

Demographics, treatment completion and complications in 80 patients receiving an outpatient medically assisted GHB/GBL detoxification

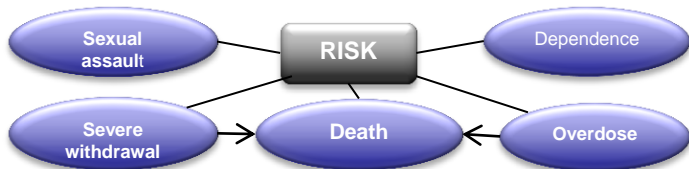
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Introduction

The use of GHB and GBL is on the rise in the UK since they were first introduced as club drugs in the early 1990s. Despite the attention drawn by some high profile cases and the complexity of treatment, limited evidence for management of GHB/GBL dependence is available at present. This study illustrates the findings from a sample of 80 out-patient treatment episodes at a clinic in Central London. It is the largest study to date on the subject.

GHB/GBL Key Facts

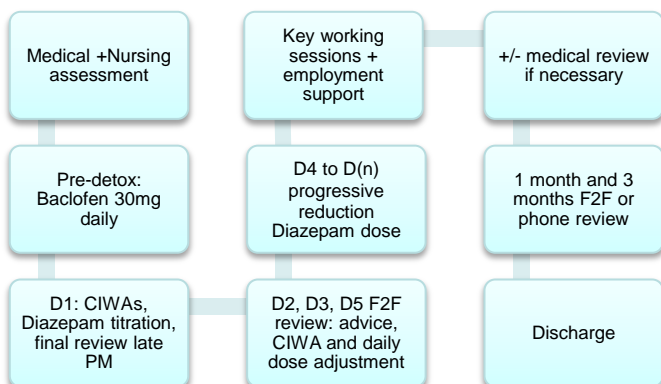
- GBL:** γ-Butyrolactone; GHB: γ-Hydroxybutyric acid
- GHB:** occurs naturally in the brain as a neurotransmitter and in fermented goods such as wine and beer.
- Same effect:** GBL converts into GHB in less than 1 minute once in the body
- Street names:** "G", "Liquid ecstasy", "Liquid X"
- Dose:** Single dose of 1-2 ml consumed via a pipette. Dependent users typically dose every 1-4 hours ("round the clock") including at night-time
- Form:** colourless and odourless liquid
- Rapid absorption** and short **half-life:** 20-30min
- Steep curve dose-response:** risk of rapid shift from overdose to withdrawal in A&E settings; risk of overdose for small incremental dose increase
- Mechanism of action:** GABA receptor and others
- Desired effects of use:** euphoria, disinhibition, increased sociability and self confidence, relaxation, sleep, pro-sexual arousal via smooth muscle relaxation
- Withdrawals** (comparable to alcohol): anxiety, agitation, tremor, tachycardia, high blood pressure, cravings, clouding of consciousness, confusion, psychosis, seizures, rhabdomyolysis delirium, coma and can lead to **death**. Empirical treatment of choice is benzodiazepines, which have in some cases been used in combination with baclofen.



Death can result both following overdose and as a consequence of severe withdrawals. Severity of dependence and delays in starting treatment have been implicated in case reports of patients who died in inpatient settings in the context of refractory withdrawal symptoms.

Methods

Data were collected retrospectively from all patients who started GHB/GBL detoxification between January 2011 and October 2014 at a specialist outpatient drug treatment service in Central London (N=80).



Results

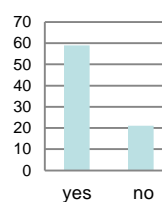
Population	Employment	Sexuality	Relationship status
86.3% Male	45% employed	81.3% LGBT	38.8% Single
12.5% female	45% unemployed	12.5% heterosexual	23.8% in a relationship
1.3% transsexual	10% Other	5% declined	37.5% declined

- Mean daily use: 32.2ml (13-65ml)
 - Mean age 1st use: 26y 11m
 - Dependent use before treatment 19m 2d
 - Polydrug: 85% had concurrent use of at least 1 other drug
- Common comorbid substances:
- Metamphetamine 46.3%
 - Mephedrone 33.8%
 - Problem alcohol 28.8%
 - Crack/cocaine 22.5%
 - Benzodiazepine 22.5%

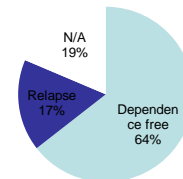
Treatment

Diazepam Mean dose	Diazepam Mean Rx duration: 9.5d
Day 1: 40.2 mg	Need for dose Adjustment after D1: 27.5%
Day 2: 40.07 mg	Mean baclofen dose: 32.08mg
Day 3: 37.68 mg	Mean baclofen duration: 20.32 d

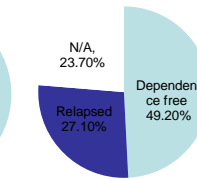
Treatment completion



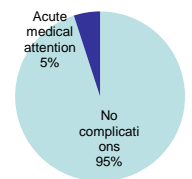
1 month f/u



3 months f/u



Complications



Discussion

Our population is drawn mostly from the Male gay community, in accordance with previous literature. The vast majority consumed GBL (GHB use is now rare in the UK) and rarely used it as sole drug: taking "G" in combination with at least 1 other substance appeared to be common practice, in particular with methamphetamine and mephedrone.

All cases of severe withdrawal (complications) were detected on day 1 (D1) and had complete resolution, albeit 1 patient needed a period in ITU with a lung infection. Careful titration of diazepam on D1, which requested patients to remain in the hospital surroundings for 4-6 hours, undergo repeated CIWA test and be observed for at least 2 diazepam administrations, appeared to be critical to ensure safety: it allowed for early recognition and prompt referral to acute medical services once severe symptoms were detected. It was facilitated by seamless access to acute medical treatment. The possibility to plan the withdrawal of "G" and start treatment early may explain the relative low rate of acute medical admissions.

Reviews on D2, 3 and 5 played an important role in optimizing the detoxification process, as a significant share of the population required dose adjustments after D1: this supports the need for intensive monitoring during the first week of treatment as it is likely to bear an influence on treatment adherence. Success rate compares with literature for alcohol dependence

Conclusions

The challenges for treating GHB/GBL dependence include complexity of the population, lack of guidelines, complexity of treatment and severity of risks associated to withdrawals. Our data show that community detoxification is possible, safe and effective when delivered by a specialist team with availability for intensive monitoring and seamless access to acute medical treatment.

