Recognition and Treatment of Alcohol Misuse in Acute Hospital Setting

This guidance does not override the individual responsibility of health professionals to make appropriate decision according to the circumstances of the individual patient in consultation with the patient and /or carer. Healthcare professionals must be prepared to justify any deviation from this guidance.

Introduction

This guideline covers the identification of alcohol misuse, the identification and management of alcohol withdrawal, and the management of other alcohol misuse complications.

The guideline is for use by the following staff groups:

All staff involved in delivery of hands-on care in acute hospitals.

Lead clinician(s):

Cheryl Jones	Alcohol Liaison Nurse
Joseph Tikaram	Lead Pharmacist Acute Medicine

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Competencies required

- Standard Clinical Assessment Skills
- Standard Health Promotion Advice Delivery Skills
- For brief motivational intervention, training is available from external agencies and in-house (Please contact Alcohol Liaison Nurse via the email link on the intranet or at Worcester on 01905 763333 bleep 0343 or at the Alex on 01527 503030 bleep 1340)

Staff covered

- All staff involved in delivery of hands-on care in acute hospitals

Contents

In emergency, please refer direct to treatment algorithms on pages 20-25

Introduction

The misuse of alcohol and its complications are a significant burden on healthcare services. It is estimated that over 600,000 people in the England are dependent on alcohol (OHID, 2025). In 2023/24, there were over 1 million alcohol-related hospital admissions in England (OHID, 2024).

Patients who misuse alcohol are at risk of multiple morbidities that may require management in hospital, *e.g.* alcohol withdrawal, Wernicke's encephalopathy, alcoholic ketoacidosis, and delirium tremens; all of which are discussed throughout the guideline.

Section 1: Identifying alcohol misuse and dependence

How to identify alcohol misuse and dependence

Key definitions of alcohol misuse

- Hazardous drinking
  - A pattern of alcohol consumption that increases someone's risk of physical, psychological, or social harm.
  - Consumption: Drinking more than 14 units a week, but less than 35 units a week for women. Drinking more than 14 units a week, but less than 50 units for men.
- Harmful drinking
  - A pattern of alcohol consumption that is causing mental or physical damage.
  - Consumption: Drinking more than 35 units a week for women. Drinking more than 50 units a week for men.
- Alcohol dependence
  - The craving, tolerance, and preoccupation with alcohol and continued drinking in spite of harmful consequences (for example, liver disease or depression caused by drinking).

Methods to identify alcohol misuse and dependence

- Clinical findings and medical history elicited during clerking.
- Laboratory markers:
  - For example, raised LFTs and MCV.
  - Serum phosphate and magnesium may be low in acute alcohol withdrawal.
- Brief structured questionnaires (*e.g.* AUDIT, AUDIT-C) – see below.

ALL patients should be asked about alcohol consumption when admitted to hospital (*e.g.* at point of triage or clerking).

Identifying alcohol misuse and dependence when taking a history

- Ask the number of units the patient drinks per week, drinking patterns, recent drinking behaviours, and time of last drink.
- The AUDIT and the abbreviated AUDIT-C are useful tools for identifying alcohol misuse. See link to GOV.UK website for alcohol use screening tests:
  - https://www.gov.uk/government/publications/alcohol-use-screening-tests
  - Alcohol use disorders identification test for consumption (AUDIT-C)
    - A simplified 3-question tool derived from AUDIT. Can be used to quickly assess the patient's risk of alcohol-related harm.
    - AUDIT-C should be completed for all patients that attend ED despite reason for attendance.
    - Anyone with an AUDIT-C of 8 or above should be referred to Alcohol Liaison Nurse (ALN) for full assessment.
  - Alcohol use disorders identification test (AUDIT) – **to be completed by ALN**

        - 10-question tool that provides a comprehensive screening of patient's level of risk to alcohol-related harm.
- Pay attention to:
    - Compulsive drinking
    - Loss of control over drinking
    - Experience of withdrawal on abstinence
    - Evidence of tolerance to alcohol (requiring increasing amounts for desired effect)
    - Persistence of use (despite health and social harm)

If there are no medical/surgical/psychiatric reasons for a patient to be admitted to hospital they should never be admitted for emergency alcohol detoxification alone.

Section 2: Brief intervention and alcohol advice

Maximum alcohol consumption

- Recommendations are not dependent on sex or gender.
- Maximum 14 units of alcohol per week.
- Spread the units evenly throughout the week, whilst aiming for several alcohol-free days each week.

Patients identified as being alcohol dependent or at risk of misuse should be given the minimum advice to address alcohol consumption:

- There is no safe level of alcohol consumption, however not drinking more than 14 units a week will help keep the health risks from drinking alcohol to a low level.
- If you do drink as much as 14 units per week, it is best to spread this evenly throughout the week with at least 3 days alcohol-free.
- If you have one or two heavy drinking sessions, you increase your risks of death from long term illnesses and from accidents and injuries.
- The risk of developing a range of illnesses (including for example, cancers of the mouth, throat, and breast) increases with any amount you drink on a regular basis.
- If you are pregnant or planning a pregnancy the safest approach is not to drink alcohol at all, to minimise risks to the unborn baby.

Brief advice and brief intervention

- Patients identified from screening tools as drinking a hazardous or harmful amount of alcohol should be provided with **brief advice**. If this cannot be offered immediately, there should be a plan to do so at the next possible time.
- Brief advice should take 5-10 minutes and should cover:
    - The potential harm caused by their level of drinking and reasons for changing the behaviour, including the benefits to their health and wellbeing.
    - The patient's barriers to change.
    - Practical strategies to help reduce alcohol consumption, and should lead to a set of goals.
- If a patient has not responded to brief advice, they require an extended **brief intervention**. The Alcohol Liaison Nurses can provide training to any staff on delivering brief intervention. Alternatively, a referral to the Alcohol Liaison Nurses can be made to allow brief intervention to be carried out. See **Section 7** for contact details.

Calculating alcohol units

- The NHS website provides useful guidance on calculating alcohol units: https://www.nhs.uk/live-well/alcohol-advice/calculating-alcohol-units/

Section 3: Alcohol withdrawal – identification and management

Identification of alcohol withdrawal

Signs and symptoms of alcohol withdrawal

- Signs and symptoms can appear between 6 and 72 hours after last consumption of alcohol.
- Severity of signs and symptoms depends on degree of alcohol dependence and the current level of consumption.

Signs and symptoms of alcohol withdrawal:

- Sweating
- Tachycardia
- Pyrexia
- Hyperreflexia
- Tremor (often starting in hands and progressing to head and trunk)
- Depression
- Insomnia and fatigue
- Anorexia
- Nausea and vomiting
- Tactile disturbances (*e.g.* pins and needles, burning, numbness)
- Auditory disturbances
- Visual disturbances
- Headache
- Agitation (including restlessness and irritability)
- Disorientation
- Hallucinations
- Confusion
- Seizures

Risk factors for progression to severe alcohol withdrawal

- The greater number of symptoms/factors listed below, the greater the need for medical intervention (if admitted) to prevent seizures or delirium tremens:
    - High alcohol intake (>15 units per day)
    - Previous history of severe withdrawal, seizures or delirium tremens
    - Concomitant use of other psychotropic drugs
    - Poor physical health
    - High levels of anxiety or other psychiatric disorders
    - Electrolyte disturbance
    - Fever or sweating
    - Insomnia
    - Tachycardia

Assessment of signs and symptoms

- Treatment should be based on the signs and symptoms of the patient as well as patient history.
- CIWA-Ar scale (Clinical Institute of Withdrawal Assessment for Alcohol revised scale) (**see Appendix 5**) should be used to assess the severity of symptoms, however clinical judgement should be used alongside.
- Patients should be explained the details of withdrawal treatment and be reassured that symptoms can be treated.
- Mild symptoms can be managed with reassurance and general support.
    - Orientate patients, ensure environments are cool and well-lit.

- Optimising nutrition and fluid balance is also important.

Assessing withdrawal with communication barrier

- If patients cannot communicate symptoms (*e.g.* language barrier, confusion, delirium, psychosis), and therefore a CIWA-Ar may not be obtainable, consider assessing physical symptoms objectively and using a fixed benzodiazepine regimen based on severity of symptoms and level of alcohol dependency.

Acute management of alcohol withdrawal

- Not all patients who drink alcohol will require treatment for alcohol withdrawal. Only 50% of patients that drink alcohol dependently experience withdrawal symptoms that require treatment.
- If patients require treatment for alcohol withdrawal, they should be prescribed benzodiazepines. Choice of agent is described below:

Benzodiazepine treatment of alcohol withdrawal:

- 1st line for most patients
  - **Chlordiazepoxide**
- If significant liver disease (*e.g.* acute alcoholic hepatitis or signs of decompensated liver disease):
  - **Lorazepam**
- If oral route unavailable (and dispersing tablets in water not appropriate)
  - **Intravenous lorazepam** (doses equivalent to oral regimen)

See dosing regimens on pages 9 and 10

General guidance for prescribing benzodiazepines to treat alcohol withdrawal

- Once a patient is deemed at risk of withdrawal, they should be commenced on CIWA-Ar monitoring. Doses of benzodiazepines should be prescribed based on CIWA-Ar score. See **Appendices 1 & 2** for details.
- Initially, patients should be monitored for CIWA-Ar every 30 minutes to 1 hour for the first 24 hours, and benzodiazepines given based on scoring **(as per Appendices 1 & 2)**.
- The aim of treatment is to keep the patient comfortable without over sedation or progression to delirium tremens.
- Patients should be monitored closely for signs of benzodiazepine toxicity (*e.g.* reduced consciousness, respiratory depression, hypotension, bradycardia, rhabdomyolysis, hypothermia).
- Once a patient has been started on a regular detox regimen, the reducing doses should continue to be given at the prescribed times whilst as an inpatient.
- More severely dependent patients may require additional doses PRN. Regular monitoring of symptoms using the CIWA-Ar will determine need for additional medication.
- Smaller doses may be required in frail or elderly patients.
- Smaller doses may be required in compromised liver function, but if there is significant liver disease (*e.g.* acute alcoholic hepatitis, cirrhosis, decompensated liver disease) lorazepam should be prescribed instead of chlordiazepoxide.

Stabilisation **(in A&E – see Appendix 1)**

- The initial goal when managing patients with alcohol withdrawal is to gain control and stability of symptoms. In the initial stages of management this is best achieved by

estimating the initial dosage of benzodiazepine required, followed by 'symptom triggered' dosing with regular monitoring of withdrawal symptoms.

- Patients will often require larger initial doses to prevent severe withdrawal from developing, therefore, ideally doses within the first 24 hours should not be reduced unless there is clear evidence of over-sedation. With this principle in mind stabilisation of symptoms normally occurs within the first 24-48 hours of treatment, at which point the patient can then be safely switched to a fixed-dosage reduction regime.
- Stabilisation is defined by repeated minimal withdrawal symptoms (CIWA-Ar <8) and no need for further PRN dosing. Once stability is achieved it is then safe to move to a fixed-dosage reduction regime, and at this stage a lesser degree of monitoring is required. PRN dosing at this stage should not be necessary provided stabilisation has been successfully achieved.

Initial administration of benzodiazepines – Stabilisation:
(usually in A&E – see Appendix 1)

- If CIWA-Ar 0 – 7, no benzodiazepine doses are needed. Continue to monitor CIWA-Ar hourly.
- If CIWA 8 – 10 (mild withdrawal), give chlordiazepoxide 10mg – 20mg and continue to monitor CIWA-Ar hourly.
- If CIWA-Ar >10 (moderate-severe withdrawal), give chlordiazepoxide 20 – 40mg and reassess CIWA-Ar after 30 minutes.
- Patients should be monitored every 30 minutes to 1 hour for 24 hours and PRN doses of Chlordiazepoxide administered as above.
- Maximum dose of chlordiazepoxide is 250mg in 24 hours, but most patients will require less than 200mg.
- Patients should be stabilised over 24 hours and then ALN or clinician will prescribe Detox regime accordingly (based on chlordiazepoxide dose requirements over 24 hours, or via CIWA-Ar (see dosing chart)).

Managing withdrawal on inpatient ward areas

- See **Appendix 2** for the monitoring and treatment of inpatients for alcohol withdrawal.
- Initially monitor CIWA-Ar every hour. If CIWA $\geq$ 8, benzodiazepine treatment is required:
  - If the patient has not been started on a regular taper regimen yet, start the patient on the regular prescription chart as per CIWA-Ar score (see dosing charts on pages 9 and 10).
  - If the patient has been started on a regular taper regimen previously, give a when required dose (*e.g.* chlordiazepoxide 10-20mg) if a regular dose is not yet due.
- Monitor CIWA-Ar every hour for at least 24 hours. If CIWA-Ar consistently remains < 8, reduce monitoring frequency to every 4 hours for a further 48 hours. If CIWA-Ar remains below 8, CIWA-Ar monitoring can be discontinued.
- If CIWA-Ar is consistently $\geq$ 8 despite benzodiazepine treatment, follow the management pathway for delirium tremens (**Section 4** and **Appendix 3**).

Chlordiazepoxide

- The first-line benzodiazepine to manage alcohol withdrawal is oral chlordiazepoxide.
- Chlordiazepoxide should be prescribed on the pre-printed chlordiazepoxide charts, with reference to the supplementary chart recorded on the main drug chart.
- The starting dose is dependent on the patient's CIWA-Ar score, with score >15 starting on day 1 treatment, score 11-15 starting on day 3, and score 8-10 starting on day 5.
- When prescribing, ensure the desired day to start is ticked to allow nurses to administer the correct dosing regimen.

- The doses given and their administration time should follow the chart in order from the starting day.
- Patients will be started on one of the three regimes and once started it should not be discontinued without the advice of ALN.
- Do not change between regimes unless CIWA-Ar continues to be above 8 despite having regular doses plus PRN.
- Consider the use of second-line medication if chlordiazepoxide is ineffective in reducing CIWA-Ar score.

Dosing regimens for chlordiazepoxide

Chlordiazepoxide dosing regimen for acute alcohol withdrawal											
	CIWA > 15 Start here ⬇		**CIWA 11 - 15 Start here** ⬇		**CIWA 8 - 10 Start here** ⬇						**CIWA 0 - 7** ⬇
Day→	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**DETOX NOT INDICATED.**
↓Time	Dose	Dose	Dose	Dose	Dose	Dose	Dose	Dose	Dose	Dose	
09:00	40mg	40mg	30mg	30mg	20mg	20mg	10mg	10mg	10mg		**MONITOR FOR EMERGING SYMPTOMS**
13:00	40mg	30mg	30mg	20mg	20mg	10mg	10mg				
18:00	40mg	30mg	30mg	20mg	20mg	10mg	10mg	10mg			
22:00	40mg	40mg	30mg	30mg	20mg	20mg	10mg	10mg	10mg	10mg	
PRN	If CIWA score remains ≥ 8, additional PRN doses may be required. Dose: 10-20mg as required. Maximum 250mg in 24 hours (inclusive of regular dose).										

Liver impairment

- **Lorazepam** should be used for the treatment of patients with significant liver disease such acute alcoholic hepatitis or signs of decompensated liver disease.
- See page 10 for dosing regimen.

Swallowing difficulties and nil by mouth

- If a patient requires treatment for alcohol withdrawal however they cannot swallow whole capsules or tablets, or medication is to be administered down enteral tube, consider
  - **Chlordiazepoxide** capsules can be opened and contents mixed with water. Crushing contents is NOT recommended.
  - **Lorazepam** tablets can be crushed and mixed with water, or will disperse in water in 1 to 5 minutes. Alternatively, tablets and injection can be administered sublingually (patient must have sufficiently moist mouth for sublingual absorption of tablets).
- Please note that crushing/dispersing tablets or capsule contents renders their use unlicensed.
- If the enteral route is not available, intravenous lorazepam should be considered.
  - No dose adjustment is needed for switching oral to intravenous lorazepam.

Dosing regimens for lorazepam

Lorazepam dosing regimen for acute alcohol withdrawal (oral and intravenous)						
	CIWA >10 Start here ⬇		**CIWA 8-10 Start here** ⬇			
Day→	**1**	**2**	**3**	**4**	**5**	**6**
↓Time	Dose	Dose	Dose	Dose	Dose	Dose
09:00	1mg	1mg	0.5mg	0.5mg	0.5mg	
13:00	1mg	0.5mg	0.5mg			
18:00	1mg	0.5mg	0.5mg	0.5mg		
22:00	1mg	1mg	0.5mg	0.5mg	0.5mg	0.5mg
PRN	Dose: 0.5-1mg as required. Maximum 8mg in 24 hours (inclusive of regular dose).					

N.B. If CIWA-Ar score remains ≥ 8 despite receiving 8mg of lorazepam in 24 hours, discuss with ALN or senior clinician and consider following Delirium Tremens treatment pathway (see Section 4).

Recent head injury

- Extra care is required when prescribing benzodiazepines for patients with recent head injury where neurological symptoms may be masked.
- A CT head scan should be considered and the situation balanced with the need to manage alcohol withdrawal effectively.
- Lorazepam may be considered due to shorter half-life.

Seizures

- If a seizure occurs during treatment and is attributed to alcohol withdrawal, optimisation of benzodiazepine treatment is required.
- Switching to lorazepam (quick-acting) can reduce the risk of further seizures.
- Alternatively, rectal diazepam 10mg to 20mg PR can be prescribed.
- Adding anticonvulsants to this regime is not considered advantageous.

Pre-admission benzodiazepines

- If a patient has been confirmed to take long term benzodiazepines pre-admission, continue the patient on their regular regime and prescribe alcohol withdrawal treatment as described **in addition** to the long-term regime.

Nausea and vomiting

- Metoclopramide 10mg three times a day (PO/IM/IV) can be considered for patients with nausea and vomiting related to alcohol withdrawal. Metoclopramide is not recommended in severe hepatic disease.

Section 4: Delirium tremens

Background

- Delirium tremens (DTs) is a manifestation of severe alcohol withdrawal and occurs in those with a history of chronic alcohol use and those who have previously experienced severe alcohol withdrawal symptoms.
- It is a life-threatening condition and does not occur in everyone who withdraws from alcohol. Approximately 50% of people who abuse alcohol will experience withdrawal symptoms and only 3-5% of these will exhibit symptoms of delirium tremens.
- DTs is a medical emergency requiring urgent medical management. If left untreated it has a mortality rate of up to 35%.
- DTs usually presents 2-4 days after the patients last alcoholic drink, risk factors include:
    - A history of DT
    - Prior history of seizures
    - The presence of concurrent illness with associated comorbidities
    - Previous detoxes
    - A prolonged period of alcohol excess.
    - Abnormal liver function tests

Signs and symptoms of delirium tremens

- DTs is characterised by increased confusion and disorientation, severe tremor and autonomic disturbance, visual and auditory hallucinations, psychosis and delusional beliefs.
- Symptoms of delirium tremens can escalate rapidly and management can prove challenging.

Delirium tremens is not a normal part of alcohol withdrawal and should not occur in ANY inpatient if withdrawal is managed appropriately

Treatment of delirium tremens

- Patients in delirium tremens will require large doses of benzodiazepines, with **lorazepam** being the first line treatment.
- CIWA-Ar score must be completed at least every 15-30 minutes until CIWA-Ar is consistently less than 8.
- Complete CIWA-Ar even if patient is asleep - please wake them up to do this. This will ensure that withdrawals do not escalate and lorazepam doses are not missed.
- Patient can receive **1-4 mg lorazepam PRN as per CIWA-Ar**.
    - If patient refuses or cannot tolerate oral lorazepam it must be given IV at the same dose. Administer IM is the patient is not cannulated.
    - Ensure that flumazenil is available on the ward in case of lorazepam overdose.
    - If a patient is receiving large doses of benzodiazepines, ensure ITU are informed if there are concerns regarding respiratory compromise.
    - If there is known liver disease / cirrhosis, discuss any concerns with the level of benzodiazepines administered with the medical or gastro teams.
- The aim of benzodiazepine treatment is for the patient to be sedated but rousable.
    - Sedation under medical supervision should be continued until the patient is settled and / or capacity is regained.
- Monitor respiratory rate, SpO_2 and heart rate closely during treatment.
- Patient receiving treatment for DTs will most likely require 1:1 nursing.
- Assess capacity at every interaction (consider a DOLS assessment if patient continues to lack capacity post the acute lifesaving phase of withdrawal; they are exempt from this whilst receiving lifesaving treatment).
- Security should be called if there are concerns for patient or staff safety.

- Other relevant treatments:
  - Prescribe **treatment** for Wernicke's Encephalopathy (see **Section 5** and **Appendix 4**)
    - *E.g.* IV Vitamins B&C - 2 pairs, three times a day for 3 to 5 days *etc.*
  - Haloperidol should be considered as an adjunct to manage hallucinations. Administer 2.5 – 5 mg IM. A second dose may be given after 1 hour, and repeated 4-6 hourly if required (max dose 20 mg in 24 hours).

Section 5: Wernicke's encephalopathy

Wernicke's encephalopathy is a neurological emergency resulting from thiamine (vitamin B_1) deficiency associated with alcohol misuse. It carries a mortality rate of over 15% and results in permanent brain damage (Korsakoff's psychosis) in 85% of survivors.

Prophylaxis of Wernicke's encephalopathy

- Patients at risk of Wernicke's encephalopathy should be prescribed prophylactic intravenous thiamine (see dosage below).
- Patients who attend Emergency Department or are admitted to a ward for acute illness are considered at risk if they are harmful or dependent drinkers with any of the following:
    - Are malnourished or at risk of malnourishment
    - Have decompensated liver disease

Prophylaxis of Wernicke's encephalopathy:

1. **Intravenous thiamine* 200-300mg once a day for 3 to 5 days,** *e.g.*:
    - IV Vitamins B&C (Pabrinex® or generic): 1 ampoule pair once a day for 3-5 days
    - **[OR]**
    - IV thiamine (unlicensed) 200mg once a day for 3-5 days
2. After 3 to 5 days of treatment, or if patient ready for discharge, switch to **oral thiamine 100mg three times a day**

*consult latest Trust comms regarding current availability of parenteral thiamine products

N.B. IV Vitamins B&C and Pabrinex® contains 250mg thiamine per ampoule pair

Treatment of Wernicke's encephalopathy

- **If Wernicke's encephalopathy is suspected, a referral to the ALN should be completed.**
- ALN will complete Addenbrooke's Cognitive Examination pre- and post- the 5 days intravenous treatment to determine if treatment can be switched to oral.
- The classic triad of symptoms (acute confusion, ataxia and ophthalmoplegia) only occur in 10% of patients. Therefore, treatment should be started in patients with any one of the symptoms listed below.

Signs and symptoms of Wernicke's encephalopathy:

- Acute confusion
- Memory disturbance
- Ataxia/unsteadiness
- Ophthalmoplegia (the paralysis or weakening of eye muscles)
- Nystagmus
- Unexplained hypotension with hypothermia
- Reduced consciousness or coma

Treatment of Wernicke's encephalopathy:

1. **Intravenous thiamine* 300-500mg three times a day for 3 to 5 days**, *e.g.*:
    - IV Vitamins B&C (Pabrinex® or generic): 2 ampoule pairs three times a day
    - **[OR]**
    - IV thiamine (unlicensed) 400mg three times a day
2. If patient is still symptomatic after 5 days of treatment, change to **intravenous thiamine* 300-500mg once a day for a further 3-5 days**, *e.g.*:
    - IV Vitamins B&C (Pabrinex® or generic): 2 ampoule pairs once a day
    - **[OR]**
    - IV thiamine (unlicensed) 400mg once a day
    - Consider alternative causes of symptoms if symptoms not resolved after 5 days of treatment (refer to ALN advice)
3. After intravenous treatment is complete, prescribe **oral thiamine 100mg three times a day**

*consult latest Trust comms regarding current availability of parenteral thiamine products

N.B. IV Vitamins B&C (Pabrinex® or generic) contains 250mg thiamine per ampoule pair

IV Vitamins B&C (Pabrinex® or generic) administration

- Draw the contents of one or two pairs of ampoules (one pair = ampoule I and II) into a syringe and dilute with 50-100ml of 0.9% sodium chloride. Administer as an IV infusion over 30 minutes.

IV dextrose should NOT be given before parenteral thiamine due to the risk of precipitating Wernicke's encephalopathy (glucose metabolism utilises thiamine so dextrose may deplete thiamine reserves).

- The routine prescribing of **vitamin B compound strong tablets** is not recommended for Wernicke's encephalopathy.

Section 6: Alcoholic ketoacidosis

- Alcoholic ketoacidosis is a rare sudden cause of death in patients with severe alcoholism.

Signs and symptoms of alcoholic ketoacidosis

- Clinical features
  - Chronic alcoholism, plus recent binge
  - Binge terminated by severe nausea, vomiting and abdominal pain
  - Tachycardia, hypotension and increased respiratory rate
  - Abdominal tenderness with no other specific abdominal findings
  - Minimal alteration conscious level despite marked metabolic acidosis.
- Biochemical features
  - Raised anion gap metabolic acidosis
  - Normal or low blood glucose
  - Normal or moderately elevated urea and creatinine
  - Lactate insufficiently high to explain extent of acidosis
  - Low or absent blood alcohol level
  - Urinary ketones on dipstix testing but absence does not exclude diagnosis.

Management of alcoholic ketoacidosis

- **IV Vitamins B&C** (Pabrinex® or generic): 1 ampoule pair once a day.
- Intravenous rehydration with 5% glucose (avoid sodium chloride 0.9% which paradoxically worsens acidosis).
- Monitor BMs regularly; persisting hyperglycaemia may necessitate an insulin infusion
- Potassium supplementation if indicated (may be low on presentation or fall rapidly on rehydration).
- Magnesium and phosphate supplementation if indicated.
- Exclude other serious pathology (sepsis, intra-abdominal pathology).

Section 7: Discharge and follow-up

Relapse prevention

- Patients should have been referred to the Alcohol Liaison Team during their admission to provide monitoring and guidance, to provide psychological support, and to facilitate referral to community-based alcohol treatment services.
- Referral to the Alcohol Liaison Team before discharge will allow the patient to be considered for abstinence treatments (*e.g.* acamprosate and naltrexone), as well psychological interventions (*e.g.* CBT).
- If you believe the patient could benefit from these treatments and services, contact the Alcohol Liaison Team.
- If you are working in an area where the Alcohol Liaison Team is unavailable (*e.g.* Kidderminster), encourage the patient to self-refer to community substance misuse services directly or email ALN who will call the patient to offer support (see **Section 8**).

Benzodiazepine treatment on discharge

- Chlordiazepoxide and other benzodiazepines **should not** be prescribed on discharge for patients to 'complete the detox', unless advised by Alcohol Liaison Nurse.

Driving and the DVLA

- The DVLA provide guidance regarding fitness to drive in people with alcohol dependency that is associated the following:
    - Abnormal blood markers
    - Alcohol-related seizure
    - Conditions associated with chronic liver disease, such as hepatic cirrhosis with chronic encephalopathy, alcohol induced psychosis, and cognitive impairment.

See full guidance via the following link:
https://www.gov.uk/guidance/drug-or-alcohol-misuse-or-dependence-assessing-fitness-to-drive

Driving and the DVLA

- Discharge documentation to GPs must clearly reflect that the issue of fitness to drive may need to be addressed.
- Medical professionals are reminded of their duty to report medical conditions impacting on driver safety within professional duties of confidentiality weighed with criteria set out on the DVLA website and documents.

Section 8: Contacts

The Alcohol Liaison Nurse are available via bleep 0343 at Worcestershire Royal Hospital and bleep 1340 at Alexandra Hospital

Alcohol Liaison Nurses

Worcestershire Royal Hospital – **Cheryl Jones**

- Working hours: Monday to Friday 07:00 – 17:00
- In hours **Bleep 0343** or email: Cheryl.jones46@nhs.net
- Out of hours please email patients details, Name, hospital ID, reason for admission, location if still admitted, patients consent and current telephone number on: wah-tr.alcoholliaisonref@nhs.net and ALN will respond next working day.
- Patients or carers/concerned others should be offered the opportunity to contact the community services for ongoing counselling and support:

Alexandra Hospital – **Jessica Tracey**

- Working hours: Monday to Friday 07:00 – 17:00
- In hours **Bleep 1340** or email: Jessica.tracey1@nhs.net
- Out of hours please email patients details, Name, hospital ID, reason for admission, location if still admitted, patients consent and current telephone number on: wah-tr.alcoholliaisonref@nhs.net and ALN will respond next working day.
- Patients or carers/concerned others should be offered the opportunity to contact the community services for ongoing counselling and support:

Community services

- Single point of contact for referrals 0300 303 8200
- Alcoholics Anonymous regional helpline 0121-212-0111
- Al-anon (12 step family support) national helpline 020-7403-0888
- Cocaine Anonymous (also for alcohol use) 0300 111 2285
- SMARTrecovery: available via Cranstoun offices or https://www.smartrecovery.org.uk/

Alcohol training, brief Intervention training, experiential placements

- All are available to trust employees and students by arrangement in formal or informal training sessions by the Alcohol Liaison Nurses details can be obtained on Bleep 0343 or 1340
- Brief intervention training can be delivered to all levels of staff.

References

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APPENDIX 1: Management algorithm for alcohol withdrawal in Emergency Department

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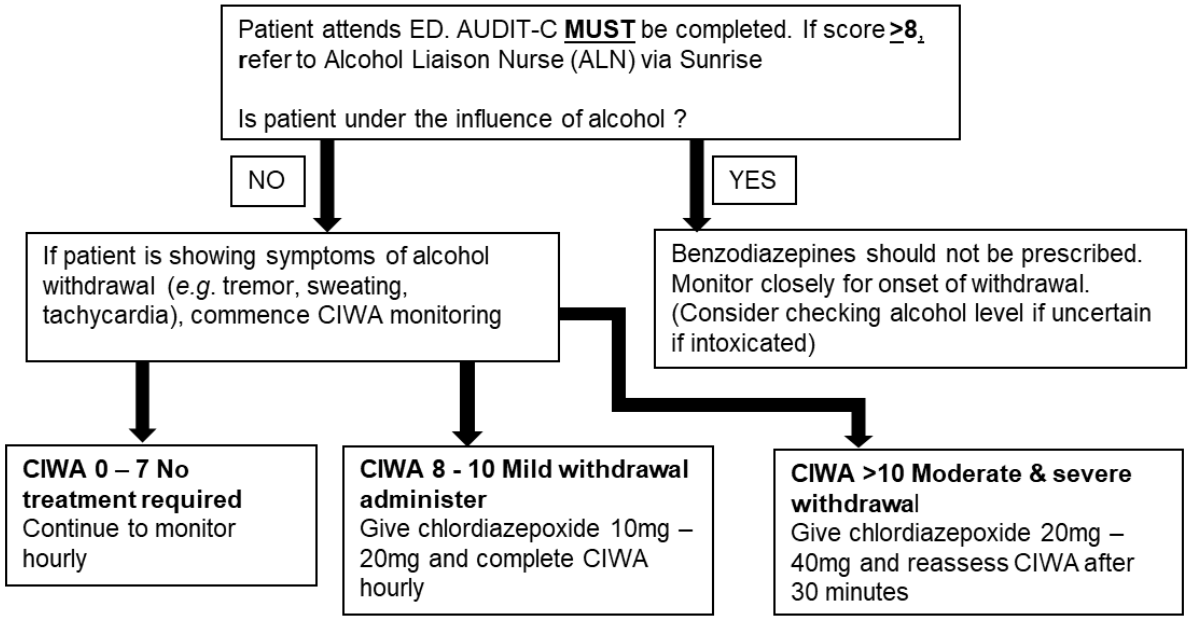


Patients should be monitored every 30 minutes to 1 hour for 24 hours and PRN doses of chlordiazepoxide administered as above.

- Maximum dose of chlordiazepoxide is 250mg in 24 hours, but most patients require less that 200mg.
- Patients should be stabilised over 24 hours and then ALN or clinician will prescribe Detox regime accordingly (based on chlordiazepoxide dose requirements over 24 hours, or via CIWA).

If a patient consumes more than 15 units per day, is 12-72hrs alcohol free and CIWA continues to be >8 despite being managed on chlordiazepoxide regime, follow **Appendix 3 Delirium Tremens**.
If patient has acute alcoholic hepatitis or decompensated liver disease prescribe lorazepam instead of chlordiazepoxide (see dosing tables).

Patients should NOT be admitted for detox alone.

- Emergency detoxes have been proven to be ineffective with at least 60% patients relapsing within 1 year.
- Patients should be encouraged to engage with community services (Cranstoun or AA) to work on the reasons why they are drinking dependently.
- Patients should be discharged ASAP with the advice to continue drinking enough alcohol to treat any withdrawal symptoms but not enough to be intoxicated.

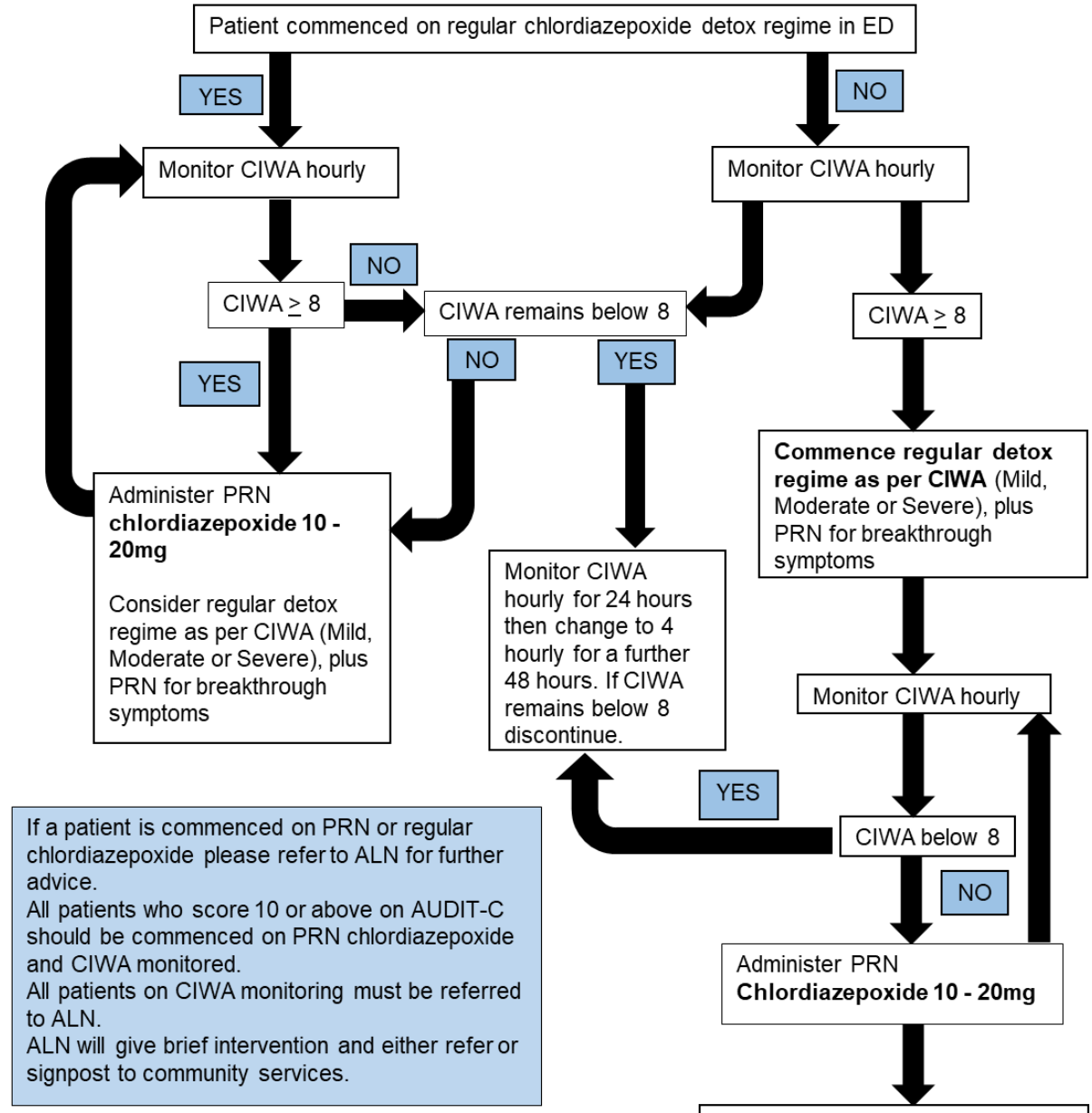
The DVLA provide guidance to medical professionals regarding fitness to drive and alcohol misuse. It is the clinician's responsibility to report medical conditions impacting on driver safety within professional duties of confidentiality weighed with criteria set out on the DVLA website and documents. See link for full guidance: https://www.gov.uk/guidance/drug-or-alcohol-misuse-or-dependence-assessing-fitness-to-drive

For all patients being managed for alcohol withdrawal, cover for Wernicke's encephalopathy (WE):

- If WE suspected, prescribe treatment: *e.g.* IV Vitamins B&C 2 pairs TDS for 3-5 days
- If WE not suspected, prescribe prophylaxis: *e.g.* IV Vitamins B&C 1 pairs OD for 3-5 days

ALN can be contacted on:
Bleep 0343 (WRH) 1340 (AGH)
Ext 30665 (WRH) 44354 (AGH)
Referrals via wah-tr.alcoholliaisonref@nhs.net or
On Sunrise EPR via ORDERS

APPENDIX 2: Management algorithm for alcohol withdrawal in inpatient ward areas



If a patient is commenced on PRN or regular chlordiazepoxide please refer to ALN for further advice.
All patients who score 10 or above on AUDIT-C should be commenced on PRN chlordiazepoxide and CIWA monitored.
All patients on CIWA monitoring must be referred to ALN.
ALN will give brief intervention and either refer or signpost to community services.

If CIWA continues to rise despite regular and PRN doses, follow **Appendix 3 Delirium Tremens**

If patient has acute alcoholic hepatitis or decompensated liver disease prescribe lorazepam instead of chlordiazepoxide (see dosing tables).

Cover for Wernicke's encephalopathy (WE)
- If WE suspected, prescribe treatment: *e.g.* IV Vitamins B&C 2 pairs TDS for 3-5 days
- If WE not suspected, prescribe prophylaxis: *e.g.* IV Vitamins B&C 1 pairs OD for 3-5 days

ALN can be contacted on:
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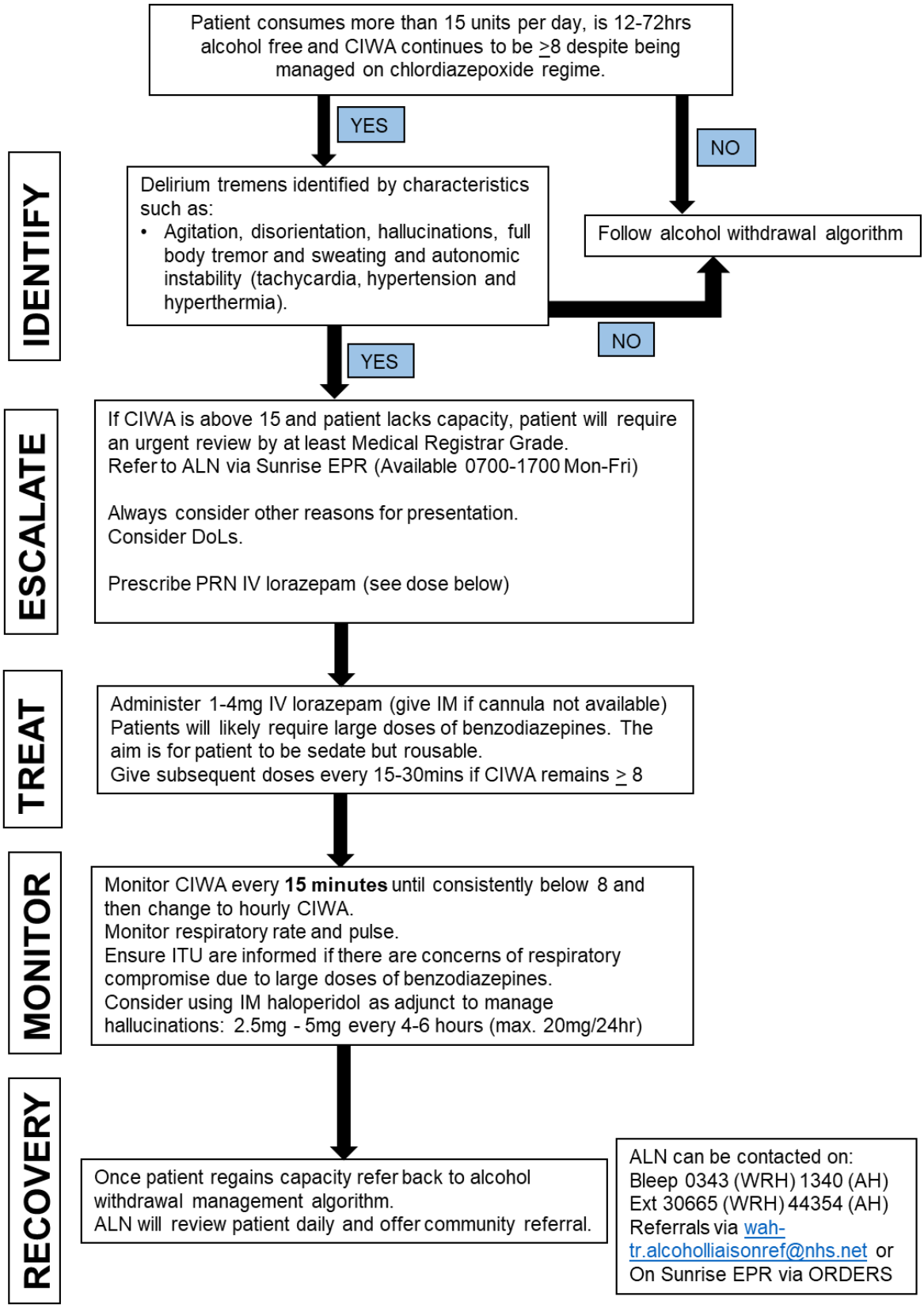
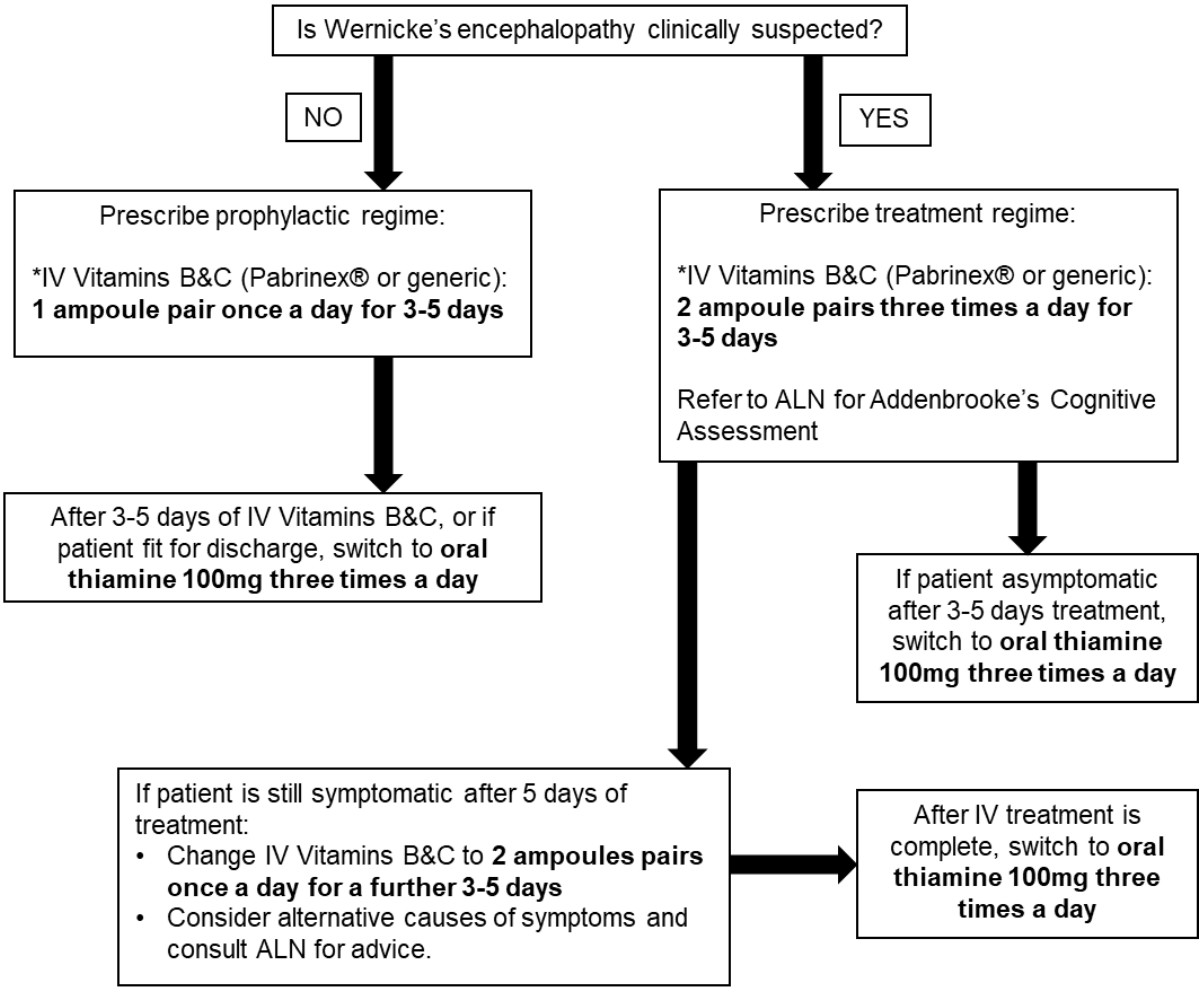
Ext 30665 (WRH) 44354 (AGH)
Referrals via wah-tr.alcoholliaisonref@nhs.net or
On Sunrise EPR via ORDERS

APPENDIX 3: Management algorithm for patients with delirium tremens



APPENDIX 4: Prophylaxis and treatment of Wernicke's encephalopathy in patients who misuse alcohol



**consult latest Trust comms regarding current availability of parenteral thiamine products*

Pabrinex® and IV Vitamins B&C administration

- Draw the contents of one pair of ampoules (ampoule I and II) into a syringe and dilute with 50-100ml of 0.9% sodium chloride. Administer as an IV infusion over 30 minutes.
- IV dextrose should NOT be given before IV Vitamins B&C due to the risk of precipitating Wernicke's encephalopathy (glucose metabolism utilises thiamine so dextrose may deplete thiamine reserves).

N.B. The routine prescribing of vitamin B compound strong tablets is not recommended for Wernicke's encephalopathy.

ALN can be contacted on:
Bleep 0343 (WRH) 1340 (AH)
Ext 30665 (WRH) 44354 (AH)
Referrals via wah-tr.alcoholliaisonref@nhs.net or
On Sunrise EPR via ORDERS

APPENDIX 5: CLINICAL WITHDRAWAL ASSESSMENT SCALE (CIWA– Ar)

(Available for printing and combined with prescribing chart on Patient First system or pre-printed prescription WR5519 Alcohol Withdrawal Assessment Form and Adult Chlordiazepoxide Prescription Chart)

The scale on the page below can be used to assess alcohol withdrawal.
Every patient that is at risk of alcohol withdrawal should be commenced on a CIWA and should be monitored at least every **60 minutes until reviewed by ALN**.

The tool will enable you to decide whether your patient requires to be given any PRN medication. It is recommended that if the patient scores **≥** ***8 then the patient should be given their PRN benzodiazepine***.

If the patient scores <8 (less than) then no PRN medication should be given. However**, the regular prescribed medication should be given at all times unless the patient becomes overly sedated.**

Scores of less than 8-10 indicate minimal to mild withdrawal.

Scores of 11-15 indicate moderate withdrawal (marked autonomic arousal).

Scores of >15 indicate severe withdrawal with risk of developing Delirium Tremens.

NAUSEA AND VOMITING – ask 'Do you feel sick to your stomach? Have you vomited? **0** no nausea, no vomiting **1** mild nausea with no vomiting **2** **3** **4** intermittent nausea with dry heaves **5** **6** **7** Constant nausea, dry heaves and vomiting	**TACTILE DISTURBANCES–** ask "have you any itching, pins and needles, burning, numbness, do you feel bugs under your skin? **0** none **1** very mild itching, pins and needles or numbness **2** mild **3** moderate **4** moderately severe hallucinations **5** severe hallucinations **6** extremely severe hallucinations **7** continuous hallucinations
TREMOR arms extended and fingers spread apart, Observe. **0** no tremor **1** not visible, but can be felt fingertip to fingertip **2** **3** **4** moderate with patients arms extended **5** **6** **7** Severe, even without arms extended	**AUDITORY DISTURBANCES-** Ask "are you more aware of sounds around you, are they harsh, frightening, are you hearing things that frighten you or that you know are not there? **0** not present **1** very mild harshness or ability to frighten **2** mild harshness or ability to frighten **3** moderate harshness or ability to frighten **4** moderately severe hallucinations **5** severe hallucinations **6** extremely severe hallucinations **7** continuous hallucinations
PAROXYSMAL SWEATS- Observation. **0** no sweat visible **1** barely perceptible sweating, palms moist **2** **3** **4** beads of sweat obvious on forehead **5** **6** **7** drenching sweats	**VISUAL DISTURBANCES –** Ask "does the light appear to be too bright? Is its colour different? Does it hurt your eyes? Are you seeing things you know are not there? **0** not present **1** very mild sensitivity **2** mild sensitivity **3** moderate sensitivity **4** moderately severe hallucinations **5** severe hallucinations **6** extremely severe hallucinations **7** continuous hallucinations
ANXIETY- Ask "do you feel nervous"? Observe. **0** no anxiety, at ease **1** mild anxiety **2** **3** **4** moderately anxious, or guarded so anxiety is inferred **5** **6** **7** acute panic state as seen in severe delirium or psychosis	**HEADACHE, FULLNESS IN HEAD** – Ask "does your head feel different? Does it feel like there is a band around your head? Do not rate for dizziness of light headedness. **0** not present **1** very mild **2** mild **3** moderate **4** moderately severe **5** severe **6** very severe **7** extremely severe
AGITATION- Observation. **0** normal activity **1** somewhat more than normal anxiety **2** **3** **4** moderately fidgety and restless **5** **6** **7** paces back and forth during most of the interview or constantly thrashes about	**ORIENTATION AND CLOUDING OF SENSORIUM** Ask "what day is this? Where are you? Who am I? **0** orientated and can do serial additions **1** cannot do serial additions or uncertain of date **2** disoriented for date by no more than 2 days **3** disoriented for date by more than 2 days **4** disoriented for place/person
Patients scoring less than 10 do not usually need additional medication for alcohol withdrawal.	**TOTAL CIWA Ar SCORE:** **ASSESSORS INITIALS:**

CONTRIBUTION LIST

Individuals involved in developing the document

Name	Designation
Cheryl Jones	Alcohol Liaison Nurse
Joseph Tikaram	Lead Pharmacist Acute Medicine

Individuals invited to provide comment in the development of the document

Name	Designation
Dr Ross Hodson	Consultant (Emergency Medicine)
Dr Sabina Moolla	Consultant (Acute Medicine)
Dr Ian Gee	Consultant (Gastroenterology)
Ruth Coxhead	Lead Pharmacist for Critical Care and EPMA

NHS Worcestershire Acute Hospitals NHS Trust

Herefordshire & Worcestershire STP - Equality Impact Assessment (EIA) Form
Please read EIA guidelines when completing this form

Section 1 - Name of Organisation (please tick)

Herefordshire & Worcestershire STP		Herefordshire Council		Herefordshire CCG	
Worcestershire Acute Hospitals NHS Trust	x	Worcestershire County Council		Worcestershire CCGs	
Worcestershire Health and Care NHS Trust		Wye Valley NHS Trust		Other (please state)	

Name of Lead for Activity	**Emma Davies**

Details of individuals completing this assessment	**Name**	**Job title**	**e-mail contact**
	Emma Davies	**Alcohol Specialist Nurse**	**Emma.davies22@nhs.net**
Date assessment completed	**04/05/2021**		

Section 2

Activity being assessed (e.g. policy/procedure, document, service redesign, policy, strategy etc.)	**Title: Recognition and Treatment of Alcohol Misuse in Acute Hospital Settings - WAHT-A&E-031 - Version 7**			
What is the aim, purpose and/or intended outcomes of this Activity?	To provide accurate up to date evidence based clinical guidelines to inform practice and care management of patients attending the Trust who may be misusing alcohol.			
Who will be affected by the development & implementation of this activity?	☑ Service User ☑ Patient ❑ Carers ❑ Visitors		☑ Staff ❑ Communities ❑ Other _____	
Is this:	☑Review of an existing activity ❑ New activity ❑ Planning to withdraw or reduce a service, activity or presence?			

What information and evidence have you reviewed to help inform this assessment? (Please name sources, eg demographic information for patients / services / staff groups affected, complaints etc.	1. **Becker HC. (1998)** Kindling in alcohol withdrawal. Alcohol Health and Research World.;22(1):25-33.] Accessed online 20-08-2020 at https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6761822/ 2. **BNF (2017) British National Formulary** accessed online 01-09-2017 at, https://bnf.nice.org.uk/drug/chlordiazepoxide-hydrochloride.html#indicationsAndDoses 3. ***DVLA2017] accessed online 07-09-2017*** *https://www.gov.uk/guidance/drug-or-alcohol-misuse-or-dependence-assessing-fitness-to-drive* 4. **NCEPOD (2013**) Measuring the Units A review of patients who died with alcohol-related liver disease. 5. **NICE PHG 24 (2010)** Alcohol use disorders: Preventing harmful drinking. Public Health Guidance 24 (Quick reference guide) 6. **NICE CG 100 (2010)** Alcohol Use Disorders. Diagnosis and clinical management of alcohol – related physical complications. (Quick reference guide) 7. **NICE CG 100/115 (2010)** Alcohol use disorders: sample chlordiazepoxide dosing regimens for use in managing alcohol withdrawal 8. **NICE CG 115 (2011)** Alcohol-use disorders: diagnosis, assessment and management of harmful drinking (high-risk drinking) and alcohol dependence 9. **Stockwell, T., Murphy, D. & Hodgson, R. (1983).** The severity of alcohol dependence questionnaire: Its use, reliability and validity. British Journal of Addiction, 78(2), 45-156. 10. WAHT Medicines Safety Committee 11. Urgent Care Divisional Governance
Summary of engagement or consultation undertaken (e.g. who and how have you engaged with, or why do you believe this is not required)	Document was disseminated for comments to the following groups: • Service Lead Consultants • Pharmacy • Clinical Specialist Clinicians and Matrons • Governance Leads • Community Substance Misuse service
Summary of relevant findings	All approved, any comments were responded to and changes incorporated into the policy accordingly.

Section 3

Please consider the potential impact of this activity (during development & implementation) on each of the equality groups outlined below. **Please tick one or more impact box below for each Equality Group and explain your rationale**. Please note it is possible for the potential impact to be both positive and negative within the same equality

group and this should be recorded. Remember to consider the impact on e.g. staff, public, patients, carers etc. in these equality groups.

Equality Group	Potential positive impact	Potential neutral impact	Potential negative impact	Please explain your reasons for any potential positive, neutral or negative impact identified
Age	x			The policy takes into account the differences between age and metabolism of medications, therefore suggesting alternative dosing if appropriate it does not discriminate between ages of service user. The policy does not apply to those under the age of 18 years.
Disability	x			The policy provides clinical guidelines for use of any adult attending and acute hospital setting who are dependent upon or using alcohol in a harmful manner.
Gender Reassignment	x			The policy refers to any adult regardless of gender.
Marriage & Civil Partnerships	x			
Pregnancy & Maternity	x			This policy is not specific to maternity or pregnancy, however in relation to the identification and screening of alcohol misuse, If you are pregnant or planning a pregnancy the safest approach is not to drink alcohol at all, to keep risks to your baby to a minimum. **[UKCMO** (2016)**]**
Race including Traveling Communities	x			No concerns identified
Religion & Belief	x			No concerns identified
Sex	x			None
Sexual Orientation	x			None
Other Vulnerable and Disadvantaged Groups (e.g. carers; care leavers; homeless; Social/Economic deprivation, travelling communities etc.)	x			None
Health Inequalities (any	x			None

Equality Group	Potential positive impact	Potential neutral impact	Potential negative impact	Please explain your reasons for any potential positive, neutral or negative impact identified
preventable, unfair & unjust differences in health status between groups, populations or individuals that arise from the unequal distribution of social, environmental & economic conditions within societies)				

Section 4

What actions will you take to mitigate any potential negative impacts?	Risk identified	Actions required to reduce / eliminate negative impact	Who will lead on the action?	Timeframe
		.		
How will you monitor these actions?				
When will you review this EIA? (e.g in a service redesign, this EIA should be revisited regularly throughout the design & implementation)	**This EIA will be reviewed alongside the agreed policy review date.**			

Section 5 - Please read and agree to the following Equality Statement

1. Equality Statement

1.1. All public bodies have a statutory duty under the Equality Act 2010 to set out arrangements to assess and consult on how their policies and functions impact on the 9 protected characteristics: Age; Disability; Gender Reassignment; Marriage & Civil Partnership; Pregnancy & Maternity; Race; Religion & Belief; Sex; Sexual Orientation
1.2. Our Organisations will challenge discrimination, promote equality, respect human rights, and aims to design and implement services, policies and measures that meet the diverse needs of our service, and population, ensuring that none are placed at a disadvantage over others.
1.3. All staff are expected to deliver services and provide services and care in a manner which respects the individuality of service users, patients, carer's etc, and as such treat them and members of the workforce respectfully, paying due regard to the 9 protected characteristics.

Signature of person completing EIA	Emma Davies
Date signed	04/05/2021
Comments:	
Signature of person the Leader Person for this activity	Emma Davies
Date signed	04/05/2021
Comments:	

Supporting Document 2 – Financial Impact Assessment

To be completed by the key document author and attached to key document when submitted to the appropriate committee for consideration and approval.

	Title of document:	Yes/No
1.	Does the implementation of this document require any additional Capital resources	no
2.	Does the implementation of this document require additional revenue	no
3.	Does the implementation of this document require additional manpower	no
4.	Does the implementation of this document release any manpower costs through a change in practice	no
5.	Are there additional staff training costs associated with implementing this document which cannot be delivered through current training programmes or allocated training times for staff	no
	Other comments:	

If the response to any of the above is yes, please complete a business case and which is signed by your Finance Manager and Directorate Manager for consideration by the Accountable Director before progressing to the relevant committee for approval.