

CLINICAL PATHWAY FOR GHB/GBL OVERDOSE REFERRALS

COURTYARD CLINIC

VERSION 2 - JUNE 2017

GHB/GBL OVERDOSE - BACKGROUND

Background

In the UK, gamma-hydroxybutyrate (GHB) and gamma-butyrolactone (GBL) are drugs commonly used by gay, bisexual and other men who have sex with men (GBMSM) in the context of chemsex, usually in combination with crystal methamphetamine or mephedrone (1). In recent years, specialist drug services have reported an increase in the number of GBMSM seeking specialist help with problematic GHB/GBL use (2). In addition to harms related to a drug use problem, chemsex participants are at higher risk of sexually transmitted infections (STIs), including HIV and Hepatitis C (3). Chemsex is also associated with increased risk of behaviours associated with HIV transmission (3) and post-exposure prophylaxis with antiretrovirals (PEPSE) may be indicated in recent participants.

There are also increasing reports of presentations with acute toxicity or overdose with GHB/GBL in Emergency Departments (4, 5). The approach to managing such patients to date has been supportive, focussing on stabilisation and recovery from the overdose, referring on to drug services and arranging psychiatric assessments for those attempting suicide (4, 5).

There is an opportunity to offer targeted HIV and STI prevention interventions and testing to this vulnerable population for individual and public health benefit.

GHB/GBL Effects

GBL/GHB is a clear liquid that usually diluted in a drink in 1-2ml aliquots. It is predominantly a sedative drug and ingestion results in euphoria, disinhibition, sexual arousal and drowsiness. Abrupt discontinuation after chronic use may result in a physical withdrawal syndrome similar to that seen with alcohol and specialist detoxification advice is recommended.

GHB/GBL Overdose

Recent data suggest an increase in GBL/GHB related deaths in London (5). GBL/GHB has a narrow therapeutic index and a short half-life of 20-30 minutes. Accidental overdose (either due to a cumulative effect of dosing too frequently) or combination with alcohol can cause potentially life-threatening CNS and respiratory depression. It is undetectable in urine after approximately 12 hours (6). Patients with GHB or GBL toxicity typically present with altered mental status, making it challenging obtain reliable medical history at the time of presentation (5, 7). Yet, these GBMSM presenting with GBL/GHB overdose or toxicity may have been participating in chemsex and as such may have hidden sexual health needs unapparent at the time of presentation.

St George's Emergency Department Audit

An audit carried out by Drs Melissa Hempling and Sarah Morton in the emergency department identified patients who had been admitted with GHB/GBL overdose over a 3 month period 1/7/16 – 30/9/16. Eight male patients were identified, of whom only one patient had been documented to have been assessed for PEPSE and none were referred on for a fuller sexual health assessment.

GHB/GBL Sexual Health Protocol and Referral Pathway

Following the audit findings, a management protocol and referral pathway was developed for managing GBL/GHB overdose. A patient information leaflet was developed which in addition to information about GBL/GHB, highlights the additional sexual health needs of those using the drug in the context of chemsex.

The new protocol included an offer of PEPSE and HIV testing prior to discharge and onward referral to the local sexual health service for all patients presenting with a suspected GBL/GHB overdose. Those already HIV positive will still be offered onward referral as they may require Hepatitis C testing and STI screening.

The new pathway was launched in January 2017 (Appendix). It is anticipated that this pathway will be expanded to include other relevant departments such as Acute Medical Admissions, ITU, Drug and Alcohol Services.

Pathway Pilot and Re-audit

Seven patients were referred to sexual health between 1/1/17 and 30/4/17. Six were GBMSM and sexual health assessments identified that 4/7 were previously diagnosed HIV positive, of whom 3 had disengaged from care. One GBMSM was eligible for PEPSE, however baseline HIV testing was positive. This patient had had a confirmed negative HIV test two months previously and avidity testing was consistent with HIV seroconversion. He received immediate access to HIV treatment and care. Those disengaged from care were encouraged to re-engage and their HIV treatment centres were contacted with their consent. Only 1 out of the 7 patients received an STI screen at baseline.

CLINICAL PROTOCOL – ACUTE ADMISSION

During Acute Admission (Admitting Team*)

- Patient assessed for PEP and PEP initiated if appropriate
- Baseline HIV test recommended and offered to patient
- Patient offered G OD leaflet and signposted to local GUM/drug services
- GUM HA team informed of admission as per referral pathway

*Where appropriate, GUM team are happy to attend ward to facilitate any of the above

Referral Received (HA Team)

- Once referral received, register patient on Millcare using iClip details if not already known to GUM.
- Assess patient face to face on ward and offer registration form, GUM follow-up appointment and signpost to chemsex support clinic (Monday pm) /relevant services.
- Ensure that admitting team have assessed for PEP and carried out HIV testing. Offer POCT and other support if required.
- Document visit on Millcare and diary for follow-up. Document if patient declines GUM involvement. Code 'CHEM' on Millcare
- E-mail patient details to renee.aroney@stgeorges.nhs.uk CC mark.pakianathan@nhs.net & ahegazi@nhs.net

CLINICAL PROTOCOL – GUM FOLLOW-UP

Baseline GUM Appointment

(As soon as possible (within 1 month) following discharge)

- **Complete GBMSM profoma to include sexual history, wellbeing proforma, chemsex details & consequences. Code 'Chem' on Millcare.**
- **Baseline BBV screen (including Hep C) & STI screen**
- **Offer PEP/ Hep A/B vax as appropriate**
- **Discuss PrEP if appropriate**
- **Give safer injecting/ harm reduction & Chemsex leaflet**
- **Signpost to chemsex support clinic (Monday pm)**
- **Diary for 6 week recall for repeat BBV testing**

Follow-up GUM Appointment

(6 weeks-3 months following acute admission)

- **Repeat BBV screen including Hepatitis C and STI screen if appropriate.**

KEY CLINICIANS INVOLVED

GUM/Sexual Health

Dr Mark Pakianathan	Consultant	mark.pakianathan@stgeorges.nhs.uk
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Aoife McNamara	(GUM Nurse Lead)	Aoife.McNamara@stgeorges.nhs.uk

Emergency Department

Dr Melissa Hempling	Consultant	Melissa.Hempling@stgeorges.nhs.uk
Dr Sarah Morton	ED Trainee	Sarah.Morton@doctors.org.uk

Acute Medical Unit/CIU

Dr Catherine Cosgrove	Consultant	Catherine.Cosgrove@nhs.net
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1. Bourne A, Reid D, Hickson F, Rueda ST, Weatherburn P. The Chemsex Study: drug use in sexual settings among gay and bisexual men in Lambeth, Southwark & Lewisham. 2014.
2. Moncrieff M. Out of your mind: Improving provision of drug and alcohol treatment for lesbian, gay, bisexual and trans people. London Friend, 2014.
3. Hegazi A, Lee M, Whittaker W, Green S, Simms R, Cutts R, et al. Chemsex and the city: sexualised substance use in gay bisexual and other men who have sex with men attending sexual health clinics. International Journal of STD & AIDS. 2016:0956462416651229.
4. Liakoni E, Walther F, Nickel CH, Liechti ME. Presentations to an urban emergency department in Switzerland due to acute γ -hydroxybutyrate toxicity. Scandinavian journal of trauma, resuscitation and emergency medicine. 2016;24(1):107.
5. Wood D, Warren-Gash C, Ashraf T, Greene S, Shather Z, Trivedy C, et al. Medical and legal confusion surrounding gamma-hydroxybutyrate (GHB) and its precursors gamma-butyrolactone (GBL) and 1, 4-butanediol (1, 4BD). Qjm. 2008;101(1):23-9.
6. Abdulrahim D and Bowden-Jones O, on behalf of the NEPTUNE Expert Group. Guidance on the Clinical Management of Acute and Chronic Harms of Club Drugs and Novel Psychoactive Substances. NEPTUNE Expert Group, 2015.
7. Schep LJ, Knudsen K, Slaughter RJ, Vale JA, Mégarbane B. The clinical toxicology of gamma-hydroxybutyrate, gamma-butyrolactone and 1, 4-butanediol. Clinical Toxicology. 2012;50(6):458-70.

APPENDIX

Emergency Department GHB / GBL Protocol

Background

GHB (gamma-hydroxybutyrate) and its precursor **GBL** (gamma-butyrolactone) are sedative drugs of abuse. Both are usually taken in the form of a clear colourless liquid.

GHB acts primarily as a CNS depressant but at low doses can also produce euphoric effects and effects that appear to be like those of stimulants.

Acute GHB/GBL toxicity and acute withdrawal can be life threatening.

Due to its pro-sexual effects and muscle relaxant properties, GHB/GBL is often used by gay, bisexual and other MSM (men who have sex with men) and is commonly implicated in chemsex.

Chemsex is the use of drugs to enhance sexual intensity. It often involves unprotected sex with multiple partners over a prolonged period. It is therefore associated with high-risk sexual behaviour and thus with an increased risk of HIV, Hepatitis C and other sexually transmitted infections.

Drugs commonly used in chemsex are GHB / GBL, mephedrone, crystal meth, cocaine and ketamine. A patient presenting with a GBL overdose may be experiencing an escalating chemsex or drug problem.

GHB / GBL Overdose

Clinical effects are dose dependent and overdose is common. Alcohol and co-ingestion of other drugs e.g benzodiazepines or other recreational drugs can increase toxicity.

Effects occur within 15-60 minutes after oral ingestion.

CNS depression usually persists for 1 to 3 hours. Patients typically make a full recovery within 4–8 hours.

Features of acute toxicity include CNS and respiratory depression, convulsions, bradycardia, hypotension, acidosis, rhabdomyolysis. Coma is common.

Mild –moderate effects include hypersalivation, vomiting, diarrhoea, headache, ataxia.

Management of GHB / GBL overdose- For full guidelines see toxbase: (use link below)

- ABC & supportive management.
- Note: Although often low GCS, intubation may not be required. Seek senior advice.
- If airway protected, consider use of charcoal if ingestion <1hour ago.
- Treat convulsions, bradycardia and hypotension.
- Consider use of naloxone if possibility of co-ingestion of other drugs.

Patients with GHB / GBL overdose may have engaged in high risk sexual behaviour:

- Refer ALL patients with suspected GHB /GBL overdose to the Courtyard Clinic (see referral form) for chemsex and sexual risk assessment.
- Give G overdose leaflet.
- Offer PEP if sexual risk identified in ED.

Use the Emergency Department PEPSE protocol on the ED intranet. (use link below)

- If the patient is being admitted, please fax the form to the courtyard clinic and inform the admitting team. The referral will then be followed up the next morning.

Toxbase:

<http://stginet/Units%20and%20Departments/Emergency%20Department/Medicine%20Guidelines/Toxbase%20Accessase%20.pdf>

Post Exposure Prophylaxis After Sexual Exposure (PEPSE):

<http://stginet/Units%20and%20Departments/Emergency%20Department/Medicine%20Guidelines/PEPSE%20protocolCIU%20.pdf>

Neptune Novel psychoactive substances guidance:

<http://neptune-clinical-guidance.co.uk/wp-content/uploads/2015/03/NEPTUNE-Guidance-March-2015.pdf>

Contact the Courtyard clinic in hours or CIU registrar out of hours for further advice.

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Sexual Health Clinic Referral Form for GHB/GBL Overdose

Referral Guidelines

1. Please refer **ALL male patients** with a suspected GHB/GBL overdose. During clinic times inform a sexual health advisor **Ext 3342** or **Bleep 7373**. Please use this form to refer patients out of hours.
2. **Please ensure that all patients are assessed for post exposure prophylaxis (PEP) prior to discharge.** Do not delay starting PEPSE if indicated and refer to Courtyard Clinic for routine PEPSE follow-up.
3. Those suspected of GHB/GBL overdose may have participated in 'chemsex' prior to admission and may have experienced non-volitional sex. In addition to PEPSE, they may be at risk of other STIs including Hepatitis C. The Courtyard Clinic will arrange appropriate follow up for STI testing, advice and support.
4. Patients referred will be contacted by a health advisor post discharge and ongoing follow-up will be arranged if appropriate. Please provide patients with a copy of the relevant patient information leaflet prior to discharge home.

Patient Information (Please Type or Print Clearly)

Patient Name	
Hospital Number	
Date of Birth	
Date of Referral	
Name of Referrer	

Current Location – Please Circle

Emergency Department

Discharged Home

CDU

ITU/HDU

Other/Medical Ward

Completed Form

Please fax completed form to Health Advisors 0208 7252736 or Telephone Ext 3342 or Bleep 7373
Alternatively e-mail referral to stgh-tr.ha@nhs.net