

GHB (or 1,4-butanediol and gamma-butyrolactone) withdrawal can be severe. Aggressive early titrated loading of GABA receptor agonists is crucial.

Early recognition and **aggressive** management are key

Withdrawal from GBL or 1,4 BD is clinically identical

Symptoms can be severe and require hospitalization

There is high incidence of patients requiring ICU care

Risk factors:

- 24/7 (round the clock) dosing is high risk
- Daily use for more than 2-3 weeks
- Withdrawal symptoms previously after cessation of use

Clinical features:

- Withdrawal manifests as increasing delirium / agitation
- Delirium / withdrawal can occur within hours of last use
- Duration of symptoms can be prolonged up to 14 days

Neuro: Anxiety, agitation, paranoia, tremor, insomnia
hallucinations (auditory, visual, tactile), psychosis
(can occur without delirium), rapid ↓ to delirium

Autonomic: ↑HR, ↑BP, diaphoresis, dilated pupils,
nausea, vomiting

GHB (gamma-hydroxybutyrate)

1,4-BD (1,4 butanediol)

GBL (gamma-butyrolactone)

Management

Severe GHB withdrawal should be discussed with a clinical toxicologist

Mainstay of treatment is rapid loading with GABA receptor agonists including benzodiazepines, baclofen

Large, frequent doses are usually required to minimize progression to delirium + critical care admission:

Patients with established severe withdrawal / unable to take medication orally should receive IV Rx

Benzodiazepines: 20mg diazepam orally STAT then 10-20mg diazepam 1 hourly PRN **AND**

Baclofen: 10mg orally TDS initially (seek further advice for escalation of dose)

- to achieve gentle sedation (absence of agitation, sedated, but easily rousable)

Failure to achieve sedation following this approach is an indication for clinical toxicologist discussion

Phenobarbitone / propofol: are options in refractory cases (please discuss with clinical toxicologist)

Antipsychotics are **not** recommended as they do not treat withdrawal

Management of delirium should be as per any other disease condition including but not limited to:

- regular re-orientation to date and time, low stimulus environment, minimal staffing changes

In cases of severe withdrawal with inability to effectively administer GABA receptor agonists, general anesthetic sedation and intubation is recommended to facilitate management

Treatment of severe withdrawal may be required as an inpatient for up to 14 days

Disposition:

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

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

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