

Doncaster and Bassetlaw Hospitals



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GUIDELINES FOR THE MANAGEMENT OF ALCOHOL ISSUES IN THE ACUTE GENERAL HOSPITAL SETTING

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MANAGEMENT OF ALCOHOL ISSUES IN THE ACUTE GENERAL HOSPITAL SETTING

SECTION 1

GUIDELINE OVERVIEW

INTRODUCTION

These guidelines are intended for both medical and nursing staff to act as a resource for best evidence based practice in the management of patients with alcohol issues.

Overall Aim

The overall aim of these guidelines is to offer a comprehensive structure that will provide treatment interventions that will achieve optimal well-being in patients presenting alcohol with problems on admission to the general hospital setting. Which is supported by a client-centred approach delivering psychosocial interventions that promotes harm reduction strategies to enable the patient to minimise damage to themselves, their families and the wider community where they can be recognised as a benefit rather than a cost?

Background

The national agenda to improve the quality and capacity for alcohol misuse treatment has been heavily influenced by The *Alcohol harm reduction strategy for England* [DOH, 2004] draws together a range of government interventions to prevent, minimise and manage alcohol-related harm into a single strategy. It sets out the Government's four aims for reducing alcohol-related harm:

1. To improve the information available to individuals and to start the process of changing in the culture of "drinking to get drunk"
2. To better identify and treat alcohol misuse
3. To prevent and tackle alcohol-related crime and disorder and deliver improved services to victims and witnesses
4. To work with the industry in tackling the harms caused by alcohol.

The ONS *general household survey (2001)* identified that over three-quarters of the adult population in England are either non-drinkers (4.7 million people) or drink less than the Government's previously recommended weekly guidelines (26.3 million people). Some people drink alcohol in a way that causes harm, or risk of harm to themselves or others. It is estimated that 8.2 million people are alcohol misusers, i.e. they drink in excess of the recommended daily guidelines. Of these, 5.9 million are "binge-drinkers" and 1.8 million are very heavy drinkers, consuming more than 35 units per week (women) or 50 units per week (men).

The Department of Health [1995] advice on sensible drinking is that regular and consistent drinking over 2-3 units per day for women and 3-4 units per day for men increases the risk of harm. A unit is 8g of alcohol. This is equivalent to half a pint of beer, a small glass of wine or one measure of spirits.

The Department of Health report [NTA, 2004] identified alcohol misusers within the national population as follows:

- 16.3% of the population (6.4 million) are ***hazardous drinkers***, with no apparent problems but taking risks with their longer-term health through regular excessive drinking or intermittent sessions of heavy drinking.
- A further 4.1% (1.6 million) are ***harmful drinkers***, who are already experiencing physical, psychological ill-effects from their drinking but are not severely dependent.
- Less than 0.4% of the population (about 140,000 men and 20,000 women) are ***moderately dependent drinkers*** with significant drinking problems.
- Less than 0.1% of the population (less than 20,000 men and 10,000 women) are ***severely dependent drinkers*** who have a wide range of alcohol-related problems. Some are drinkers with complex problems, such as co-existing physical or mental health needs, polydrug dependence and social problems.

12% of A&E attendances have been shown to be alcohol related [Pirmohamed, 2000] whilst 34-36% of orthopaedic admissions and 33-50% head injury patients have been drinking at hazardous levels [Chick, 1991, Corrigan, 1995, Poon, 1994. In addition, around 20% of patients admitted for non-alcohol related reasons are drinking at harmful levels [RCP, 2001] and are therefore at risk of alcohol withdrawal related complications as a result of a forced period of cessation during their hospital stay. Not every person who consumes alcohol on a regular basis is necessarily dependent. The nature of the disorder (e.g. problematic use, dependence, etc.) determines the treatment required. Even when dependence on alcohol is detected the chronicity, nature and severity of problems experienced may indicate different modes of treatment.

The importance of taking an adequate alcohol history cannot be over-emphasised. [RCP, 2001] A lack of appropriate action may be very serious. Whilst many patients do not require medical management during alcohol withdrawal there are two potentially life-threatening [but treatable] complications [Chick, 2000] which may present upon attendance or, more importantly, develop only one or more days after alcohol cessation in patient with identifiable risk, these being Delirium Tremens [DTs] and acute Wernicke's encephalopathy.

THE AIMS OF THESE GUIDELINES:

To identify the type of alcohol misuse and treat appropriately:

Hazardous/Harmful Drinkers

- Provide targeted screening
- Offer brief interventions and support
- Encourage reduction of alcohol consumption
- Reduce alcohol-related harm.

Dependant Drinkers

- Provide targeted screening for dependant drinkers and refer for comprehensive assessment and cared-planned treatment.
- To treat patients who have been identified as having alcohol dependence in a safe and effective manner.

- To deliver treatment that is designed to control both medical and psychological complications which may occur after a heavy and sustained alcohol use.[Stockwell, 1987]
- To enable patients to achieve abstinence safely and effectively with the minimum discomfort.
- To relieve physical withdrawal by appropriate pharmaco-therapeutic interventions
- To enable patients to adopt an alcohol free lifestyle. [Chick,1996; Cooper,1995]
- To deliver effective psycho social interventions as determined by a formulated care plan

MANAGEMENT OF ALCOHOL WITHDRAWAL IS REQUIRED WHEN A PATIENT:

- Is severely dependent on alcohol and therefore likely to have severe withdrawal symptoms.
- Suffers from a serious or life threatening medical or psychiatric condition e.g. pre-existing epilepsy, impaired liver function (high serum bilirubin, low albumin and impaired clotting) or is at risk of self harm/suicide or aggression/violence
- Is currently having or has in the past had severe withdrawal symptoms or withdrawal complicated by alcohol withdrawal seizures or delirium tremens (DTs)
- Has any evidence of cognitive impairment.

Compulsory admission under the Mental Health Act (1983) is not permissible when alcohol dependence is the sole diagnosis. However in patients with delirium tremens compulsory admission may be appropriate.

SECTION 2**GUIDANCE NOTES FOR THE IDENTIFICATION OF ALCOHOL CONSUMPTION****SCREENING**

For effective early detection, a detailed alcohol history must be sought from the patient who present with a condition often associated with alcohol misuse. However, considering the high frequency of hazardous drinking in all patients presenting to hospital services, a strong case can be made for incorporating screening for alcohol misuse into the routine healthcare provided in general hospital setting. [RCP, 2001]

Alcohol misuse can be detected by a range of currently available methods including: laboratory markers, clinical findings/medical history during clerking, brief structure questionnaires. All patients should be asked about how many units of alcohol they normally consume on a typical or average week in order to target hazardous/harmful drinkers. [See Appendix 1] Any patient who is identified as a hazardous drinker then a brief alcohol history needs to be taken to ascertain their exact drinking category.

Taking a Brief Alcohol History

- Consumption in units of alcohol per day/week
- Drinking pattern daily/continuous or episodic/binge drinking?
- Drinking behaviour in last week and last 6 months
- When did patient last drink?
- Is there a history of withdrawal symptoms e.g. sweating, tremor, nausea/vomiting anxiety, insomnia, seizures, hallucinations, delirium tremens
- Does the patient report a history of morning/relief drinking, change in tolerance, strong compulsion to drink, continued drinking despite problems, priority of drinking over other pursuits/activities? All indicative of dependence syndrome.

Short Alcohol Dependence Data Questionnaire [SADD]

The Short Alcohol Dependence Data Questionnaire [SADD, Appendix 2] is used to measure the severity of dependence. It has a good test-retest, reliability and construct reliability and is relatively independent of social-cultural influences. [Rainstrick, 1983]

Other useful short screening questionnaires are:

Alcohol Use Disorder Identification Test. [AUDIT] – [Appendix 3]

This questionnaire is proving to be a very useful in many community and hospital setting. It consists of ten questions and takes less than two minutes to complete. It has proven to be an excellent screening test for all types of alcohol misuse i. e. hazardous drinking, harmful drinking and dependence. [HAD, 2002]

Fast Alcohol Screening Test [FAST] [Appendix 4]

The AUDIT is a very useful and robust screening tool; but there is an urgent need for an even shorter questionnaire that screens for hazardous drinking as well as harmful drinking and dependency. This need is particularly strong in accident emergency department and other medical settings where time pressure is a major factor [Hodgson et al.2002b, John et al., 2002]

The questionnaire consists of four items; It can be self-completed or administered by a health professional. Its purpose is to assess alcohol misuse through routine screening in a variety of clinical contexts, although it will not be possible with patient who are in pain, distressed or have other cognitive limitations, or with patients who are intoxicated. Average administration time is less than 20 seconds. [HAD, 2002]

SECTION 3

ASSESSMENT OF ALCOHOL USE

OVERVIEW

Assessment is an intervention in its own right, helping to change the individual's perception of their problem, their expectations of help and their commitment to treatment and/or reducing their alcohol consumption [NTA, 2005]. Assessment should balance the needs of the patient with those of the medical practitioner [DOH, 2002]. The doctor must ensure that an adequate assessment has been made before prescribing for alcohol withdrawal. Treatment of alcohol withdrawal **must** be based on accurate assessment of the patient's presenting problem. There is evidence to suggest that excessive drinkers will reduce their drinking to safer levels following a short assessment of their alcohol consumption and related problems. [NTA, 2005] A stepped approach to assessment facilitates a flexible treatment regime which allows for the practitioner to act in an evidence/research based, safe, effective manner.

Triage Assessment

Triage assessment should identify the seriousness of alcohol-related problems, the urgency with which they require treatment, any immediate risk of harm to clients or key people with whom they are in contact and refer the individual to the most appropriate local alcohol treatment provider. [NTA, 2005]

Triage assessment usually covers:

- alcohol consumption
- alcohol dependence
- alcohol-related problems
- co-existing health conditions, including co-existing drug and/or mental health problems
- risk of harm to self and others
- urgency for treatment
- Motivation and readiness to change.

Comprehensive Assessment

The purpose of comprehensive alcohol misuse assessment is to determine the precise nature of the alcohol problems, plus including co-existing health conditions or social problems, to enable an individualised care plan to be prepared. This process may also begin

the building of a helping alliance between the therapist or service and the individual client. It will normally involve assessment of a range of domains including:

- alcohol consumption, dependence and alcohol-related problems
 - co-existing health conditions, including co-existing drug and mental health problems
 - cognitive functioning
 - risk of harm to self and others
 - urgency for treatment
 - motivation and readiness to change
 - socio-demographic data
 - family relationships, social functioning
- **Any child protection issues that might arise during the assessment must be address following the appropriate local Area Child Protect Committee guidelines.**

The comprehensive alcohol misuse assessment provides full data to inform the development of an individualised care plan. [NTA, 2005]

EXAMINATION OVERVIEW

Virtually every system in the human body can be damaged by alcohol. [Appendix 5 - Physical health hazards with alcohol abuse]. There are number of specific physical signs that are highly suggestive of alcohol misuse and should be specifically sought and recorded if this diagnosis is being considered:

- | | |
|------------------------|--------------------------|
| • Spider naevi. | • Palmer erythema |
| • Telangiectasia | • Dupuyten's contracture |
| • Facial mooning | • Gynaecomastia |
| • Parotoid enlargement | |

Haematological Investigation

Before any test, full informed consent should be obtained from the patient.

- | | | |
|------------------------|-------------------------|---------------|
| • Haemoglobin | • Hepatitis C | • Hepatitis B |
| • Creatinine | • Test for HIV antibody | |
| • Liver function tests | • Magnesium levels | |

TABLE 1 - LABORATORY MARKERS THAT INDICATE HEAVY DRINKERS [RCP, 2001]**Blood and breath alcohol**

- A raised blood or breath alcohol is firm evidence of recent alcohol consumption. However alcohol is metabolised rapidly and absence of alcohol indicates only that alcohol has not been consumed in the past few hours.

Erythrocyte Mean Corpuscular Volume [MCV]

- MCV is raised in many chronic heavy drinkers but may also be raised for other reasons.

Gamma glutamyl transferase [GGT]

- GGT is a liver enzyme raised in a high proportion of chronic heavy drinkers but returns to normal levels after about 5 week's abstinence. It may also be raised in non-alcoholic liver disease and in patients taking enzyme-inducing drugs.

Aspartate amino transferase [AST]

- The liver enzyme AST is raised after heavy binge drinking but returns to normal within 48 hours. It may also be raised for other reasons.

Carbohydrate deficient transferrin [CDT]

- CDT is raised in some heavy drinkers. It is more specific than AST, GGT, or MCV [Stribler, 1991]

NOTE

Laboratory markers may provide corroboratory evidence of hazardous drinking in patients where this is suspected [see table 1]. [RCP, 2001] However, none are sensitive or specific enough to be used in isolation, [Sharpe, 1996] and none can distinguish hazardous drinkers from alcohol-dependent patients and therefore need to be supported by an assessment of the patient's alcohol history.

It is therefore important to realise that alcohol misusers may:

- Have symptoms of alcohol withdrawal overlooked during an intercurrent illness, [DTB, 1991]
- Be, or appear to be, sober and unexceptional upon attendance,
- Have no obvious signs of alcohol misuse
- Exhibit non-specific symptoms [Morgan 1998]

SECTION 4**MANAGEMENT OF ACUTE ALCOHOL WITHDRAWAL****THE ALCOHOL WITHDRAWAL SYNDROME [AWS]**

Alcohol withdrawal syndrome is the clinical syndrome that occurs when people who are physically dependent upon drinking stop drinking or reduce their alcohol consumption. [Burns, 2004] Not all heavy drinkers will experience withdrawal phenomena and the 40% that do develop acute alcohol withdrawal syndrome will present with a wide range of severity of withdrawal symptoms and in some cases withdrawal may be life-threatening. The risk of withdrawal is not directly related to intake. [DTB, 1991, Morgan, 1998]

The alcohol withdrawal syndrome may be a continuum from simple tremors [the most common symptom] with relative mild signs/symptoms of autonomic over activity through hallucinations in clear sensorium to seizures, and most severely, life threatening delirium tremens [Hall, 1997, Rubino, 1992, Turner, 1989] It is therefore important to recognise complications early and treat them appropriately. The AWS can therefore be grouped into four sets of symptoms

SET 1: Uncomplicated alcohol withdrawal

- Occur within hours [typically 6-8 hours] of last drink and may develop before the blood alcohol level has fallen to zero. Commonly peaking at 10-30 hours and usually subsiding by 40 to 50 hours [Adinoff 1988, DTB,1991, Hall,1997, Morgan, 1998]
- Signs and symptoms of autonomic arousal
 - ❖ Sweating
 - ❖ Tachycardia [100+bpm]
 - ❖ Raised BP
 - ❖ Fever [37-38 C]
 - ❖ Hyperreflexia
- Characteristic tremor, starting in the hands but progressing to the head and trunk as severity worsens.
- Anxiety, restlessness, irritability, depression, insomnia and tiredness
- Anorexia, nausea, and weakness.
- Confusion

- **The greater the number of the above symptoms, the more likely the patient is to need inpatient medical supervision to prevent seizures/delirium tremens.**
- **In moderate withdrawal the signs are more marked and transient auditory hallucinations in clear consciousness may also occur.**

SET 2: Hallucinosi

- Onset in the majority of cases is within 24 hours of last drink, stopping within another 24-48 hours [Turner,1998]
- Both auditory [frequently accusatory or derogatory voices] and visual [bugs crawling on the bed, for example] hallucinations occur in otherwise clear sensorium. This is unlike delirium tremens where sensorium is diffused and impaired.[Chick,2000, Rubino,1992, Turner, 1998]

SET 3: Alcohol related seizures

- Can occur at 6 to 48 hours of alcohol cessation are more likely if there is a previous history of withdrawal fits or epilepsy. Fits are rare beyond 48 hours following cessation. [Morgan, 1998]
- They are characterised by major motor seizures that occur during withdrawal in patient who normally have no seizures and have normal EEGs. Fits tend to be single, generalised (if focal, suspect head injury) and may occur in bouts.
- 30% of cases are followed by DTs.

SET 4: Delirium tremens (DTs)

- Delirium tremens [DTs] is the most severe manifestation of alcohol withdrawal. DTs occur in only about 5% of patients undergoing alcohol withdrawal but account for the highest morbidity and mortality.

Onset of DTs is 2 to 5 days [most commonly at 2 to 3 days] following cessation and represents a medical emergency. [Adinoff,1988, Erwin, 1998, CRAG 1994, Morgan, 1998, Rubino,1992]

- DT's usually occur in heavy drinkers who have
 - ❖ minimised their consumption
 - ❖ or withdrawn unexpectedly,
 - ❖ been inadequately treated during withdrawal.
- Patients consuming more than 16 units per day (½ to a bottle of spirits per day or equivalent) are particularly at risk.

- In addition to the classical symptoms of withdrawal the characteristic symptoms of DT's are:
 - ❖ Agitation, apprehension, confusion, disorientation in time and place, visual and auditory hallucinations, insomnia, nausea, vomiting, motor inco-ordination and paranoid ideation may be present.
 - ❖ Fever is common.
 - ❖ Poor concentration, intermittent disorientation and agitation may continue for 1-2 weeks before recovery.

Risk Factors For Progression To Severe Withdrawal:-

There is a risk of progression to severe withdrawal symptoms and delirium tremens if the patient with mild symptoms also have associated 'risk factors' [Chick,1989, DBT, 1991, CRAG,1994, RCP,2001]

- high alcohol intake > 15 units per day in a person of normal build, previous history of severe withdrawal, seizures and/or DTs
- Concomitant use of other psychotropic drugs, high levels of anxiety, other psychiatric disorders.
- Poor physical health, hypoglycaemia, hypokalaemia [with respiratory alkalosis, hypocalcaemia].
- Fever, sweating, insomnia, tachycardia
- Poor nutritional state

Protracted Withdrawal Syndrome (not an official diagnosis) has been noted in many alcohol dependant patients. This is a disorder characterised by irritability, emotional lability, insomnia and anxiety that persist for weeks to months after alcohol withdrawal. It is due to the residual effects of alcohol on the central nervous system and generally clears spontaneously after prolonged abstinence [Armstrong, 2002].

GENERAL MANAGEMENT

During withdrawal patients, especially those with severe withdrawal need close observation and monitoring of vital signs, correction of dehydration or electrolyte imbalance and treatment of concurrent conditions e.g. infection, hypoglycemia, hepatic failure, gastrointestinal bleeding etc.

Patients should be orientated, reassured that any distressing symptoms will settle, Patients given an explanation of their symptoms and their relationship to excessive consumption. Although directive counselling during the detoxification can enhance patient's motivation to continue treatment many patients have subtle cognitive deficits during detoxification, therefore therapy is best kept simple.

ASSESSMENT OF WITHDRAWAL SIGNS AND SYMPTOMS

Objective rating scales for alcohol withdrawal are standardised clinical assessments in which various features are scored to give a final numerical which is an index of severity.[Gross, 1973] In the general hospital setting alcohol withdrawal is usually accompanied by a serious acute illness, signs and symptoms may not be obvious, assessment may be difficult, and yet the consequences of inadequate or excessive treatment are likely to be much more serious. An adaptation [see appendix 6] of the Addiction Research Foundation Clinical Institute Withdrawal Assessment for Alcohol, Revised [CIWA-Ar] was researched and evaluated by The Royal Newcastle Hospital, Australia for its usefulness in the general hospital and has been found to be effective. [Foy et al, 1988].

The assessment takes approximately 5 minutes and covers psychological changes, changes in arousal level and perceptual changes of alcohol withdrawal. The higher the score, the more the symptoms and signs present which suggests the greater risk of complications i.e. seizures, confusion and hallucinations.

RATIONALE FOR BENZODIAZEPINES – CHLORDIAZEPOXIDE

The pharmacological treatment of alcohol withdrawal aims at reducing the severity of the non-specific features (such as elevated blood pressure, high pulse, tremors, agitation, anxiety, depression), and avoiding the occurrence of specific features (such as seizures, delirium tremens. [Agarth, 2005] Evidence suggests that benzodiazepines and chlormethiazole have similar efficacy for the treatment of withdrawal symptoms, including the prevention of seizures and delirium tremens [Mayo-Smith, 1997, Williams, 1998].

Respiratory suppression leading to death has been reported in patients combining alcohol with clomethiazole. [McInnes, 1987] Its use is therefore now reserved for those rare patients with withdrawal fits resistant to treatment with benzodiazepines.

The mainstay of treatment for alcohol withdrawal is the benzodiazepine Chlordiazepoxide. It is slowly absorbed, has a long half-life and low potency. It also has a lower abuse potential than other drugs such as diazepam because of its slower onset of action. An adequate dose of chlordiazepoxide usually prevents withdrawal fits; in general, the longer acting agents are more effective in preventing seizures than the short-acting drugs. [RCP, 2001] There are a number of regimes defined; therefore the guidance is not prescriptive.

Dosage should be individually titrated against severity of withdrawal symptoms and signs and is ultimately a matter of clinical judgement.

See Table 2 for suggested prescribing guidelines and although the chart reflects a fixed-schedule tapering regime, it is expected that each dosing regimen will be reviewed on at least a daily basis by the prescriber or as often as the severity of the patient's withdrawal dictates.

Table 2 – Suggested Prescribing Regime as described in the supporting protocol
“Algorithm Management Acute Alcohol Withdrawal” – appendix 6

Chlordiazepoxide – Starting dose is determined by severity of alcohol withdrawal; doses may have to be increased in more severely dependant drinkers [by adding 5-20mgs qds on a prn basis], whilst smaller or frail patients may need a decrease. The patient should be carefully monitored for signs of benzodiazepine toxicity. Patient should be reviewed by the prescribing doctor at least on a daily basis or as and when the withdrawal of the individual patient deems necessary.

<u>Day</u>	<u>Morning</u>	<u>Midday</u>	<u>Afternoon</u>	<u>Night</u>	<u>Total</u>
1	30mg	30mg	30mg	30mg	120mg
2	30mg	20mg	20mg	30mg	100mg
3	20mg	20mg	20mg	20mg	80mg
4	15mg	15mg	15mg	15mg	60mg
5	10mg	10mg	10mg	10mg	40mg
6	10mg			10mg	20mg
7				10mg	10mgs

CAUTION:

Doses of chlordiazepoxide in excess of 30mg q.d.s should only be prescribed in cases where severe withdrawal symptoms are expected and the patient's response to the treatment should always be regularly and closely monitored. Doses in excess of 40mg q.d.s should only be prescribed where there is clear evidence of very severe alcohol dependence. Such doses are rarely necessary in women and never in the elderly or where there is liver impairment

TREATMENT

Acute Presentation

Patients presenting in acute withdrawal should be prescribed chlordiazepoxide on a flexible dosage regimen over a 24 hour period following 2- 3 hourly clinical assessments of withdrawal signs and symptoms. It may occasionally be necessary to extend the flexible period to 48 hours e.g. if seizures or delirium tremens occur. At the end of the flexible prescribing period a standard reducing regimen should be used.

Breakthrough Withdrawal

With adequate dosing there is no need for PRN chlordiazepoxide or other benzodiazepines. However, where a patient presents with break through withdrawal (i.e. 15+ on Assessment & Measurement of Alcohol Withdrawal) they should be reassessed to rule out concurrent physical illness and if necessary, repeat the previous days dosing regime before resuming the sliding scale on a daily basis from this point.

Severe Withdrawal/Delirium tremens [DTs]

Best practice dictates that the following general measures should be put in place:- [Ghodse, 2002]

- Ensure adequate levels of medical and nursing staff
- Treat the patient in a well lit area away from other patients
- Keep external stimuli, especially noise, to a minimum
- Use a friendly, understanding but firm approach
- Be aware of the possibility of withdrawal fits

Prescribing Regime – Delirium Tremens

Management of the severely confused/agitated patient involves administration of adequate sedative doses of benzodiazepines [intravenously if necessarily]. The object of the treatment is to make the patient calm and sedated but easily roused

- Patient able to take oral medication prescribe chlordiazepoxide up to 40mgs every 2 hours may be necessary. – **do not exceed 240mgs in 24 hours**
- Patient requiring parenteral treatment, prescribe IV diazepam emulsion 10 mgs every 30 – 60 minutes [should be given at a rate of not more than 5mgs per minute into a large vein]. Avoid IM diazepam, but rectal diazepam may be useful.
- For patient with liver failure, prescribe IV lorazepam up to 1-2mgs every thirty minutes [may also be given IM]
- Severe psychotic symptoms may be managed by the addition of haloperidol 1-5mgs 2-3 times a day, although adequate treatment with benzodiazepines is the priority.
- Close monitoring of fluid balance is important. Urea and electrolytes [magnesium on admission only] should be regularly checked.
- Give high dose parenteral thiamine (see page 28)
- Maximum doses of chlordiazepoxide may be needed for 36-48 hours
- The detoxification regimen will need to be extended to 7-10 days

- Up to 50% of patients with DT's have a secondary infection, gastro-intestinal bleeding or evidence of trauma especially head injury. These conditions must be actively excluded or treated if present.
- Nutritional supplements.

SPECIAL SITUATIONS

Previous Benzodiazepine Prescription

- Some patients will have been prescribed long-term benzodiazepines prior to admission. In this case continue their long-term prescription unaltered and do not take the long-term dose into account when deciding on the dosage schedule for a withdrawal regime

Nausea/Vomiting/Dehydration

- Patients who are nauseous or vomiting should be monitored especially carefully and may need an anti-emetic e.g. metoclopramide 10mg oral or IM.
- Patients in severe withdrawal and unable to tolerate oral medication should be assessed with a view to treat with intravenous therapy.
- May need naso-gastric tube and nutritional supplements in which case chlordiazepoxide or lorazepam syrup can not be given

Liver Disease / Hepatic Encephalopathy

- Special caution is necessary in the case of severe liver impairment or decompensating liver disease (jaundice, ascites), as the metabolism of benzodiazepines may be reduced and lead to over sedation.
- Recommend referral to gastroenterologist if evidence of decompensating liver disease.

Lorazepam

- This should be used as an alternative to diazepam or chlordiazepoxide where there are clinical signs of significant liver function impairment
- Lorazepam has a much shorter half-life and is less likely to accumulation and toxicity; but will persist for some days after stopping, therefore persisting confusion
- The patient should be monitored more frequently between doses to avoid breakthrough alcohol withdrawal symptoms.
- 500 micrograms lorazepam is equivalent to 5mg diazepam.
- Watch for over sedation

- May worsen confusion due to encephalopathy; therefore avoid sedating encephalopathic patients if possible.
- Need to distinguish 'flap' from 'tremor'

Alcohol Withdrawal Seizures Prophylaxis

- Alcohol withdrawal seizures are usually self-limiting; however if a patient develops prolonged or recurrent seizures, intravenous lorazepam [2mgs] is effective in terminating seizures and preventing re-occurrence, and may be less of a respiratory depressant than diazepam.[D'Onofrio, 1987].
- Some units advocate carbamazepine [100mg – 200mg twice daily] loading in patients with untreated epilepsy:-
 - ❖ those with a history of more than 2 seizures during previous withdrawal episodes
 - ❖ previous seizures despite adequate diazepam loading.
- Those who have a seizure for the first time should be investigated to rule out an organic disease or structural lesion [Maudsley, 2004]:- subdural etc.
 - ❖ require a CT scan - brain
 - ❖ rule out head injury - subdural haemorrhage even if the patient is known to have alcohol withdrawal seizures
- There is little or no evidence to support conventional anti-epileptics in either the treatment of prophylaxis of alcohol withdrawal seizures. [Maudsely, 2004].

Severe psychosis/confusional state

- Haloperidol [1.5 – 5mg 2-3 times daily] or a similar sedative major tranquilliser can be added to chlordiazepoxide in patients with severe psychotic symptoms. This should be used with caution and for the short-term because of its epileptogenic potential. [RCP, 2001]

Pregnancy

- Pregnant women who drink heavily during pregnancy put the developing foetus at significant risk of foetal alcohol syndrome.[Edward *et al.* 2003] Pregnant women who are drinking heavily need sensitive and sympathetic treatment, they should be followed up by the same midwife and alcohol counsellor throughout the pregnancy.

SECTION 5

RISK MANAGEMENT

RISK ASSESSMENT

Patients suffering alcohol withdrawal require regular risk assessments depending on the severity of their withdrawal.

Any patient suffering alcohol withdrawal has the potential to develop seizures and delirium tremens [DTs]. If DTs are not detected early or managed effectively, then there is a high risk of the patient to become aggressive and violent towards members of staff. Therefore the risk management plan for patients suffering alcohol withdrawal should reflect this risk element.

ACHIEVING PATIENT COMPLIANCE WITH THEIR TREATMENT PLAN:

- Patients must abstain from alcohol and/or other illicit substances during their detoxification/admission
- Breath alcohol testing or screening of blood/urine for alcohol or other substances should be performed randomly. If a patient does not comply, then for the safety of the other patients, an early discharge should be considered.
- We recommend that each ward has a written policy on consumption of alcohol or other non-prescribed drugs. This should state that a patient may be discharged at the discretion of the medical team:-
 - ❖ if found to have consumed such substances,
 - ❖ that the police may be informed if illicit drugs are found on the ward.
- The ward may consider the introduction of a patient written contract signed by patients stating that if they consume alcohol or any other non-prescribed drug whilst an inpatient, they may be discharged at the discretion of the medical staff. This has the advantage of making ward policy clear to the patient. However, we do not recommend blanket policies of this type as circumstances vary from one patient to another [e.g. although a

- patient may have consumed alcohol they may also be a suicide risk, psychotic, homeless, or vulnerable in other ways]
- Where such guidance/contracts exists the patient who is to be commenced on treatment should be asked to sign a form stating that they have read and understood the unit policy.
- This then allows some flexibility in making clinical decisions about discharge whilst leaving patients in no doubt that they can be discharged if they break ward policy.

DISCHARGE PLANNING AND AFTERCARE:

Well in advance of discharge a plan for further support in the community should be prepared with the patient's full participation and with the involvement of relevant community agencies.

The clinical team need to ensure the following procedures have been completed:-

- Referral to the Drug & Alcohol Liaison Nurse Specialist if available on site (Bassetlaw Hospital only) or refer to Community Alcohol Team on all other sites.
- All patients to have completed their chlordiazepoxide regime before discharge.
- Prescription for Vitamins i.e. Thiamine, Vitamin B Co Strong
- Follow up with out patient's clinics and specific community / mental health services, as appropriate.
- Information on community support services available - appropriate to the patients address

Patients who have been identified as requiring an unplanned alcohol detoxification are those who are in severe alcohol withdrawal, predominantly also severely alcohol dependant and will reinstate their drinking on discharge. There is a high risk of accidental drug overdose due to mixing alcohol with their discharge medication of chlordiazepoxide. Also, these patient are a high risk of spontaneous acts of self harm and will use the most available medication for this purpose i.e. chlordiazepoxide.

If the patient is discharged before detoxification is finished **a full risk assessment is required and appropriate management of all risks identified.** The patient's GP needs to be informed and agreement gained to ensure clear instructions about discharge medication and if necessary arrangements for on going medical supervision.

SECTION 6

MANAGEMENT OF WERNICKE'S ENCEPHALOPATHY

WERNICKE'S ENCEPHALOPATHY [WE]

An acute, life-threatening, neurological syndrome consisting of confusion, apathy, dullness, a dreamy delirium, palsies of the ocular muscles and of gaze, nystagmus and disturbances in equilibrium, and ataxia. Its most common cause in industrialized countries is thiamine deficiency associated with alcoholism. If not treated immediately with thiamine, the patient is likely to die or progress to an amnesic (ICD-10 E51.2).

Thiamine plays a role in metabolizing glucose to produce energy for the brain. An absence of thiamine therefore results in an inadequate supply of energy to the brain, particularly the hypothalamus (which regulates body temperature, growth and appetite and has a role in emotional response. It also controls pituitary functions including metabolism and hormones) and mammillary bodies (where neural pathways connect various parts of the brain involved in memory functions). The disease is typically associated with chronic alcoholism, but may be associated with malnutrition or other conditions which cause nutritional deficiencies.

Heavy alcohol use interferes with the metabolism of thiamine, so even in the unusual cases where alcoholics are eating a balanced diet while drinking heavily, the metabolic problem persists because most of the thiamine is not absorbed. Most patients admitted for inpatient care will be more severely alcohol dependent than those treated in a community setting, hence inpatients are at greater risk of Wernicke's encephalopathy.

Diagnosis

Wernicke's encephalopathy is reversible in the early stages with rapid restoration of CNS B-vitamins [in particular thiamine] and the treatment should be initiated immediately a diagnosis is suspected [BMA 1979, Cook 1998, Morgan 1998]. Yet there is a low rate of diagnosis and only 10% of patients present with classical triad signs:

- acute confusion
- ataxia

- Ophthalmoplegia, which may explain the common misconception that Wernicke's encephalopathy is a rare condition. [Harper, 1986]

Table 2 – Presentation Rate of Wernicke's Encephalopathy Triad. [Harper, 1986]

Signs	Incidence
Mental changes	82%
Ataxia	23%
Eye signs	29%
Classical triad	10%

As a result the triad can not be used as a basis of diagnosis since:

- WE will potentially be undetected.
- Diagnosis might be delayed until the classic signs become obvious [Chick, 2000]

Mental changes [confusion, drowsiness, obtundation (slowness of response), pre-coma and coma are the most common, and maybe the only signs of Wernicke's encephalopathy [Cook, 1998]. These mental changes are, however, non-specific and may be attributed to head injury, intoxication, alcohol withdrawal or other concomitants findings with a subsequent missed diagnosis of WE [Cook]

A high index of suspicion is therefore needed and diagnosis should be based on the presence of any one of following signs [Chick 2000, Cook 2000, Morgan 1998].

- Acute confusion
- Decreases consciousness level including unconsciousness/coma
- Memory disturbance
- Ataxia/unsteadiness
- Ophthalmoplegia
- Nystagmus
- Unexplained hypotension with hypothermia

Patient requiring medical management

There are two situations where medical management is required:

- Treatment of patients with one or more signs of Wernicke's encephalopathy

- Prophylaxis against development of Wernicke's encephalopathy in those with elevated risk.

TREATMENT

Wernicke's encephalopathy responds to treatment with parenteral thiamine [Edwards.1996]

Acute Management of WE.

Central nervous system thiamine uptake across the brain barrier is both passive and active transport mechanisms [Cook 1998, Thomas, 2000]

- Passive diffusion occurs at high blood concentrations such that a concentration gradient is established across the blood brain barrier [Thomas, 2000]
- Active transport is saturated at levels appropriate for normal daily requirements only. [Thomas, 2000]
- Passive diffusion needs to be encouraged to allow rapid replenishment of CNS B-vitamins. [Cook,1998, Thomas, 2000]

Oral B-vitamin replacement is both inadequate and ineffective owing to limited gastrointestinal absorption in alcohol misusers that remains compromised for up to 6 weeks following alcohol cessation.[Cook 1998, Thomas 2000] Parental B-vitamin replacement is therefore required [Cook, 1998].

Give Parental B-vitamins:

- Pabrinex IV High Potency 2 ampoules pairs three times daily for 2-3 days
- **Pabrinex should continue until improvement of the clinical symptoms stop**
- Followed by Pabrinex IVHP 1 ampoule daily for 3-5 days
- Use of oral supplements will then be useful [Thiamine 100mg bd + Vitamin B Co Strong bd]
- Need to instigate appropriate nutritional support e.g. high carbohydrate diet

Prophylaxis

Prophylactic treatment is indicated in patients with concomitant findings that place increasing demands on already depleted B-vitamin stores thereby increasing the risk of precipitation of Wernicke's encephalopathy [Chick 2000, Cook 1998, RCP 2001]

All patients should be treated prophylactically.

This includes anyone admitted for other reasons that are subsequently found to be to require detoxification [Cook 2000], as well as those with a known or suspected history of alcohol misuse and any from : [Chick 2000, Cook 1998, Ferguson 2000, Morgan 1998, RCP 2001]

- Intercurrent illness
- DTs/treatment for DTs
- Alcohol elated seizures/treatment for alcohol related seizures
- Requirement for IV glucose, e.g. for patients with head injury, 33-50% of whom have been shown to be alcohol misusers
- Significant weight loss
- Poor diet, not eating or low food intake
- Sign of malnutrition
- Recent vomiting
- Drinking > 20 units daily
- Peripheral neuropathy

Treatment regime

Give Pabrinex IVHP 1 ampoule per day for 3 – 5 days

- Followed by oral supplementation [Thiamine 100mgs bd + Vitamin B Co Strong bd]

Overall the incidence of anaphylaxis is rare but it is a recognised complication. IV Pabrinex should be diluted in 50-100mls of normal saline given over 10-30 minutes. Facilities for treating anaphylactic reactions must be readily available whenever parenteral thiamine is used.

Intravenous dextrose should not be given before Pabrinex due to risk of precipitating Wernicke's encephalopathy.

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APPENDIX 1 – UNITS OF ALCOHOL

One unit of alcohol	=	8g pure alcohol
	=	1/2 pint of ordinary strength beer
	=	1 glass of table wine (10-12%)
	=	1 pub measure of spirits (40%)
	=	1 small glass of sherry (17.5%)

$$\text{no of units of alcohol} = \frac{\text{volume (cl)}}{1000} \times \% \text{ alcohol by volume}$$

500ml can of 8% lager = 4 units	70cl bottle of 12% table wine = 8.4 units	70cl bottle of 40% spirits = 28 units	70cl bottle of 15% sherry = 10.5 units
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Patients drinking in excess of 21 units (males) or 14 units (females) per week should have a more detailed drinking history taken.

APPENDIX 2 - SHORT ALCOHOL DEPENDANCE DATA QUESTIONAIRRE**[Rainstick, 1983]**

The following questions cover a wide range of topics to do with drinking. Please read each one carefully and answer without thinking too much about the exact meaning.

Answer all questions in relation to your recent drinking

Question	0 Never	1 Sometimes	3 Often	4 <i>Nearly always</i>
Do you find it difficult getting the thought of alcohol out of your mind?				
Is getting drunk more important than your next meal?				
Do you plan your day so you know you will be able to drink?				
Do you start drinking in the morning and continue drinking right through the afternoon into the evening?				
Do you drink as much as you can without considering what you have to do the next day?				
Knowing that many of your problems may be caused by alcohol, do you still drink too much?				
Do you find that once you have had one drink you have to have another?				
Do you need an alcoholic drink to get yourself going in the morning?				
Do you notice a definite tremor in your hands in the morning?				
When you have been drinking do you go out of your way to avoid people?				
Do you see things and later realise they were not real?				
Do you find that you have gaps in your memory or are unable to remember recent events?				
Do you vomit following a drinking session?				
Do you deliberately control your drinking by giving up for days or weeks at a time?				

Scoring

- Scores between 1-9 indicates low dependence
- Scores between 10-19 indicates medium dependence and;
- A score of 20 or more indicates high dependence

APPENDIX 3- AUDIT questionnaire

Circle the number that comes closest to the patient's answer

1. How often do you have a drink containing alcohol?*

(0) NEVER (1) MONTHLY (2) TWO TO FOUR (3) TWO TO THREE (4) FOUR OR MORE
OR LESS TIMES A MONTH TIMES A WEEK TIMES A WEEK

2. How many drinks containing alcohol do you have on a typical day when you are drinking?

(Code number of standard drinks)

(0) 1 or 2 (1) 3 or 4 (2) 5 or 6 (3) 7 or 8 (4) 10 or more

3. How often do you have six or more drinks on one occasion?

(0) NEVER (1) LESS THAN (2) MONTHLY (3) WEEKLY (4) DAILY OR MONTHLY ALMOST DAILY

4. How often during the last year have you found that you were not able to stop drinking once you had started?

(0) NEVER (1) LESS THAN (2) MONTHLY (3) WEEKLY (5) DAILY OR MONTHLY ALMOST DAILY

5. How often during the last year have you failed to do what was normally expected from you because of drinking?

(0) NEVER (1) LESS THAN (2) MONTHLY (3) WEEKLY (6) DAILY OR MONTHLY ALMOST DAILY

6. How often during the last year have you needed a first drink in the morning to get yourself going after a heavy drinking session?

(0) NEVER (1) LESS THAN (2) MONTHLY (3) WEEKLY (7) DAILY OR MONTHLY ALMOST DAILY

7. How often during the last year have you had a feeling of guilt or remorse after drinking?

(0) NEVER (1) LESS THAN (2) MONTHLY (3) WEEKLY (8) DAILY OR MONTHLY ALMOST DAILY

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

(0) NEVER (1) LESS THAN (2) MONTHLY (3) WEEKLY (9) DAILY OR MONTHLY ALMOST DAILY

9. Have you or someone else been injured as a result of your drinking?

(0) NO (2) YES, BUT NOT IN THE LAST YEAR (4) YES, DURING THE LAST YEAR

10. Has a relative or friend or a doctor or other health worker been concerned about your drinking or suggested you cut down?

(0) NO (2) YES, BUT NOT IN THE LAST YEAR (4) YES, DURING THE LAST YEAR

* In determining the response categories it has been assumed that one 'drink' contains 10g alcohol. In countries where the alcohol content of a standard drink differs by more than 25% from 10g, the response category should be modified accordingly.

Record sum of individual item scores here:

The minimum score [for non-drinker is) ant the maximum possible score is 40

A score of 8 or more indicates a strong likelihood of hazardous or harmful consumption

APPENDIX 4 - FAST ALCOHOL SCREENING TEST (FAST)

For the following questions please circle the answer which best applies.

1 drink = 1/2 pint of beer or 1 glass of wine or 1 single spirits

1. MEN: How often do you have EIGHT or more drinks on one occasion?
WOMEN: How often do you have SIX or more drinks on one occasion?
Never less than MonthlyWeekly Daily or almost daily
2. How often during the last year have you been unable to remember what happened the night before because you had been drinking?
Never less than MonthlyWeekly Daily or almost daily
3. How often during the last year have you failed to do what was normally expected of you because of drinking?
Never less than MonthlyWeekly Daily or almost daily
4. In the last year has a relative or friend, or a doctor or other health worker been concerned about your drinking or suggested you cut down?
No Yes, on one occasion Yes, on more than one occasion

APPLICATION OF FAST

Stage 1 The first stage only involves question 1

If the response to question 1 is **Never** then the patient is not misusing alcohol.

If the response to question 1 is **Weekly** or **Daily or almost daily** then the patient is a hazardous, harmful or dependant drinker.

Only consider question 2, 3 and 4 if the response to question 1 is **Less than monthly** or **Monthly**.

Stage 2 If the response to question 1 is **Less than monthly** or **Monthly** then of the four questions is scored 0 to 4. these are then added together, resulting in a total score between 0 and 16. the person is misusing alcohol if the total score is 3 or more.

SCORING: Score question 1 to 3 : 0,1,2,3,4

Score question 4: 0,2,4,

The minimum score is 0

The maximum score is 16

The score for hazardous drinking is 3 or more

APPENDIX 5 - PHYSICAL HEALTH HAZARDS WITH ALCOHOL ABUSE**[Adapted from Paton, 1995]****Nervous system**

- Acute intoxication.
- Blackout
- Withdrawal symptoms: tremor, hallucinations, fits
- Persistent brain damage: Wernicke's encephalopathy, Korsakoff's psychosis; cerebellar degeneration; dementia.
- Cerebrovascular disease: strokes especially in young people, subarachnoid haemorrhage
- Head injury: associated with subdural and extradural haematomas
- Nerve and Muscle damage: peripheral neuropathy, chronic myopathy, rhabdomyolysis

Liver

- Fatty liver (steatosis) or right upper quadrant pain and hepatic enlargement
- Alcoholic steatohepatitis: varies from asymptomatic to presentation with acute liver failure
- Cirrhosis: may lead to decompensation with jaundice, ascites, variceal bleeding and encephalopathy
- Hepatocellular carcinoma

Gastrointestinal system

- Oesophagus: reflux oesophagitis, tearing and occasional rupture, carcinoma
- Stomach and duodenum: gastritis, aggravation and impaired healing of peptic ulcers
- Small bowel: diarrhoea and malabsorption
- Pancreas: acute and chronic pancreatitis, carcinoma

Malnutrition and weight loss: reduce intake, malabsorption, impaired metabolism

Cardiovascular system

- Arrhythmias: atrial fibrillation, supraventricular and ventricular tachycardias, sudden cardiac death
- Cardiomyopathy: acute and chronic
- Hypertension: often difficult to control

Respiratory system

- Fractured ribs: traumatic, may be exacerbated by alcohol-induced osteoporosis
- Pneumonia: inhalation while intoxicated and/or alcohol-related general immunosuppression.

Endocrine system

- Pseudocushing syndrome: associated with obesity, acne, hirsutism and hypertension
- Hypoglycaemia: attributable to poor calorie intake and/or alcohol inhibiting gluconeogenesis (more common in intoxicated children)

3

Reproductive system*Men:*

- Hypogonadism: associate with loss of libido,
- Impotence, loss of secondary sex characteristics and gynaecomastia
- Reduce/absent sperm count : resulting in infertility

Women:

- Hypogonadism: associated with loss of libido, menstrual irregularities, and loss of secondary sex characteristics.
- Increase risk of breast cancer

Occupational and Accidents

- Impaired work performance and decision making
- Increased risk and severity of accidents

Children of problem drinkers

- Damage to the foetus and foetus alcohol syndrome
- Detrimental effects on physical developmental and behaviour

DRUG INTERACTIONS

- Increased risk of adverse drug interactions e.g. paracetamol toxicity at therapeutic doses
- Reduced effectiveness of therapeutic drugs e.g. warfarin, phenytoin

APPENDIX 6- ASSESSMENT AND MEASUREMENT OF ALCOHOL WITHDRAWAL

[Adapted from Foy A. [1986] The Management of Alcohol Withdrawal]

NOTE - IF TEMPERATURE FALL BELOW 35° C AND /OR PULSE LESS THAN 60 BEATS PER MINUTE – CONTACT MEDICAL TEAM IMMEDIATELY.

GUIDANCE NOTES FOR ALCOHOL WITHDRAWAL OBSERVATIONS

The alcohol withdrawal syndrome may be a continuum from simple tremulous [the most common symptom] with relative mild signs/symptoms of autonomic over activity through hallucinosis in clear sensorium to seizures, and most severely, life threatening delirium tremens [Hall, 1997, Rubino, 1992, Turner, 1989] It is therefore important to recognise complications early and treat them appropriate. The AWS can therefore be grouped into four sets of symptoms

SET 1: Uncomplicated alcohol withdrawal

- Occur within hours [typically 6-8 hours] of last drink and may develop before the blood alcohol levels has fallen to zero. Commonly peaking at 10-30 hours and usually subsiding by 40 to 50 hours [Adinoff 1988, DTB,1991, Hall,1997, Morgan, 1998]
- Signs and symptoms of autonomic arousal, sweating, tachycardia [100+bpm], raised BP, fever [37-38 C], hyper reflexia
- Characteristic tremor, starting in the hands but progressing to the head and trunk as severity worsens.
- Anxiety, restlessness, irritability, depression, insomnia and tiredness
- Anorexia, nausea, and weakness.
- Confusion

SET 2: Hallucinosis

- Onset in the majority of cases is within 24 hours of last drink, stopping within another 24-48 hours [Turner,1998]
- Both auditory [frequently accusatory or derogatory voices] and visual [bugs crawling on the bed for example] hallucinations occur in other wise clear sensorium. This is unlike delirium tremens where sensorium is diffused and impaired.[Chick,2000, Rubino,1992, Turner, 1998]

SET 3: Alcohol related seizures

- Can occur at 6 to 48 hours of alcohol cessation are more likely if there is a previous history of withdrawal fits or epilepsy. Fits are rare beyond 48 hours following cessation. [Morgan, 1998]
- They are characterised by major motor seizures that occur during withdrawal in patient who normally have no seizures and have normal EEGs. Fits tend to be single, generalised (if focal suspect head injury) and may occur in bouts.
- 30% of cases are followed by DTs.

SET 4: Delirium tremens (DTs)

- Delirium tremens [DTS] is the most sever manifestation of alcohol withdrawal. DTs occur in only about 5% of patients undergoing alcohol withdrawal but account for the highest morbidity and mortality. **Onset of DTs is 2 to 5 days [most commonly at 2 to 3 days] following cessation and represents a medical emergency.** [Adinoff, 1988, Erwin, 1998, CRAG 1994, Morgan, 1998, Rubino, 1992]
- DT's usually occur in heavy drinkers who have, withdrawn unexpectedly, minimised their consumption or been inadequately treated during withdrawal.
- Patients consuming more than 16 units per day ($\frac{1}{2}$ to a bottle of spirits per day or equivalent) are particularly at risk.
- In addition to the classical symptoms of withdrawal the characteristic symptoms of DT's are:
 - a) Agitation, apprehension, confusion, disorientation in time and place and visual and auditory hallucinations, insomnia, nausea, vomiting, motor incoination and paranoid ideation may be present.
 - b) Fever is common.
 - c) Poor concentration, intermittent disorientation and agitation may continue for 1-2 weeks before recovery.

Risk factors for progression to severe withdrawal.

There is a risk of progression to severe withdrawal symptoms and delirium tremens if the patient with mild symptoms also have associated 'risk factors' [Chick,1989, DBT, 1991, CRAG,1994, RCP,2001]

- high alcohol intake > 15 units per day in a person of normal build, previous history of severe withdrawal, seizures and/or DTs
- Concomitant use of other psychotropic drugs, high levels of anxiety, other psychiatric disorders,
- Poor physical health, hypoglycaemia, hypokalaemia [with respiratory alkalosis, hypocalcaemia.
- Fever, sweating, insomnia, tachycardia

PLEASE NOTE

Any patient suffering alcohol withdrawal has the potential to develop seizures and delirium tremens [DTs]

If DTs are not detected early or managed effectively, then there is a high risk of the patient to become aggressive and violent towards members of staff. Therefore the risk management plan for patients suffering alcohol withdrawal should reflect this risk element.

APPENDIX 7

- a) Guidance Notes on the 'Management of acute alcohol withdrawal and Wernicke's Encephalopathy.**
- b) Algorithm for the Management of Acute Alcohol Withdrawal Syndrome**
- c) Algorithm for Management for Wernicke's Encephalopathy**

DIAZEPAM EMULSION

- Diazepam Emulsion may be used as an alternative to chlordiazepoxide. It has a longer half-life and so is more prone to accumulation and toxicity. A similar reducing regime should be used, remembering that 5mgs diazepam emulsion is equivalent to 15mgs chlordiazepoxide
- When administering intravenous diazepam emulsion for severe withdrawal **do not** exceed any more than 30mgs in divided doses
- Rectal diazepam may be administered
- Once patient is able to tolerate oral medication then convert immediately back to chlordiazepoxide as appropriate

HEPATIC ENCEPHALOPATHY

LORAZEPAM

- This should be used as an alternative to diazepam or chlordiazepoxide where there are clinical signs or a history of significant liver function impairment
- Lorazepam has a much shorter half-life and is less prone to accumulation and toxicity
- The patient should be monitored more frequently between doses to avoid breakthrough alcohol withdrawal symptoms
- 500 micrograms lorazepam is approximately equivalent to 5mgs diazepam

HALOPERIDOL

- **DO NOT** exceed any more than 15mgs in divided doses

Note. This protocol is an appendix of the policy - PAT/T 25 Version 1 -
'Guidelines for the management of alcohol issues in the acute general hospital setting'
- June 2006

ALCOHOL WITHDRAWAL MANAGEMENT GUIDELINES SUMMARY CARD

Recognition & Assessment

Alcohol withdrawal may be a presenting feature or occur as an unexplained development in a patient who has been admitted for other reasons and deprived of alcohol.

Signs and symptoms of alcohol withdrawal can appear anywhere between 6 and 72 hours after the last alcohol, and the range and severity of symptoms depends on factors such as the degree of alcohol dependence and the current level of consumption.

Alcohol withdrawal can be seen as existing along a continuum from mild tremulousness, with or without changes in mood, through to seizures, hallucinations and delirium. A major concern is to prevent the severely alcohol dependent person from developing Delirium Tremens (DTs), seizures or Wernicke's encephalopathy.

NOTE: The greater the number of the symptoms of severe withdrawal, the greater the need for inpatient medical supervision to prevent seizures or DTs.

In more severe cases, medication can reduce symptoms and reduce the risk of the patient developing convulsions or delirium tremens. Medium-to-long acting benzodiazepines are the treatment of choice, provided the patient does not have severe liver disease or severe chronic obstructive pulmonary disease.

Severe Withdrawal / Delirium Tremens (DTs)

This has a mortality rate of up to 20% if untreated, and is recognised by:

- Increasing confusion and disorientation
- Severe tremor and autonomic disturbance
- Visual and auditory hallucinations
- Delusional beliefs

Prompt recognition of the risk of alcohol withdrawal and treatment with benzodiazepines will usually prevent this. Initial management of the severely confused or agitated patient requires the administration of adequate sedative doses of benzodiazepines (if necessary intravenously). The object of treatment is to make the patient calm and sedated but easily roused.

Wernicke's Encephalopathy

Inappropriately managed this:

- Carries a mortality rate of over 15%
- Results in permanent brain damage (Korsakoff's psychosis) in 85% of survivors

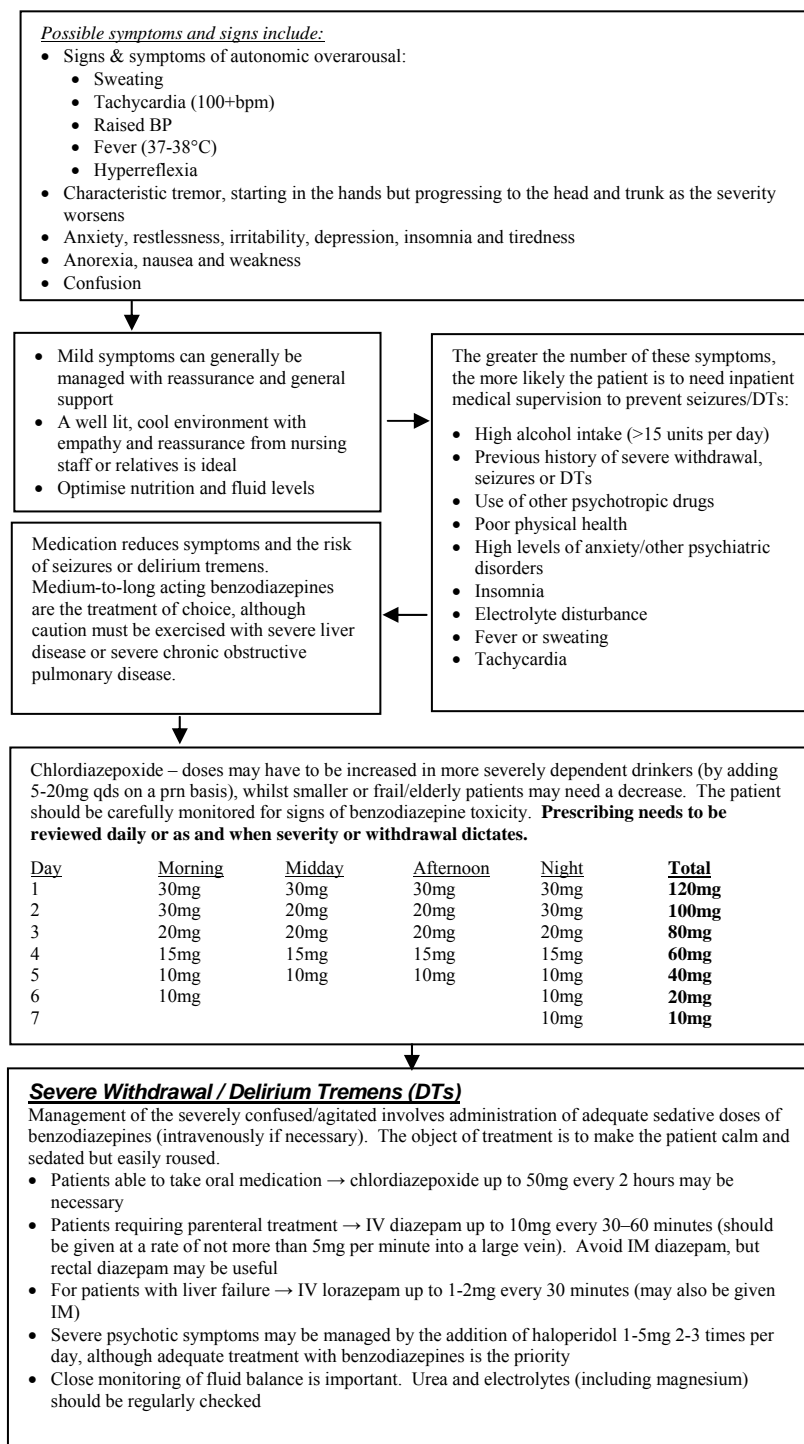
The classical triad of signs (acute confusion, ataxia and ophthalmoplegia) only occurs in 10% of patients. Therefore the triad cannot be used as the basis of diagnosis and a high index of suspicion is needed. The presence of only one of the signs should be sufficient to assign a diagnosis and commence treatment.

Prophylaxis:

Prophylactic treatment is indicated in patients with concomitant findings that place increased demands on already depleted B-vitamin stores thereby increasing the risk of precipitation of WE.

All patients undergoing alcohol withdrawal should be treated prophylactically. This includes anyone admitted for another reason that is subsequently found to require detoxification as well as those with a known history of alcohol misuse.

Management Algorithm for the Acute Management of the Alcohol Withdrawal Syndrome



Management Algorithm for Wernicke's Encephalopathy

