



For use in:	Alcohol Withdrawal Patients in Norfolk and Norwich Hospital			
	All Medical Staff			
By: For:				
	Adult Alcohol dependent patients (excluding pregnancy)			
Division responsible for document:	Trustwide and Medical Division			
Key words:	Alcohol, Withdrawal, Detoxification			
Name and job title of document	Marita Isaac and Steven Pickett - Advanced Nurse			
author's:	Practitioners in Substance Misuse			
Name and job title of document author's Line Manager:	Kim Goodby Associate Director for Complex Health			
	Dr. Ben Walden Consultant Psychiatrist, CGL			
Supported by:	Dr. Arun Shankar, Consultant Hepatologist			
	Dr. Martin Phillips, Consultant Hepatologist			
	Clinical Guidelines Assessment Panel (CGAP)			
Assessed and approved by the:	If approved by committee or Governance Lead Chair's Action;			
,	tick here ☑			
Date of approval:	06 September 2021			
Ratified by or reported as approved to	Clinical Safety and Effectiveness Executive Sub-Board			
To be reviewed before:				
This document remains current after this	06 September 2024			
date but will be under review	·			
To be reviewed by:	Marita Isaac, Advanced Nurse Practitioner in Substance Misuse			
Reference and / or Trust Docs ID No:	1229			
Version No:	6			
Compliance links: (is there any NICE related to guidance)	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			
If Yes - does the strategy/policy				
deviate from the recommendations of NICE? If so why?	No deviation			
	Ruidolinos Assossment Panel as an aid to the diagnosis and management of relevant			

This guideline has been approved by the Trust's Clinical Guidelines Assessment Panel as an aid to the diagnosis and management of relevant patients and clinical circumstances. Not every patient or situation fits neatly into a standard guideline scenario and the guideline must be interpreted and applied in practice in the light of prevailing clinical circumstances, the diagnostic and treatment options available and the professional judgement, knowledge and expertise of relevant clinicians. It is advised that the rationale for any departure from relevant guidance should be documented in the patient's case notes. The Trust's guidelines are made publicly available as part of the collective endeavour to continuously improve the quality of healthcare through sharing medical experience and knowledge. The Trust accepts no responsibility for any misunderstanding or misapplication of this document.

Version and Document Control:

Version Number	Date of Update	Change Description	Author
5	31.8.21	Phone numbers and wards that do CIWA.	M. Isaac and S. Pickett

This is a Controlled Document

Printed copies of this document may not be up to date. Please check the hospital intranet for the latest version and destroy all previous versions.

Review date: 06/09/2024

Page 1 of 25

Section		Page No
1	Flow chart - Management Algorithm for the Alcohol Withdrawal Syndrome	3
2	Objective of Guideline	4
3	Goals	4
4	Rationale for the recommendations	4
5	Recognition and Assessment	4
6	Symptoms of Alcohol Withdrawal	4
	Generalized Seizures	5
	Delirium tremens (DTs)	5
	Wernicke's Encephalopathy	5
	Medical Assessment	5
	Factors predicting severe withdrawal	6
7	Treatment	6
	Initial treatment/ Deciding when to give first dose	6
8	Symptom Triggered Regimen only available on AMU, HDU, Kimberly, A&E, EAUS and Guist Wards	7
9	Chlordiazepoxide Fixed dosage schedule (available on all other wards)	8
10	General Monitoring and Support	9
11	Prescribing Thiamine	9
12	Presenting symptoms of Wernicke's Encephalopathy	10
13	Additional Medications for Symptomatic Relief of Alcohol Withdrawal	11
14	Be aware and treat the following complications	11
	Dehydration and Electrolyte depletion	11
	Hypoglycaemia	11
	Seizures	11
	Delirium / Hallucinations associated with DT's	12
15	Treatment of special patient groups	13
	Liver Impairment	13
	Pregnancy	13
	Patient's 'Nil by mouth'	13
	Elderly patients (>75 years old or >65 with frailty)	13
	Benzodiazepine dependent patients	14
	Respiratory disease	14
16	Discharge Planning	14
	Self-Discharge	14
	Non Compliance with Detox	15
	Patient Declines Detox Opportunity	15
	Detox Completed – Medically Fit	16
	Incomplete Detox – Medically Fit	16
17	Useful Contacts/Links	17
18	Clinical Audit Standards	17
19	Summary of Development	17
20	Distribution list	17
21	Acknowledgements	17
22	References	18
Appendices		
Appendix 1	Symptom Triggered Detox & CIWA-Ar Chart	20
Appendix 2	SADQ Chart	25

Review date: 06/09/2024

Page 2 of 25

1. Management Algorithm for the Alcohol Withdrawal Syndrome

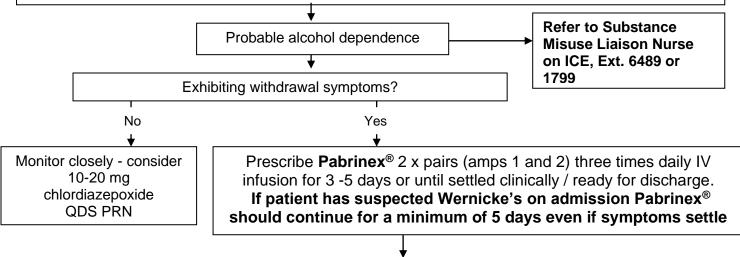
All patients admitted to hospital should be asked about their alcohol intake.

AUDIT C score 8-12 or Audit Score 20+/Suspicion of Heavy Drinking or Signs of Alcohol Withdrawal



Take an alcohol history

- Current daily intake (No. of units ~ %alcohol in 1 Litre e.g. 500mL can of 8% lager = 4 units)
- Pattern of drinking and experience of withdrawals e.g. morning shakes, sweats, vomiting
- Length of history
- Any previous complications of withdrawal DTs, fits, Wernicke's encephalopathy?
- Check Bloods:- Check LFT(with Albumin and GGT), Clotting, U+E, Mg²⁺ and FBC, MCV & Blood Glucose



Elderly, liver failure or risk of respiratory depression?

No

Substitute Oxazepam for Chlordiazepoxide at the same dose but monitor closely for breakthrough withdrawal symptoms

Yes

PRESCRIBE CHLORDIAZEPOXIDE as either symptom trigger regime or fixed dosing regimen depending on the ward they are transferring to **(please refer to symptom triggered section if considering symptom triggered)** – Doses to be given at 08:00; 12:00; 18:00 and 22:00. Choose start point on basis of predicted severity of withdrawals (1= mild – 3= severe).

Review over first 24 hours and adjust if necessary. PRN doses up to 20mg qds should be available for first 72 hours. Doses above 200mg / day may be required – if significant symptoms of withdrawal or signs suggestive of DTs at this dose seek senior review. Observe for over sedation.

Day	Sch (mg	edul J)	e 1		Sch (mg	edul	e 2		Sch (mg	edul	e 3	
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

Alcohol Withdrawal Symptoms

Anxiety/agitation Tachycardia
Sweating Systolic
hypertension

Tremor

Symptoms of DTs

Profuse sweating Impaired attention
Severe tremor Disorientation
Tachypnoea Paranoid ideas
Insomnia Marked anxiety
Marked systolic hypertension

Review date: 06/09/2024

Reversal of sleep pattern Hallucinations/confusion

Page 3 of 25

2. Objective of Guideline

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.

To minimise the risk of patients experiencing complications of acute alcohol withdrawal.

3. Goals

To minimize 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.

4. Rationale for the recommendations

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.

5. 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 hours¹.

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)

Review date: 06/09/2024

Page 4 of 25

6. Symptoms of Alcohol Withdrawal (adapted from Hershon 6)

- 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).

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

Delirium tremens (DTs) 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 days³. It is characterised by:

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

Wernicke's Encephalopathy (WE) 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 syndrome⁴.

The classical triad of signs (acute confusion, ataxia and ophthalmoplegia) occurs in only 16%⁴ 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.

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.
 - o Seizures.
 - o 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 adjunct⁵ – see appendix 1).

 Check LFT (with Albumin and GGT), Clotting, U+E, Mg²⁺ and FBC, MCV & Blood Glucose.

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-Q⁸ (appendix 2) can assist in predicting the severity of dependence:

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

7. Treatment

Benzodiazepines are currently considered the most effective drugs for management of alcohol withdrawal⁹. 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 rebound¹⁰. They are also less prone to potential misuse¹¹. However there is risk of accumulation in the elderly and those with significant liver failure in whom short acting benzodiazepines may be used^{10,12}.

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 diazepam¹¹).

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 symptoms⁷. 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.

Review date: 06/09/2024

Page 6 of 25

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.
- Blood ethanol level should be as close to zero as possible, ideally <100mg/100mL and falling.
- Falling implies two successive levels or by clear evidence of patient becoming clinically less intoxicated over time.
- 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

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

Review date: 06/09/2024

Page 7 of 25

The modified CIWA-Ar symptom triggered prescribing record (appendix 1) can be used on the above wards. Symptom triggered treatment tailors the treatment to the patient using a validated nursing tool. Research shows that this can reduce the total amount of medication and the time for detoxification.

Following medical staff prescribing and completing the first page of CIWA-Ar symptom triggered prescribing record (appendix 1) the nursing staff will monitor the patient at least four hourly with the tool. This will indicate if the patient requires a dose of medication. The protocol and instructions for using the tool are included in the tool.

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

Dosage regimen for symptom triggered treatment

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

9. 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 mandatory¹⁶.

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 (10-20mg QDS) should be available.
- The administration record on EPMA should be clearly marked for omission of doses if the patient becomes sedated.

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.

Review date: 06/09/2024

Page 8 of 25

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	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

<u>Oxazepam</u>

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.

Vitamin Supplementation (see page 5 and section 11 on page 9)

10. 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.

11. Prescribing Thiamine

- 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 these 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; these guideline's authors 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 (Pabrine	x®) dose for all patier	nts 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
		'I (

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

12. 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.

Review date: 06/09/2024

Page 10 of 25

- Ocular abnormalities (seen in 29%) nystagmus. ophthalmoplegia, sluggish papillary reflexes and papilloedema.
- Truncal Ataxia / incoordination of gait (seen in 23%).

Uncommon:

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

Late-stage:

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

13. Additional Medications for Symptomatic Relief of Alcohol Withdrawal

Pain	NSAIDs, e.g. ibuprofen 400mg tds (caution: do not use in advanced
Falli	liver disease)
	Simple anti-emetics e.g. prochlorperazine
Nausea	Prophylaxis: 5-10 mg tds
and	Acute attack: 20 mg stat, then 10 mg after 2 hours
vomiting	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.
	Zopiclone (7.5-15 mg Nocte) or
Insomnia	Nitrazepam (5-10 mg Nocte) or
	Only one sedative to be prescribed at a time

14. Be aware and treat the following complications:

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.

Hypoglycaemia:

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

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.

Review date: 06/09/2024

Page 11 of 25

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.

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 shortterm 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.

Review date: 06/09/2024

Page 12 of 25

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

15. Treatment of special patient groups:

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.

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.

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.

Review date: 06/09/2024

Page 13 of 25

- 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.

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.

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.

16. 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 Procedures document: Trustdocs Id 7538

There are several common scenarios which might arise.

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.

Review date: 06/09/2024

Page 14 of 25

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: <u>Trustdocs Id 8166</u>

No Take home medication for detoxification is to be issued.

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.

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

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.

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 – non drinking family members, spouse	Unsupported – living alone, No fixed Abode
Mental health stable, Non suicidal	Mental health unstable, suicidal, admitted with overdose
Non drug 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.

Review date: 06/09/2024

Page 16 of 25

Where Community Mental Health or Drug services are involved liaison with the patients named worker is advised.

17. Useful contacts / links:

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

18. Clinical Audit Standards derived from guideline

- a) All patients should have an accurate alcohol history documented in their medical notes
- b) Patients identified as heavy drinkers at risk of thiamine deficiency should be prescribed thiamine prophylaxis at a level appropriate to their level of risk.
- c) Patients identified as probably dependent should be prescribed an adequate detoxification regimen.
- d) Patients identified as probably dependent should have documented evidence of monitoring for level of withdrawal and complications of withdrawal.

19. Summary of development and consultation process undertaken before registration and dissemination

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.

20. Distribution list / dissemination method

Norfolk and Norwich University Foundation Trust Intranet.

21. Acknowledgements

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

22. References

- 1. Morgan M & Ritson B (1998) medical student's handbook: alcohol and health. The medical Council on Alcoholism Publications, 38.
- 2. Turner RC, Lichstein PR, peden JG et al (1989) Alcohol withdrawal syndromes: a review of pathophysiology, clinical presentation, and treatment. *Journal of General Internal Medicine*, 4, 432-444.
- 3. Manyo-Smith MF et al (2004) Management of Alcohol Withdrawal Delirium: An evidence based practice guideline. *Arch. Int Med.* 164:1405-1412
- 4. Sechi G and Serra A (2007) Wernicke's Encephalopathy: new clinical settings and recent advances in diagnosis and management. *Lancet Neurol* 6: 442-55
- 5. Sullivan JT, Sykora K, Schneiderman J et al (1989) Assessment of alcohol withdrawal: the revised Clinical Institute Withdrawal Assessment for Alcohol Scale (CIWA-Ar). *British Journal of Addiction*, 84, 1353-1357.
- 6. Hershon, H. I. (1977) Alcohol withdrawal symptoms and drinking behavior. *Journal of Studies on Alcohol*, 38, 953–971.
- 7. Taylor D, Barnes, T, Young, A.(2018) Maudsley Prescribing guidelines, 13th edn, Taylor & Francis Publications
- 8. Stockwell T, Hodgson R, Edwards G et al (1979) The development of a questionnaire to measure severity of alcohol dependence. *British Journal of Addiction*, 74, 79-87.
- Raistrick D, Heather N and Godfrey C. (2006) Review of the effectiveness of Treatment for Alcohol Problems. National Treatment Agency for Substance Misuse.http://www.dldocs.stir.ac.uk/documents/alcoeffective.pdf
- 10. Mayo-Smith MF (1997) Pharmacological management of alcohol withdrawal. A metaanalysis and evidence-based practice guideline.. *JAMA*;278(2):144-51.
- 11. Griffiths RR, Wolf B. (1990) Relative abuse liability of different benzodiazepines in drug abusers. *Journal of Clinical Psychopharmacology*;10(4):237-43.
- 12. Kosten T, O'Connor P (2003) Management of drug and alcohol withdrawal. *NEJM* 348: 1786–1794
- 13. Serfaty M, Masterton G. (1993) Fatal poisonings attributed to benzodiazepines in Britain during the 1980s *British journal of Psychiatry*, 163:386-93.
- 14. McInnes GT. Chlormethiazole and alcohol: a lethal cocktail. (1987) *BMJ* (Clin Res Ed), 294(6572):592.
- 15. Duncan D, Taylor D (1996) Chlormethiazole or chlordiazepoxide in alcohol detoxification. Psychiatr Bull *20*: 599–601.
- Burroughs AK, Morgan MY, Sherlock S. (1985) Double-blind controlled trial of bromocriptine, chlordiazepoxide and chlormethiazole for alcohol withdrawal symptoms. *Alcohol Alcohol*, 20(3):263-71.
- 17. Raistrick R (2000) Management of alcohol detoxification. *Advances in Psychiatric Treatment*, 6, 348-355.
- 18. Lingford-Hughes AR, Welch S, Nutt DJ (2004) Evidence-based guidelines for the pharmacological management of substance misuse, addiction and comorbidity: recommendations from the British Association for Psychopharmacology 18(3) (2004) 293–335

Review date: 06/09/2024

Page 18 of 25

- Raistrick D., Alcohol Withdrawal and Detoxification. In Heather N., Peters T., Stockwell T. (eds) International Handbook of Alcohol Dependence and Problems, 2001 pp.523-539. John Wiley & sons Ltd.Chichester, UK
- 20. Maudsley, [2005] Prescribing Guidelines, Martin Dunitz, London
- 21.NICE Alcohol-use disorders: diagnosis and management of physical complications (2017) CG100
- 22. NICE Alcohol-use disorders: diagnosis, assessment and management of harmful drinking and alcohol dependence (2011) CG115

Review date: 06/09/2024

Page 19 of 25

Appendix 1
CIWA Symptom Triggered prescribing Record
NameDOBHosp No
Use only on Wards , AMU, HDU and Guist, Kimberley, A&E, EAUS.
Background This clinical document is to be used for the symptom triggered prescribing in alcohol detoxification. Symptom triggered regimens have been shown to be associated with shorter detoxifications and higher patient satisfaction.
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.
Information for doctors This document replaces the fixed dosing benzodiazepine regimen usually used for alcohol detoxification. Nurses will frequently observe patients for symptoms of alcohol withdrawal using a validated clinical tool and medicate accordingly. 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.
Vitamin replacement in the form of oral Thiamine, oral Vitamin B Co Strong and intravenous Pabrinex® will need to be prescribed as per normal guidelines. Electrolyte imbalances should also be investigated and corrected.
To start the patient on the symptom triggered treatment, please fill in the information below:
Does the patient have recent significant use of alcohol? ☐ Yes ☐ No
Can the patient communicate effectively verbally? \square Yes \square No
If the patient cannot effectively communicate but is thought to be alcohol dependent please start the patient on the fixed dose regimen as specified by the Trust alcohol withdrawal guidelines on the Intranet. Please sign the authorisation for the patient to be started on treatment:
This patient is suitable for the symptom triggered alcohol withdrawal treatment Signed: Print name:
Designation: Contact / Bleep No:
Date: Time:

The nursing staff will contact the Substance Misuse team who will review the patient. They can be contacted on DECT 6489 or bleep 0439

CIWA Symptom Triggered prescri	ibing Record		
Name	DOB	Hosp No	
Use only on Wards , AMU, HDU ar	nd Guist, Kimb	erley, A&E, EAUS	

Information for nursing staff

This document replaces fixed dose alcohol withdrawal treatment. Patients are monitored by qualified nursing staff with an assessment tool and given medication when they have significant symptoms of withdrawal.

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 four hourly. The score and next assessment time will need to be handed over.

If patients score 10 or more on the tool 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.

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.

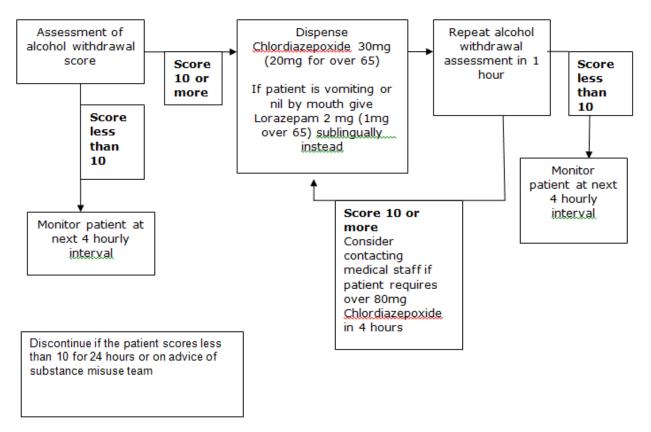
The protocol should be discontinued if the patient scores less than 10 for 24 hours or on the advice of the substance misuse team. Please ask the medical team to discontinue the chlordiazepoxide.

Review date: 06/09/2024

Page 21 of 25

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

Flow diagram of using the alcohol withdrawal tool:



Frequently Asked Questions

How much is a significant amount of alcohol?

The amount of alcohol an individual needs to have withdrawal symptoms if 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.

Review date: 06/09/2024

Page 22 of 25

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.

Review date: 06/09/2024

Page 23 of 25

CIWA Symptom Triggered	prescribing Record		
Name	DOB	Hosp No	
Use only on Wards , AMU,	HDU and Guist, Kimberle	ey, 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	O)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)	O)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 dose then review again in one hour. If score less than 10 review again in 4 hours											
Designation:		ĺ									

Review date: 06/09/2024

Page 24 of 25

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	1	3	4
	Never	Sometimes	Often	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?				

Review date: 06/09/2024

Page 25 of 25

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