# Staff Guidelines For The Management Of Alcohol Withdrawal In NHS Grampian Adult (≥ Age 18) Inpatients

<table>
<thead>
<tr>
<th>Co-ordinators:</th>
<th>Consultation Group:</th>
<th>Approver:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mr Colin Farquharson, Consultant Alcohol Liaison Nurse</td>
<td>Dr Bruce Davidson, Consultant Psychiatrist in Substance Misuse</td>
<td>Medicine Guidelines and Policies Group</td>
</tr>
<tr>
<td>Dr Rainer Goldbeck, Consultant Liaison Psychiatrist</td>
<td></td>
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</tbody>
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<table>
<thead>
<tr>
<th>Signature:</th>
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| C. Farquharson | Dr. Davidson | C. 

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<thead>
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**Executive Sign-Off**

This document has been endorsed by the Director of Pharmacy and Medicines Management

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<th>Organisation Wide</th>
<th>Directorate</th>
<th>Clinical Service</th>
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Lead Author/Co-ordinator: Mr Colin Farquharson, Consultant Alcohol Liaison Nurse
Dr Rainer Goldbeck, Consultant Liaison Psychiatrist

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Hospital/Interface services: Assistant General Managers and Group Clinical Directors
Operational Management Unit: Unit Operational Managers

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Responsibilities for review of this document: Mr Colin Farquharson, Consultant Alcohol Liaison Nurse  
Dr Rainer Goldbeck, Consultant Liaison Psychiatrist  
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* Changes marked should detail the section(s) of the document that have been amended i.e. page number and section heading.
# Staff Guidelines For The Management Of Alcohol Withdrawal In NHS Grampian Adult (≥ Age 18) Inpatients

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<td>Appendix 2</td>
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<tr>
<td>Appendix 3</td>
<td>10</td>
</tr>
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</table>
Staff Guidelines For The Management Of Alcohol Withdrawal In NHS Grampian Adult (≥ Age 18) Inpatients

1. Introduction

These guidelines have been developed in order to aid clinical staff in Grampian hospital inpatient settings (mental health, acute sector and community hospitals) with the management of patients who experience acute alcohol withdrawal. The guidelines cover all patients aged 18 and older and therefore do not apply to patients below the age of 18. They also do not apply to outpatients or patients who are assessed in the Accident and Emergency Department.

2. Definitions

Alcohol withdrawal - a syndrome which is triggered by falling blood alcohol levels in patients who have developed physical dependence on alcohol.

Delirium tremens - an acute organic confusional state which can develop in severe alcohol withdrawal. It is characterised by cognitive impairment, disorientation, agitation, fluctuating levels of confusion and sometimes, psychotic symptoms (e.g. visual hallucinations, persecutory delusions).

3. Evidence Base

These guidelines are based on guidelines developed by NICE, the Maudsley Hospital as well as the clinical experience of the various members of the working group who were involved in the development of these guidelines.

4. Recognition Of Alcohol Withdrawal

Early recognition is a crucial step in the effective management of alcohol withdrawal. For this reason, all patients admitted to hospital should be screened for the existence of an alcohol problem. The FAST test (Fast Alcohol Screening Test), part of the patient admission document, can be used in this respect.

The following are risk factors for the development of acute alcohol withdrawal:

- Regular use of >8 units per day of alcohol in men, > 6 units per day in women.
- Previous history of alcohol withdrawal (including alcohol withdrawal seizure, delirium tremens).
- A blood alcohol concentration of >2g/l without impairment of consciousness.
- Admission with an alcohol-related condition.

Alcohol withdrawal is characterised by several or all of the following features, depending on severity: Nausea, vomiting, diarrhoea, sweating, tremor, restlessness,
agitation, anxiety, irritability, insomnia, raised blood pressure, tachycardia and pyrexia. Some patients may develop alcohol withdrawal seizures. Determination of the blood alcohol concentration (BAC) is helpful as this will give some idea of the likely severity of alcohol withdrawal: a patient who has no or only mild features of withdrawal with a BAC=0 is unlikely to become significantly worse whereas a patient who is already in significant withdrawal with a raised BAC or who appears relatively sober with a significantly raised BAC almost certainly will.

Delirium tremens is a severe form of alcohol withdrawal and in addition to the above features is characterised by hallucinations (usually visual), delusions (usually persecutory in nature), illusions and global cognitive impairment (disorientation, memory disturbance, reduced attention/concentration etc). It is however also important to consider other potential causes of delirium for instance infection, metabolic disturbance, hepatic encephalopathy, etc. Delirium can often be multifactorial.

5. Treatment of Alcohol Withdrawal

Patients who are at risk of developing alcohol withdrawal or who already exhibit signs of alcohol withdrawal require close monitoring. In some units (e.g. ward 101) a specially designed assessment scale is used for this purpose. Characteristically, alcohol withdrawal develops 6 to 12 hours after the last drink although concomitant physical conditions or treatment can modify the emergence of alcohol withdrawal. Delirium tremens can complicate alcohol withdrawal in some patients and usually emerges 24-72 hours after the last drink.

If the patient presents with significant alcohol withdrawal or if this develops following admission, prompt treatment with a sedative drug is required. The following approach is recommended:

- Start patient on oral diazepam (10-20mg four times daily) or chlordiazepoxide (10-40mgs four times daily), depending on the severity of the alcohol withdrawal (for equivalent doses of benzodiazepines see Appendix 2). The exact dose must be determined flexibly and the patient must be observed regularly (see below). As required doses should be avoided after the initial stabilisation period (24-48 hours). The maximum dose of diazepam (or equivalent) should not exceed 120mg/day. A larger daily dose should only be considered in exceptional circumstances and following a senior review. Patients with respiratory problems or advanced liver disease (characterised by low albumin, impaired blood clotting and a raised bilirubin) are at particular risk of oversedation and special care must be taken with their treatment. Staff can use a specially designed sheet for the prescription of a benzodiazepine in alcohol withdrawal. Appendix 3 shows the prescription sheet which is used at Royal Cornhill Hospital.

- If oral medication cannot be administered (which should always be the first choice) then consider giving parenteral diazepam (10–20mg) or lorazepam (1-2mg). The use of lorazepam in alcohol withdrawal is however not licensed. Intravenous medication must be given slowly and the patient must subsequently be observed closely. Where diazepam or lorazepam is given
intravenously facilities for resuscitation and flumazenil should be available for
the reversal of respiratory depression.

- In patients over the age of 65 or patients who have advanced liver disease,
diazepam should be avoided and substituted by the regular administration of
lorazepam, 0.5-2mg oral/im/iv. Lorazepam has a shorter half-life, is not
metabolised in the liver and is therefore less likely to accumulate. It is
however not specifically licensed for the use in alcohol withdrawal. Where a
patient has capacity, consent must be obtained and documented. In patients
who lack capacity (e.g. during delirium tremens), it would be appropriate to
treat them under the Adults with Incapacity (Scotland) Act 2000. In severe
liver impairment, start with a reduced dose and monitor the patient closely.
Specialist advice should be considered.

5.1. Regular regimen of benzodiazepines

Once the patient has stabilised (usually after the first 24 - 48 hours) the total dose of
diazepam should be decreased by 20-30 % daily, leaving the reduction of the night-
time dose until last. The afternoon and evening doses should be proportionately
higher to provide adequate night sedation. No as required doses should be
administered following the initial stabilisation phase. Patients who continue to
display significant symptoms should be re-assessed by medical staff. Diazepam has
a long half-life and active metabolites and is therefore likely to accumulate,
especially in patients who have compromised liver function. If the patient shows any
signs of oversedation, the next dose should be omitted and further requirements for
diazepam be re-assessed.

Elderly patients and patients who have significantly impaired liver function (see
above) should be given lorazepam orally 1-2mg four times daily which should be
reduced by daily decrements of 10-20%.

An example of a withdrawal regimen is outlined in Appendix 1 below.

Patients on high doses of benzodiazepines (e.g. diazepam ≥ 40mg/day) or who
continue to exhibit signs of ongoing alcohol withdrawal should not normally be
discharged from hospital until their medication has been reduced and their
signs/symptoms of withdrawal are controlled. Cases must be considered on their
individual merits and cognizance taken of other factors that might influence a
decision to discharge such patients safely, e.g. vulnerability, level of social support,
seizure risk, etc. Patients who insist on discharge and where this is agreed should
only be given a maximum supply of 2 days discharge medication and be advised to
see their GP as soon as possible. The GP must then be contacted and notified of
this. Patients who take their discharge against medical advice (DAMA) will not be
given any discharge medication but will be advised to report to their GP immediately.
The GP must be notified of the situation as soon as possible.
5.2. Frequency of observations

This is determined by the patient’s alcohol history, the severity of the patient’s alcohol withdrawal signs and symptoms, the concurrent use of medication and time elapsed since the last drink. The following are suggestions:

- No evidence of alcohol withdrawal - routine observations (heart and respiratory blood alcohol concentration (BAC)=0 rate, sweating, tremor, agitation, restlessness)
- Mild alcohol withdrawal, BAC=0 - 4 hourly observations for first 24 hours.
- Mild alcohol withdrawal, BAC>0 - 1-2 hourly observations until BAC=0
- Moderate to severe alcohol withdrawal - 1 hourly observations

Patients should be monitored more closely if:

- ≥ age of 65
- there is a history of benzodiazepine dependence
- they have significant respiratory disease
- they have hepatic encephalopathy.

If the patient exhibits markedly disturbed or disruptive behaviour, one to one nursing should be considered for a period of time.

5.3. Treatment of Delirium tremens

In delirious patients who fail to settle on even large doses of benzodiazepines and who display psychotic symptoms (hallucinations, delusions), the additional use of a neuroleptic drug can be considered, e.g. haloperidol 5mg oral/im. Because of possible QTc prolongation patients should, if at all possible, have an ECG prior to being given any haloperidol. The maximum daily dose of haloperidol is 30mg orally and 18 mg intramuscularly. In patients over the age of 65 or who are frail, smaller doses (0.5-2mg) must be used. Haloperidol should be used in conjunction, not as an alternative to a benzodiazepine as there is otherwise a real risk of lowering the seizure threshold. It would be good practice to record any incidents of significant behavioural disturbance on DATIX, especially if this involves the administration of as required haloperidol or the involvement of hospital security. Delirious patients or patients who have significant cognitive impairment for other reasons should be managed under the Adults with Incapacity (Scotland) Act 2000. In patients who have clinically significant cardiac disease, the use of haloperidol is contraindicated. The use of olanzapine can be considered as an alternative as it appears to be less associated with cardiac side effects. However, its use is not specifically licensed in delirium tremens.
5.4. Rehydration/Use of vitamins

NB: These alcohol withdrawal guidelines must be used in conjunction with either:

1. NHS Grampian Mental Health Staff Guidance For The Prescribing Of Vitamin Supplementation During In-Patient Admission For Alcohol Withdrawal

2. NHS Grampian (Acute Sector) Guidance for the prescribing of vitamin and mineral supplements for hospitalised patients with a history of excess alcohol consumption
   http://intranet.grampian.scot.nhs.uk/foi/files/VitSupAC_503_1111.pdf

Close surveillance of fluid balance is important. Intravenous replacement is appropriate when confusion prevents adequate oral intake and in patients with clinical and biochemical evidence of dehydration, or electrolyte abnormalities such as hypokalaemia or hypomagnesaemia.

- Maintain oral fluid intake of 2-3 litres daily
- Monitor U&Es
- Monitor blood glucose
- Ensure that vitamin therapy has been given prior to correcting hypoglycaemia.

Patients who have an alcohol problem, especially in the context of poor nutrition and other physical illnesses, are often deficient in thiamine. One of the serious complications of this is the development of Wernicke’s encephalopathy which in classical cases is characterised by ataxia, ophthalmoplegia and confusion. However, the classical triad of symptoms is often absent and patients may only display one of these features. If untreated or undertreated, this can lead to an amnesic syndrome (Korsakov’s syndrome) which can be persistent and will seriously affect the patient’s level of functioning and ability to live independently. Appropriate treatment with thiamine preparations is therefore vital. Separate advice on this is available (GI unit, Mental Health Service) and can be obtained on the NHSG document silo via the links above. There is little evidence to support the use of other vitamin preparations such as folic acid, vitamin B compound strong, ascorbic acid, multivitamins BPC, etc.

5.5. Other supportive measures

Patients who experience severe alcohol withdrawal symptoms should ideally be nursed in a single room and at night, there should be sufficient lighting. Patients should be kept well hydrated and overheating should be avoided. In confused patients, re-orientation and interaction with a small consistent staff group is important. A special nurse may need to be deployed for a period of time. It is essential to remember that delirious patients often have significant memory problems (which can fluctuate) and they may misinterpret their surroundings. Information must therefore be given regularly, repeatedly and in simple language that the patient can understand. Being impatient and challenging the patient can add to the patient’s
behavioural disturbance. Security staff should only be asked to become involved as a last resort and under guidance of medical and nursing staff.

5.6. Non-English Speaking Patients, patients with communication difficulties

If the patient is non-English speaking, a ‘face-to-face’ interpreter or the ‘Language Line’ telephone interpretation service should be made available. If the patient has a communication difficulty, appropriate communication support should be provided.

References


2. Alcohol Use Disorders: Diagnosis and clinical management of alcohol-related physical complications, National Institute for Health and Clinical Excellence, Clinical Guideline 100, June 2010


Working Group/Consultation List

These guidelines were developed by a short term working group which was convened specifically for this purpose.

Members of the short-term working group were:

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Wendy Brechin Pharmacist (ARI)
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Shona Fraser Alcohol Liaison Nurse (ARI)
Rainer Goldbeck Consultant Liaison Psychiatrist (ARI)
Eileen Howitt Principal Pharmacist, Mental Health Services
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The following were consulted:

Mental Health Operational Medicines Management Group
Dr Bruce Davidson, Consultant in Substance Misuse (reviewer)

Distribution List

All hospital medical staff, NHS Grampian
All ward managers, NHS Grampian inpatient wards
All community hospitals
All hospital pharmacists
The table below provides an outline of a fixed dose withdrawal regimen using Diazepam.

Please note that this is only a worked example - exact daily doses must be determined for each individual patient based on a thorough assessment.

In this example, it is assumed that adequate sedation (as defined in the full guidelines) is achieved with a total dose of 60mg Diazepam during the initial 24-48 hour stabilisation period. As required doses should be avoided after this period. If extra sedation is required then the fixed dose may not be sufficient and requirements must be re-assessed. Lorazepam is only prescribed in special circumstances (severe hepatic impairment, elderly etc) and doses must be calculated on an individual basis.

<table>
<thead>
<tr>
<th>Morning</th>
<th>Midday</th>
<th>Evening</th>
<th>Night</th>
<th>As required doses</th>
<th>Total daily dose</th>
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</thead>
<tbody>
<tr>
<td><strong>Day 1</strong> (Stabilisation period)</td>
<td>10mg Diazepam</td>
<td>10mg</td>
<td>10mg</td>
<td>10mg</td>
<td>2x 10 mg</td>
</tr>
<tr>
<td><strong>Day 2 determined by day 1 total dose</strong></td>
<td>15mg</td>
<td>15mg</td>
<td>15mg</td>
<td>15mg</td>
<td>-</td>
</tr>
<tr>
<td><strong>Day 3</strong></td>
<td>10mg</td>
<td>10mg</td>
<td>10mg</td>
<td>10mg</td>
<td>-</td>
</tr>
<tr>
<td><strong>Day 4</strong></td>
<td>10mg</td>
<td>-</td>
<td>10mg</td>
<td>10mg</td>
<td>-</td>
</tr>
<tr>
<td><strong>Day 5</strong></td>
<td>5mg</td>
<td>-</td>
<td>5mg</td>
<td>10mg</td>
<td>-</td>
</tr>
<tr>
<td><strong>Day 6</strong></td>
<td>5mg</td>
<td>-</td>
<td>5mg</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>Day 7</strong></td>
<td>-</td>
<td>-</td>
<td>-</td>
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### Equivalent Benzodiazepine Doses

<table>
<thead>
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<th>Equivalent Doses</th>
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<tbody>
<tr>
<td>Diazepam</td>
<td>10mg</td>
</tr>
<tr>
<td>Chlordiazepoxide</td>
<td>25mg</td>
</tr>
<tr>
<td>Lorazepam</td>
<td>1-2mg</td>
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</table>

### Titration Prescribing & Recording Chart

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<th>Hospital</th>
<th>Surname</th>
<th>Male</th>
<th>Female</th>
<th>Date of Birth</th>
<th>Ward</th>
<th>Forename</th>
<th>Weight &amp; Date recorded</th>
<th>Consultant</th>
<th>CHI No.</th>
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**Known Medicine Allergies / Sensitivities (date recorded and signature)**

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<tr>
<th>Medication Name and Form</th>
<th>Dose Regimen</th>
<th>Reducing</th>
<th>Increasing</th>
<th>Prescriber Name &amp; Signature</th>
<th>Comments</th>
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</table>

**Date of Discontinuation**

**Discontinued by:** Prescriber’s Name

**Signature**

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**APPENDIX 3**

### Codes for Non-Administration of Prescribed Medicines

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<thead>
<tr>
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<th>Description</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>Patient refused</td>
</tr>
<tr>
<td>2</td>
<td>Patient unavailable</td>
</tr>
<tr>
<td>3</td>
<td>Medicine out of stock</td>
</tr>
<tr>
<td>4</td>
<td>Instructions not clear/legal</td>
</tr>
<tr>
<td>5</td>
<td>INI by mouth</td>
</tr>
<tr>
<td>6</td>
<td>Once only / as required</td>
</tr>
<tr>
<td>7</td>
<td>Dose withheld - Prescriber's instructions</td>
</tr>
<tr>
<td>8</td>
<td>Self-administered by patient</td>
</tr>
<tr>
<td>9</td>
<td>Nausea / vomiting</td>
</tr>
<tr>
<td>10</td>
<td>Unable to swallow</td>
</tr>
<tr>
<td>11</td>
<td>No intravenous access</td>
</tr>
<tr>
<td>12</td>
<td>Anaesthetist requested omission</td>
</tr>
<tr>
<td>13</td>
<td>Other</td>
</tr>
<tr>
<td>14</td>
<td>Other</td>
</tr>
<tr>
<td>15</td>
<td>Other</td>
</tr>
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<td>16</td>
<td>Other</td>
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**General Comments**