MIL

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This Medicines Information Leaflet is produced locally to optimize the use of medicines by encouraging prescribing that is safe, clinically appropriate and cost-effective to the NHS.

Identification and Treatment of Acute Alcohol Withdrawal

Alcohol Withdrawal Management Algorithm for **Fixed Dose Regimen** (Using the Clinical Institute Withdrawal Assessment–Alcohol Revised (CIWA-Ar) See page 3 of MIL). Note that a symptom triggered regimen is managed differently.

Alcohol Withdrawal Syndrome (AWS)

Record alcohol history including daily units
(https://alcoholchange.org.uk/alcohol-facts/interactive-tools/check-your-drinking/alcohol-units)
Is patient drinking in a continuous pattern /showing symptoms of alcohol dependence?
Is there a history of severe withdrawal, DTs or withdrawal seizures?

Day 1: 0-24 Hours

If any of the above/drinking more than 15 units daily

1. Use the CIWA-Ar to screen for signs of withdrawal.
2. Commence a chlordiazepoxide detox using the alcohol withdrawal EPR PowerPlan.
3. If over 80 years old / frail, cirrhotic or have alcohol related hepatitis use Lorazepam.
4. Prescribe PRN chlordiazepoxide / Lorazepam for breakthrough symptoms.
5. If unable to tolerate oral medication give IM / IV lorazepam.
6. Start IV thiamine 250mg OD for 3 days.
7. Refer to the Alcohol Care Team via EPR / #8318

Day 2: 24- 48 Hours

1. If uncomplicated withdrawal, continue with Alcohol Withdrawal PowerPlan + regular CIWA-Ar scoring until completed.
2. Continue PRN chlordiazepoxide 10-20mg / Lorazepam 0.5-2mg.
3. If patient requires multiple PRN doses, review the drug chart. They may require an increase in the regular detox medication.

Day 3: 48- 72 Hours

1. Continue with reducing regimen as per PowerPlan.

Alcohol Withdrawal Delirium Tremens (DTs)

Severely Confused / Agitated Patient

A patient can progress from AWS to DTs at any stage in their treatment.

Alcohol withdrawal delirium should be treated as a medical emergency.
The patient will need higher doses of Benzodiazepines

1. Commence a Lorazepam detox using the alcohol withdrawal EPM PowerPlan
2. Ensure the patient is reviewed by either a senior clinician, Hepatology or Psychological Medicine.
3. Use the CIWA-Ar to monitor signs of withdrawal and guide PRN benzodiazepine doses.
4. The patient may need 1:1 nursing to ensure their safety and those around them. Please assess capacity.
5. Follow the violence and aggression policy. http://ouh.oxnet.nhs.uk/SecurityServices/DocumentLibrary/Forms/AllItems.aspx)
6. **Refer to the Alcohol Care Team via EPR / #8318**

Drug treatment Options of DTs:

1. Oral lorazepam should be used to treat patients with DTs https://bnf.nice.org.uk/treatment-summary/alcohol-dependence.html
2. If unable to tolerate oral medication switch to IM/IV lorazepam 1-4mg every 20-30 mins until patient is calm. Monitor for signs of respiratory depression.
3. Ensure this is given into a large vein. Caution with IM route if clotting is deranged or on anticoagulation.
4. Continue with IV thiamine 500mg TDS for a minimum of 3 days. Patient may require a prolonged course.

Patients with decompensated liver disease (jaundice, ascites, hepatic encephalopathy, suspected variceal bleeding) should be referred promptly to Hepatology on #4084 or by sending a consult message via EPR.

Aim of the MIL is to:

- Enhance knowledge and reduce complications in patients presenting with AWS.
- Ensure all inpatients with an alcohol history are referred to the alcohol liaison team via EPR.

Investigations

All patients treated with AWS require

- U&E's (incl. magnesium and phosphate), FBC, blood glucose, LFTs, clotting screen, folate/B12.
- Screening for alcohol dependence using the EPR screening tool
- Glasgow Coma Scale (GCS), blood pressure, temperature, pulse, oxygen saturations should be monitored regularly

Signs and Symptoms:

Alcohol Withdrawal Syndrome (AWS) is the abrupt cessation or rapid decrease of alcohol in patients who have been drinking excessively for a prolonged period. Symptoms begin within 24 hours after a patient's last drink. Symptoms usually peak between **48** - **72** hours, however Delirium Tremens (DTs) can peak as late as **96** hours. AWS can lead to a severe & potentially fatal alcohol withdrawal due to increased autonomic activity. The symptoms can be characterized by:

1. Seizures
2. Tremor
3. Agitation/aggression
4. Fever/Sweating
5. Headache
6. Tachycardia/hypertension
7. Nausea/vomiting
8. Confusion

Risk Factors for Severe Alcohol Withdrawal

- High alcohol intake (more than15 units a day)
- History of severe withdrawal, seizures, or DTs
- Psychotropic drug use
- Poor physical health
- Electrolyte disturbance
- Fever / Tachycardia
- Insomnia
- Psychiatric history

Treatment Option 1: Fixed Dose Detox:

Patients should start on a predetermined chlordiazepoxide/lorazepam regimen at set times. This will be reviewed by the ACT or specialist ward with a view to switch to a symptom triggered detox. PRN benzodiazepines should be prescribed for breakthrough symptoms via **EMPA Power Plan** and reviewed daily.

1. The dose of benzodiazepines should be monitored to ensure it provides effective sedation while preventing over sedation, respiratory depression & hypotension

2. If 3 or more PRN doses (as calculated from the CIWA-Ar) are required in 24 hours, reassess the reducing regimen.

3. If a patient is NBM IM /IV Lorazepam should be given until they are able to swallow oral medication.

4. Benzodiazepines should only be for short term use.

Fixed Dose Chlordiazepoxide Reducing Regimen. Consider for >35 units a week					
Day	**8am**	**12:00**	**18:00**	**22:00**	**PRN**
1	30mg	30mg	30mg	30mg	10-20mg PRN (To a maximum of 200mg in 24 hours)
2	20mg	20mg	20mg	20mg	
3	20mg	20mg	20mg		
4	20mg		20mg		
5	10mg		10mg		
6	10mg				

Chlordiazepoxide 25mg = Diazepam 10mg = Lorazepam 1mg (Oral)

Fixed Dose Lorazepam Regimen. Patients with decompensated cirrhosis, alcohol related hepatitis, DTs and patients over 80 years old / frail					
Day	**8am**	**12:00**	**18:00**	**22:00**	**PRN**
1	2mg	2mg	2mg	2mg	0.5-2mg PRN (To a maximum of 10mg in 24 hours)
2	1mg	1mg	1mg	1mg	
3	1mg	0.5mg	0.5mg	1mg	
4	0.5mg	0.5mg	0.5mg	0.5mg	
5	0.5mg		0.5mg		

Treatment Option 2: Symptom Triggered Detox:

A symptom triggered detox provides patients with benzodiazepines if they have symptoms and are omitted if there are no symptoms. Symptom triggered detoxes can reduce length of stay and quantities of benzodiazepines. Lorazepam is the benzodiazepine of choice. **0.5-2mg** should be prescribed as a PRN medication.

10-20mg chlordiazepoxide may also be used.

Patients with cirrhosis, alcohol related hepatitis, DTs or over the age of 80/frail should be placed on a symptom triggered regimen following review by ACT/ specialist

area. These patients **must** be admitted to a ward that is adequately staffed. Nursing and clinical staff must be trained and confident to assess patients using the CIWA-Ar tool.

PRN Doses for Lorazepam Regimen:

0.5mg-1mg = mild/moderate symptoms
2mg = severe symptoms.
A maximum of **10mg in 24 hours** can be given

PRN Doses for Chlordiazepoxide Regimen:

10mg = mild/moderate symptoms
20mg = Severe symptoms
A maximum of **200mg in 24 hours** can be given
Some patients will require individualised detox regimens with high doses of benzodiazepines. See section regarding Delirium Tremens.

Assessment: The Clinical Institute Withdrawal Assessment- Alcohol revised (CIWA-Ar) is a validated alcohol withdrawal tool. It assesses the severity of withdrawal symptoms and guides administration of Benzodiazepines. It is used in **both** fixed dose and symptom triggered regimens. Monitoring of blood pressure, pulse, temperature, oxygen saturations and GCS should be carried out alongside CIWA-Ar scoring.

Score less than 9: No PRN. Repeat CIWA-Ar 4 hourly
Score bigger than 10: Give 10-20mg of chlordiazepoxide / 0.5-2mg of lorazepam. Repeat CIWA-Ar 2 hours.
Score bigger than 21: Give 20-40mg of chlordiazepoxide / 2mg lorazepam. Repeat CIWA in 30 minutes. Seek urgent senior review.
If score is less than 9 for 72 hours discontinue CIWA-Ar scoring.

Alcohol Withdrawal Seizures

Patients are at risk of developing seizures up to **96** hours after last alcoholic drink. Seizures usually respond to:

• IV lorazepam 2mg or PR diazepam (rectal tube 10mg) repeated after 5 minutes if required

Unresolving withdrawal seizures should be treated with IV diazepam (as emulsion - Diazemuls®), followed by IV Thiamine. An **increase** in oral benzodiazepines should be considered to reduce the likelihood of further seizures. Phenytoin should not be offered to treat alcohol withdrawal seizures. Carbamazepine, Baclofen and beta-blockers have unproven efficacy and safety versus benzodiazepines so should not be used.

Benzodiazepine's and Pregnancy.

Lorazepam or Chlordiazepoxide can be given in pregnancy. UKtis (UK Teratology Information Service) recommends pregnant women in acute alcohol withdrawal are treated with benzodiazepines as the benefit of treatment outweigh the risk. Caution is advised if giving high doses in late pregnancy. It recommends women use effective contraception while taking medication and for 7 months post treatment. Men should use effective contraception while taking medication and for 4 months following treatment.

Wernicke's Encephalopathy / Korsakoff's Psychosis

Wernicke's Encephalopathy (WE) is caused by thiamine deficiency. **Early recognition & treatment is essential to reduce the risk of irreversible damage to the nervous system.**

Untreated Wernicke's can cause permanent brain damage (**Korsakoff's psychosis**) in 85% of survivors.

Patients at high risk of developing WE are:
• Malnourished / have persistent vomiting
• Have decompensated liver disease

The presence of only one of the signs below should be sufficient to assign a diagnosis and commence treatment.

1. Acute confusion
2. Ataxia/unsteadiness
3. Memory disturbance
4. Ophthalmoplegia
5. Nystagmus
6. Decreased consciousness/coma/ low GCS

Treatment is with Thiamine replacement. The optimum dose and length of treatment is unknown. Recommended dose is:

Treatment for Established WE

IV Thiamine 500mg TDS for 3 days. If symptomatic continue for further 3-5 days for as long as clinical improvement is seen.

A high level of suspicion should be maintained for the possibility of WE, particularly if the person is intoxicated. Hepatology should be consulted for advice on the management of WE.

Hypomagnesaemia makes WE resistant to treatment therefore replace if levels lower than 0.5mmol/L.

Prophylactic Treatment for WE: For patients who are NOT malnourished and NOT decompensated cirrhotic. **ORAL thiamine 100mg BD + multivitamins and minerals once daily for 10 days.**

Prophylaxis for patients at greater risk of Wernicke's encephalopathy and refeeding syndrome (Patients who ARE malnourished, decompensated cirrhotic or have acute illness or injury): **IV thiamine 250mg once daily for 3 days** with daily review and monitoring for emergent signs of Wernicke's encephalopathy. Followed by thiamine 100mg BD + multivitamins and minerals OD to continue on discharge and during periods of continued alcohol consumption.

Thiamine and multivitamin tablets will disperse in water if administration via an NG tube is required

Delirium Tremens (DTs)

Untreated DT's have a mortality rate up to 20%. 5% of patients with AWS develop DTs.

Symptoms

1. Increasing confusion and disorientation
2. Severe agitation / inability to focus
3. Delusions (often paranoid)
4. Visual and auditory hallucinations
5. Severe tremor and autonomic disturbances

With acute confusion, consider all differential diagnosis (sepsis, electrolyte imbalance, psychosis and drug withdrawal) as well as WE, subdural hematoma & hepatic encephalopathy. Diagnosis of DTs should be made by an experienced health care professional. Patients with liver disease should be referred to Hepatology.

Prompt identification of AWS and treatment with benzodiazepines will usually prevent DTs. Severely confused or agitated patients require the administration of adequate sedative doses of benzodiazepines.

Treatment

Oral lorazepam is first line treatment (if necessary IV/IM), please see **Lorazepam table**. The aim is to make the patient calm and sedated but easily rousable. This allows dehydration and metabolic disturbances to be treated.

- IV/IM lorazepam **1-4mg**.This can be repeated every **20-30 minutes** until the patient is calm. Caution with IM route is advised if clotting is deranged.

Patients with DTs may need very large doses of benzodiazepines and ITU support. Seek urgent senior medical review. 1:1 nursing care may be required alongside support from the security team.

Flumazenil is the reversal agent for benzodiazepine toxicity but could precipitate seizures. Only use with guidance from ICU.

Severely Confused or Agitated Patients:

Refer to psychological medicine as antipsychotic medication may be required as an adjunctive therapy to benzodiazepines; antipsychotics **should not** be used alone as they do not treat alcohol withdrawal. They may lower the seizure threshold. WE and hepatic encephalopathy should be excluded before starting antipsychotics.

Haloperidol (1-2mg IV/IM or 1.5-5mg bd PO; lower dose in elderly) is recommended.

The use of benzodiazepines and antipsychotics are currently unlicensed for treating DTs but are routinely used within the UK.

Alcoholic Hepatitis

Patients with suspected acute alcohol-related hepatitis should be referred to Hepatology. Optimisation of nutrition, early detection, treatment of sepsis, and close monitoring of renal function are paramount.

Hepatic Encephalopathy (HE)

It is important to distinguish patients with hepatic encephalopathy from those with AWS. Care should be taken in using any form of sedation in patients with HE as this can lead to rapid onset of coma and respiratory compromise. Lorazepam is the benzodiazepine of choice in patients with decompensated liver disease. Hepatology should be consulted on the management of these patients.

Nutrition and Vitamin Supplementation:

Poor nutrition is common due to inadequate dietary intake, along with associated chronic liver disease, chronic pancreatitis, and malabsorption. Water and fat-soluble vitamins should be replaced, and severely malnourished patients should be considered for early enteral feeding via an NG tube. **These patients are at risk of developing refeeding syndrome**. They may require magnesium, potassium, and phosphate supplementation (refer to individual OUH MILS)

Fluid and Electrolyte Balance:

Sedated patients are at risk of dehydration.
Monitor fluid balance, urea & electrolytes daily.
Oral intake should be around 2-2.5L/day in patients **without** decompensated liver disease.
Failure to correct electrolyte disturbances may lead to life threatening cardiac arrhythmias.
Monitor blood glucose daily.

Pancreatic Enzyme Supplements

Creon should be offered to those where there is evidence of chronic pancreatitis with pancreatic endocrine insufficiency.

Discharge Advice and Medication:

If a patient is to be discharged before they have completed their detox;

- Ensure their CIWA-Ar is 8 or below.
- Alcohol Awareness leaflet should be given (Available on OUH intranet site).
- Advise patient that they may need access to alcohol on discharge to relieve withdrawal symptoms.
- Patients can be discharged with a **maximum** of 10mg chlordiazepoxide BD/0.5mg Lorazepam BD for one day.
- **Patients who self -discharge against medical advice should have a formal capacity assessment and must not be given benzodiazepines as a TTO**
- All patients should be discharged with oral thiamine 100mg BD + multivitamins OD.
- Drugs designed to support abstinence (e.g. Acamprosate, Nalmefene, Disulfiram, Baclofen) should not routinely be initiated in secondary care. Consultation with Psychological Medicine and community support services is advised.

Refer Patient to Alcohol Liaison Team Via EPR.

All inpatients with a history of alcohol misuse should be referred to the Alcohol Care Team for medical management of alcohol withdrawal symptoms and psychosocial support.

ACT contact details: (Monday to Friday 8am-6pm)
01865221460 / 07770647741
alcoholcareteam@ouh.nhs.uk

Support Services: Anyone can refer a patient to community support services.

Here for Health

Outpatients requiring support. Direct referrals via EPR.

Turning Point – Roads to Recovery

Commissioned community Drug & Alcohol support service in Oxfordshire. Hubs are based in Oxford, Banbury, Witney and Didcot.
Tel: 03000134776/01865 261690
Monday – Friday 9am – 5pm
Referral via:
Turning Point Homepage (turning-point.co.uk)

Alcoholics Anonymous (national service)

AA offer daily meetings across Oxfordshire.
Free Helpline: 0800 917 7650 Email:help@aamail.org
Website: https://aasouthmidlands.org.uk/

Here4YOUth Oxfordshire

Support young people from ages 8-18 who use substances or are affected by another person's substance misuse. Tel:01865590825
Email: here4youth@cranstoun.org.uk

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