Acute Medicine Standard Operating Procedure			South Warwickshire NHS Foundation Trust	
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SWH 03047	**Alcohol: Screening for Dependence and Management of Acute Withdrawal (Adults)**			
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Author:	**Name**	**Job Title**		
	Tom Heaps Sam Adaway Kim Baker	Clinical Director for Acute Medicine Hospital Substance Misuse Practitioner Senior Clinical Pharmacist		
Responsible Manager:	Viviana Elliott	Associate Medical Director		
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1 Purpose/Objective

This document provides guidance to clinical staff involved in assessing and treating alcohol-dependent patients aged >16 in hospital to:

- promote and increase compliance with alcohol misuse screening by acute clinical staff using the AUDIT-C screening tool
- prevent inappropriate hospital admissions for alcohol 'detox' as outlined in NICE CG100, whilst ensuring that those who are not admitted are offered advice and referral to appropriate community agencies and / or the hospital Substance Misuse Practitioner
- improve management of alcohol withdrawal in patients admitted to hospital and reduce the complications associated with inadequate management of alcohol withdrawal
- prevent and treat Wernicke's encephalopathy and prevent Korsakoff's psychosis
- enhance the knowledge of acute clinical staff in the management of and response to severe alcohol withdrawal, delirium tremens and associated complications

2 Audience

This document applies to all clinical staff at Warwick hospital involved with assessing and treating patients aged >16 with alcohol-dependence and acute withdrawal.

3 See Pages 2-7 for content of SOP

4 Incident Reporting

In the event of an incident relating to **Alcohol: Screening for Dependence and Management of Acute Withdrawal (Adults)** it will be reported via the Incident Reporting system (Datix) as described in the Incident Management Policy including the Management of Serious Incidents (SWH 00020) and the Being Open and the Duty of Candour (SWH 00356).

Alcohol: Screening for Dependence and Management of Acute Withdrawal

01 Screening for and Detection of Alcohol Dependence

Patients presenting to the Emergency Department (ED) and in acute admission areas should be asked about their alcohol intake. Alcohol screening and **Identification and Brief Advice (IBA)** are non-invasive, sensitive and cost-effective tools designed to identify harmful / excessive drinking at an early stage and help those affected to make changes to prevent chronic alcohol-related problems from developing.

None of the available laboratory markers (e.g. raised GGT or MCV) are sufficiently sensitive or specific to be used as the sole means of detecting alcohol-dependence.

The **AUDIT-C (Alcohol Use Disorders Identification Test—Consumption)** questionnaire is a brief screening tool for identification of hazardous / dependent alcohol use in general hospital settings. Ask the following three questions verbally and add up scores from the patient's answers:

Question	Response	Score
1 How often do you have a drink containing Alcohol?	Never Less than monthly 2-4 times a month 2-3 times a week 4 or more times a week	**0** **1** **2** **3** **4**
2 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 or more	**0** **1** **2** **3** **4**
3 How often have you had 6 or more units (female) or 8 or more units (male) on a single occasion in the last year?	Never Less than monthly Monthly Weekly Daily or almost daily	**0** **1** **2** **3** **4**

Provide patient with feedback regarding what their total score indicates in terms of health risk →
Healthcare professionals do not require comprehensive knowledge about alcohol harm to deliver IBA effectively. Training is provided in supporting staff to confidently deliver alcohol screening, identification and brief advice. Brief Advice patient information leaflets are available in the Substance Misuse folders found on each ward or may be downloaded from the intranet Substance Misuse page under Support Services which also provides access to educational videos regarding screening and brief advice.

Score 0–4 (Lower Risk): sensible, controlled drinking within the guidelines of no more than 14 units per week (for both men and women); less likely to become problematic; encourage people drinking up to 14 units per week to spread their alcohol intake evenly over 3 or more days of the week; offer a Brief Advice leaflet

Score 5–7 (Increasing Risk): may be drinking at a level / frequency that could put their health at risk; provide Brief Advice regarding units, current DH recommendations (of no more than 14 units per week for both men and women), risks of harm and benefits of cutting down; offer a Brief Advice leaflet

Score 8–12 (Higher Risk): potentially drinking too much or too often putting their health at risk —possibly dependent-drinking (score 11-12); encourage to seek advice; refer to the **hospital Substance Misuse Practitioner (hSMP), Sam Adaway** via mobile **07500 809 743, Monday-Friday 08:00-16:00** or outside of these hours, provide with Brief Advice leaflet, offer the Community Support (CGL) leaflet and complete a Substance Misuse Referral Form —leave completed forms in the Substance Misuse folder in ED, send via internal post to 'Sam Adaway c/o A&E Admin Office' or scan and email to samantha.adaway@swft.nhs.uk

Alcohol-dependent patient (age >16) with symptoms of alcohol withdrawal:

- sweating
- tachycardia
- hypertension
- low-grade pyrexia (37-38°C)
- nausea and vomiting
- diarrhoea
- tremor
- hyperreflexia
- anxiety / irritability / insomnia
- confusion / delirium
- hallucinations / delusions
- seizures

Withdrawal symptoms may appear between 6-72h after the last consumption of alcohol and can occur despite elevated blood alcohol levels

Are Any of the Following Present?

- indication for hospital admission (other than alcohol withdrawal)
- vulnerable person in acute alcohol withdrawal e.g. age <18, frail-elderly, cognitive impairment, multiple comorbidities, lack of social support, learning difficulties
- features of alcoholic hallucinosis, severe withdrawal or delirium tremens (DTs) at presentation
- previous history of severely agitated withdrawal or delirium tremens (DTs)
- presentation with (or previous history of) seizures related to alcohol withdrawal
- signs of Wernicke's Encephalopathy (WE) or high risk for development of Wernicke's encephalopathy → see Section 02
- significant depression and / or suicidal ideation

NO

Discharge Patient

Advise not to suddenly reduce alcohol intake (as a sudden reduction in alcohol intake can result in severe withdrawal)

Offer contact information for local alcohol support services e.g. Change, Grow, Live (CGL)

Consider referral for outpatient review by hospital Substance Misuse Practitioner (hSMP) via mobile 07500 809 743 or email samantha.adaway@swft.nhs.uk

YES

Refer patient to the **hospital Substance Misuse Practitioner (hSMP)** via mobile **07500 809 743, Mon-Fri 08:00-16:00**; outside of these hours complete a Substance Misuse referral form and leave in the Substance Misuse folder in ED or scan and email to samantha.adaway@swft.nhs.uk

Admit Patient

Take history of alcohol dependence including duration, current level of consumption, pattern, periods of abstinence, previous withdrawal episodes / seizures

Assess for evidence of decompensated ALD and other complications related to alcohol dependence

Obtain bloods for FBC, U&E, LFT, coagulation, glucose, magnesium, calcium & phosphate

Assess severity of withdrawal using GMAWS → see chlordiazepoxide chart for details

Commence medical detoxification therapy with fixed dose chlordiazepoxide regimen depending on initial GMAWS score → see chlordiazepoxide chart for details

Prescribe PRN chlordiazepoxide 30-50mg every 2h

DO NOT supply benzodiazepines on the TTO

Close monitoring and frequent reassessment are key...

Titrate benzodiazepine dosing depending on:

- symptom control / GMAWS score
- degree of sedation /GCS
- PRN benzodiazepine usage

Daily bloods as outlined above, correct dehydration, hypoglycaemia and electrolyte disturbances

Vitamin Supplementation

Prescribe IV Pabrinex® according to the guidance in Section 02

DO NOT give IV glucose before giving IV Pabrinex® → may precipitate WE in at-risk patients

On discharge prescribe oral thiamine 100mg TDS and ask patient's GP to review need for continuation in 6/52

Cautions with Benzodiazepines

Lower-dose chlordiazepoxide regimens (than suggested by initial GMAWS score) should be used if:

- frail / elderly
- renal / hepatic impairment
- head injury or other risk factors for excess sedation

Shorter-acting benzodiazepines e.g. lorazepam should be used in patients with significant hepatic impairment

Seizures

Usually occur within 12-48h after last alcohol intake

Treat with IV lorazepam or diazepam

Consider CT head if prolonged, refractory or focal onset seizures, acute focal neurology or head injury

DO NOT give IV phenytoin for withdrawal seizures

Severe Withdrawal → Delirium Tremens

This is a medical emergency with mortality up to 20%

Screen for complications e.g. electrolyte disturbances and sepsis (especially aspiration pneumonia)

IV benzodiazepines may be required → see Section 03 for further guidance

02 Vitamin Supplementation | Wernicke's Encephalopathy (WE)

- inappropriately treated, Wernicke's Encephalopathy (WE) carries a mortality rate >15% with permanent brain damage (Korsakoff's Psychosis) in 85% of survivors
- the classical triad of signs (acute confusion, ataxia and ophthalmoplegia) only occurs in 10% of patients and cannot be relied upon to make a diagnosis –a high index of suspicion is required

Risk factors for WE

Alcohol-dependence plus any of the following:

- malnutrition or risk of malnutrition
- recent weight loss
- chronic diarrhoea / vomiting
- decompensated liver disease
- admission with intercurrent illness e.g. sepsis
- severe withdrawal or DTs
- alcohol-related seizures or peripheral neuropathy

Symptoms / Signs of WE

- acute confusion
- decreased conscious level including unconsciousness or coma
- memory disturbance
- ataxia / unsteadiness
- ophthalmoplegia / nystagmus
- unexplained hypotension with hypothermia

The presence of ≥1 of these features is sufficient for an empirical diagnosis of WE to be made

- Pabrinex® Intravenous High Potency (IVHP) ampoules contain high concentrations of B vitamins (including thiamine) and vitamin C
- Dilute each *pair* of ampoules in a minimum of 50mL sodium chloride 0.9% or glucose 5% and infuse over 30 minutes i.e. if administering two *pairs* of ampoules, dilute in a minimum of 100mL
- DO NOT administer IV glucose (e.g. for correction of hypoglycaemia) *before* giving IV Pabrinex® –may precipitate WE as the metabolism of glucose utilizes thiamine
- Parenteral thiamine is associated with a very small risk of anaphylaxis –ensure facilities for treating anaphylaxis are available
- Patients who have received a full 5-day course of IV Pabrinex within the last 4 weeks do not usually require repeated treatment with parenteral thiamine unless symptoms or signs of WE are present

A Treatment for patients with symptoms / signs of WE or risk factors for WE:

- Pabrinex® IVHP **2 pairs** of ampoules **three times daily** (TDS) for 5 days then;
- If patient is improving after 5d of treatment, continue Pabrinex® until no further improvement is seen
- If no clinical improvement after 5d, discontinue Pabrinex® and consider alternative causes for symptoms

B Prophylaxis for all other patients admitted with alcohol withdrawal:

- Pabrinex® IVHP **1 pair** of ampoules **once daily** (OD) for 3-5d

C After discontinuation of IV Pabrinex®

- prescribe oral thiamine 100mg TDS (vitamin B Compound Strong is NOT recommended by NICE)
- continue on discharge TTO and ask patient's GP to review the need for continuation after 6 weeks

03 Severe Withdrawal | Delirium Tremens (DTs)

Risk factors for progression to severe withdrawal

- high alcohol intake (>20 units per day)
- previous history of severe withdrawal, seizures or DTs
- suspected Wernicke's encephalopathy
- concomitant use of or dependence on other psychotropic drugs
- poor physical health / multiple comorbidities
- high levels of anxiety, insomnia, or other psychiatric disorders
- electrolyte disturbances e.g. hypomagnesaemia
- fever or profuse sweating, tachycardia, respiratory alkalosis

Symptoms of Delirium Tremens

- increasing confusion and disorientation
- severe tremor and autonomic disturbance
- visual and auditory hallucinations
- psychosis and delusional beliefs

Medical emergency with mortality up to 20%
→ prompt recognition and treatment is critical

- the objective of treatment is to make patients calm and sedated but easily rousable
- for patients able to take oral medication, doses of chlordiazepoxide up to 50mg every 2h may be required
- severely agitated patients may require IV diazepam 10mg or IV lorazepam 1-2mg every 30-60 minutes until adequate sedation is achieved **→ use lorazepam in patients with significant liver impairment**
- monitor ECG, BP, respiratory rate, pulse oximetry and GCS when giving high-dose benzodiazepines
- severe psychotic symptoms may be managed with the *addition* of oral haloperidol 1-5mg TDS or olanzapine 2.5-5mg BD **→ all antipsychotics increase risk of seizures and QTc prolongation**
- consider use of the Mental Capacity Act / DOLS where necessary e.g. when severely agitated / delirious patients are repeatedly trying to leave the ward or require restraint for treatment
- screen for and treat associated sepsis –aspiration pneumonia is a common complication of DTs
- close monitoring of fluid balance –supplemental IV fluids are usually required
- check U&E, magnesium, calcium and phosphate daily and correct electrolyte deficiencies promptly to reduce the risk of arrhythmia
- **seek senior advice / support in all patients with severe withdrawal / DTs** and consider referral to ITU in extreme circumstances where safety cannot be maintained on the ward

Alcohol Withdrawal GMAWS and Chlordiazepoxide Prescribing Chart

Assess the severity of withdrawal using the **Glasgow Modified Alcohol Withdrawal Scale (GMAWS)** below:

→ enter score for each criterion in relevant box

→ add scores together to get total GMAWS score

Patient Name:

DOB:

Hospital No:

NHS No:

ATTACH PATIENT LABEL HERE

DO NOT use GMAWS if the patient is still intoxicated → must be ≥8h since last alcoholic drink

Date (DD/MM)	/	/	/	/	/	/	/	/
Time (HH:MM)	:	:	:	:	:	:	:	:
Tremor No tremor **0** On movement **1** At rest **2**								
Sweating No sweat visible **0** Moist **1** Drenching Sweats **2**								
Hallucinations Not present **0** Dissuadable **1** Not dissuadable **2**								
Orientation Orientated **0** Vague, detached **1** Disorientated, no contact **2**								
Agitation Calm **0** Anxious **1** Panicky **2**								
Total Score / 10								
Staff Initials:								

IMPORTANT – PLEASE READ BEFORE TURNING OVER

- the dosing regimens overleaf are a *guide* only and need to be considered on an individual patient basis
- patients who are frail / elderly or who have renal / hepatic impairment, head injury or other risk factors for excess sedation / respiratory depression should receive lower dosing regimens of chlordiazepoxide than suggested by the initial GMAWS score
- patients with acute / severe hepatic impairment should be treated with lorazepam instead of chlordiazepoxide
- approximate equivalent benzodiazepine doses are **chlordiazepoxide 30mg = diazepam 10mg = lorazepam 1mg**
- if oral benzodiazepine administration is not possible (e.g. persistent vomiting) → give IV diazepam or lorazepam at 50% of the equivalent oral dose i.e. PO chlordiazepoxide 30mg = IV diazepam 5mg = IV lorazepam 0.5mg
- refer to Section 3 of the Alcohol Withdrawal SOP for advice regarding management of patients with severe withdrawal / DTs

→ turn over for guidance on prescribing chlordiazepoxide regimen based on initial GMAWS score

1. **Use the initial GMAWS score from page 1** to determine the starting regimen of chlordiazepoxide as indicated below; if the initial GMAWS is 0 then no chlordiazepoxide is necessary at this time; reassess patient and recheck GMAWS in 4h

2. **Circle the regimen to be commenced below**, strike-through the other regimens and sign / enter your details at the bottom

3. **Prescribe regular chlordiazepoxide** on the *Regular Drug Therapy* section of the drug chart and circle the times for administration → DO NOT prescribe doses but write '*see chlordiazepoxide chart*'

4. **Prescribe PRN chlordiazepoxide** on the *As Required* section of the drug chart every 2h at the starting dose of the chosen regimen e.g. if initial GMAWS is 1-3, prescribe PRN chlordiazepoxide 30mg every 2h –PRN doses should be reviewed at least every 24h and reduced in accordance with the regular doses being administered each day if symptoms are well controlled

5. **Repeat GMAWS score regularly** minimum every 4-6h during the first 48h and document the score in table on page 1 → administer a PRN dose of chlordiazepoxide each time GMAWS score >4

6. **Frequent reassessment is critical** adjust dosing regimens according to symptom control, degree of sedation / respiratory depression and requirement for PRN dosing; consider increasing regular dose if >3 PRN doses are required in 24h; generally, PRN doses should NOT be required after day 3 – consider increasing regular dose and /or extending duration of regimen (e.g. to 7 days) if patient is still requiring PRN dosing (GMAWS score >4) at this point

IMPORTANT: if the regimen is starting in the evening / at night, write up the first 1-2 doses of chlordiazepoxide on the *Once Only 'STAT' Drugs* section of the drug chart and **commence regimen the following morning** to prevent overly rapid reduction in dosing

Initial GMAWS 1-3 Chlordiazepoxide 30mg

Day	Date:	08:00 Dose	Given By:	12:00 Dose	Given By:	18:00 Dose	Given By:	22:00 Dose	Given By:
1	/	30mg		30mg		30mg		30mg	
2	/	20mg		20mg		20mg		20mg	
3	/	15mg		15mg		15mg		15mg	
4	/	10mg		10mg		10mg		10mg	
5	/	5mg		5mg		5mg		5mg	

Initial GMAWS 4-6 Chlordiazepoxide 40mg

Day	Date:	08:00 Dose	Given By:	12:00 Dose	Given By:	18:00 Dose	Given By:	22:00 Dose	Given By:
1	/	40mg		40mg		40mg		40mg	
2	/	30mg		30mg		30mg		30mg	
3	/	20mg		20mg		20mg		20mg	
4	/	10mg		10mg		10mg		10mg	
5	/	5mg		5mg		5mg		5mg	

Initial GMAWS ≥7 Chlordiazepoxide 50mg and **OBTAIN URGENT SENIOR REVIEW**

Day	Date:	08:00 Dose	Given By:	12:00 Dose	Given By:	18:00 Dose	Given By:	22:00 Dose	Given By:
1	/	50mg		50mg		50mg		50mg	
2	/	40mg		40mg		40mg		40mg	
3	/	30mg		30mg		30mg		30mg	
4	/	20mg		20mg		20mg		20mg	
5	/	10mg		10mg		10mg		10mg	

PRESCRIBING CLINICIAN:

SIGNATURE	PRINT NAME	OR STAMP HERE
F1 / F2 / ST1 / ST2 / GPVTS / SpR / Locum / ACP	REG NO.	