium and critical care admission.

Patients with established severe withdrawal/delirium require prompt referral to ICU.

Benzodiazepines: 20 mg diazepam orally hourly up to 60 mg then 10-20 mg diazepam 1 hourly PRN to achieve gentle sedation **AND simultaneously** ***Baclofen:*** 25 mg orally TDS

Failure to achieve sedation despite this approach (>150 mg diazepam in 24 hours): consider barbiturate therapy (discuss with Clinical Toxicologist)

Oral Phenobarbitone (not requiring airway protection): 30 mg hourly titrated to gentle sedation (max 120 mg)

IV Phenobarbitone (if intubation is required): 5 mg/kg every 2 hours to a max daily dose of 2 g

NB: aim for 50% reduction in phenobarbitone total daily dose (oral or IV) every 24 hours and taper to cessation over 4-5 days. Try weaning diazepam to < 100 mg per day whilst treating with phenobarbitone.

Antipsychotics can be used as an adjunct to reduce neuropsychiatric manifestations and to facilitate adequate dosing of diazepam and baclofen. They are **NOT** a substitute for GABA receptor agonists.

Disposition

All patients at risk of severe GHB withdrawal should be admitted to an inpatient setting

Patients with severe symptoms or significant behavioral challenges should be managed in HDU/ICU

Patients presenting with minor symptoms 24-48 hours after last use do not require admission

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