Protocol for the management of alcohol withdrawal using a fixed benzodiazepine regime in mental health in-patient wards

Background

It is relatively common for patients admitted to mental health wards to have co-morbid alcohol problems. A proportion of those patients develop alcohol withdrawal shortly after admission. An audit at Leverndale Hospital demonstrated that there is a lack of consistency in the management of withdrawal symptoms. Problems experienced include failure to accurately assess and score alcohol use, confusion over an appropriate starting dose of benzodiazepine, failure to carry out daily dose reductions and failure to prescribe vitamin supplementation correctly.

The purpose of the protocol is to provide a consistent but flexible approach to the management of alcohol withdrawal in mental health in patient settings.

Scope

This protocol applies to all mental health in patient setting across NHS Greater Glasgow & Clyde. It does not apply to Alcohol and Drug Recovery Service in-patient units.

Assessment

Key to the successful treatment of alcohol withdrawal is effective assessment of patients. In addition to the standard assessment undertaken for all patients on admission (FAST tool on appendix 2 can aid assessment), if there is a suspicion of alcohol misuse prior to admission a formal assessment of the patient's alcohol use must be undertaken using the Severity of Alcohol Dependence Questionnaire (SAD-Q) (see appendix 1). The completed SAD-Q will be filed in the patient's care record and the score obtained will be entered on to the fixed dose benzodiazepine regime.

Benzodiazepine fixed regime

NICE guidelines recommend the use of fixed or symptom triggered dosing regimens with either chlordiazepoxide or diazepam to manage alcohol withdrawal. In mental health services **diazepam** is the drug of choice in adult and older adults. For patients with known liver impairment, **oxazepam** is the benzodiazepine of choice. To ensure consistency of treatment the Mental Health Drug & Therapeutics Committee has decided that a fixed dose regime is the best approach for our services. The forms on the following page will be used for this purpose. The starting dose chosen will depend on the SAD-Q obtained and the clinical judgement of the prescribing doctor.

Vitamin supplementation

Appropriate vitamin supplementation is essential to mitigate the risk of developing Wernicke's encephalopathy (see red box below regarding recognising acute illness) or Korsakoff's syndrome. The fixed dose regime contains a reminder to clinicians to prescribe intramuscular Pabrinex (see yellow box below regarding anaphylaxis) and oral thiamine to all patients undergoing treatment for alcohol withdrawal. Thiamine should be prescribed for all individuals as 50mg four times a day. This is the optimal dosing as thiamine's absorption is saturable and giving large doses less often will

result in poorer absorption. Supplementation with thiamine should be continued indefinitely for those with a history of significant alcohol abuse. Thiamine should also be continued in individuals who continue to engage in problem drinking as chronic alcohol reduces thiamine absorption and these individuals are particularly at risk of developing alcohol-related brain damage. Long-term adherence to four times daily thiamine may be a challenge, but the importance of therapy should be underlined and individuals should be encouraged to take thiamine as often as they remember e.g. encourage to take with meals. Where there is evidence of poor dietary intake, treatment with a multivitamin preparation containing trace elements should also be considered in addition to thiamine.

Wernicke's Encephalopathy is an acute illness, which may be precipitated by alcohol withdrawal and is often under treated or missed.

If a patient presents with history of alcohol misuse and any of the following symptoms, this should be treated as a **medical emergency**:

- Acute confusion
- Ataxia/unsteadiness
- Decreased consciousness
- Unconciousness/coma
- Unexplained hypotension with hypothermia
- Opthalmoplegia/Nystagmus
- Memory disturbance

Pabrinex is contraindicated if the patient is known to have an allergy to any of the components of the product or a previous reaction is noted.

MHRA/CHM advice (September 2007)
Although potentially serious allergic adverse reactions may rarely occur during, or shortly after, parenteral administration, the CHM has recommended that:
1. This should not preclude the use parenteral thiamine particularly in patients at risk of Wernicke-Korsakoff syndrome where parenteral treatment with thiamine is essential.
2. Facilities for treating anaphylaxis should be available when parenteral thiamine is administered.

Please note: Risk of anaphylaxis is very low 1/1 million i.v. and 1/5 million i.m. It is far lower than for other im/iv preparations administered without special cautions. All efforts should be made to ensure adequate vitamin B supplementation or consequently failure to do so can have life-long implications.

Monitoring

The patient's blood pressure, pulse and temperature should be monitored at 4 hourly intervals throughout treatment with close observation for over sedation. The patient should be medically reviewed as necessary during the course of treatment.

Adult diazepam fixed dose regime

Patient's Name:				CHI Number:					
SADQ score:									
Severity of alcohol dependence		Moderate: SADQ = 15-25		Severe: SADQ = 30-40		Very severe: SADQ = 40-60			
Day	Date	9am	1pm	5pm	10pm	PRN 'As required' Doses			Starting point
1		20mg	20mg	20mg	20mg	Single dose: 20mg. Max daily dose: 60mg. Min dose interval: 2 hourly.			Very Severe[b]
		Admin:	Admin:	Admin:	Admin:	Admin/Time:	Admin/Time:	Admin/Time:	
2		20mg	20mg	20mg	20mg	Single dose: 20mg. Max daily dose: 40 mg. Min dose interval: 2 hourly.			
		Admin:	Admin:	Admin:	Admin:	Admin/Time:	Admin/Time:		
3		15mg	15mg	15mg	15mg	Single dose: 10 mg. Max daily dose: 30 mg. Min dose interval: 2 hourly.			Severe[a]
		Admin :	Admin:	Admin:	Admin:	Admin/Time:	Admin/Time:	Admin/Time	
4		15mg	15mg	15mg	15mg	Single dose: 10 mg. Max daily dose: 10 mg. Min dose interval: 2 hourly.			
		Admin:	Admin:	Admin :	Admin:	Admin / Time:			
5		15mg	10mg	10mg	15mg	Single dose: 5 mg. Max daily dose: 5 mg.			
		Admin:	Admin:	Admin:	Admin:	Admin / Time:			
6		10mg	10mg	10mg	10mg	NO PRN (unless prescribed specifically)			Moderate
		Admin:	Admin:	Admin:	Admin:				
7		10mg	5mg	5mg	10mg	NO PRN (unless prescribed specifically)			
		Admin:	Admin:	Admin:	Admin:				
8		5mg	5mg	5mg	5mg	NO PRN (unless prescribed specifically)			
		Admin:	Admin:	Admin :	Admin:				
9		5mg		5mg	5mg	NO PRN (unless prescribed specifically)			
		Admin:		Admin :	Admin:				
10		5mg			5mg	NO PRN (unless prescribed specifically)			
		Admin :			Admin:				
11					5mg	NO PRN (unless prescribed specifically)			
					Admin:				

a. Only prescribe doses above 50mg/day in patients with severe dependence. Response must be regularly & closely monitored.

b. Only prescribe doses above 80mg/day in patients with very severe dependence and <u>never</u> for older people or people with liver impairment.

Prescribe 1 pair of Pabrinex IMHP ampoules daily on HEPMA as a 5 day course immediately followed by regular <u>oral thiamine 50mg four times a day</u> thereafter.

Older Adult diazepam fixed dose regime

Patient's Name:				CHI Number:							
SADQ score:											
Severity of alcohol dependence		Moderate- SADQ = 15-25			Severe- SADQ = 30-40			Very severe- SADQ = 40-60			
Day	Date	9am	1pm	5pm	10pm	PRN 'As required' Doses			Starting point		
1		10mg	10mg	10mg	10mg	Single dose: 10mg. Max daily dose: 30mg. Min dose interval: 2 hourly.			Very Severe[b]		
		Admin:	Admin:	Admin:	Admin:	Admin/Time:	Admin/Time:	Admin/Time:			
2		10mg	10mg	10mg	10mg	Single dose: 10mg. Max daily dose: 20 mg. Min dose interval: 2 hourly.					
		Admin:	Admin:	Admin:	Admin:	Admin/Time:	Admin/Time:				
3		10mg	5mg	5mg	10mg	Single dose: 5 mg. Max daily dose: 15 mg. Min dose interval: 2 hourly.			Severe[a]		
		Admin:	Admin:	Admin:	Admin:	Admin/Time:	Admin/Time:	Admin/Time			
4		10mg	5mg	5mg	10mg	Single dose: 5 mg. Max daily dose: 10 mg. Min dose interval: 2 hourly.					
		Admin:	Admin:	Admin:	Admin:	Admin/Time:					
5		5mg	5mg	5mg	10mg	Single dose: 5 mg. Max daily dose: 5 mg.					
		Admin:	Admin:	Admin:	Admin:	Admin/Time:					
6		5mg	5mg	5mg	5mg	NO PRN (unless prescribed specifically)			Moderate		
		Admin:	Admin:	Admin:	Admin:						
7		5mg		5mg	5mg	NO PRN (unless prescribed specifically)					
		Admin:		Admin:	Admin:						
8		5mg			5mg	NO PRN (unless prescribed specifically)					
		Admin:			Admin:						
9					5mg	NO PRN (unless prescribed specifically)					
					Admin:						
10					2mg	NO PRN (unless prescribed specifically)					
					Admin:						

a. Only prescribe doses above 25mg/day in patients with severe dependence. Response must be regularly & closely monitored.

b. Only prescribe doses above 40mg/day in patients with very severe dependence

Prescribe 1 pair of Pabrinex IMHP ampoules daily on HEPMA as a 5 day course immediately followed by regular oral thiamine 50mg four times a day thereafter.

Liver impairment- oxazepam fixed dose regime

Patient's Name:				CHI Number:							
SADQ score:											
Severity of alcohol dependence		Moderate- SADQ = 15-25		Severe- SADQ = 30-40			Very severe- SADQ = 40-60				
Day	Date	9am	1pm	5pm	10pm	PRN 'As required' Doses				Starting point	
1		40mg	40mg	40mg	40mg	Single dose: 40 mg. Max daily dose: 120 mg. Min dose interval: 2 hourly.					Very Severe[b]
		Admin:	Admin:	Admin:	Admin:	Admin/Time:	Admin/Time:	Admin/Time:			
2		40mg	30mg	40mg	40mg	Single dose: 40 mg. Max daily dose: 80 mg. Min dose interval: 2 hourly.					
		Admin:	Admin:	Admin:	Admin:	Admin/Time:	Admin/Time:				
3		30mg	30mg	30mg	40mg	Single dose: 20 mg. Max daily dose: 40 mg. Min dose interval: 2 hourly.					Severe[a]
		Admin:	Admin:	Admin:	Admin:	Admin/Time:	Admin/Time:				
4		30mg	20mg	30mg	30mg	Single dose: 10 mg. Max daily dose: 20 mg. Min dose interval: 2 hourly.					
		Admin:	Admin:	Admin:	Admin:	Admin/Time:	Admin/Time:				
5		20mg	20mg	20mg	30mg	Single dose: 10 mg. Max daily dose: 10 mg.					
		Admin:	Admin:	Admin:	Admin:	Admin/Time:					
6		20mg	10mg	20mg	20mg	NO PRN (unless prescribed specifically)					Moderate
		Admin:	Admin:	Admin:	Admin:						
7		10mg	10mg	10mg	20mg	NO PRN (unless prescribed specifically)					
		Admin:	Admin:	Admin:	Admin:						
8		10mg	10mg	10mg	10mg	NO PRN (unless prescribed specifically)					
		Admin:	Admin:	Admin:	Admin:						
9		10mg			10mg	NO PRN (unless prescribed specifically)					
		Admin:			Admin:						
10					10mg	NO PRN (unless prescribed specifically)					
					Admin:						

a. Only prescribe doses above 90mg/ day in patients with severe dependence. Response must be regularly & closely monitored.
b. Only prescribe doses above 120mg/day in patients with very severe dependence

Prescribe 1 pair of Pabrinex IMHP ampoules daily on HEPMA as a 5 day course immediately followed by regular oral thiamine 50mg four times a day thereafter.

Notes on the use of the fixed dose regime

1. A SADQ test must be undertaken by the admitting/assessing doctor before prescribing the fixed dose regime.
2. Record the score on the form in the space provided.
3. Select the appropriate day to start based on the score obtained. Score out any days that are not required.
4. Insert the appropriate dates in the date column.
5. Prescribe diazepam/ oxazepam on HEPMA 'as charted'.
6. Chosen benzodiazepine should initially be prescribed for breakthrough withdrawal symptoms on an 'as required' basis as per chart.

   Note: if the patient requires 2 or more as required doses reassess the point on the chart and consider moving the patient to an earlier day on the chart. This will require the first chart to be cancelled and a new one commenced.
   If the as required dose is not used, consider discontinuing it after 48 hours and always on the completion of the regime.
7. Sign the form.
8. Administration will be recorded on the patients HEPMA record.

SEVERITY OF ALCOHOL DEPENDENCE QUESTIONAIRE (SADQ-C)[1]

NAME_____AGE_____No._____

DATE:

Please recall a typical period of heavy drinking in the last 6 months.

When was this? Month:…… Year……..

Please answer all the following questions about your drinking by circling your most appropriate response.

During that period of heavy drinking

1. The day after drinking alcohol, I woke up feeling sweaty.
ALMOST NEVER SOMETIMES OFTEN NEARLY ALWAYS

2. The day after drinking alcohol, my hands shook first thing in the morning.
ALMOST NEVER SOMETIMES OFTEN NEARLY ALWAYS

3. The day after drinking alcohol, my whole body shook violently first thing in the morning if I didn't have a drink.
ALMOST NEVER SOMETIMES OFTEN NEARLY ALWAYS

4. The day after drinking alcohol, I woke up absolutely drenched in sweat.
ALMOST NEVER SOMETIMES OFTEN NEARLY ALWAYS

5. The day after drinking alcohol, I dread waking up in the morning.
ALMOST NEVER SOMETIMES OFTEN NEARLY ALWAYS

6. The day after drinking alcohol, I was frightened of meeting people first thing in the morning.
ALMOST NEVER SOMETIMES OFTEN NEARLY ALWAYS

7. The day after drinking alcohol, I felt at the edge of despair when I awoke.
ALMOST NEVER SOMETIMES OFTEN NEARLY ALWAYS

8. The day after drinking alcohol, I felt very frightened when I awoke.
ALMOST NEVER SOMETIMES OFTEN NEARLY ALWAYS

9. The day after drinking alcohol, I liked to have an alcoholic drink in the morning.
ALMOST NEVER SOMETIMES OFTEN NEARLY ALWAYS

10. The day after drinking alcohol, I always gulped my first few alcoholic drinks down as quickly as possible.
ALMOST NEVER SOMETIMES OFTEN NEARLY ALWAYS

11. The day after drinking alcohol, I drank more alcohol to get rid of the shakes.
ALMOST NEVER SOMETIMES OFTEN NEARLY ALWAYS

[1] Stockwell, T., Sitharan, T., McGrath, D.& Lang, . (1994). The measurement of alcohol dependence and impaired control in community samples. Addiction, 89, 167-174.

12. The day after drinking alcohol, I had a very strong craving for a drink when I awoke.
ALMOST NEVER SOMETIMES OFTEN ALMOST ALWAYS

13. I drank more than a quarter of a bottle of spirits in a day (OR 1 bottle of wine OR 7 beers).
ALMOST NEVER SOMETIMES OFTEN ALMOST ALWAYS

14. I drank more than half a bottle of spirits per day (OR 2 bottles of wine OR 15 beers).
ALMOST NEVER SOMETIMES OFTEN ALMOST ALWAYS

15. I drank more than one bottle of spirits per day (OR 4 bottles of wine OR 30 beers).
ALMOST NEVER SOMETIMES OFTEN ALMOST ALWAYS

16. I drank more than two bottles of spirits per day (OR 8 bottles of wine OR 60 beers)
ALMOST NEVER SOMETIMES OFTEN ALMOST ALWAYS

Imagine the following situation:
1. You have been **completely off drink for a few weeks**
2. You then drink **very heavily** for **two days**

How would you feel the **morning after** those two days of drinking?

17. I would start to sweat.
NOT AT ALL SLIGHTLY MODERATELY QUITE A LOT

18. My hands would shake.
NOT AT ALL SLIGHTLY MODERATELY QUITE A LOT

19. My body would shake.
NOT AT ALL SLIGHTLY MODERATELY QUITE A LOT

20. I would be craving for a drink.
NOT AT ALL SLIGHTLY MODERATELY QUITE A LOT

SCORE

CHECKED BY:

ALCOHOL DETOX PRESCRIBED: YES/NO

NOTES ON THE USE OF THE SADQ

The Severity of Alcohol Dependence Questionnaire was developed by the Addiction Research Unit at the Maudsley Hospital. It is a measure of the severity of dependence. The AUDIT questionnaire, by contrast, is used to assess whether or not there is a problem with dependence.

The SADQ questions cover the following aspects of dependency syndrome:

- physical withdrawal symptoms
- affective withdrawal symptoms
- relief drinking
- frequency of alcohol consumption
- speed of onset of withdrawal symptoms.

Scoring
Answers to each question are rated on a four-point scale:

Almost never - 0
Sometimes 1
Often 2
Nearly always 3

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.
A chlordiazepoxide detoxification regime is usually indicated for someone who scores 16 or over.

It is essential to take account of the amount of alcohol that the patient reports drinking prior to admission as well as the result of the SADQ.

There is no correlation between the SADQ and such parameters as the MCV or GGT.

Appendix 2

FAST ALCOHOL SCREENING TEST (FAST)

FAST questions
Record the scores in the boxes on the right.

Question 1 — **How often do you have:**


6 or more units on one occasion? **or** 8 or more units on one occasion?


Never **= 0** | Less than monthly **= 1** | Monthly **= 2** | Weekly **= 3** | Daily or almost daily **= 4**

Score ☐

If the response to this question is "never", the person is **at low risk** for alcohol-related problems, but bear in mind the drinking limits

If the response to this question is "less than monthly" or "monthly" go on to ask questions **2, 3 and 4**

If the response to this question is "weekly" or "daily or almost daily" the person is a risky (hazardous), harmful or dependent drinker

Question 2

How often during the last year have you been unable to remember what happened the night before because you had been drinking?

Never **= 0** | Less than monthly **= 1** | Monthly **= 2** | Weekly **= 3** | Daily or almost daily **= 4**

Score ☐

Question 3

How often during the last year have you failed to do what was normally expected of you because you had been drinking?

Never **= 0** | Less than monthly **= 1** | Monthly **= 2** | Weekly **= 3** | Daily or almost daily **= 4**

Score ☐

Question 4

In the last year has a relative, friend, doctor or health worker been concerned about your drinking and suggested that you cut down?

No **= 0** | Yes, on one occasion **= 2** | Yes, on more than one occasion **= 4**

Score ☐

Add up the scores to the above questions and record below.
The minimum score is 0 and the maximum score is 16.

Total score: ☐ **The score for hazardous drinking is 3 or more**