

# Alcohol withdrawal – guidelines

*The guidelines are for any practitioner involved in the management of alcohol withdrawal in a variety of settings. The phrase 'supervised withdrawal from alcohol (SWA)' is preferred to 'detoxification'. Further advice is available from the Community Alcohol Service (CAS).*

## **General principles**

- People with alcohol related problems have the same rights as others to access health, social and other services.
- General practitioners, hospital medical teams and mental health workers all may have a role in the safe management of alcohol withdrawal.
- Medical supervision of withdrawal from alcohol is an important procedure that can significantly reduce morbidity and mortality.
- A proportion of people with alcohol dependence will suddenly stop drinking and may present with significant features of alcohol withdrawal. This group should be treated as a matter of priority as a proportion will go on to develop seizures or delirium tremens (DTs) without intervention.
- SWA should usually be a planned procedure and arranged through the GP, CAS or CMHT. People who are not already in contact with the service who present with a request for help to withdraw can be advised to continue drinking (at present or at reduced levels if possible) pending assessment by CAS/CMHT.
- The majority of patients can undergo SWA in the community.
- SWA should be seen as one part of an intervention package. There is usually little to be achieved by repeated withdrawals.
- It is not good practice to merely provide a prescription for benzodiazepines without adequate supervision and monitoring.

## **Features of alcohol dependence**

- Strong desire or compulsion to drink
- Difficulties controlling drinking
- Physiological withdrawal state on reduction or stopping
- Drinking to avoid withdrawal symptoms
- Tolerance to the effects of alcohol
- Preoccupation with drinking and restriction or neglect of other interests or responsibilities
- Continued drinking despite harmful consequences

## **Alcohol withdrawal syndrome**

In alcohol-dependent drinkers, the CNS has adjusted to the constant presence of alcohol in the body. When the blood alcohol level is suddenly lowered, the brain remains in an 'hyperactive' state causing the withdrawal syndrome. The alcohol withdrawal syndrome is not a uniform state but varies significantly in clinical manifestations and severity. Symptoms can range from mild insomnia to delirium tremens. The first symptoms and signs occur within hours of the last drink and peak within 24-48 hours. In most patients symptoms of alcohol withdrawal are mild to moderate and disappear within 5-7 days after the last drink. In more severe cases (approximately 5% of cases), DTs may develop.

- Restlessness
- Tremor
- Sweating
- Anxiety
- Nausea and vomiting
- Insomnia.
- Tachycardia and systolic hypertension
- Generalised seizures – uncommon, usually within 24 hours of cessation
- Delirium tremens
  - Confusion
  - Disorientation
  - Agitation
  - Raised pulse, BP and temperature
  - Visual and auditory hallucinations
  - Paranoid ideas

### ***Risk factors for DTs and seizures***

- Severe alcohol dependence
- Previous history of DTs or seizures
- Longstanding history of alcohol dependence with previous episodes of in-patient treatment
- Older age
- Concomitant acute illness
- Severe withdrawal symptoms when presenting for treatment

### ***Supervised withdrawal from alcohol***

- The aim of SWA is to provide symptomatic relief and prevent harmful consequences such as DTs or seizures.
- All patients should be properly assessed prior to SWA.
- Benzodiazepines are the treatment of choice for alcohol withdrawal.
- The setting for SWA depends upon a variety of factors – severity of dependence, extent of medical and psychiatric morbidity, availability of a carer and professional supervision.
- Avoid polypharmacy (eg chlorthalidone plus temazepam or haloperidol) unless there are clear indications

- **Medication is not always necessary**

- No recent withdrawal symptoms
- No recent drinking to prevent withdrawal symptoms
- Consumption less than 15 units per day
- Periodic (binge) drinking with bouts lasting less than one week

- **Relative indications for inpatient treatment**

- Severe alcohol dependence
- History of seizures or DTs
- Complex medical or psychiatric problems
- Live alone or lack of support
- Failure of SWA in community
- Risk of suicide
- Polysubstance use

- **Alternative to drug treatment**

- Some patients with alcohol dependence can systematically phase out their alcohol intake over 7-14 days. For example, a patient who usually drinks four litres of strong cider per day can be advised to drink eight 1/2L cans of ordinary strength cider on day one and then the number of cans per day can be reduced every day or at longer intervals according to tolerability.
- Drink steadily through the day to avoid withdrawal symptoms.
- Buy alcohol one day at a time.
- Convert from spirits to beer/cider or wine.

# SWA in the community

This procedure is performed by a GP, Alcohol Worker or CPN in the patient's home or other suitable environment outside hospital.

**Assessment** indicates

- Mild or moderate dependence
- No or little medical or psychiatric care is required

**Conditions**

- Continuous supervision from relative or carer is available for at least the first 48 hours
- GP or hospital consultant has agreed to take medical responsibility for assessment and or prescribing
- Daily visits for three days from GP, alcohol worker or CPN
- Suitable home environment

**Procedure**

**On commencement**

- Start at beginning of week if possible
- Agree goals and develop a care plan
- Give printed information to patient and carer including relevant contact information

**Drug treatment**

Arrange for GP or hospital doctor to prescribe chlordiazepoxide according to the low, medium or higher dose regimes (low or medium in most cases)

- A small amount of extra medication may be necessary in the first 24 hours (10-20mg twice in 24 hours)
- Dispense medication daily
- The first dose of medication is given just before withdrawal symptoms are anticipated – the patient will know how long before they usually develop after the last drink
- Adjust total daily dose of chlordiazepoxide on day two according to the severity of symptoms during the previous 24 hours (medical decision).
- Vitamin supplements are not usually required
- Patients sometimes present to GPs having stopped drinking and with only mild withdrawal symptoms. Symptomatic treatment with chlordiazepoxide 20-30mg/day reducing over 3-4 days can be given.

**Monitoring**

- Arrange to visit twice (or once plus a telephone call) on day one and daily on days 2 and 3
- Measure pulse and blood pressure at least daily for 3 days
- Breathalyze patient at each visit
- Monitor symptoms of withdrawal by interview or by checklist.
- Contact GP or hospital doctor if more than 80mg of chlordiazepoxide is required to control symptoms in the first 24 hours or if there are other complications.
- If the patient starts to drink do not dispense medication. Advise the patient to continue drinking at minimum levels to avoid withdrawal symptoms. Arrange to review as appropriate.

**Exceptional circumstances**

Some patients with severe dependence or other complicating factors refuse inpatient or day-patient treatment and yet request help to withdraw. It is sometimes appropriate **to refuse** to agree to SWA in the community (chaotic drinking, poor compliance, lack of supervision, risk of overdose, history of seizures). In other circumstances it is appropriate to agree to community withdrawal provided the patient understands and accepts (in writing) the increased risks.

## SWA in Day Care Stonebow Unit

This procedure is undertaken by a day care nurse and hospital doctor. Patients are usually already known to CAS or CMHT and are referred to Dr Allman's SHO who will co-ordinate the procedure in liaison with Day Care staff.

### *Conditions*

- Mild, moderate or severe dependence
- Community management not feasible or appropriate
- Inpatient management not clearly indicated
- Feasibility of daily attendance (hospital transport or accompanied)
- Hospital doctor has agreed to take medical responsibility for assessment, monitoring and prescribing
- Patients are required to stay in the unit between 10am and 4pm until it is clear that withdrawals are controlled (usually days one and two).
- Patients should have access to the day area including the smoke room as well as a quiet more private sitting area.
- Patient agrees not to drive.

### *Procedure*

- Patients should have been assessed by CAS or CMHT.
- The relevant documentation should be available so that potential problems or complications can be anticipated.
- The admission should when possible be planned for the first part of the week. Some patients with mild to moderate dependence can start on Wednesday and take home medication to cover the weekend
- The care-coordinator should ensure that the patient agrees to the conditions and goals of the admission.

### *Medical assessment*

- History of alcohol use and consequences
- Recent alcohol use including time of last drink
- Features of alcohol dependence syndrome
- Previous experience of SWA
- History of DTs or seizures
- Medical history and current treatment
- Other drug use
- Physical - focus on CNS (ataxia, nystagmus, neuropathy), CVS, liver disease, nutritional state
- Mental state – depression, suicidal ideas, psychotic features, confusion
- Investigations if not already available - FBC, U/E, LFT, Alcohol breath test, urine or saliva drug screen

### *Nursing assessment*

- Alcohol breath test shortly after arrival and at one hour
- Complete symptom check list
- Give printed information to patient including relevant contact information

## *Drug treatment*

- The intention in the first 24 hours is to titrate dosage of chlordiazepoxide against severity of alcohol withdrawal symptoms.
- It is necessary to avoid either under-treatment (associated with patient discomfort and a higher incidence of complications such as seizures or DTs), or over-treatment (associated with excessive sedation and risk of toxicity/interaction with alcohol consumed prior to admission).
- This is followed by a fixed 5-10 day reducing regimen based upon the dosage requirement estimated during the first 24 hours.

### *First 24 hours (day 1)*

Three doses of chlordiazepoxide must be specified:

#### *First dose*

Administered after medical and nursing assessment as a fixed “stat” dose. Estimated upon:

- Clinical signs and symptoms of withdrawal
- Breath alcohol concentration on admission and 1 hour later

The dose prescribed should usually be within the range of 5-40mg. However, if withdrawal symptoms on admission are mild, or if the breath alcohol is very high, or rising, the initial dose may be 0mg (ie nothing). It is the relative fall in blood alcohol concentration that determines the need for medication not the absolute figure (hence the need to take two readings at an interval soon after admission). Caution is needed if a patient shows a very high initial reading.

#### *Further doses in first 24 hours*

Chlordiazepoxide 5-20mg four times daily plus 5-20mg PRN for withdrawal symptoms will cover almost all circumstances.

#### *Maximum dose in 24 hours*

This is the maximum cumulative dose that may be given during the first 24 hours. It is estimated according to clinical judgement, but **80-120mg should be adequate for most day cases**. The cumulative chlordiazepoxide dose administered during the initial 24-hour period is called the BASELINE DOSE, and this is used to calculate the subsequent reducing regime.

#### *Days 2-10*

- After the initial 24-hour assessment period a standardised reducing regime is used.
- Chlordiazepoxide is given in divided doses, four times daily.
- The afternoon and evening doses can be proportionately higher in order to provide night sedation (but note that the effect of chlordiazepoxide and its metabolites is long-lived).
- The dose should be reduced each day by approximately 10-20% of the Baseline Dose
- The longer regime (10 days) may be required in the case of patients who have more severe dependence or low tolerance of withdrawal effects
- Chlordiazepoxide should not routinely be prescribed on a PRN basis after the initial 24-hour period. Patients exhibiting significant further symptoms may have psychiatric (or other) complications and should be seen by the ward or duty doctor.
- Vitamin supplements may be required in some day cases – see inpatient protocol

## *Monitoring*

### *First 24 hours*

1-4 hourly depending on severity

- Symptom check list
- Pulse and blood pressure

### *Day two onwards*

Twice daily

- Consider alcohol breath test after any leave from the unit or in suspicious circumstances.

# SWA in hospital

## *Conditions*

- Patients to be admitted for planned SWA should have been assessed by CAS or CMHT.
- The relevant documentation should be available prior to admission so that potential problems or complications can be anticipated.
- The admission should if possible be planned for the first part of the week (Monday-Wednesday).
- The care-coordinator should ensure that the patient agrees to the conditions and goals of the admission.
- Patients are asked to not drink for at least 4 hours or as little as possible prior to admission. Patients who present severely intoxicated can be asked to leave and return the following day.

## *Assessment on admission*

Medical - review relevant history and examination with specific reference to

- History of alcohol use and consequences
- Recent alcohol use including time of last drink
- Features of alcohol dependence syndrome
- Previous experience of SWA
- History of DTs or seizures
- Medical history and current treatment
- Other drug use
- Physical - focus on CNS (ataxia, nystagmus, neuropathy), CVS, liver disease, nutritional state
- Mental state – depression, suicidal ideas, psychotic features, confusion
- Investigations - FBC, U/E, LFT, Alcohol breath test, urine or saliva drug screen

Nursing

- Alcohol breath test shortly after arrival and one hour later
- Complete symptom check list
- Ask patient to read information sheet, check understanding.
- Consider search of belongings for alcohol.

## *Prescribing*

- The intention in the first 24 hours is to titrate the dosage of chlordiazepoxide against the severity of alcohol withdrawal symptoms.
- It is necessary to avoid either under-treatment (associated with patient discomfort and a higher incidence of complications such as seizures or DTs), or over-treatment (associated with excessive sedation and risk of toxicity/interaction with alcohol consumed prior to admission).
- This is followed by a fixed 5-10 day reducing regimen based upon the dosage requirement estimated during the first 24 hours.
- Occasionally (eg in delirium tremens) the flexible regime may need to be prolonged beyond the first 24 hours.
- Rarely (if ever) is it necessary to resort to the use of other drugs, such as antipsychotics (associated with reduced seizure threshold)

## *First 24 hours (day 1)*

Three doses of chlordiazepoxide must be specified:

### *First dose*

Administered by ward staff immediately following admission, as a fixed “stat” dose. Estimated upon:

- Clinical signs and symptoms of withdrawal
- Breath alcohol concentration on admission and 1 hour later

The dose prescribed should usually be within the range of 5-40mg. However, if withdrawal symptoms on admission are mild, or if the breath alcohol is very high, or rising, the initial dose may be 0mg (ie nothing). **It is the relative fall in blood alcohol concentration that determines the need for medication not the absolute figure** (hence the need to take two readings at an interval soon after admission). Caution is needed if a patient shows a very high initial reading.

#### *Further doses in first 24 hours*

Chlordiazepoxide 5-20mg 4-6 hourly plus 5-20mg PRN for withdrawal symptoms will cover almost all circumstances.

#### *Maximum dose in 24 hours*

This is the maximum cumulative dose given during the first 24 hours. It is estimated according to clinical judgement, but **80-120mg should be adequate for most cases**. Rarely doses up to 250mg are necessary but they should not be prescribed without prior discussion with a consultant or specialist registrar.

The cumulative chlordiazepoxide dose administered during the initial 24-hour period is called the BASELINE DOSE, and this is used to calculate the subsequent reducing regime.

#### *Days 2-10*

- After the initial 24-hour assessment period a standardised reducing regime is used.
- Chlordiazepoxide is given in divided doses, four times daily.
- The afternoon and evening doses can be proportionately higher in order to provide night sedation (but note that the effect of chlordiazepoxide and its metabolites is long-lived).
- The dose should be reduced each day by approximately 10-20% of the Baseline Dose
- The longer regime (10 days) may be required in the case of patients who have DTs or a history of DTs. This should be discussed with a senior registrar or consultant, and the dose tailored to clinical need.
- Chlordiazepoxide should not routinely be prescribed on a PRN basis after the initial 24-hour period. Patients exhibiting significant further symptoms may have psychiatric (or other) complications and should be seen by the ward or duty doctor.

### ***Monitoring during admission***

#### *First 24 hours*

1-4 hourly depending on severity

- Symptom check list
- Pulse and blood pressure
- If a patient is asleep (and this is not due to intoxication) they should not be woken up for observations. However, it should be recorded that they were asleep.

#### *Day two onwards*

Twice daily

- Consider alcohol breath test after any leave from the ward or in suspicious circumstances.

### ***Vitamin supplementation***

- Parenteral vitamin supplements should be prescribed prophylactically for most in-patient SWA.
- Some patients with less severe dependence are admitted for social or other reasons and may not require supplementation.
- There is considerable doubt about the usefulness of oral supplements.
- Parenteral vitamin supplements should only be administered where suitable resuscitation facilities are available.
- The intramuscular route can be used but is painful.
- The i/v route allows immediate discontinuation should anaphylaxis occur although anaphylaxis is extremely rare after im administration.
- One pair IM/IV ampoules high potency B-complex vitamins (*Pabrinex*) daily for 3-5 days (thiamine 200-300 mg IM daily if *Pabrinex* unavailable)
- Intravenous administration should be by dilution in 50-100 ml normal saline and infused over 15-30 minutes.
- Parenteral B-complex must be administered before glucose is administered in all patients presenting with altered mental state (glucose can further deplete thiamine).

## Alcohol withdrawal - management of problems/complications

### *Wernicke's encephalopathy*

This is much more common than is widely believed since the 'textbook' signs are often not present in florid form. A presumptive diagnosis of Wernicke's encephalopathy should therefore be made in any patient undergoing SWA who experiences any of the following signs

- Ataxia
- Confusion
- Ophthalmoplegia/nystagmus
- Memory disturbance
- Hypothermia and hypotension
- Coma/unconsciousness

### *Treatment*

- Two pairs IM/IV ampoules high potency B-complex vitamins (*Pabrinex*) daily for 2 days.
- No response, then discontinue treatment.
- If signs/symptoms respond, continue 1 pair ampoules daily for 5 days or for as long as improvement continues.

### *Liver disease*

For individuals with severely impaired liver functioning, oxazepam (a short acting benzodiazepine) may be preferred to chlordiazepoxide, in order to avoid excessive build up of metabolites and over-sedation.

### *Hallucinations*

Mild perceptual disturbances usually respond to chlordiazepoxide. However, hallucinations should be treated with oral haloperidol. Haloperidol may also be given intramuscularly or intravenously if necessary (but BP should be monitored for hypotension). Caution is needed because haloperidol can reduce seizure threshold. Have parenteral procyclidine available in case of dystonic reactions.