

# NHS Greater Glasgow and Clyde Alcohol and Drug Recovery Services

## Guidelines for Community Pharmacy Disulfiram Service

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## 1.0 Introduction

Alcohol use disorder is a chronic relapsing condition. Individuals diagnosed as harmful or dependent drinkers require a range of support including the provision of high quality pharmaceutical care and treatment. Disulfiram is a treatment routinely prescribed to support abstinence from alcohol and works as a psychological deterrent. Supervision of consumption by an appropriate professional provides the best guarantee that a medicine is being taken as prescribed and helps to ensure the safety of the patient and minimise toxicity.

### 1.1 Mechanism of Action of Disulfiram

When alcohol is consumed it is broken down by the body into acetaldehyde which is toxic, before being further broken down by an enzyme named acetaldehyde dehydrogenase to acetate which is safe. **Disulfiram acts to inhibit the enzyme acetaldehyde dehydrogenase which causes acetaldehyde to accumulate when alcohol is consumed.** A build-up of acetaldehyde can cause severe facial flushing, breathlessness, headache, heart palpitations, nausea and vomiting. More severe and life-threatening reactions/complications are also possible. For patients the fear of experiencing this unpleasant and potentially dangerous reaction is an effective deterrent to drinking alcohol whilst taking disulfiram.

## 2.0 Service aim

**To provide holistic pharmaceutical care to patients receiving disulfiram.**

- Undertake a clinical check of prescription
- Review patient's medications for interactions. Other medications can contain alcohol (ethanol, ethyl alcohol) as an excipient, for example it may be contained in sprays, liquids and Metered Dose Inhalers. Consider adding a warning to the Patient Medication Record to check any new medications for alcohol content whilst on disulfiram.
- Supervise consumption of medication when indicated by the prescriber to aid compliance.
- Provide advice to reduce harms associated with harmful drinking and dependence.
- Counsel patients regarding potential medication adverse effects.
- Report missed doses, non-attendance and patient concerns to the prescriber to allow assertive outreach to attempt to maintain patient in treatment

### 3.0 Referral to Pharmacy

Referrals for instalment dispensing or supervision of disulfiram in community pharmacies will be for new patients or those stabilised on disulfiram.

The local Alcohol and Drug Recovery Service (ADRS) should contact the pharmacy in advance to request they take on a new patient for supervised/instalment dispensing of disulfiram. If a patient has not been referred to the pharmacy and presents with a disulfiram prescription please contact the prescriber for advice. NEO is used to record and claim for provision of the disulfiram service via the disulfiram therapy module, see section 12.

### 4.0 Patient Information

Full details of the patient should be received by the pharmacy in advance of the first attendance. On first attendance, and as needed to refresh understanding, the patient should be provided with the following information:

- Provided with a **disulfiram patient information leaflet** (appendix 1)
- Reminded of the **complete avoidance of alcohol** (ethanol, ethyl alcohol)
- Given a copy of **what to avoid when taking disulfiram** (appendix 2)
- Provided with a **disulfiram patient treatment card** and advised to keep it on their person at all times (appendix 4)
- Counselling on potential **side effects**
- Counselling on **disulfiram induced hepatitis**, a rare but potentially life threatening side effect. Patients should be advised to discontinue treatment, seek urgent medical attention and inform their care manager and prescriber immediately if they feel unwell or develop symptoms such as fever, abdominal pain or jaundice
- Counselling on the **importance of thiamine** as per section 6 and given a copy of **food sources of thiamine** (appendix 3)

### 5.0 Thiamine/ Dietary Information

Patients with chronic alcohol use can often eat very little and nutrition can be absorbed poorly from what they are consuming. Thiamine (vitamin B1) deficiency is of greatest concern as deficiency can manifest acutely as Wernicke's Encephalopathy or chronically as Korsakoff's psychosis, both forms of Alcohol Related Brain Damage. Thiamine is also needed to release the energy from food, for good memory and to make healthy nerve endings so that we can touch and feel.

Thiamine is obtained via diet and only a small amount can be stored within the body therefore it needs to be consumed regularly, each day. In addition to reminding patients of the importance of taking any prescribed thiamine and the reasoning for split dosing, due to low absorption of oral doses, patients should be encouraged to increase dietary thiamine intake and the amount/ variety of food consumed as abstinence continues. Please see appendix 3 for information on good food sources of thiamine.

## 6.0 Doses of Disulfiram

The prescriber will have considered the optimal dosing frequency of disulfiram on an individual patient basis, please see examples in Table 1.

Table 1: Examples of commonly prescribed doses of disulfiram in NHS GGC

Examples of commonly prescribed doses of disulfiram in NHS GGC	
Dose	Frequency
200mg-500mg (BNF max)	Once Daily
*400mg	Monday
400mg	Wednesday
400mg	Friday
*400mg	Monday
400mg	Wednesday
**600mg	Friday
**600mg	Tuesday
**800mg	Friday

\* While less frequent dosing (i.e. not daily) is not explicitly detailed in the BNF, it is supported by a consensus of expert opinion.

\*\* The BNF maximum is 500mg daily therefore giving 600mg/800mg on one day of a weekly regimen is still seen as being within dosing limits. Doses greater than 500mg are also part of the loading dosing regimen advised by the manufacturer.

## 7.0 Supervision

Supervision of disulfiram, if required, will be clearly stated on the prescription. The frequency of supervision may vary as previously detailed. Supervision can be daily, twice weekly, three times weekly or possibly once weekly with the remainder of doses to take away.

The patient should swallow the tablet(s) whole with water in front of the member of staff supervising. The supervisor must be fully confident that the tablet(s) have been swallowed before the patient leaves the pharmacy. Take home doses should be provided after the consumption of the supervised dose.

It is important to keep a record of a patient's attendance at the pharmacy and of dose supervision. Although not a legal requirement, ADRS may phone requesting information on attendance therefore consider how a verifiable audit trail of collected or missed doses can be kept e.g. PMR, instalment programme.

## 8.0 Patient Assessment

Each time a patient presents at the pharmacy for supervision the pharmacy team should have a brief consultation with the patient which should include checking the patient's general health and wellbeing and checking if any support is required around their treatment. It should be confirmed with the patient that no alcohol has been consumed since last attendance or within the last 24 hours if it is the first attendance at the pharmacy.

Assessment	Action
Patient reports no alcohol has been consumed and no concerns	<ul style="list-style-type: none"> <li>• Supervise the dose of disulfiram</li> <li>• Be confident the dose has been swallowed before the patient leaves the pharmacy</li> </ul>
<p>Patient reports consuming alcohol since last disulfiram dose/ within last 24 hours if first attendance</p> <p><b>Or</b></p> <p>Concerns regarding alcohol use based on patient presentation</p>	<ul style="list-style-type: none"> <li>• <b>Withhold dose</b></li> <li>• Patients should be informed why they are not receiving their disulfiram dose. Withholding a dose may cause upset for patients therefore reinforce risks of using disulfiram and alcohol. Remind patients that disulfiram remains in the system for around 2 weeks after the last dose.</li> <li>• Patients should be advised to contact their prescribing team for further support and attend A&amp;E if they start to feel unwell</li> <li>• Record the missed dose due to reported alcohol consumption or patient concerns on the NEO system. It would be good practice to do this immediately, <u>otherwise within 24 hours</u>. The NEO system will send an automated email to the ADRS team to make them aware that the patient has not been supplied their disulfiram dose.</li> <li>• Do not give any further doses until the team has been in touch to say it is appropriate to restart dispensing.</li> <li>• The ADRS team will liaise with the patient and prescriber and contact the pharmacy later to let them know when/if it is suitable to supervise the next dose.</li> </ul>

## 9.0 Missed Doses

If a patient does not attend for a dose as per the prescription details, declines a dose or a dose is withheld- report this via the NEO 360 system, **this should be completed within 24 hours**. The NEO 360 system will send an automated email to the ADRS team to make them aware that the patient has not attended on a given date.

- The ADRS team will liaise with patient and prescriber and contact the pharmacy to let them know when/if it is suitable to supervise the next dose.
- The NEO 360 system will save the missed dose/instalment for future reference. Continued recording via the NEO 360 system is therefore preferred to telephone contact, unless urgent or further detail is relevant.

## 10.0 Bank Holiday Doses

Disulfiram is a Prescription Only Medicine (POM) and therefore the home office wording to cover bank holidays does not apply. The day of supply of a bank holiday dose is at the discretion of the pharmacist unless specific details are on the prescription. It would be best practice to base the decision on knowledge of the patient.

If no specific details are on the prescription, in the case of a bank holiday closure either:

- provide the patient with the bank holiday dose to take home on the previous day of supervision, with the dose for that day supervised
- Or**
- supply the bank holiday dose to take home on the last day of opening prior to closure

Please highlight the importance of safe storage of medication for any take home doses.

## 11.0 Other reasons for contacting ADRS

It is important that information is shared to ensure seamless care and to allow queries to be dealt with efficiently. NEO 360 can be utilised to report non-urgent patient concerns. Below are some examples of when the ADRS team may be contacted, this list is not exhaustive.

Reasons for a referral include:

- Any deterioration in mental state and/or physical health
- Any other reason/concerns e.g. altered behaviour, medicines interaction, side effects, confirmation of pregnancy, child protection, domestic violence

## 12.0 NEO 360

NEO 360 is used to record and claim for provision of the disulfiram service via the disulfiram therapy module. Modules are allocated centrally therefore if you cannot access this module please contact the ADRS central pharmacy team. An alcohol module user guide and a general staff log in and housekeeping guide are available under the *Help* tab on NEO 360. The NEO 360 system should be used as standard when missed doses/instalments or did not attend need to be recorded and communicated.

## 13.0 Disulfiram shortage

The UK has dealt with a national shortage of disulfiram multiple times, in this event guidance will be distributed by the ADRS Central Pharmacy team. If you believe there is a current problem with supply please report this to Community Pharmacy Scotland and email [ggc.adrs.pharmacyteam@nhs.scot](mailto:ggc.adrs.pharmacyteam@nhs.scot) to allow this to be investigated. Please note you may be

required to use alternative wholesalers to access stock or to source unlicensed stock as per issued guidance.

## 14.0 Training

Any staff involved in delivering the community pharmacy disulfiram service should read and understand this guidance. NHS Education for Scotland have a *Substance Use: Alcohol* training pack available which outlines issues surrounding alcohol use in Scotland which may be useful for pharmacists.

## 15.0 Locums and other staff

Please make sure all staff are aware of the protocols involved with this service to ensure continuity of service provision when different staff are present.

## 16.0 Payment for service provision

NHS GGC ADRS pay a set monthly fee per patient for providing the community pharmacy disulfiram service. To provide the service the pharmacy must complete the service level agreement, found on Community Pharmacy website, and return this to Community Pharmacy Development team. A pharmacy is eligible to claim if they have enrolled to provide the service and a patient attends once or more in a single month for supervised dosing or a patient receives instalment dispensing without supervision. Claims should be made via the NEO system.

## 17.0 Endorsing the prescription

Endorse the prescription with number of tablets only. The number of supervisions and instalments are not required as these payments are made locally as per section 16.

**N.B your employer may have different guidance on this.**

## 18.0 Service queries

Please contact the ADRS pharmacy team via the generic email [ggc.adrs.pharmacyteam@nhs.scot](mailto:ggc.adrs.pharmacyteam@nhs.scot) with any queries regarding the community pharmacy disulfiram service



## 19.0 Contacts

ADRS Sites	
East Dumbarton ADRS	<a href="mailto:EDADSAdmin@ggc.scot.nhs.uk">EDADSAdmin@ggc.scot.nhs.uk</a> or <a href="mailto:sharedservices.socialwork@eastdunbarton.gov.uk">sharedservices.socialwork@eastdunbarton.gov.uk</a>
East Renfrewshire ADRS	<a href="mailto:adrs.referrals@eastrenfrewshire.gov.uk">adrs.referrals@eastrenfrewshire.gov.uk</a>
Glasgow ADRS - NE	<a href="mailto:SW_NECORETeam@sw.glasgow.gov.uk">SW_NECORETeam@sw.glasgow.gov.uk</a>
Glasgow ADRS - NW	<a href="mailto:SW_NWCommunityAddictionTeam@glasgow.gov.uk">SW_NWCommunityAddictionTeam@glasgow.gov.uk</a>
Glasgow ADRS - South	<a href="mailto:SouthADRSAdmin@glasgow.gov.uk">SouthADRSAdmin@glasgow.gov.uk</a>
Inverclyde ADRS	<a href="mailto:alcohol&amp;drugrecovery@inverclyde.gov.uk">alcohol&amp;drugrecovery@inverclyde.gov.uk</a>
Renfrewshire ADRS	<a href="mailto:addictions.sw@renfrewshire.gov.uk">addictions.sw@renfrewshire.gov.uk</a>
West Dunbartonshire ADRS - Clydebank	<a href="mailto:addictions.clydebank@west-dunbarton.gov.uk">addictions.clydebank@west-dunbarton.gov.uk</a>
West Dunbartonshire ADRS - Dumbarton	<a href="mailto:Addictions.dumbarton@west-dunbarton.gov.uk">Addictions.dumbarton@west-dunbarton.gov.uk</a>
Pharmacy Teams	
ADRS Central Pharmacy Team	<a href="mailto:ggc.adrs.pharmacyteam@nhs.scot">ggc.adrs.pharmacyteam@nhs.scot</a> Tel: 0141 303 8931
Community Pharmacy Development Team	<a href="mailto:ggc.cpdevteam@nhs.scot">ggc.cpdevteam@nhs.scot</a>

## 20.0 Appendices

### 20.1 Appendix 1 - Disulfiram Patient Information Leaflet

Printable and up to date patient information leaflets are available via the Choice and Medication Website:

<https://www.choiceandmedication.org/nhs24/printable-leaflets/>

<https://www.choiceandmedication.org/nhs24/generate/pilldisulfiram.pdf>

### What to avoid when taking Disulfiram

Many products contain alcohol and you should check carefully the ingredients listed on products that are purchased. If you are in doubt and are buying something from a pharmacy, consult the pharmacist.

<b><u>Aftershave/Perfume</u></b>	Use an alcohol free type.
<b><u>Antiperspirant</u></b>	Use an alcohol free type.
<b><u>Hair products</u></b>	Some rinses contain alcohol and should be avoided. Hair dyes are generally safe to use.
<b><u>Mouthwash</u></b>	Some contain alcohol, check with your dentist or pharmacist.
<b><u>Foods containing alcohol</u></b>	Most cooked foods containing alcohol only contain a small amount. Generally cooking them for a few minutes at a high temperature evaporates off the alcohol due to its low boiling point but the flavour remains. It is important to check when buying food or meals that it does not contain alcohol. Food containing uncooked alcohol, e.g. trifle, should be avoided.
<b><u>Vinegars, pickles, table sauces</u></b>	Avoid cider and wine vinegars, other types are usually safe. Table sauces can contain these vinegars so check the ingredients label.
<b><u>Vitamin C supplements</u></b>	Very large doses, usually given via prescription, could possibly interfere with the disulfiram reaction; make sure your doctor knows you are taking disulfiram. Normal brands of fruit juice (containing Vitamin C) are unlikely to interfere.
<b><u>Caffeine</u></b>	Avoid all products with high caffeine content e.g. stimulant and energy drinks, Proplus tablets, as they may have increased effects.
<b><u>Vapes</u></b>	Use an alcohol free type.
<b><u>Cough medicine</u></b>	Consult the pharmacist at all times.
<b><u>Other medicines</u></b>	Whether bought from a pharmacy or prescribed, consult the pharmacist at all times.

### Food Sources of Thiamine

Thiamine (vitamin B1) is needed to release the energy from food, for good memory and to make healthy nerve endings so that we can touch and feel. One of the ways alcohol can cause damage to the brain is by preventing the body from getting enough thiamine.

Thiamine is obtained via diet and only a small amount can be stored within the body therefore it needs to be consumed regularly, each day. Below is a list of some good food sources of thiamine, this list is not exhaustive.

- Fortified breakfast cereals
- Wholemeal pasta
- Rice
- Bread
- Rolls
- Scones
- Baked potatoes (in their skins)
- Chips
- Oatcakes
- Rye crackers
- Bran
- Oatmeal
- Most fruit (fresh and dried) and vegetables, especially frozen peas
- Meat especially pork products such as bacon or ham, and liver
- Canned fish e.g. mackerel or sardines
- Quorn products
- Eggs
- Baked beans
- Nuts and seeds
- Yeast or beef extract
- Malt based drinks
- Fortified milkshake powders
- Soup
- Milk

20.4 Appendix 4 – Disulfiram Patient Treatment Card  
Request these from Teva® (email: [medinfo@tevauk.com](mailto:medinfo@tevauk.com))



<b>DISULFIRAM</b> <b>Patient Treatment Card</b>		<b>TEVA</b> UK Teva UK Limited
<b>Patient Information</b> You have been prescribed Disulfiram tablets and you must not consume any alcohol as long as you are taking this medicine and for at least 14 days after stopping treatment. If you are taking other medicines particularly cough syrups and tonics you should check with your doctor or pharmacist to make sure they are safe to take with Disulfiram. The following preparations should be avoided as they may contain alcohol: perfume, after-shave or other toiletries; some vinegar; pickles and sauces. Caution should also be exercised with alcohol-free or low-alcohol beers and wines which may provoke a reaction when consumed in sufficient quantities. <b>Please carry this card with you at all times to make sure you receive the correct treatment in the event of an accident or sudden illness.</b> If you get any side effects, talk to your doctor, pharmacist or nurse. This includes any possible side effects not listed in the package leaflet. You can also report side effects directly via the Yellow Card Scheme at <a href="http://www.mhra.gov.uk/yellowcard">www.mhra.gov.uk/yellowcard</a> By reporting side effects, you can help provide more information on the safety of this medicine. Adverse events may also be reported directly to Teva UK Limited at <a href="http://www.tevauk.com">www.tevauk.com</a>		
<b>Healthcare Professional Information</b> This patient should not be given alcohol in any form until 14 days after stopping Disulfiram therapy. Disulfiram interferes with drug metabolizing enzymes and may potentiate the action of centrally acting drugs, (see SPC for full details).		
<b>Disulfiram therapy patient Details</b>		
Daily Dose		January 2017 UK/GEN/16/0056
Name		
Address		
Telephone (day)	(evening)	
Date of issue		
Doctor's Name		
Doctors telephone		
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