Trust Guidelines for the Management of Acute Alcohol Withdrawal (excluding pregnancy)

Document Control:

For Use In:	Norfolk and Norwich University Hospital Foundation Trust		
	Trust wide and medical division		
Search Keywords	Alcohol, withdrawal, detoxification,		
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Approved By:	Clinical Guidelines Assessment Panel (CGAP)		
Ratified By:	The Clinical Safety and Effectiveness Sub-Board (CSESB)		
Approval Date:	01/03/2023	**Date to be reviewed by:** This document remains current after this date but will be under review	01/03/2026
Implementation Date:	N/a		
Reference Number:	1229		

Version History:

Version	Date	Author	Reason/Change
V1.0	December 2011		To originate document
V2.0	March 2014		Document review
V3.0	March 2016		Document review
V4.0	March 2017		Document review
V5.0	March 2019		Document review
V6.0	September 2021		Document review
V7.0	31/01/2023		Document review
V8	February 2023	Business Administration and Governance Facilitator (Complex Health)	Formatting changes (removed blank pages) transferred to new trust docs template
V9	May 2024	Business Administration and Governance Facilitator (Complex Health)	Updated policy reflecting national shortage of Pabrinex and new guidelines for vitamin Prophylaxis

Previous Titles for this Document:

Previous Title/Amalgamated Titles	Date Revised
None	Not applicable

Distribution Control

Printed copies of this document should be considered out of date. The most up to date version is available from the Trust Intranet.

Consultation

The following were consulted during the development of this document:
Dr. Ben Walden Consultant Psychiatrist, CGL
Dr. Arun Shankar, Consultant Hepatologist
Dr. Martin Phillips, Consultant Hepatologist

The authors listed above have agreed the final content of the drafted guideline. During its development it has been circulated for comment to the NNUH Medicines Management Committee, Consultant Gastroenterologists at NNUH, Substance Misuse Team, Consultant Psychiatrist, Colin Green, Pharmacy and EPMA Team. Feedback has been incorporated into the submission.

Monitoring and Review of Procedural Document

The document owner is responsible for monitoring and reviewing the effectiveness of this Procedural Document. This review is continuous however as a minimum will be achieved at the point this procedural document requires a review e.g. changes in legislation, findings from incidents or document expiry.

Relationship of this document to other procedural documents
This document is a clinical guideline applicable to NNUHFT; please refer to local Trust's procedural documents for further guidance, as noted in Section 5.

Acknowledgements
Thank you to Cambridge University Hospitals NHS Foundation Trust for their contributions to these guidelines.

Trust Guidelines for the Management of Acute Alcohol Withdrawal (excluding pregnancy)

Contents Page

Quick reference

Vitamin Prophylaxis and treatment of Wenicke-Korsakoff Encephalopathy

The guidance applies to all alcohol use disorders; hazardous, harmful and dependent. The changes have been made in response to a national shortage of Pabrinex. The Guidance has been taken from Greater Glasgow and Clyde NHS and was updated by them in May 2023.

If **Yes** - Presumptive diagnosis of Wernicke's encephalopathy (if symptoms otherwise unexplained). See **Box A** below for management.
If **No** - Assess risk of Wernicke's encephalopathy. See **Box B** below for management.

If oral thiamine is indicated but a patient is unable to take medicine by mouth then consult with ward clinical pharmacist. Nasogastric administration may be possible.

If oral thiamine is indicated but a patient is unable to take medicine by mouth then consult with ward clinical pharmacist. Nasogastric administration may be possible.

Day	Schedule 1 (mg)				Schedule 2 (mg)				Schedule 3 (mg)			
1+2	20	20	20	20	30	30	30	30	40	40	40	40
3	20	10	10	20	30	20	20	30	40	30	30	40
4	20	10	10	20	20	20	20	20	30	30	30	30
5	10	10	10	10	20	10	10	20	30	20	20	30
6	10	10	10	10	10	10	10	10	20	20	20	20
7	10			10	10			10	20	10	10	20
8				10				10	10	10	10	10
9									10			10
10												10

1. Introduction

1.1. Rationale

This guideline has been developed to improve appropriate care and treatment of this specific patient group and is based on a review of current literature.

This guideline has been produced in compliance with NICE Alcohol-use disorders: diagnosis and management of physical complications (2017) CG100 and NICE Alcohol-use disorders: diagnosis, assessment and management of harmful drinking and alcohol dependence (2011) CG115.

1.2. Objective

The objective of the guideline is to:

- assist in the assessment and treatment of patients with alcohol dependency and describe how to manage alcohol related detoxification and its potential complications in the hospital environment.
- minimise the risk of patients experiencing complications of acute alcohol withdrawal.
- To minimise morbidity, mortality, and patient distress through:

  - Identification of alcohol-use disorders in hospital attendees.

  - Identification of Sub-Groups with, or at risk of, potentially life-threatening complications.

  - Prompt initiation of effective medical management for alcohol related conditions.

1.3. Scope

This guideline is for use by all medical staff, designed for all alcohol dependent patients excluding pregnancy.

1.4. Glossary

The following terms and abbreviations have been used within this document:

Term	Definition
NNUHFT	Norfolk and Norwich University Hospital Foundation Trust
NICE	National institute for Health and Care excellence
SADQ	Severity of Alcohol Dependence Questionnaire
DTs	Delerium Tremens
LFT	Liver Function tests
CIWA-AR	Clinical Institute of Withdrawal Assessment Scale

PRN	As needed
QDS	Four times a day
WE	Wernicke's Encephalopathy
GI	Gastrointestinal
HDU	High Dependency Unit
EPMA	Electronic prescribing and medicines
IV	Intra venous
BNF	British National Formulary
BAP	The British Association of Psychopharmacology
NSAIDS	Non-steroidal anti-inflammatory drugs
ECG	Echo cardiogram
BP	Blood pressure
TDS	Three times daily
PO	Orally
IM	Intramuscular
TTO	To take out

2. Responsibilities

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Dr Arun Shankar- Consultant Hepatology - Special clinical interest: Alcoholic Liver Disease, Non-Alcoholic Fatty Liver Disease (NAFLD) and Liver Transplantation. Consulted when writing the guidelines.
Dr Martin Phillips- Consultant Hepatology- Special clinical interests: Alcoholic liver disease, management of the complications of cirrhosis. Consulted when writing the guidelines.
Dr Ben Walden- Consultant Psychiatrist in Addiction for Change Grow Live- Consulted when writing the guidelines.

3. Policy Principles/ Service to be delivered/Processes to be followed

3.1. Recognition and Assessment

Alcohol withdrawal can be associated with significant morbidity and even mortality if improperly managed. A major concern is to prevent development of delirium tremens (DTs), seizures or Wernicke's encephalopathy

Alcohol withdrawal may be the presenting feature or may occur as an unexplained development in a patient who has been admitted for other reasons. The symptoms may start within a few hours of cessation or significant reduction of alcohol use, peak between 24-48 hours and begin to subside by 60-72 hours (Morgan M & Ritson B (1998)).

Detoxification prescribing / pharmacotherapy is likely to be required for:

- Patients drinking in a continuous pattern and showing symptoms and signs of a dependence on alcohol

Patients regularly drinking over 15 units of alcohol per day and / or who score 15 or more on the Alcohol Use Disorders Identification Test (AUDIT) or the Severity of Alcohol Dependence Questionnaire (SADQ)

3.2. Symptoms of Alcohol withdrawal (adapted from Hershon (Hershon, H. I. (1977))

- Craving.
- Mood changes - depression, anxiety, irritability, agitation.
- Restlessness, insomnia.
- Sweating.
- Tremor (range from fingers to whole body).
- Nausea +/- vomiting.
- Confusion (fluctuating intensity).
- Hallucinations (tactile, auditory, visual; may be fleeting).

3.3. Generalized seizures

Generalized seizures occur in 1-15%; usually between 12-36 hours from the last drink but can occur during DT2. A history of seizures increases the risk of further seizures during any subsequent episode of alcohol withdrawal.

3.4. Delirium tremens (DTs)

Delirium tremens occurs uncommonly (< 5% of patients) but is associated with a risk of mortality up to 15-20%. This can be reduced to 0-1% with appropriate treatment. Onset is usually between 48-72 hours but can occur any time between 1-5 days. It is characterised by:

- Fluctuating levels of confusion and disorientation.
- Severe tremor and autonomic disturbance.
- Visual and auditory hallucinations.
- Delusional beliefs.

3.5. Wernicke's Encephalopathy (WE)

Wernicke's Encephalopathy is an acute neuropsychiatric disorder resulting from thiamine deficiency. WE is initially reversible with parenteral Vitamin B. It carries an estimated mortality rate of 17% and approximately 80% of survivors develop Korsakoff's syndrome (Sechi G and Serra A (2007)).

The classical triad of signs (acute confusion, ataxia and ophthalmoplegia) occurs in only 16%(Sechi G and Serra A (2007)) of patients. Given the associated morbidity and mortality and the rapid responsiveness to treatment early in the disorder a high level of clinical suspicion and low threshold for treatment should be maintained.

3.6. Medical Assessment

Take a history and examine the patient to establish:

- The presence and severity of alcohol dependence.
- History of complications of alcohol use e.g.
    - Liver disease.
    - GI bleed.

- Seizures.
- Delirium Tremens.
- Peripheral neuropathy.
- Malnutrition.

- Presence of cognitive impairment or psychiatric co-morbidity.
- Misuse of and/or dependence on other substances, including benzodiazepines, opioids, and stimulants.
- Concurrent physical illness.
- Clinically assess signs of alcohol withdrawal where present (It may be helpful to use the Clinical Institute Withdrawal Assessment of Alcohol Scale (CIWA-Ar) as an adjunct (Sullivan JT, Sykora K, Schneiderman J et al (1989)) – see appendix 1).
- Check LFT (with Albumin and GGT), Clotting, U+E, Mg^{2+} and FBC, MCV & Blood Glucose.

3.7. Factors predicting severe withdrawal:

The following list is based on expert opinion and comprises validated and best practice indications for managing alcohol detox in the inpatient setting 6,7

- Recent history of severe or complicated withdrawals.
- Severe withdrawal symptoms when presenting for treatment.
- Recent high levels of alcohol intake.
- Poor physical health.
- Concurrent use of other psychoactive drugs (e.g., opioids, benzodiazepines).
- Very high levels of anxiety and/or other psychiatric conditions.

Completion of the SAD-Q (Stockwell T, Hodgson R, Edwards G et al (1979)) (appendix 2) can assist in predicting the severity of dependence:

SAD-Q Score	Predicted severity of dependence
Mild	< 16
Moderate	16-30
Severe	>30

4. Treatment

Benzodiazepines are currently considered the most effective drugs for management of alcohol withdrawal (Raistrick D, Heather N and Godfrey C. (2006)). Evidence suggests that long-acting benzodiazepines (such as chlordiazepoxide) may be more effective than short-acting ones in preventing seizure and delirium and allow a smoother withdrawal with less rebound (Mayo-Smith MF (1997)). They are also less prone to potential misuse (Griffiths RR, Wolf B. (1990)). However, there is risk of accumulation in the elderly and those with significant liver failure in whom short acting benzodiazepines may be used (Kosten T, O'Connor P (2003)); (Mayo-Smith MF (1997)).
Chlordiazepoxide is the currently preferred benzodiazepine as it has a more gradual onset of psychotropic effects, is perhaps less toxic in overdose, and has less potential for misuse (compared with diazepam (Griffiths RR, Wolf B. (1990)).

Oxazepam has a shorter half-life and is therefore less prone to accumulation and toxicity. *This should be considered as an alternative to chlordiazepoxide in the elderly or when there is significant liver damage.* Close observation is required to avoid alcohol withdrawal symptoms (Taylor D, Barnes, T, Young, A. (2018)). However, its shorter half-life can lead to rebound symptoms and potentially higher cumulative doses. Therefore, chlordiazepoxide remains our preferred benzodiazepine in the vast majority of cases.

Initial treatment / Deciding when to give first dose:

It is better to give medication before significant withdrawal symptoms begin to emerge. Delay in initiating treatment can result in withdrawal symptoms either becoming difficult to control or the emergence of complications such as DTs or seizures.

However, it should be noted that the use of benzodiazepine sedation while the patient is still intoxicated with alcohol can lead to respiratory depression with its complications and death itself.

Therefore, personal clinical judgement needs to be used alongside the guidelines below:

- Ideally 6-8 hours after last drink.
- NB patients may have consumed significant amounts of alcohol just prior to entering hospital.
- Metabolism generally reduces serum ethanol by 20mg/100mL/hour, although this may vary and in habituated drinkers reaches up to approximately 30mg/100mL/hour.
- The more severe the alcohol dependence, the earlier withdrawal symptoms emerge after last alcohol intake.
- Some people who are severely alcohol dependent can experience significant withdrawal with a blood alcohol concentration of 100mg per 100mL or more. Medication may be required but use caution with dosages and consult with senior doctors.

For patients with signs of acute alcohol withdrawal (restlessness, tremor, sweating, anxiety, and nausea):

- On admission, an initial stat dose of 30mg of chlordiazepoxide is appropriate.
- The patient should then be assessed within one hour.
- The scheduled regimen should be commenced at the next drug round or sooner if symptoms dictate.

NB - Treatment should not be delayed whilst awaiting results.

Subsequent to this initial treatment there are two regimens which are used in the Trust:

a. Symptom triggered regimen*

*Only for use on AMU, HDU, Kimberley, A&E, EAUS and Guist Ward. These wards have appropriate nursing expertise to manage patients according to a symptom triggered regimen

b. Fixed dose regimen**

**All other areas must use a fixed dose regimen

5. Symptom Triggered Regimen only available on, Acute Medical Unit (AMU), High Dependency Unit (HDU), Kimberley, A&E, EAUS and Guist Ward

Symptom triggered detoxing is an alternative to the fixed dosing benzodiazepine regimen usually used for alcohol detoxification. Nursing staff will be required to frequently observe patients for symptoms of alcohol withdrawal using a validated clinical tool and medicate accordingly. If the patient is identified as appropriate for symptom triggered detox, this needs to be documented as part of their plan in the patients notes. Chlordiazepoxide 30mg (20 mg in those over 65 years of age) should be written up as prn on EPMA with the indication “as per CIWA chart. Max 200mg/day”. If the patient is likely to be unable to take oral medication, consider prescribing lorazepam 2 mg (1mg in those over 65 years) sublingually instead. Nurses will provide the patient medication at the appropriate time.

The modified CIWA-Ar symptom triggered prescribing record (appendix 1) can be used on High Dependency Unit (HDU), Kimberley, A&E, EAUS and Guist Ward. Symptom triggered treatment tailors the treatment to the patient using a validated screening tool. Research shows that this can reduce the total amount of medication and the time for detoxification.

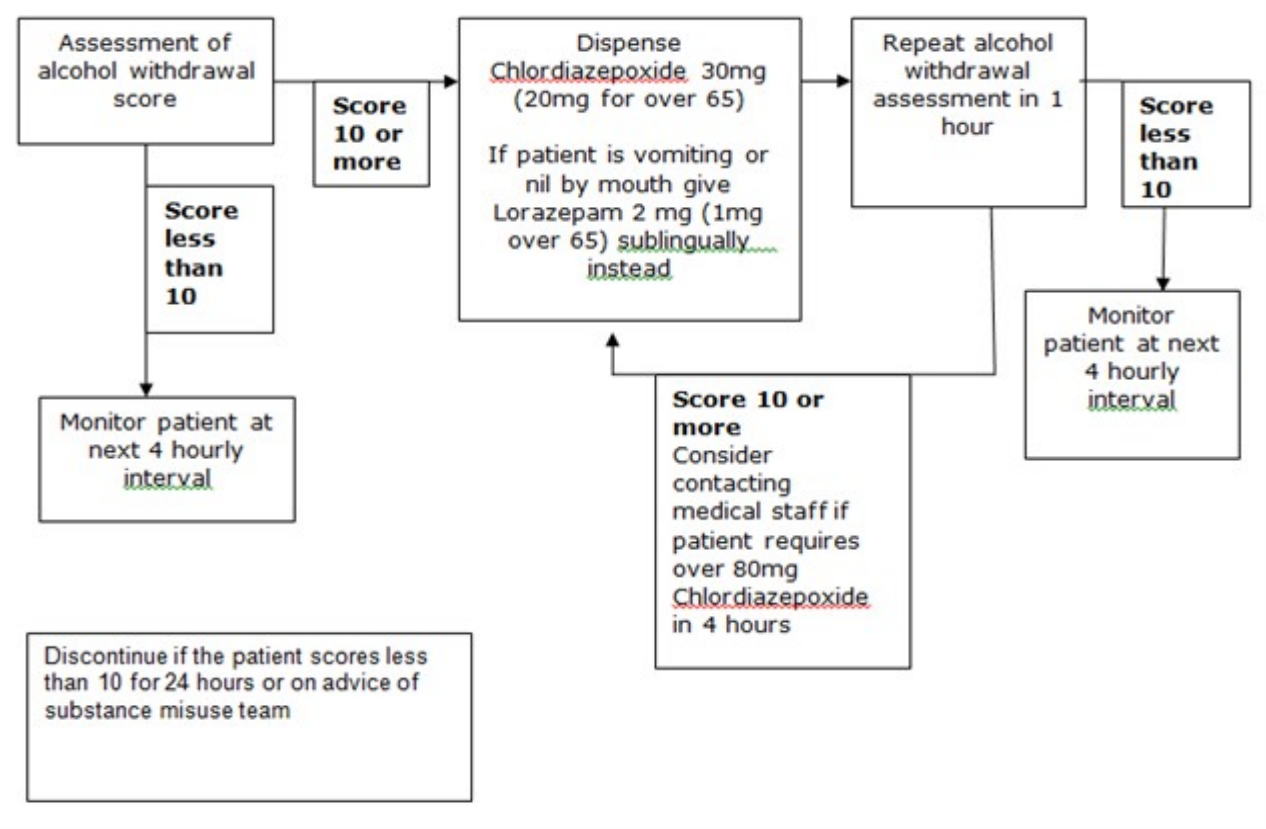
To be eligible for inclusion in this type of treatment patients should have recent significant use of alcohol and be either withdrawing or expected to physically withdraw from alcohol. The patient also needs the ability to communicate verbally to complete the assessment, DO NOT use if the presenting complaint is alcohol withdrawal seizure, use fixed dosing with PRN Chlordiazepoxide

Following medical staff prescribing and recording in the patients plan of care that the patient is for CIWA-Ar symptom triggered detox, the nursing staff will monitor the patient at least one to four hourly, depending on the patients CIWA-Ar score. The score will indicate if the patient requires a dose of medication or not. The protocol and instructions for using the tool are included in the algorithm below.

The nursing staff will discontinue the treatment and monitoring if the patient has been 24 hours without needing chlordiazepoxide.

6. Dosage regimen for symptom triggered treatment

The dosage for symptom triggered should be chlordiazepoxide 30mg or 20mg for those who are above 65 years of age or have severe liver impairment.



7. Chlordiazepoxide Fixed dosage schedule (available on all other wards)

Alcohol withdrawal symptoms can vary widely, and the amount of benzodiazepine required for symptom amelioration can also vary. There is no fixed, standardised regimen for all patients so regular assessment is mandatory (Burroughs AK, Morgan MY, Sherlock S. (1985)).

The number of units a patient drinks DAILY is important as this can help you to decide which fixed dose schedule detox to prescribe.

Schedule 1: 10 - 23 units daily
Schedule 2: 24 – 33 units daily
Schedule 3: above 34 units daily

First 24 hours

- The dose should be estimated by initial assessment of predicted withdrawal intensity based on current level of use and previous experience of withdrawal; and will usually be in the range of 20-40 mg QDS.
- PRN chlordiazepoxide (20mg - 2 hourly) should be available.
- The administration record on EPMA should be clearly marked for omission of doses if the patient becomes sedated.

7.1. Cumulative dose in the first 24 hours

The cumulative chlordiazepoxide dose administered during the first 24 hours is the *baseline dose*, and this is used to calculate the subsequent reduction regimen.

Generally, a cumulative (regular + PRN) dose of up to 200 mg will cover almost all circumstances. If symptoms do not appear adequately controlled at this level higher doses may be used but advice of a consultant, Associate Specialist or specialist registrar should be sought.

Subsequent reduction regimen (from day 2 onwards)

Most inpatient alcohol detox should be completed in 7-10 days. Occasionally, however, detox regimens of longer duration may be required especially for those patients with very severe dependency or past history of DTs. The reduction schedule may have to be modified depending on the patient's clinical presentation and severity of withdrawal. The night-time dose should be proportionately higher to provide good night sedation.

Example schedules of fixed dose reducing regimes with chlordiazepoxide

Schedule 1 (mg)
Schedule 2 (mg)
Schedule 3 (mg)
Day
08.00
12.00
18.00
24.00
08.00
12.00
18.00
24.00
08.00
12.00
18.00
24.00
1+2
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7.2. Oxazepam

In exceptional circumstances, the same dose regimens can be used with oxazepam as 15mg chlordiazepoxide is roughly equivalent to 15mg of oxazepam. However due to the shorter half-life close observation is required to identify breakthrough withdrawal symptoms. If this occurs more frequent doses may be required with accumulated daily dose equivalence in a range of 15mg chlordiazepoxide to 15-40mg oxazepam.

The above schedules serve as a guide only; individual variation in withdrawal severity and medication requirement should be expected.

7.3 Vitamin Supplementation (see Management Algorithm for the Alcohol Withdrawal Syndrome) and Chloroxiazepoxide fixed doseage schedule)

General Monitoring and Support

- The following set of observations should be recorded at least 8 hourly in the first 72 hours and then at least once daily:
- Pulse, blood pressure, temperature record of the severity of observed withdrawal symptoms and signs (CIWA-Ar).
- Ensure adequate nutrition.
- Ensure adequate fluid intake to maintain hydration and electrolyte balance. Seek further assessment (U&Es and clinical assessment) if hydration appears compromised.

8. Prescribing Thiamine

May 2024- In response to a national shortage of Pabrinex- please see Quick Reference guide, page 5

- As the majority of patients undergoing alcohol detoxification in hospital will either be severely dependent and at risk of severe withdrawals or have an associated co-morbidity, it is advised that they **all** receive parenteral thiamine (in the form of Pabrinex® Intravenous High Potency (Vitamin B & C Injection)) as a protection against or treatment for Wernicke's encephalopathy**.**
- This ideally should be given by intravenous infusion if venous access is not possible.
- Facilities for treating anaphylaxis should be available when administered.
- IV thiamine (Pabrinex®) should always be given before IV glucose administration.
- Oral thiamine 100mg tds should be prescribed and administered **at the same time** as IV therapy and should be continued for 3-6 months after abstinence is achieved or indefinitely if heavy drinking continues.
- Prescribing guidelines (BNF, NI formulary, NICE, The British Association of Psychopharmacology (BAP) vary slightly in their recommendations on dosages required and length of treatment.
- Taking the above-mentioned guidelines into consideration and bearing in mind other factors such as the difficulty in diagnosing Wernicke's Encephalopathy accurately and the advantage of only having one regimen; the authors of these guideline's felt that a pragmatic and safer approach was to not try and separate out patients at risk and those with suspected / confirmed WE but to have a set regimen for all those undergoing an alcohol detoxification in hospital (see below).

IV Thiamine (Pabrinex®) dose for all patients admitted with alcohol withdrawal symptoms			
Dose	Frequency	Route	Duration
2 x pairs (amps 1 and 2)	Three times daily	IV infusion over 30mins in 100mLs of sodium chloride 0.9%	3 -5 days or until settled clinically / ready for discharge

- Oral thiamine 100mg three times daily for 3-6 months after abstinence is achieved or indefinitely if heavy drinking continues

9. Presenting symptoms of Wernicke's Encephalopathy 4

- Change in mental status (seen in 82%) – may present as mental sluggishness and apathy through to marked confusion and or decreased level of consciousness.
- Ocular abnormalities (seen in 29%) - nystagmus. ophthalmoplegia, sluggish papillary reflexes and papilloedema.
- Truncal Ataxia / incoordination of gait (seen in 23%).

9.1. Uncommon:

- Stupor.
- Hypotension with Tachycardia.
- Hypothermia.
- Seizures.
- Hearing loss.
- Hallucinations and behavioural disturbance.

9.2. Late stage:

- Hyperthermia.
- Increased muscle tone and spastic paresis.
- Coma.

10. Additional Medications for Symptomatic Relief of Alcohol Withdrawal

Pain	NSAIDs, e.g., ibuprofen 400mg tds (caution: do not use in advanced liver disease)
Nausea and vomiting	Simple anti-emetics e.g., prochlorperazine Prophylaxis: 5-10 mg tds Acute attack: 20 mg stat, then 10 mg after 2 hours If patient can't take orally: 12.5 mg (1 ampoule) deep IM, followed, if necessary, after 6 hours, by an oral dose.
Diarrhoea	Loperamide: 2 capsules initially, then 1 capsule after each loose stool.
Insomnia	Zopiclone (7.5-15 mg Nocte) or Nitrazepam (5-10 mg Nocte) or Only one sedative to be prescribed at a time

Be aware and treat the following complications:

10.1. Dehydration and Electrolyte depletion:

- Both are likely in those who are withdrawing from prolonged alcohol binges.

- The degree of dehydration and electrolyte deficiency may be profound and require substantial replacement (particularly potassium, magnesium, and phosphate).
- Hypomagnesaemia is particularly significant and should be treated as it decreases seizure threshold, failure to replace magnesium may make treatment of hypokalaemia refractory and hypomagnesaemia reduces thiamine absorption.
- Dehydration and volume depletion increases autonomic activity and contributes to the physiological challenge posed by alcohol withdrawal symptoms.
- Crystalloid fluids containing potassium at standard maintenance rates are necessary while the patient is sedated and not ingesting normal fluid intake.
- Fluids may need to be given at an accelerated rate initially depending on estimates of haemodynamic compromise, dehydration, and serum electrolyte levels. Caution should be exercised where there is suspicion, or evidence of decompensation of liver or cardiac function.
- Sodium chloride 0.9% should be given initially to replace electrolytes and fluid.
- Glucose 5% should be reserved until after haemodynamic stability is achieved and IV thiamine (Pabrinex®) is given.

10.2. Hypoglycaemia:

- IV thiamine (Pabrinex®) should always be given before IV glucose administration.

10.3. Seizures:

Seizures can occur 6 – 48 hours after alcohol cessation. Patients with a history of seizure are more likely if there is a history of previous withdrawal seizure or epilepsy. Adequate doses of chlordiazepoxide usually prevent withdrawal seizures however if alcohol withdrawal seizures develop in a person during treatment for acute alcohol withdrawal, review their drug regimen.

If seizing is prolonged (status epilepticus) seek senior medical advice. In people with alcohol withdrawal seizures, an option is a quick-acting benzodiazepine (such as lorazepam) to reduce the likelihood of further seizures.

Do not use phenytoin to treat alcohol withdrawal seizures. (NICE 2017)

In first presentation seizures that although may appear to be Alcohol induced, other causes ought to be excluded and further investigations such as brain imaging and urinary toxicology screens might need to be considered.

10.4. Delirium / Hallucinations associated with DT's:

Hallucinations / mild perceptual disturbances usually respond to chlordiazepoxide. Verbal and non-verbal de-escalation techniques are also useful where the patient is not distressed or considered a risk to themselves or others.

However, for troublesome hallucinations, severe agitation or patient refractory to the above benzodiazepine loading schedule, consider giving oral haloperidol (NICE 2010, amended 2017). Saturation of benzodiazepine receptors is also a plausible explanation for limited benefit from dose escalation above usual levels of oxazepam or chlordiazepoxide.

Using haloperidol:

- BP should be monitored for hypotension and ECG for QT prolongation.
- PO / IM haloperidol should be used in addition to the regularly prescribed benzodiazepine. Haloperidol should always be used with caution and only short-term due to the risk of decreasing seizure threshold but may be given early on with or after lorazepam for the severely disturbed who are at risk to themselves or others.

Please note: Antipsychotic therapy should not be used routinely (NICE, 2017) and contraindications for haloperidol include CNS depression; comatose states; congenital long QT syndrome; dementia with Lewy bodies; history of torsade de pointes; history of ventricular arrhythmia; Parkinson's disease; progressive supranuclear palsy; QTc-interval prolongation; recent acute myocardial infarction; uncompensated heart failure; uncorrected hypokalaemia; Electrolyte disturbances (correct before treatment initiation)

Side effects of haloperidol are well documented in the BNF. Specific side effects that need to be highlighted within this guideline are the extrapyramidal side effects, dystonia (including oculogyric crisis). Procyclidine on the PRN should be considered especially in younger, severely ill, or antipsychotic naïve patients.

Haloperidol has been recommended as first line treatment due to its extensive use and the predictable effects however for people where haloperidol is contraindicated quetiapine 25mg-50mg TDS can be considered as an alternative.

Delirium can have alternative causes such as infection, aspiration, or head injury- it should not be assumed that alcohol is the cause and additional investigations should always be considered.

Complications such as liver failure, pancreatitis, subarachnoid / subdural haemorrhage, and GI bleeding can also occur in these patients. Additional investigations may be required.

11. Treatment of special patient groups:

11.1. Liver Impairment:

Part of the Hepatology and Gastroenterology teams aim is to improve service delivery for liver disease in the acute hospital setting and reduce the associated mortality rates. It is therefore recommended that in all cases of known or suspected liver impairment senior advice is requested from Hepatology or Gastroenterology team. Please also refer to the Substance Misuse team.

Suspected significant liver impairment can be defined as any one of the following, although many of these features are neither sensitive nor specific for significant liver impairment and the full clinical context should be considered.

- Previously diagnosed chronic liver disease or cirrhosis.
- Clinically evident liver disease (jaundice, ascites, hepatic encephalopathy, spider naevi, palmar erythema, hepatomegaly, or other clinical stigmata of cirrhosis).
- ↑ Serum bilirubin, ↓ albumin, ↑ prothrombin time.
- Caution is needed with any fixed dose regimen so monitor very closely for signs of accumulation.
- For more severe / decompensated liver disease monitor closely and consider symptom triggered approach using lowest possible prn dosages.

11.2. Pregnancy

All patients who are pregnant and are withdrawing from alcohol or likely to withdraw from alcohol should be urgently referred to the Substance misuse team at the first opportunity before initiating treatment.

Patient's 'Nil by mouth':

- Regular or PRN IV or IM diazepam or lorazepam are alternatives to chlordiazepoxide in patients unable to take oral treatment. Absorption from the IM injection of diazepam may be variable, particularly for the gluteal muscles. This route of administration should only be used if IV administration is not possible.
- Give diazepam 10mg slow IV into a large vein over 2 minutes. Repeat after an interval of not less than 4 hours if no improvement.
- IM route should not be used in patients with bleeding / clotting disorders.
- Facilities for resuscitation / flumazenil should always be available.
- Please note diazepam Injection is contraindicated in severe liver impairment.
- Do not use IM lorazepam with IM olanzapine.

11.3. Elderly patients (>75 years old or >65 years with frailty):

- The elderly are particularly vulnerable to the effects of over-sedation and to its complications such as falls, particularly with fractures and subdural haematomata.
- The elderly have a reduced capacity to metabolise and eliminate benzodiazepines.
- NB - Particular wariness should be had during routine reviews for over-sedation, paradoxical agitation, or delirium.
- A general principle to compensate for these factors is to reduce usual sedation doses by half.
- Dosage intervals can also be increased if necessary.
- Doses must be reviewed at 24 and 48 hours in this group.
- Again, consider lorazepam as an alternative to chlordiazepoxide if there is a risk of accumulation.

11.4. Benzodiazepine dependent patients:

- Patients dependent on regular doses of other benzodiazepines, e.g., nitrazepam or regular diazepam, prior to admission should generally be continued on the same dose in addition to the chlordiazepoxide reducing dose. Such patients are often habituated to their therapy and may suffer benzodiazepine withdrawal if these were discontinued during detox.
- Bear in mind that tolerance to benzodiazepines may have an impact on the required dosages of chlordiazepoxide to control alcohol withdrawals.
- However also consider that hospital alcohol detoxification may present an opportunity to discuss with the patient the option to reduce or even come off their benzodiazepines.
- Work closely with the Substance Misuse Nurses in this group of patients.

11.5. Respiratory disease:

- For severe respiratory disease / type 2 respiratory failure again great caution is needed with fixed dose regimens
- Lowered doses of chlordiazepoxide, lorazepam or symptom triggered approaches are recommended- Work closely with the Substance Misuse Nurses in this group of patients.

12. Discharge Planning

The decision when to discharge patients receiving alcohol detoxification is one that requires careful consideration. Discharge planning should adhere to the Trust guidelines contained within NNUH Discharge policy and Procedure's document: **Trustdocs Id 7538**

There are several common scenarios which might arise.

12.1. Self-Discharge

Where a patient wishes to self-discharge their Mental Capacity, as per the Mental Capacity Act 2005 must be established.

Patients experiencing complex alcohol withdrawal such as delirium, hallucination or delusions, Wernicke's encephalopathy, MAY lack capacity and MAY require intervention to maintain their safety and wellbeing.

Alternatively, patients experiencing uncomplicated withdrawal symptoms such as tremors, sweats, pyrexia, tachycardia MAY retain their capacity.

Where patients are deemed to have capacity and wish to self-discharge NNUH Patient self-discharges policy must be adhered to: **Trustdocs Id 8166**

No Take home medication for detoxification is to be issued.

12.2. Non-Compliance with Detox

Despite our best efforts some patients will continue to drink alcohol whilst receiving alcohol detox. This represents a significant risk due to the mixing of benzodiazepines and alcohol.

If medically fit and patient safe to do so:

- Assess patient capacity, document accordingly.
- Ensure no complex symptoms present – i.e., seizure, delirium.
- Inform patient that combining alcohol with detox medication is harmful and could result in death. Document accordingly.
- Discharge without Take Home Detox medications.
- Document patient given advice to seek planned treatment from local Community Alcohol Team.

- Document patient given advice that - acute withdrawal MAY occur and COULD result in seizure IF alcohol ceased abruptly, continue drinking alcohol AND reduce intake slowly.

Where the patient is Medically Unfit for discharge:

- Assess capacity, document accordingly.
- Inform patient that combining alcohol with detox medication is harmful and could result in death. Document accordingly.
- Discontinue routine dosing of detox medication.
- Continue PRN only symptomatic relief of withdrawal symptoms in response to CIWA score.
- Continue routine vitamin supplementation i.e., Pabrinex® / oral Thiamine.

12.2.1. Patient Declines Detox Opportunity

Patients are admitted to hospital who are physically dependent on alcohol and experience withdrawal symptoms whilst with us, BUT do not want to stop drinking upon discharge.

If medically fit AND safe to do so

- Assess capacity, document accordingly.
- Ensure no complex symptoms present – i.e., seizure, delirium.
- Discharge without Take Home Detox medications.
- Document patient given advice to seek planned treatment from local Community Alcohol Team.
- Document patient given advice that acute withdrawal MAY occur and COULD result in seizure IF alcohol ceased abruptly, continue drinking alcohol AND reduce intake slowly.
- Explain benefits and offer oral Thiamine

12.3. Detox Completed – Medically Fit

- Prescription for 28 days oral Thiamine 100mg TDS.
- Advice / Referral regarding local community alcohol services.
- Liaison with existing community services i.e., Drug and Alcohol, Community Mental Health Team.

12.4. Incomplete Detox – Medically Fit

For some patients the opportunity to complete detox at home is possible with careful planning and consideration.

Contact with local Drug & Alcohol Services via the Hospital Liaison should already have taken place. If possible and provided the Drug Service has completed their own assessments, then discussion around supported completion of the detox in the

community should take place. If practical the Drug Service will try to facilitate the completion of a community alcohol detox.

Where there are no local pathways in place i.e., GP's OR the patient declines input from the Drug & Alcohol team for a continuation of detox, discharge can still take place with take home detox medication providing a discussion with the Substance misuse team has taken place and the amount of To Take Out (TTO) detox medication is minimal.

The Risk Assessment should consider the following:

Suitable	Contra-indicated
Simple withdrawals – tremors, sweats	Complex withdrawal – delirium, hallucination, paranoid delusions
Asymptomatic – receiving routine medication	Symptomatic – requiring PRN in past 24hrs
Supported – nondrinking family members, spouse	Unsupported – living alone, No fixed Abode
Mental health stable, non suicidal	Mental health unstable, suicidal, admitted with overdose
Nondrug user, ex drug user, stable community drug treatment	Chaotic Drug use – heroin, methadone, benzodiazepines
Planning abstinence – choosing to be alcohol free	Controlled drinking – risk mixing alcohol and medication
Absence Neurological symptoms – completed initial Pabrinex® 2 x pairs TDS for 72hrs	Neurological Symptoms – seizures (whilst receiving Detox), Wernicke's Encephalopathy

NOTE - There is no given Day or Dose at which discharge becomes possible, each case is different and the decision to discharge should be a purely clinical one and not be driven by external factors such as demand for beds.
Where Community Mental Health or Drug services are involved liaison with the patient's named worker is advised.

13. Useful contacts / links:

Substance Misuse Liaison Nurse Mon - Fri 8 - 4pm, DECT phone 6489/1799 Ice referral can be made via services heading- Substance Misuse Nurse.
On-call Gastroenterology registrar – via NNUH switchboard
Change Grow Live: 01603 514096
Alcoholics Anonymous: 01603 621128
Al-Anon (Support for Carers): 020 7403 0888
Drinkaware Unit Calculator: https://www.drinkaware.co.uk/understand-your-drinking/unit-calculator

14. Related Documents

Clinical Institute Withdrawal Assessment for Alcohol chart
Enhanced Observation and Support policy
Oxazepam prescription for acute alcohol withdrawal in adults
Patient self discharge form
Acute Alcohol Withdrawal
NICE Alcohol-use disorders: diagnosis and management of physical complications (2017) CG100
NICE Alcohol-use disorders: diagnosis, assessment and management of harmful drinking and alcohol dependence (2011) CG115

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16. Monitoring Compliance / Audit of the process/policy principles/service to be delivered

Compliance with the process will be monitored through the following:

Key elements	Process for Monitoring	By Whom (Individual / group /committee)	Responsible Governance Committee /dept	Frequency of monitoring
All patients should have an accurate alcohol history documented in their medical notes	Audit	Substance misuse team	Mental Health and Complex Care Board	
Patients identified as heavy drinkers at risk of thiamine deficiency should be prescribed thiamine prophylaxis at a level appropriate to their level of risk.	Audit	Substance misuse team	Mental Health and Complex Care Board	
Patients identified as probably dependent should be prescribed an adequate detoxification regimen.	Audit	Substance misuse team	Mental Health and Complex Care Board	
Patients identified as probably dependent should have documented evidence of monitoring for level of withdrawal and complications of withdrawal.	Audit	Substance misuse team	Mental Health and Complex Care Board	

The audit results are to be discussed at relevant governance meetings Mental Health and Complex Care Board to review the results and recommendations for further action. Then sent to Hospital management board who will ensure that the actions and recommendations are suitable and sufficient.

17. Appendices

Appendix 1 - Clinical Institute Withdrawal Assessment (CIWA) Chart Symptom Triggered Prescribing Record – Trust Doc ID: 20054

Clinical Institute Withdrawal Assessment (CIWA) Chart Symptom Triggered Prescribing Record

Name……

DOB……

Hosp Number……

For use only on the following Wards; AMU, HDU and Guist, Kimberley, A&E, EAUS

Year:	Date (DD/MM)	/	/	/	/	/	/	/	/	/
Time (24 hour clock)										
Temperature	1) 37.0 - 37.5 2) 37.6 – 38.0 3) Greater than 38									
Pulse	1)90-95 2)96-100 3)101-105 4)106-110 5)111-120 6)Over 120									
Respiration Rate	1)20-24 2)Greater than 24									
Tremor (arms extended, fingers spread)	0)No tremor 2)Not visible – can be felt by fingertip 4)Moderate with arms extended 6)Severe even with arms not extended									
Sweating	0)No sweat visible 2)Barely perceptible, palms most 4)Beads of sweat visible 6)Drenching sweat									
Visual disturbance “Have you any problems with vision or seeing unusual things”	0)Not present 2)Mild light sensitivity 4)Intermittent visual hallucinations (occasionally sees things you cannot) 6)Constant visual hallucinations									
Disorientation “Where are we? What day is it?”	0)Orientated 2)Disorientated for date by no more than two days 4)No idea of date 6)Disorientated for place									
Quality of contact	0)Interacting well with the examiner 2)Interacting but seems oblivious to environment 4)Becomes distracted whilst interacting 6)Makes no interaction									
Agitation/anxiety	0)Not agitated or anxious 2)Mildly agitated or anxious 4)Moderately fidgety & restless 6)Pacing or thrashing about constantly									
Thought disturbance (paranoid ideas or jumbled up thoughts)	0)No disturbance 2)Slightly troubled by unpleasant thoughts 4)Constantly troubled by unpleasant thoughts 6)Thoughts come rapidly in a disconnected fashion									
Total CIWA score:										
Print Name & Signature										
A score of 10+ administer PRN (Chlordiazepoxide) dose then review again in one hour. If score less than 10 review again in 4 hours										
Designation:										

Appendix 2: SADQ

The following questions cover a wide range of topics to do with drinking. Please read each one carefully and answer without thinking too much about the exact meaning. Answer all questions in relation to your recent drinking

Question	0 Never	1 Sometimes	3 Often	4 Nearly always
Do you find it difficult getting the thought of alcohol out of your mind?				
Is getting drunk more important than your next meal?				
Do you plan your day so you know you will be able to drink?				
Do you start drinking in the morning and continue drinking right through the afternoon into the evening?				
Do you drink as much as you can without considering what you have to do the next day?				
Knowing that many of your problems may be caused by alcohol, do you still drink too much?				
Do you find that once you have had one drink you have to have another?				
Do you need an alcoholic drink to get yourself going in the morning?				
Do you notice a definite tremor in your hands in the morning?				
When you have been drinking do you go out of your way to avoid people?				
Do you see things and later realise they were not real?				
Do you find that you have gaps in your memory or are unable to remember recent events?				
Do you vomit following a drinking session?				
Do you deliberately control your drinking by giving up for days or weeks at a time?				

Scoring

- Scores between 1-9 indicates low dependence
- Scores between 10-19 indicates medium dependence and;
- A score of 20 or more indicates high dependence

Appendix 3: ***Information for nursing staff***

The symptom triggered protocol is recommended by NICE and consists of monitoring patients and providing medication only when symptoms of withdrawal develop.
Symptoms are identified with a validated assessment tool (Clinical Institute of Withdrawal Assessment Scale) see Appendix 1.

The tool should be used at least four hourly. Patients on the protocol should be assessed with the tool on arrival on the ward and then one to four hourly depending on the score. The score and next assessment time will need to be handed over.

If patients score 10 or more on the CIWA-Ar then they should be given a dose of withdrawal medication which the medical staff will have put on the prn area of the prescription chart. When they are given a dose of medication they should be reviewed and scored again in 1 hour.

The assessment tool may be used an additional time if the last score was less than 10 and the patient complains of withdrawal symptoms or if the score is borderline at 9.

Consider contacting medical staff if the patient requires over 80 mg of chlordiazepoxide in 4 hours, becomes drowsy or shows any symptoms of respiratory depression.

The protocol should be discontinued if the patient scores less than 10 for 24 hours or on the advice of the substance misuse team. Please ask the medical team to discontinue the chlordiazepoxide.

Please contact the Substance Misuse team on DECT 6489/1799 (Mon-Fri 8-4).

Appendix 4 - Frequently Asked Questions

How much is a significant amount of alcohol?

The amount of alcohol an individual needs to have withdrawal symptoms is highly variable. It would often require over 10 units (about a bottle of wine) a day to produce alcohol withdrawal symptoms. Asking about withdrawal symptoms if the patient goes any days without drinking can give a clue to dependence.

What if the patient is on regular Benzodiazepines?

If the patient is confirmed to be on a regular benzodiazepine prescription, then continue these in addition to the CIWA.

What if the patient has to move wards?

If the patient has to move to a ward not using symptoms triggered treatment, they should be written up for a reducing dose regimen. Medical staff should consider the dose required for the past 24 hours. The reducing dose regimen should usually start no higher than this and decrease by 10-30 mg Chlordiazepoxide/day.

Which staff can monitor the patient with the CIWA?

As the CIWA assessment may lead to dispensing of medication it must be carried out by qualified nursing staff.

What if the patient is not on the ward?

If the patient is off the ward nursing staff should record the CIWA score when the patient returns and record this in the nursing notes. If the patient is expected to be off the ward when the CIWA is due it may be done before they leave provided there is only a short period until the next assessment.

What should I do if there are any adverse incidents e.g., the patient develops delirium tremens or has a fit?

Following instituting medical treatment, the incident should be recorded in the notes and on the incident reporting system.

What should I do if the patient demands more medication but is not scoring enough on the CIWA?

Explain to the patient that we will monitor frequently for alcohol withdrawal symptoms and give medication according to the tool. Consider monitoring in an hour if the patient is concerned.

What should I do if I wish to discharge the patient and they are still taking a significant amount of Chlordiazepoxide?

If the patient is not expected to be abstinent following hospital, they may be discharged without Chlordiazepoxide but with advice that they will still be alcohol dependent and may need to continue drinking and seek treatment. If the patient is expected to be abstinent, they may need ongoing treatment in hospital. Please contact the Substance Misuse team to discuss: Bleep 0439 DECT 6489.

What should I do if I feel the patient needs a dose of medication but is not scoring enough?

The tool gives guidance, if your clinical judgement is the patient requires a dose you may give one. You may wish to discuss this with the nurse in charge.

18. Equality Impact Assessment (EIA)

Type of function or policy	New/Existing (remove which does not apply)

Division	Corporate	**Department**	Substance misuse team, Complex Health Hub
Name of person completing form	Marita Isaac	**Date**	22/02/2023

Equality Area	**Potential Negative Impact**	**Impact Positive Impact**	**Which groups are affected**	**Full Impact Assessment Required YES/NO**
Race	None	Appropriate treatment	N/A	No
Pregnancy & Maternity	This Guideline is not applicable in Pregnancy- separate management plan in treating dependence in pregnancy	N/A	Pregnant women	No
Disability	None	Appropriate treatment	N/A	No
Religion and beliefs	None	Appropriate treatment	N/A	No
Sex	None	Appropriate treatment	N/A	No
Gender reassignment	None	Appropriate treatment	N/A	No
Sexual Orientation	None	Appropriate treatment	N/A	No
Age	None	Appropriate treatment	N/A	No
Marriage & Civil Partnership	None	Appropriate treatment	N/A	No
EDS2 – How does this change impact the Equality and Diversity Strategic plan (contact HR or see EDS2 plan)?		No Impact		

- **A full assessment will only be required if: The impact is potentially discriminatory under the general equality duty**
- **Any groups of patients/staff/visitors or communities could be potentially disadvantaged by the policy or function/service**
- **The policy or function/service is assessed to be of high significance**

IF IN DOUBT A FULL IMPACT ASSESSMENT FORM IS REQUIRED

The review of the existing policy re-affirms the rights of all groups and clarifies the individual, managerial and organisational responsibilities in line with statutory and best practice guidance.