Alcohol Detoxification: Inpatient Clinical Algorithm

CONTENTS

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Approved by	Drug & Therapeutics Committee	Date of Approval	25th March 2021
Protocol Number	PHARM/0100/V2	Date of Review	30th April 2025 (extended)

1. BACKGROUND

Psychiatric inpatient units often admit alcohol dependent patients, sometimes in a planned but mostly in an unplanned way. Many of these patients develop withdrawal symptoms that need to be managed pharmacologically.

Until 2013 the trust used three different detoxification regimes (low-, moderate, high-dose). There was no guidance which patients should be started on which protocol and which monitoring should take place.

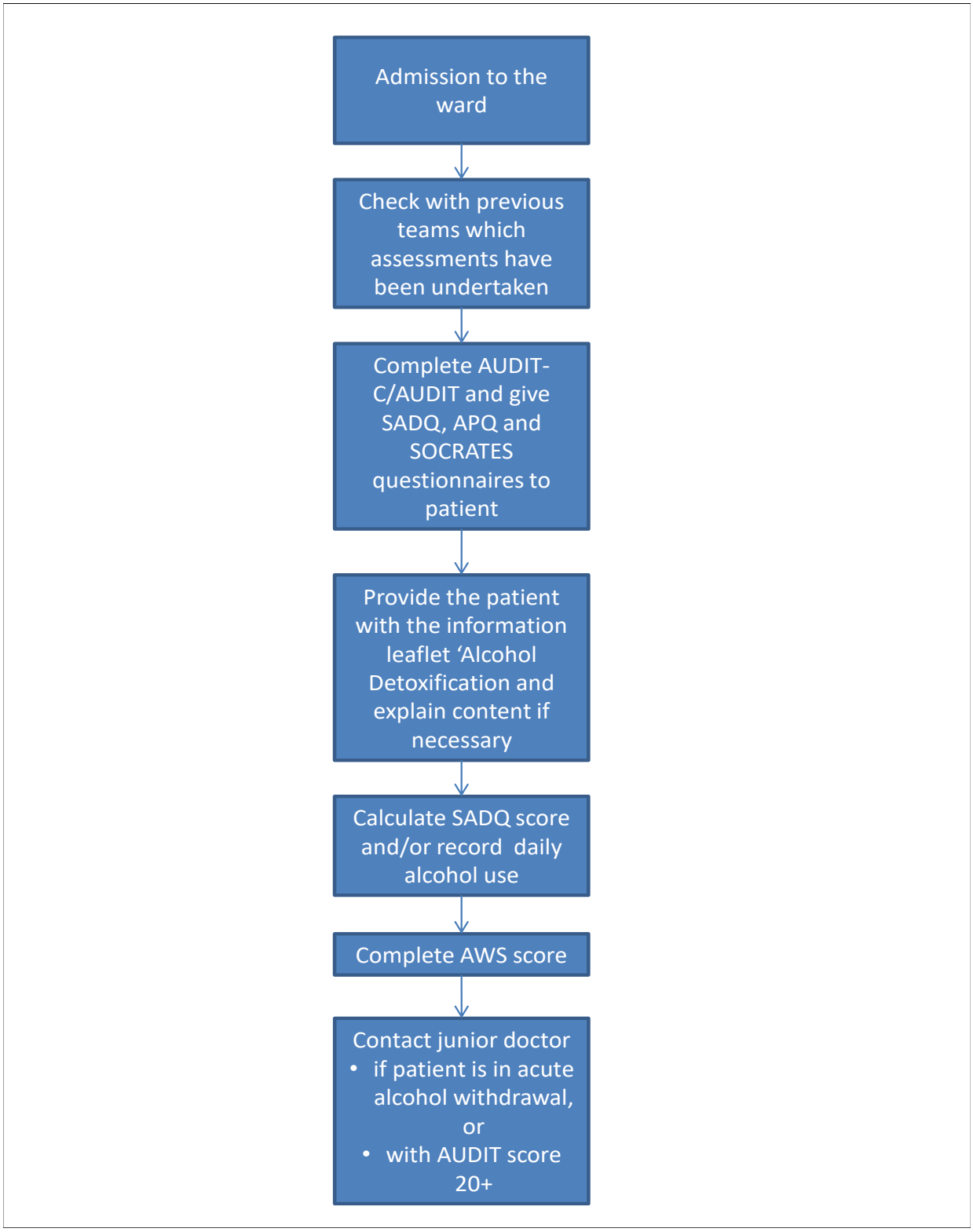
In 2013, a quality improvement event took place that reviewed alcohol detoxification protocol in light of recently published NICE guidance. A new alcohol detoxification process was developed that incorporated symptoms triggered elements as recommended by NICE. The new process was tested on Farnham Ward in Lanchester Road Hospital in Durham and was afterwards rolled out trust wide.

Since then the new process has been used successfully. The national POMH audit 14b highlighted however that certain changes in blood testing needed to be made.

This document puts the results of the trust's alcohol detoxification process into the format of a clinical algorithm. The POMH 14b changes have been incorporated.

2. OVERVIEW OF THE PROCESS

2.1. Admission to the Ward



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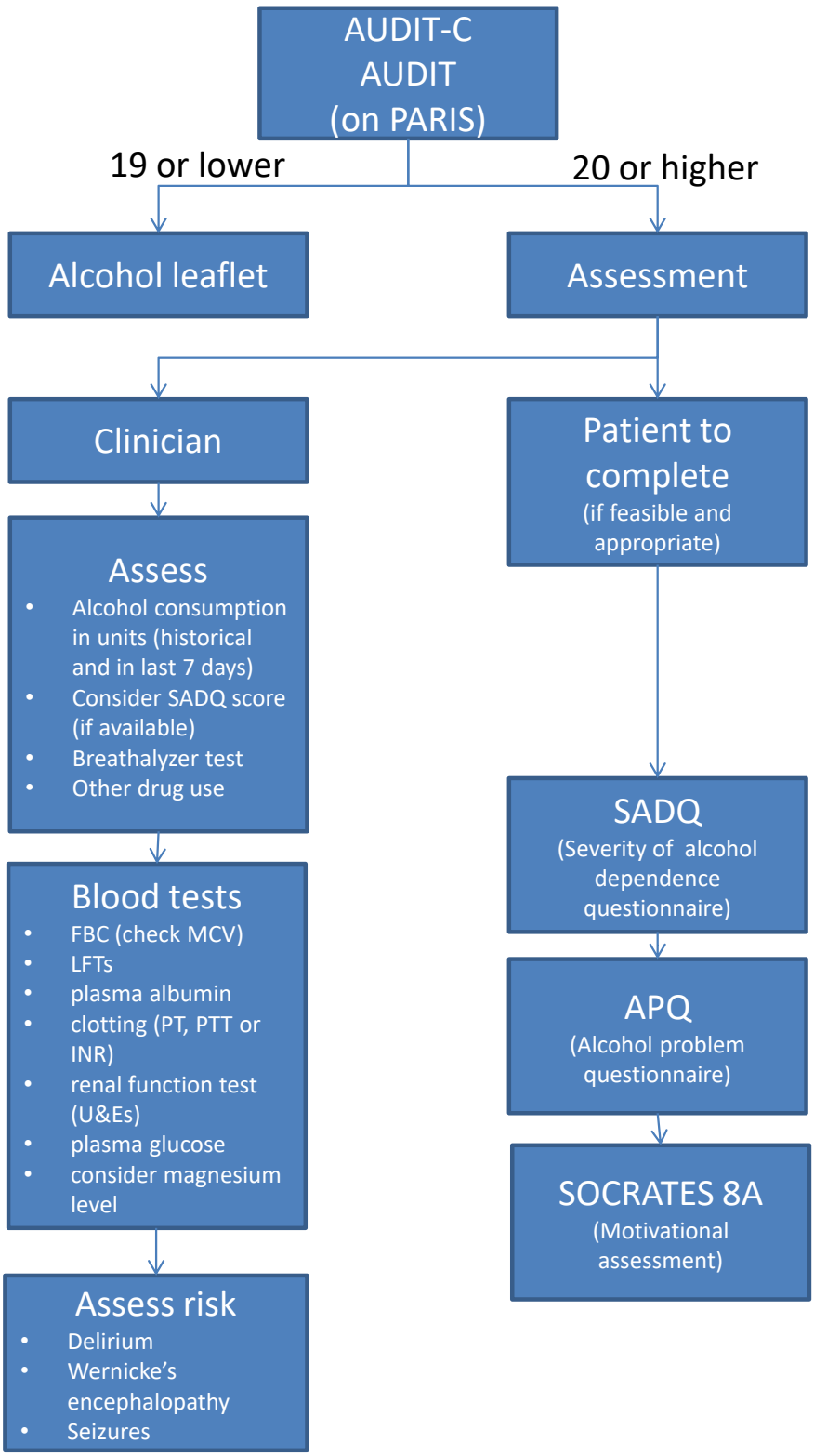
2.2. Assessment



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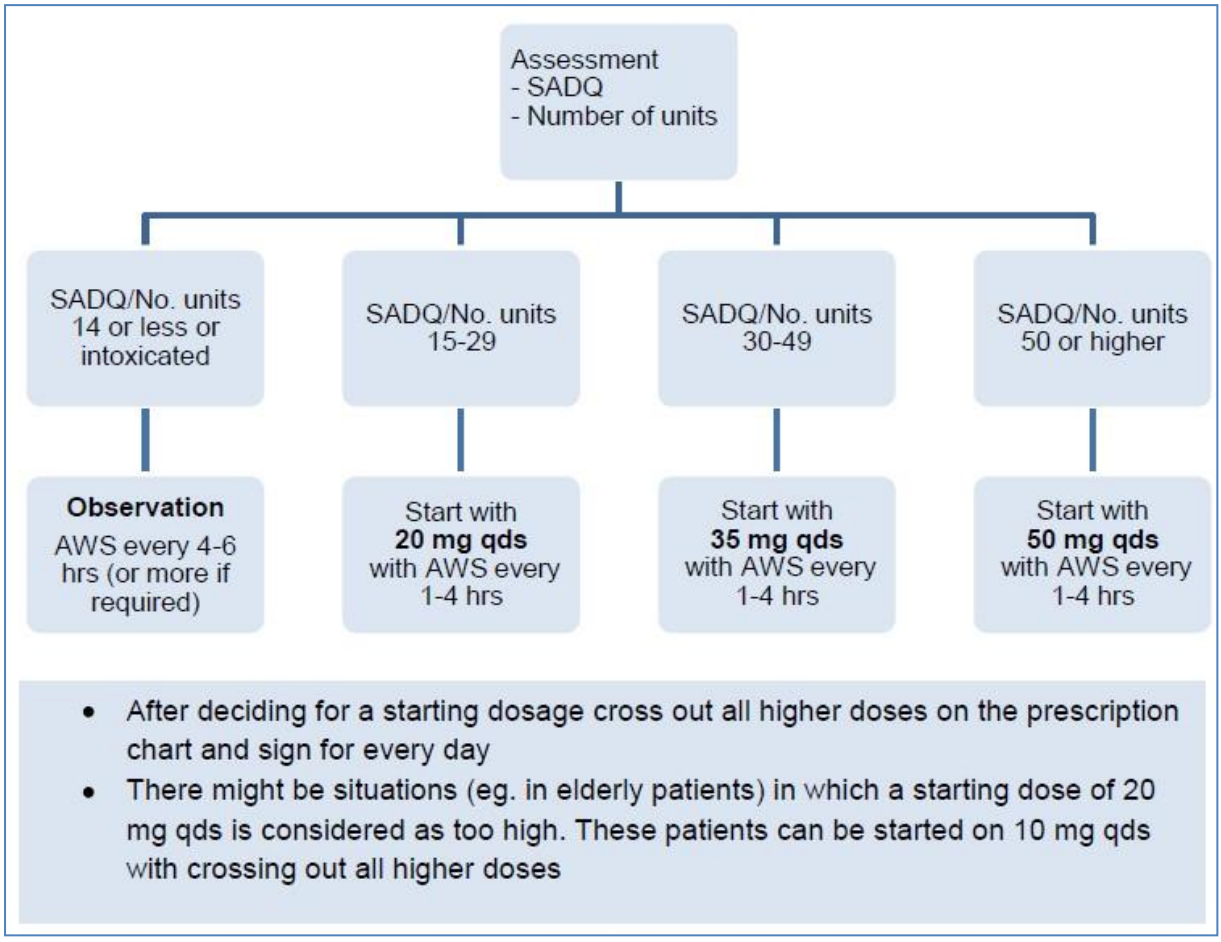
2.3. Management using Chlordiazepoxide



The following points need to be considered:

- Doses of Chlordiazepoxide in excess of 40 mg qds should only be prescribed if there is clear evidence of very severe alcohol dependence. Such doses are rarely necessary in women and children and never in older people or if there is liver impairment. Also consider using Oxazepam for these patients.
- NICE recommend that people with decompensated liver disease who are being treated for acute alcohol withdrawal should be offered advice from a healthcare professional experienced in the management of patients with liver disease. This is usually only possible after transfer to a general hospital.
- Exclude alternative causes of liver disease in people with a history of harmful or hazardous drinking who have abnormal liver blood test results.
- If patient's PRN dose in one day exceeds 50% of the regular dose or if more than 4 PRN doses of either Chlordiazepoxide 10 mg or 20 mg are necessary, then a medical review needs to be arranged immediately and a new chart needs to be written. Also consider consultant advice.
- If the patient is sedated when a regular dose is due, this dose should be withheld and a doctor should be consulted.

- Hypnotics and/or other benzodiazepines should not normally be prescribed if the patient has not been on this medication regularly for up to 4 weeks.
- For those who have been regularly on benzodiazepines and other medication with sedative potential for longer than 4 weeks, please prescribe with caution.
- In both cases consider to involve the responsible consultant

3. ASSESSMENT TOOLS

3.1. AWS (Alcohol Withdrawal Scale)

The AWS has been developed by Wetterling et al.[2]. In intoxicated patients and in patients with a SADQ score or a number of units per day of less than or equal to 14 the AWS needs to be recorded every 4-6 hours.

Patients with a more severe withdrawal syndrome need to be recorded every 1-4 hours depending on their response to treatment.

If the AWS is between 6-9 then patient should receive 10 mg of Chlordiazepoxide (or Oxazepam in some patients), if the AWS is equal or higher than 10 then 20 mg of Chlordiazepoxide/Oxazepam should be given.

	Score			
Subscale S: somatic symptoms	0	1	2	3
1 Pulse rate (per min)	< 100	101–110	111–120	> 120
2. Diastolic blood pressure (mmHg)	< 95	96–100	101–105	> 105
3. Temperature (°C)	< 37.0	37.0–37.5	37.6–38.0	> 38.0
4. Breathing rate (per min)	< 20	20–24	> 24	
5. Sweating	none	mild (wet hands)	moderate (forehead)	severe (profuse)
6. Tremor	none	mild (arms raised + fingers spread)	moderate (fingers spread)	severe (spontaneous)
Subscore somatic symptoms S				

	Score				
Subscale M: mental symptoms	0	1	2	3	4
1. Agitation	none	fastening	rolling in bed	try to leave bed	in rage
2. Contact	short talk possible	easily distractable (i.e. noise)	drifting contact	dialogue impossible	
3. Orientation (time, place, person, situation)	fully aware	one kind (i.e. time)	two kinds disturbed	totally confused	
4. Hallucinations (optical, acoustic and tactile	none	suggestive	one kind (i.e. optical)	two kinds (optical + tactile)	all kinds scenic hallucinations (as in a film)
5. Anxiety	none	mild (only if asked)	severe (spontaneous complaint)		
Subscore mental symptoms M					
Total score T = M + S					

[2] Wetterling et al (1997) (available on https://academic.oup.com/alcalc/article/32/6/753/204849)

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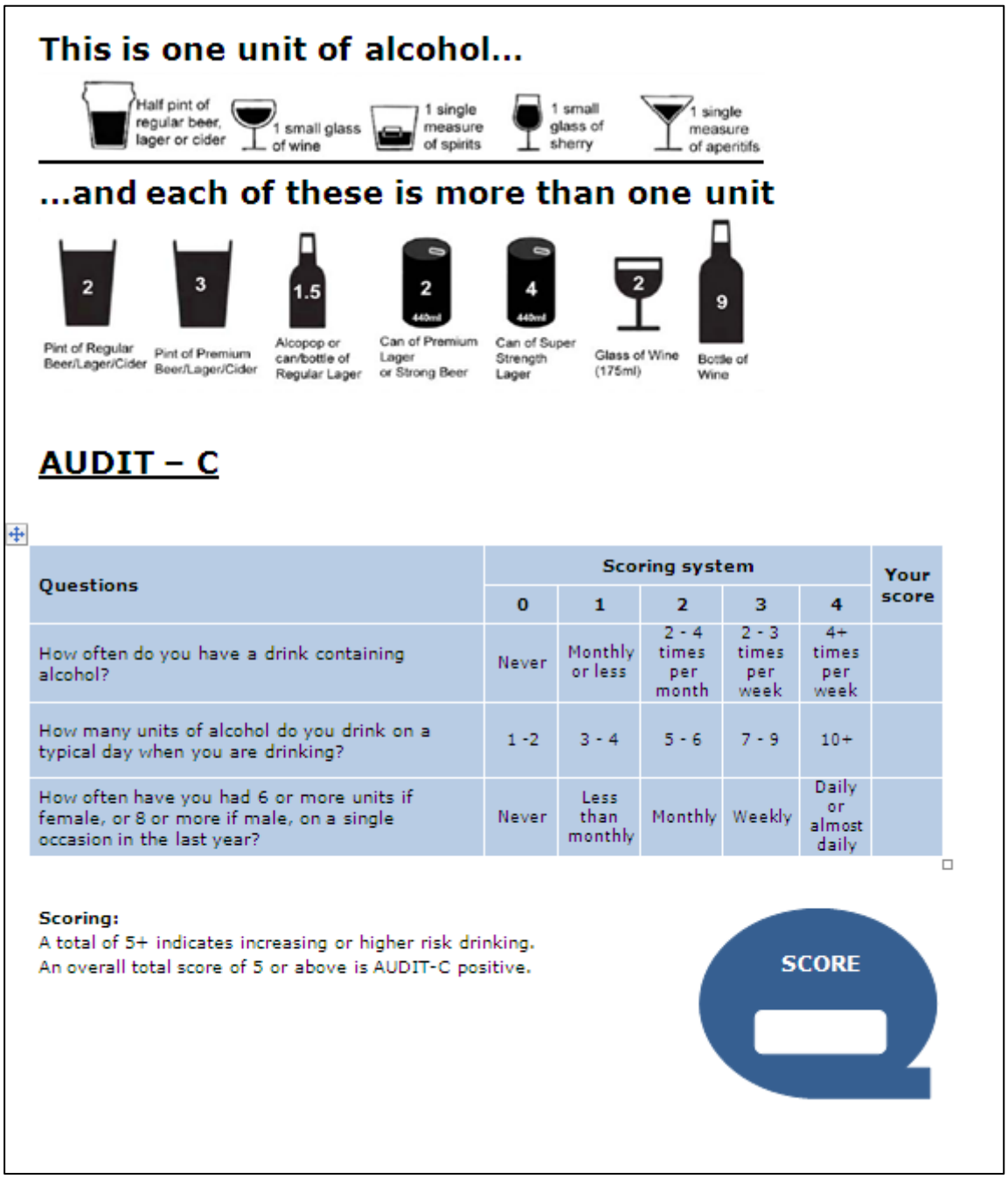
3.2. AUDIT-C and AUDIT (Alcohol Use Disorder Identification Test)

The following pages are now available via the gov.uk website[3]. Both tools are available on the electronic patient record system. The AUDIT-C needs to be completed on the EPR as part of the initial assessment process. An AUDIT assessment is only necessary for patients who score 5 or higher in the AUDIT-C test.



AUDIT – C

Questions	Scoring system					Your score
	0	1	2	3	4	
How often do you have a drink containing alcohol?	Never	Monthly or less	2 - 4 times per month	2 - 3 times per week	4+ times per week	
How many units of alcohol do you drink on a typical day when you are drinking?	1 -2	3 - 4	5 - 6	7 - 9	10+	
How often have you had 6 or more units if female, or 8 or more if male, on a single occasion in the last year?	Never	Less than monthly	Monthly	Weekly	Daily or almost daily	

Scoring:
A total of 5+ indicates increasing or higher risk drinking.
An overall total score of 5 or above is AUDIT-C positive.

SCORE

[3] Alcohol use screening tests - GOV.UK (www.gov.uk)

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Score from AUDIT- C (other side)

Remaining AUDIT questions

Questions	Scoring system					Your score
	0	1	2	3	4	
How often during the last year have you found that you were not able to stop drinking once you had started?	Never	Less than monthly	Monthly	Weekly	Daily or almost daily	
How often during the last year have you failed to do what was normally expected from you because of your drinking?	Never	Less than monthly	Monthly	Weekly	Daily or almost daily	
How often during the last year have you needed an alcoholic drink in the morning to get yourself going after a heavy drinking session?	Never	Less than monthly	Monthly	Weekly	Daily or almost daily	
How often during the last year have you had a feeling of guilt or remorse after drinking?	Never	Less than monthly	Monthly	Weekly	Daily or almost daily	
How often during the last year have you been unable to remember what happened the night before because you had been drinking?	Never	Less than monthly	Monthly	Weekly	Daily or almost daily	
Have you or somebody else been injured as a result of your drinking?	No		Yes, but not in the last year		Yes, during the last year	
Has a relative or friend, doctor or other health worker been concerned about your drinking or suggested that you cut down?	No		Yes, but not in the last year		Yes, during the last year	

Scoring: 0 – 7 Lower risk, 8 – 15 Increasing risk, 16 – 19 Higher risk, 20+ Possible dependence

TOTAL Score equals
AUDIT C Score (above) +
Score of remaining questions

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3.3. Severity of Alcohol Dependence Questionnaire (SADQ)

NAME_____ AGE_____ DATE:_____

We would like to recall a recent month when you were drinking in a way, which for you was fairly typical of a heavy drinking period. Please fill in the month and the year:

MONTH: ……**YEAR:** …….

We want to know more about your drinking during this time and how often you experienced certain feelings. Please put a tick to show how frequently each of the following statements applied to you during this typical period of drinking.

Score 0 1 2 3

	Almost Never	**Some-times**	**Often**	**Nearly Always**
Score	0	1	2	3
1) I wake up feeling sweaty				
2) My hands shaking first thing in the morning				
3) My whole body shakes violently first thing in the morning, if I don't have a drink				
4) I wake up absolutely drenched in sweat				
5) I dread waking up in the morning				
6) I am frightened of meeting people first				
7) I feel on the edge of despair when I wake up				
8) I feel very frightened when I wake up				
9) I like to have a morning drink				
10) I always gulp down my morning drink as quickly as possible				
11) I drink in the morning to get rid of the shakes				
12) I have a very strong craving for a drink when I wake				

up				
13) I drink more than 1/4 bottle of spirits or 4 pints beer/1 bottle wine per day				
14) I drink more than 1/2 bottle of spirits or 8 pints beer/2 bottles wine per day				
15) I drink more than 1 bottle of spirits or 15 pints beer/4 bottles of wine per day				
16) I drink more than 2 bottles of spirits or 30 pints beer/8 bottles wine per day				

Imagine the following situation:

- You have been completely off drink for a few weeks and You then drink very heavily for two days
- HOW WOULD YOU FEEL **THE MORNING AFTER** THOSE TWO DAYS OF DRINKING?

The morning after Score	**Not at all** 0	**Slightly** 1	**Moderately** 2	**A lot** 3
17) I would start to sweat				
18) My hands would shake				
19) My body would shake				
20) I would be craving a drink				
TOTALS				

TOTAL SADQ SCORE	

SADQ Scoring

Re: Questions 17 – 20: If the patient has not been abstinent for a period of two weeks then score maximum for Q17–20

A score of 31 or higher indicates "severe alcohol dependence". A score of 16 -30 indicates "moderate dependence"

A score of below 16 usually indicates only a mild physical dependency.

Reference

Stockwell, T., Murphy, D. and Hodgson, R. (1983) The severity of alcohol dependence questionnaire: its use reliability and validity. British Journal of Addiction 78, 145-155.

3.4. APQ (Alcohol Problem Questionnaire)

The APQ is commonly used as an assessment tool in alcohol clinical populations but has also been widely used as an outcome measure in clinical trials. The APQ is a severity scale, so the higher the score the more severe the alcohol problem.

There is no 'cut off' or different levels of problem defined by APQ score. It was not designed as a screening tool like AUDIT or a diagnostic tool like CIDI.

Its utility is in looking at individual changes in APQ score over time, pre / post treatment, and as a descriptor of severity of alcohol problems. It behaves a bit like a consumption measure; i.e. less is better, more is worse.

The use of the APQ scale is recommended but not mandatory. As it is a self-assessment questionnaire it should be given to the patient on admission together with other information material.

The APQ form is filed in the patient's paper record. The APQ-Score (=number of questions that are answered with 'yes') need to be documented on the electronic patient record.

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ALCOHOL PROBLEMS QUESTIONNAIRE

NAME:_____ DATE: _____

We would like to find out if you have experienced any of the difficulties which other people with alcohol problems sometimes complain of.

Below you will find a list of questions which we would like you to answer.

Read each box carefully and answer either YES or NO by putting a TICK in the appropriate box (e.g. YES)

PLEASE ANSWER ALL THE QUESTIONS WHICH APPLY TO YOU
All the Questions apply to your experiences in the **LAST SIX MONTHS**

IN THE LAST SIX MONTHS	Yes	No
1. Have you tended to drink on your own more than you used to?		
2. Have you worried about meeting your friends again the day after a drinking session?		
3. Have you spent more time with drinking friends than other kinds of friends?		
4. Have your friends criticised you for drinking too much?		
5. Have you had any debts?		
6. Have you pawned any of your belongings to buy alcohol?		
7. Do you find yourself making excuses about money?		
8. Have you been caught out lying about money?		
9. Have you been in trouble with the police due to your drinking?		
10. Have you lost your driving licence for drinking and driving?		
11. Have you been in prison?		
12. Have you been physically sick after drinking?		
13. Have you had diarrhoea after a drinking session?		
14. Have you had pains in your stomach after a drinking session?		
15. Have you had pins and needles in your fingers or toes?		
16. Have you had any accidents, needing hospital treatment after drinking?		
17. Have you lost any weight?		
18. Have you been neglecting yourself physically?		
19. Have you failed to wash for several days at a time?		
20. Have you felt depressed for more than a week?		
21. Have you felt so depressed that you have felt like doing away with yourself?		
22. Have you given up any hobbies you once enjoyed because of drinking?		
23. Do you find it hard to get the same enjoyment from your usual interests?		

PLESE MAKE SURE YOU HAVE ANSWERED ALL THE QUESTIONS WHICH APPLY TO YOU
PLEASE TURN PAGE

IF YOU ARE NOT MARRIED, MISS OUT QUESTIONS 24-32, GO TO QUESTION 33
(These questions apply to you if you have lived with your spouse or partner during the last six months)

IN THE LAST SIX MONTHS:	Yes	No
24. Has your spouse complained of your drinking?		
25. Has your spouse tried to stop you from having a drink?		
26. Has he/she refused to talk to you because you have been drinking?		
27. Has he/she threatened to leave you because of your drinking?		
28. Has he/she had to put you to bed after you have been drinking?		
29. Have you shouted at him/her when you have been drinking?		
30. Have you injured him/her after you have been drinking?		
31. Have you been legally separated from your spouse?		
32. Has he/she refused to have sex with you because of drinking?		

IF YOU HAVE NO CHILDREN MISS OUT QUESTIONS 33-36, GO TO QUESTION 37.
(These questions apply if you have lived with your children during the last six months)

IN THE LAST SIX MONTHS:	Yes	No
33. Have you children criticised your drinking?		
34. Have you had rows with your children about drinking?		
35. Do your children tend to avoid you when you have been drinking?		
36. Have your children tried to stop you from having a drink?		

IF YOU HAVE BEEN UNEMPLOYED FOR THE LAST SIX MONTHS, MISS OUT QUESTIONS 37-44

IN THE LAST SIX MONTHS	Yes	No
37. Have you found your work less interesting than you used to?		
38. Have you been unable to arrive on time for work due to your drinking?		
39. Have you missed a whole day at work after a drinking session?		
40. Have you been less able to do your job because of your drinking?		
41. Has anyone at work complained about you being late or absent?		
42. Have you had any formal warnings from your employers?		
43. Have you been suspended or dismissed from work?		
44. Have you had any accidents at work after drinking?		

PLEASE MAKE SURE YOU HAVE ANSWERED ALL THE QUESTIONS WHICH APPLY TO YOU

END OF QUESTIONNAIRE
THANK YOU FOR YOUR HELP

Tees, Esk and Wear Valleys NHS
NHS Foundation Trust

3.5. SOCRATES 8A motivational assessment tool

The use of the APQ scale is recommended but not mandatory. As it is a self-assessment questionnaire it should be given to the patient on admission together with other information.

Name:_____ Date:_____

Personal Drinking Questionnaire (SOCRATES 8A)

Instructions: Please read the following statements carefully. Each one describes a way that you might (or might not) feel *about your drinking.* For each statement circle one number from 1 to 5 to indicate how much you agree or disagree with it *right now.* Please circle one and only one number for every statement.

	NO! Strongly Disagree	**No** Disagree	**?** Undecided Or Unsure	**Yes** Agree	**YES!** Strongly Agree
1. I really want to make changes in my drinking.	1	2	3	4	5
2. Sometimes I wonder if I am an alcoholic.	1	2	3	4	5
3. If I don't change my drinking soon, my problems are going to get worse.	1	2	3	4	5
4. I have already started making some changes in my drinking.	1	2	3	4	5
5. I was drinking too much at one time, but I've managed to change my drinking.	1	2	3	4	5
6. Sometimes I wonder if my drinking is hurting other people.	1	2	3	4	5
7. I am a problem drinker.	1	2	3	4	5
8. I'm not just thinking about changing my drinking, I'm already doing something about it.	1	2	3	4	5
9. I have already changed my drinking, and I am looking for ways to keep from slipping back to my old pattern.	1	2	3	4	5
10. I have serious problems with drinking.	1	2	3	4	5
11. Sometimes I wonder if I am in control of my drinking.	1	2	3	4	5
12. My drinking is causing a lot of harm.	1	2	3	4	5
13. I am actively doing things now to cut down or stop drinking.	1	2	3	4	5
14. I want help to keep from going back to the drinking problems that I had before.	1	2	3	4	5
15. I know that I have a drinking problem.	1	2	3	4	5
16. There are times when I wonder if I drink too much.	1	2	3	4	5
17. I am an alcoholic.	1	2	3	4	5
18. I am working hard to change my drinking.	1	2	3	4	5
19. I have made some changes in my drinking, and I want some help to keep from going back to the way I used to drink.	1	2	3	4	5

SOCRATES 8A Scoring

SOCRATES is an experimental instrument designed to assess readiness for change in alcohol abusers. The instrument yields three factorially-derived scores: Recognition, Ambivalence, and Taking Steps.

Three subscale scores are obtained from the SOCRATES:

- Recognition (sum of items 1, 3, 7, 10, 12, 15 & 17) (score range 7 – 35)
- Ambivalence (sum of items 2, 6, 11 & 16) (score range 4 – 20)
- Taking Steps (sum of items 4, 5, 8, 9, 13, 14, 18 & 19) (score range 8 – 40)

The following discussion is provided as general guidelines for interpretation of scores, but it is wise in an individual case also to examine individual item responses for additional information.

Recognition

HIGH scorers directly acknowledge that they are having problems related to their drinking, tending to express a desire for change and to perceive that harm will continue if they do not change.

LOW scorers deny that alcohol is causing them serious problems, reject diagnostic labels such as “problem drinker” and “alcoholic,” and do not express a desire for change.

Ambivalence

HIGH scorers say that they sometimes wonder if they are in control of their drinking, are drinking too much, are hurting other people, and/or are alcoholic. Thus a high score reflects ambivalence or uncertainty. A high score here reflects some openness to reflection, as might be particularly expected in the contemplation stage of change.

LOW scorers say that they do not wonder whether they drink too much, are in control, are hurting others, or are alcoholic. Note that a person may score low on ambivalence either because they “know” their drinking is causing problems (high Recognition), or because they “know” that they do not have drinking problems (low Recognition). Thus a low Ambivalence score should be interpreted in relation to the Recognition score.

Taking Steps

HIGH scorers report that they are already doing things to make a positive change in their drinking, and may have experienced some success in this regard. Change is underway, and they may want to help to persist or to prevent backsliding. A high score on this scale has been found to be predictive of successful change.

LOW scorers report that they are not currently doing things to change their drinking, and have not made such changes recently.

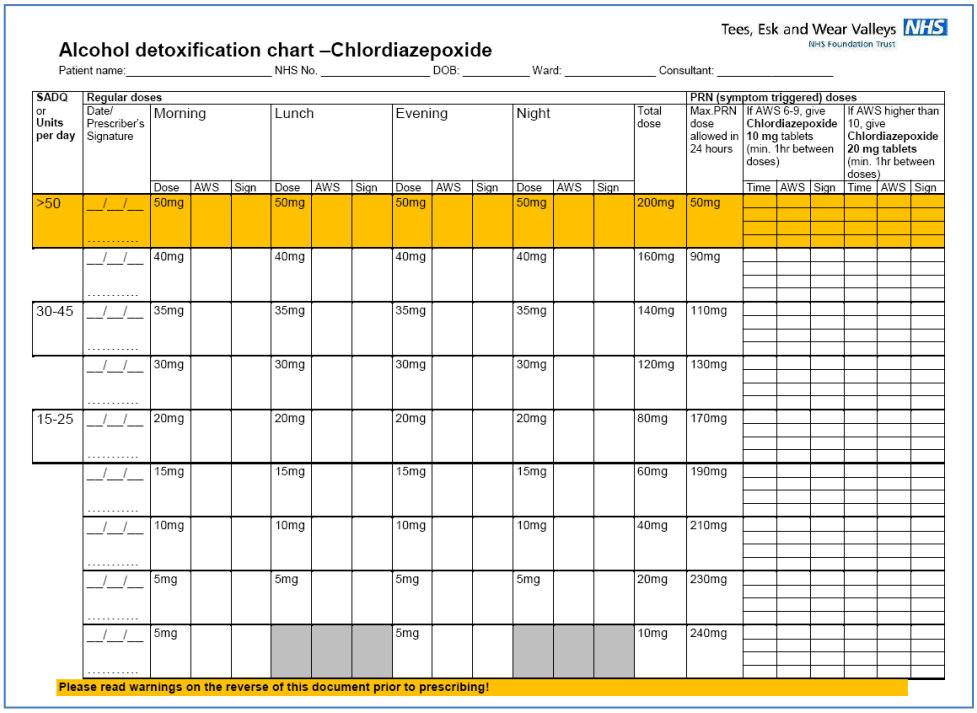
Summary of motivational subscale scores

Decile Scores	Recognition	Ambivalence	Taking Steps
90 very high		19 – 20	39 – 40
80		18	37 - 38
70 High	35	17	36
60	34	16	34 - 35
50 Medium	32 – 33	15	33
40	31	14	31 - 32
30 Low	29 – 30	12 – 13	30
20	27 – 28	9 – 11	26 - 29
10 Very Low	7 – 26	4 – 8	8 - 25

4. ALCOHOL WITHDRAWAL RECORDING FORMS

The following forms are available as supplementary prescription and administration charts:

- Chlordiazepoxide (adults) – CARDEA code LP106788
- The following can be ordered via contacting TEWV.pharmacyadmin@nhs.net Telephone: 01642 837680 / 0191 4415775
  - Chlordiazepoxide (MHSOP)
  - Oxazepam



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Alcohol detoxification chart –Chlordiazepoxide

Patient name:_____ NHS No. _____ DOB: _____ Ward: _____ Consultant: _____

SADQ or Units per day	Regular doses Date/ Prescriber's Signature	Morning			Lunch			Evening			Night			Total dose	Max.PRN dose allowed in 24 hours	PRN (symptom triggered) doses: If AWS 6-9, give Chlordiazepoxide 10 mg tablets (min. 1hr between doses)			If AWS higher than 10, give Chlordiazepoxide 20 mg tablets (min. 1hr between doses)		
		Dose	AWS	Sign	Dose	AWS	Sign	Dose	AWS	Sign	Dose	AWS	Sign			Time	AWS	Sign	Time	AWS	Sign
>50	__/__/__	50mg			50mg			50mg			50mg			200mg	50mg						
	__/__/__	40mg			40mg			40mg			40mg			160mg	90mg						
30-45	__/__/__	35mg			35mg			35mg			35mg			140mg	110mg						
	__/__/__	30mg			30mg			30mg			30mg			120mg	130mg						
15-25	__/__/__	20mg			20mg			20mg			20mg			80mg	170mg						
	__/__/__	15mg			15mg			15mg			15mg			60mg	190mg						
	__/__/__	10mg			10mg			10mg			10mg			40mg	210mg						
	__/__/__	5mg			5mg			5mg			5mg			20mg	230mg						
	__/__/__	5mg						5mg						10mg	240mg						

Please read warnings on the reverse of this document prior to prescribing!

Alcohol detoxification chart – Chlordiazepoxide * MHSOP services *****

Regular & PRN Chlordiazepoxide must be written on drug prescription and administration record with the direction to see dosing chart

Patient name:_____ NHS No. _____ DOB: _____ Ward: _____ Consultant: _____

	Regular doses Date/ Prescriber's Signature	Morning			Lunch			Evening			Night			PRN (symptom triggered) doses: If AWS 6-9, give Chlordiazepoxide 10 mg (min. 1hr between doses)			If AWS higher than 10, give Chlordiazepoxide 20 mg (min. 1hr between doses)			Max.PRN dose allowed in 24 hours
		Dose	AWS	Sign	Dose	AWS	Sign	Dose	AWS	Sign	Dose	AWS	Sign	Time	AWS	Sign	Time	AWS	Sign	
	__/__/__	20mg			20mg			20mg			20mg									40mg
	__/__/__	15mg			15mg			15mg			15mg									30mg
Start here for frail elderly	__/__/__	10mg			10mg			10mg			10mg									20mg
	__/__/__	10mg			5mg			5mg			10mg									10mg
	__/__/__	5mg			5mg			5mg			5mg									10mg
	__/__/__	5mg									5mg									If PRN medication is required medical review to prescribe
	__/__/__										5mg									

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Alcohol detoxification chart –Oxazepam

Patient name:_____ NHS No. _____ DOB: _____ Ward: _____ Consultant: _____

SADQ or Units per day	Regular doses													PRN (symptom triggered) doses						
	Date/ Prescriber's Signature	Morning			Lunch			Evening			Night			Total dose	Max.PRN dose allowed in 24 hours	If AWS 6-9, give **Oxazepam 10 mg** tablets (min. 1hr between doses)			If AWS higher than 10, give **Oxazepam 10 mg two tablets** (min. 1hr between doses)		
		Dose	AWS	Sign	Dose	AWS	Sign	Dose	AWS	Sign	Dose	AWS	Sign			Time	AWS	Sign	Time	AWS	Sign
>50	__/__/__	50mg			50mg			50mg			50mg			200mg	50mg						
	__/__/__	40mg			40mg			40mg			40mg			160mg	90mg						
30-45	__/__/__	35mg			35mg			35mg			35mg			140mg	110mg						
	__/__/__	30mg			30mg			30mg			30mg			120mg	130mg						
15-25	__/__/__	20mg			20mg			20mg			20mg			80mg	170mg						
	__/__/__	15mg			15mg			15mg			15mg			60mg	190mg						
	__/__/__	10mg			10mg			10mg			10mg			40mg	210mg						
	__/__/__	5mg			5mg			5mg			5mg			20mg	230mg						
	__/__/__	5mg						5mg						10mg	240mg						

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5. COMPLICATIONS OF ALCOHOL WITHDRAWAL

5.1. Delirium Tremens

Risks

Patient receiving ineffective treatment

- Patient presenting late with alcohol withdrawal symptoms not having received treatment
- Patient has suffered a withdrawal seizure (up to 30% may develop Delirium Tremens)
- Previous history of Delirium Tremens

Prophylaxis

- Review withdrawal drug regime according to Alcohol Withdrawal Scale (AWS)
- Initiate treatment as soon as possible using AWS
- Optimise and review dose if patient has suffered from a withdrawal seizure

Recognition

- Agitation
- Disorientation
- Confusion
- Sweating profusely
- Fever
- Autonomic hyperactivity (tachycardia and hypertension)
- Visual Hallucinations (No insight)
- Nightmares

Treatment

- Referral to the medical team as the mortality rate for untreated patients is 10-15%
- **First Line treatment:** Oral Lorazepam
- If oral lorazepam declined or there are severe symptoms – give IM Lorazepam with or without haloperidol –neither lorazepam nor haloperidol are licenced for this indication; Haloperidol - be mindful of risk of hypertension, QTc prolongation and reduced seizure threshold; parenteral procyclidine should be available in case of dystonic reactions.
- **General measures:** Nurse patient under increased level of observations in a well-lit area away from other patients. Keep external stimuli (especially noise) to a minimum. Use a friendly, empathic, understanding but firm approach. Be aware of possible withdrawal fits.

5.2. Wernicke's Encephalopathy

Prevention of Wernicke's encephalopathy – oral or parenteral thiamine?

Oral thiamine has a saturable absorption mechanism which allows only about 4.5 mg of an oral dose to be absorbed in healthy individuals; thus, only about 13.5 mg of a daily dose of 100 mg three times daily will be absorbed, adequate for mild deficiency only[2]. In chronic alcohol misusers, oral absorption can be reduced by 70% - large oral doses are therefore futile and adequate parenteral therapy should be routine.[2]

NICE recommend that prophylactic parenteral thiamine followed by oral thiamine should be offered to dependent drinkers who are admitted to hospital with an acute illness or injury. Therefore **all** patients undergoing inpatient alcohol detoxification should receive:

High potency vitamin B complex (Pabrinex®) - one pair (7ml) of ampoules daily by INTRAMUSCULAR injection for five days

The licensed dose for administration is 7ml as a single dose injected slowly high into the gluteal muscle, 5cm below the iliac crest. This volume can be split **after** mixing & administered over two injection sites for patient comfort (unlicensed); a separate needle & syringe must be used for each injection site. See appendix 1 (N.B. this process should be witnessed to ensure patient safety)

followed by

Thiamine 100 mg three times daily ORALLY, continued for two weeks after discharge.

If the patient refuses IM administration or IM administration is difficult e.g. frailty, low muscle mass: a clinical discussion must take place to consider alternatives including admission to the local acute Trust for IV Pabrinex. Oral thiamine replacement is only considered suitable for low-risk drinkers, without neuropsychiatric complications and with an adequate diet.

There is no published evidence to support prescribing of any other oral vitamin B complex preparations (e.g. vitamin B co. strong tablets) following in-patient alcohol detoxification.

Prescribing at discharge

Oral thiamine is the only vitamin supplement that should be prescribed for patients at discharge – those who have received Pabrinex should receive a 2-week supply on discharge; those who refused Pabrinex or have ongoing cognitive impairment should receive sufficient to complete a 6 week course, or a 2-week supply, whichever is the greater. This should be prescribed and supplied by TEWV and communication to the GP should be clear that this does not need to be continued, unless the patient continues harmful levels of drinking and is at risk of malnourishment.

Suspected Wernicke's encephalopathy

Initiate treatment with Pabrinex® as above AND contact the local medical team immediately to arrange transfer for further treatment (mortality rate 10-20%).

Magnesium

There is some evidence that patients with low magnesium levels (also caused by malnourishment) may not respond adequately to parenteral thiamine[3,4]. NICE do not make any reference to checking magnesium levels or offering magnesium supplements to patients undergoing alcohol detoxification, therefore this is not routinely recommended.

References:

1. NICE Clinical Guideline 100. Alcohol-use disorders: Diagnosis and clinical management of alcohol related physical complications 2010 (Updated April 2017)
2. Bazire S. Psychotropic Drug Directory 2018
3. Peake RW, Godber IM, Maguire D; The effect of magnesium administration on erythrocyte transketolase activity in alcoholic patients treated with thiamine http://www.ncbi.nlm.nih.gov/pubmed/23960051
4. Allan D. Thomson, Christopher C. H. Cook, Robin Touquet, John A. Henry; The Royal College of Physicians Report on Alcohol: Guidelines for Managing Wernicke's Encephalopathy in the Accident and Emergency Department; DOI: http://dx.doi.org/10.1093/alcalc/37.6.513 513-521 First published online: 1 November 2002

5.3. Seizures

Risks

- Patient receiving ineffective treatment
- Patient presenting late with alcohol withdrawal symptoms having not received treatment
- Previous history of withdrawal seizures

Prophylaxis

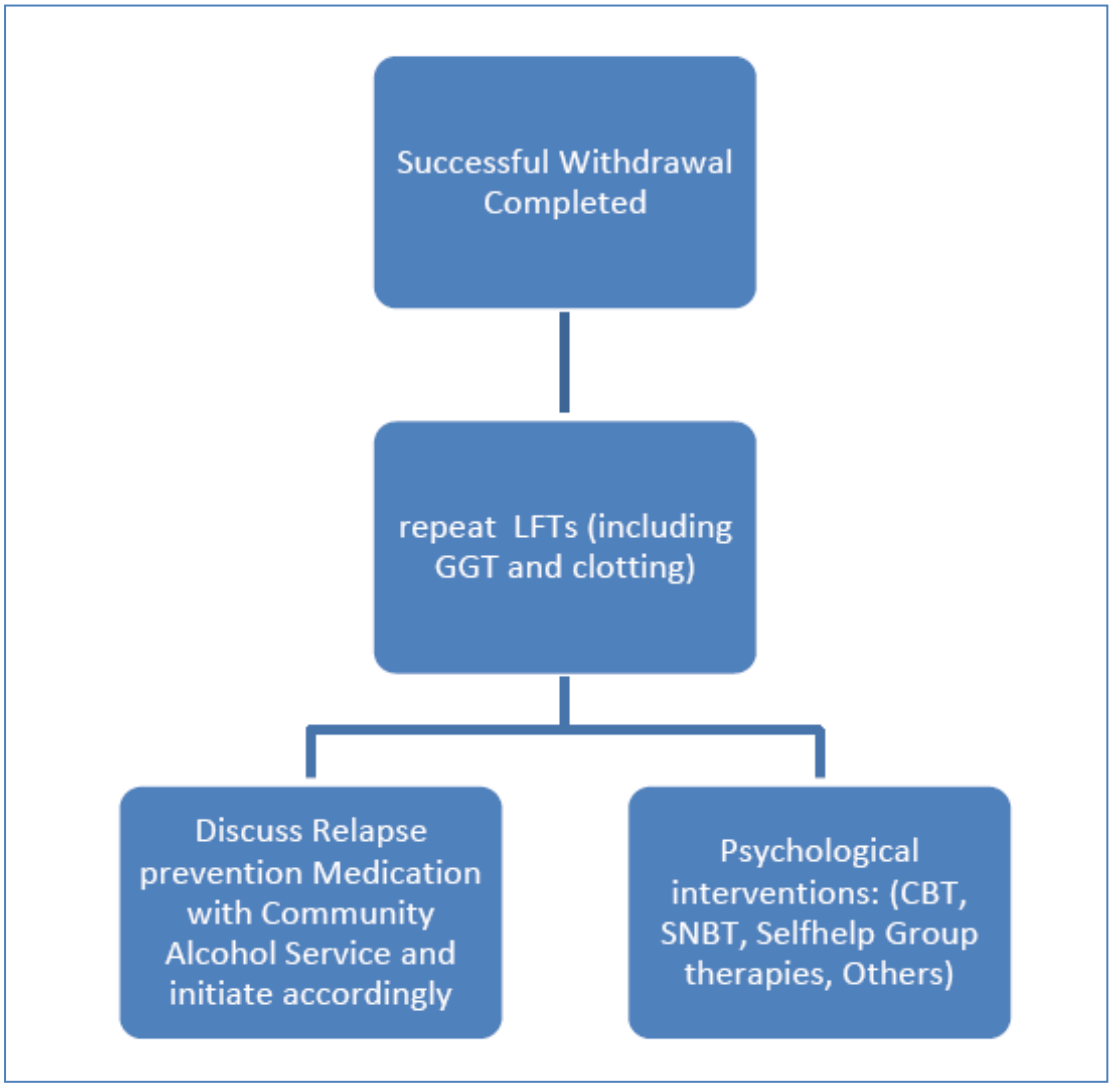
- Optimise and review dose if Alcohol Withdrawal Scale (AWS) score is > 10
- To follow prescribing guidelines – i.e. Severity of Alcohol Dependence Questionnaire (SADQ) scoring

Treatment

- Diazepam per rectum 10 mg
- NICE also recommends that in people with alcohol withdrawal seizures, offering a quick-acting benzodiazepine (such as lorazepam) should be considered to reduce the likelihood of further seizures and if seizures occur in a patient during treatment for acute alcohol withdrawal, that their withdrawal drug regimen should be reviewed.
- Do not offer phenytoin to treat alcohol withdrawal seizures.

6. RELAPSE PREVENTION

6.1. Overview



Title	Alcohol Detoxification: Inpatient Clinical Algorithm		
Approved by	Drug & Therapeutics Committee	Date of Approval	25th March 2021
Protocol Number	PHARM/0100/V2	Date of Review	30th April 2025 (extended)

6.2. Disulfiram

When

- At least 24 h after the last alcoholic drink
- To be discussed at formulation meeting or prior admission for elected admission

Indications

When service user has a goal of abstinence, prefers Disulfiram and understands the risks relative to other options, i.e. severe reaction if alcohol is consumed

Dose

200 mg daily for at least 1 week. If not sufficiently unpleasant reaction consider increase dose (maximum dose 500 mg daily)

Disulfiram Alcohol Reaction

- Severe flushing (red face)
- Difficulty breathing
- Headache
- Palpitations
- Hypotension
- Nausea & Vomiting
- Can be fatal with high doses.

Most common side effects

- Drowsiness
- Gastrointestinal symptoms (Nausea & Vomiting)
- Halitosis (Bad breath)
- Rarely Hepatotoxicity (1/30.000)

Contraindications

- Suicidal risk or psychosis
- History of heart disease such heart failure or coronary artery disease
- History of stroke
- Hypertensive (diastolic average more than 100mm Hg systolic average more than 160 Hg)
- Severe personality disorder
- If alcohol has been consumed within the previous 24 hours
- Hypersensitivity to the active substance, disulfiram or to any of the excipients listed in the SPC.

Cautions

- Pregnancy (date last menstrual period and/or pregnancy test) or breast-feeding

- History liver disease (check LFTs), renal impairment (check U&E), respiratory disease, diabetes mellitus (check blood sugar levels) hypothyroidism, cerebral damage and epilepsy.
- Check with Pharmacy for any potential interaction with concurrent medication

Patient information

- Patient and carers are aware of unpredictable, potentially fatal interaction with alcohol up to TWO weeks after taking disulfiram
- Likely reaction has been explained
- No alcohol for at least 24 hours prior to starting
- Patient has treatment card, disulfiram leaflet and sheet detailing products containing alcohol
- A range of patient information leaflets are available via Choice and Medication
- Patient is aware that, uncommonly, side effects can occur initially such fatigue, drowsiness, nausea, vomiting, bad breath, reduced libido, rarely skin conditions, psychiatric illness and nerve damage and in the first six months

Follow up arrangements (NICE CG115)

- Patients should stay under supervision every two weeks for first two months then monthly for the following four months
- If possible a family member or carer (who is properly informed about disulfiram) should oversee the administration of the drug
- Patients should be medically monitored every 6 months after the first 6 months of treatment and monitoring

Stop

- If patient reports symptoms suggesting hepatotoxicity i.e. jaundice, fever and abdominal pain.
- If persistent alcohol use on top of medication

6.3. Acamprosate

When

As soon as possible after assisted withdrawal

Indications

To maintain abstinence in alcohol-dependent patients who have completed detoxification and are considered unsuitable for disulfiram (risk of alcohol consumption)

Dose

- Bodyweight 60 kg and above - 1998 mg (666 mg three times a day)
- Bodyweight less than 60 kg - 1332 mg (666 mg once daily, at breakfast + 333 mg twice daily, at midday and at night)

Most common side effects

- Gastrointestinal symptoms - diarrhoea, abdominal pain, nausea & vomiting
- Pruritus

Contra-indications

- Hypersensitivity to the active substance or to any of the excipients listed in the SPC
- Breast-feeding
- Patients with renal impairment (serum creatinine >120 micromol/litre)

Cautions

- Safety and efficacy not established in patients younger than 18 years or older than 65 years; Acamprosate is not recommended for use in these populations.
- Safety and efficacy not established in patients with severe liver insufficiency (Childs-Pugh Classification C)
- There are no adequate data from the use of Acamprosate in pregnant women; Acamprosate must only be used in pregnancy after a careful risk/benefit assessment.

Follow up arrangements (NICE CG115)

- Monthly supervision for 6 months (less frequently thereafter)
- The inter-relationship between alcohol dependence, depression and suicidality is well recognised and complex, it is recommended that alcohol-dependent patients, including those treated with Acamprosate, be monitored for such symptoms.

Patient information

Available via Choice and Medication

Stop

- If drinking persists 4-6 weeks after starting drug

- The recommended treatment period is 6 months (NICE CG115) or one year (SPC), initiated as soon as possible after the withdrawal period and maintained if the patient relapses

6.4. Naltrexone

When

After assisted withdrawal following consultation with alcohol service

Indications

To prevent relapse in formerly alcohol-dependent patients

Dose

Initially 25 mg/day (half a tablet) on the first day, increased if tolerated to 50 mg/day

Most Common Side Effects

- Gastrointestinal symptoms - Abdominal pain, cramps, nausea & vomiting
- Nervous system – Headache, sleep disorders and restlessness
- Psychiatric disorders – Nervousness, anxiety, insomnia
- Musculoskeletal & connective tissue disorders – arthralgia, myalgia

Contra-indications

- Hypersensitivity to the active substance or any of the excipients listed in the SPC
- Severe renal impairment
- Severe Hepatic Impairment
- Acute hepatitis
- Opioid addicted patients with a current abuse of opioids since an acute withdrawal syndrome may ensue
- Positive screening result for opioids or after failure of the naloxone provocation test
- In combination with an opioid-containing medication or methadone
- Breast feeding

Cautions

- Safety and efficacy not established in patients younger than 18 years or older than 65 years; Naltrexone is not recommended for use in these populations.
- No clinical data on Naltrexone use in pregnancy, the potential risk for humans is unknown. Naltrexone should only be given to pregnant women, when in the judgment of the physician; the potential benefits outweigh the possible risks.

Follow Up Arrangements (NICE CG115)

- Monthly supervision for 6 months (less frequently but at regular intervals thereafter)

Patient Information

- An information card regarding the impact of naltrexone on opioid-based analgesics is supplied with oral naltrexone
- Patient information leaflets are available via Choice and Medication

Stop

- If drinking persists 4-6 weeks after starting drug

Appendix 1 – Administration of Pabrinex

The appropriate site for this type of administration is the gluteus medious/ventro gluteal used for deep intramuscular (I.M) using the Z - track injections technique. This is identified as the upper outer quadrant of the buttock. This site is used to lower risk of hitting the sciatic nerve and the superior gluteal arteries. The Z - tracking method involves pulling the underlying skin down wards or on to one side of the injection site, inserting the needle at a right angle to the skin, which moves the subcutaneous and cutaneous muscle tissues by approximately 1-2 cm. The injection is given and the needle withdrawn, whilst releasing and retracting the skin at the same time. This manoeuvre seals of the puncture tract at the junction at each tissue layer.

It is generally recommended that IM injection cannot be administered in volumes larger than 5 ml, but the preferred volume is not larger than 4 ml. Therefore for Pabrinex, the 7 ml volume should be split in to two administrations. The same barrel and needle should not be withdrawn and re - sited.

Some patients may prefer to have their injection on a single site and this option can be discussed with them.

Procedure

Equipment to be in date and sterile, where appropriate.

- Recently prescribed medication. Supplied in two vials.
- 10ml syringe
- 5ml syringe
- Filter needle
- 2 needles for administration, long enough to ensure I.M injection 20G
- Gloves
- Swabs for site cleaning
- Plasters
- Sharps bin.
- Appropriate equipment ('Shock Pack') for the management of anaphylaxis (containing adrenaline 1:1000 1mg/ml)

Preparation

- Check dates on vials.
- Snap open tops
- Draw contents in to 10 ml syringe to mix. Total volume 7 ml.
- Divide half to 5 ml syringe (if patient has indicated preference for two injections)
- Renew the needle on to the barrel so that both syringes have fresh needles.

Implementation

- Confirm patient identity and script validity.
- Obtain consent for procedure

• Ask patient to lie on bed in prone position.
• Select and prepare injection site.
• Clean site using alcohol swab in circular motion of 5 cm, for 30 seconds. Allow to dry.
• Put gloves on. With thumb and finger of non-dominant hand gently stretch back skin and hold taut.
• Remove needle sheath. Position at 90- degree to skin surface away from skin.
• Inform patient they will notice injection
• Quickly and smoothly thrust the needle through the skin and sub cutaneous tissue in to the deep muscle.
• Support syringe and check for blood by slowly pulling back plunger, if no blood appears slowly inject the appropriate volume.
• Remove needle and allow skin to relax.
• Apply plaster.
• Consider slow massage to help distribute the drug.
• Repeat procedure for 2nd half of the injection at opposite side of body (if appropriate)

Aftercare

• Discard of equipment safely.
• Observe for anaphylactic- type reaction for 30 minutes.
• Sign medication card and make entry in patient records.

If repeatedly injecting vary sites as much as possible and avoid previous sites by 2.5cm.

Ice can be used to numb the injection site, or lower pain if appropriate for patient comfort.

Reproduced with thanks to Rotherham, Doncaster and South Humber NHS Foundation Trust

IM Pabrinex®

What, why, when & how to use it

What?

Pabrinex® is an injection that contains the vitamins thiamine, riboflavin, pyridoxine, ascorbic acid and nicotinamide. It also contains benzyl alcohol as a local anaesthetic. For *intramuscular* administration, 1 pair is one 5 mL ampoule containing thiamine 250 mg, riboflavin 4 mg & pyridoxine 50 mg, and one 2 mL ampoule

Why?

Wernicke's encephalopathy is a relatively common but potentially fatal neurological emergency resulting from thiamine deficiency with varied neurocognitive manifestations, typically involving mental status changes and gait and oculomotor dysfunction. It is preventable and reversible if treated early, but unless it is treated as an emergency with thiamine replacement parenterally, permanent neurological injury (inc. Korsakoff psychosis) may occur.

Patients at high risk for developing thiamine deficiency may benefit from supplementary thiamine intake either parenterally or orally depending on clinical circumstances. This includes patients with chronic alcohol-use disorder or history of alcohol intoxication, repeated vomiting, or poor oral intake; patients with a history of Wernicke's encephalopathy; immunocompromised patients; patients with cancer or

When?

NICE CG100 recommends offering parenteral thiamine followed by oral thiamine to people at high risk of developing (including harmful or dependent drinkers) or with suspected Wernicke's encephalopathy if they:

- Are malnourished or at risk of malnourishment **or**
- Have decompensated liver disease and in addition
  - Attend an emergency department **or**
  - Are admitted to hospital with an acute illness or injury

In addition NICE CG115 recommends offering parenteral thiamine followed by oral thiamine to people entering planned assisted alcohol withdrawal in specialist inpatient alcohol services that are malnourished, at risk of malnourishment or have decompensated liver disease.

In chronic alcohol misusers, oral thiamine absorption can be reduced by 70% - large oral doses are therefore futile and adequate parenteral therapy should be routine. Trust Guidance recommends that **all** patients admitted for in-patient alcohol detoxification should receive IM Pabrinex for 5 days followed by oral thiamine to

How?

Pabrinex® IM to prevent Wernicke's encephalopathy: Administer ONE pair, ONCE daily for at least FIVE days. The contents of both ampoules should be drawn up into a syringe and mixed together immediately prior to administration. The licensed dose for administration is 7 ml as a single dose injected slowly high into the gluteal muscle, 5 cm below the iliac crest. This volume can be split **after** mixing & administered over two injection sites for patient comfort (unlicensed); a separate needle & syringe must be used for each injection site. **If the patient refuses IM administration** or **if IM administration is difficult e.g. frailty, low muscle mass**: a clinical discussion must take place to consider alternatives including admission to a medical hospital for IV Pabrinex. Oral thiamine replacement is only considered