

GUIDANCE

West Dunbartonshire
Health & Social Care Partnership



Renfrewshire
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ADRS Boardwide COMMUNITY PHARMACY DISULFIRAM SERVICE

Lead:	Alcohol Pharmacist on behalf of Alcohol Care and Treatment Group
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Community Pharmacy Disulfiram Service

Please note this is standard guidance and changes may apply in certain situations, for example no breathalyser use during COVID-19 pandemic.

1. Key points for the standard service

- **Breathalyse patients before every supervised dose (0mcg/100ml result to give the dose).**
- **Communicate any single missed dose/non collection (DNA or positive breath test) to the prescribing team within 24 hours via the NEO system.**
- **ADRS Pharmacy Team Contact details:
Email: Adrs.PharmacyTeam@ggc.scot.nhs.uk**

2. Referral to Pharmacy

Referrals for instalment dispensing/supervision of disulfiram in community pharmacies will be for new patients or those stabilised on disulfiram who are transferring from another service or pharmacy. The patients will be receiving psychosocial support from local Alcohol Recovery Services.

It is important that Alcohol and Drug Recovery Services contact the pharmacy in advance to request they take on a new patient for supervised/instalment dispensing of disulfiram and provide relevant patient information, via telephone, information can then be recorded on the Patient Medication Record (PMR).

3. The disulfiram alcohol reaction (DAR)

- A build up of acetaldehyde can cause severe facial flushing, breathlessness, headache, heart palpitations, nausea and vomiting.
- Some patients can experience no reaction or a mild reaction (and therefore continue to drink through it). The prescriber may decide to prescribe a higher dose or decide the medication is not a deterrent to drinking.
- More severe and life threatening reactions/complications are also possible.

4. Drug Induced Hepatitis

Disulfiram can cause a drug induced hepatitis. ADRS will monitor Liver Function Tests as standard at 1 month, 6months and annually (or more often if clinically indicated). Patients should discontinue treatment and seek immediate medical attention if they feel unwell or symptoms such as fever or jaundice develop.

5. Informed Consent

Prior to initiation of disulfiram by ADRS, a patient is assessed and informed about the medication and the potential risks. If the patient chooses to go ahead with disulfiram an informed consent document is completed by ADRS. This includes the supply of information leaflets ^{Appendix A} and a Patient Treatment Card ^{Appendix B}.

6. First Time Attendance at Pharmacy

- Full details of the patient should be received by the pharmacy in advance of the first attendance.
- The prescription should state *breathalysed and supervised on day of collection* if doses are to be supervised.

- The patient agreement ^{Appendix C} should be completed and signed by the pharmacist and patient.
- It is important that the patient is reminded of the complete avoidance of alcohol (ethanol, ethyl alcohol).

7. Doses of Disulfiram

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

Below are examples of prescription wording (28 day duration) for commonly prescribed doses of disulfiram. The prescriber will have considered the optimal dosing and supervision frequency. During the COVID-19 pandemic, 'dispense all' and other instalment dispensing without supervision became more common.

Please note these prescription examples include - a start date and a reminder stamp to report missed doses/positive readings via the NEO system within 24 hours.

Dosing and supervision 7 days a week (no take home).	Dosing and supervision 6 days a week (no take home).
<p>START DATE: 28/05/2021 Disulfiram Tablets 200 mg Send <28> tablet Label 1Tab Daily Supply 1Tab Daily Breathalysed & Supervised On Day Of Collection <000000000323278009></p> <p>* * * * *</p> <p>*Please report any single missed dose or positive reading via the NEO system within 24 hours.* *The NEO system sends an automated e-mail to the team. Patients require review prior to further dosing.*</p>	<p>START DATE: 28/05/2021 Disulfiram Tablets 200 mg Send <24> tablet Label 1TAB DAILY MON-SAT SUPPLY 1TAB DAILY MON-SAT Breathalysed & Supervised On Day Of Collection <000000000323278009></p> <p>* * * * *</p> <p>*Please report any single missed dose or positive reading via the NEO system within 24 hours.* *The NEO system sends an automated e-mail to the team. Patients require review prior to further dosing.*</p>

Dosing and supervision 2 or 3 days a week (no take home)

<p>START DATE: 28/05/2021 Disulfiram Tablets 200 mg Send <24> tablet Label 2TABS MON 2TABS WED 2TABS FRI SUPPLY 2TABS MON WED & FRI Breathalysed & Supervised On Day Of Collection <000000000323278009></p> <p>Please report any single missed dose or positive reading via the NEO system within 24 hours. The NEO system sends an automated e-mail to the team. Patients require review prior to further dosing.</p>	<p>START DATE: 28/05/2021 Disulfiram Tablets 200 mg Send <28> tablet Label 2TABS MON 2TABS WED 3TABS FRI SUPPLY 2TABS MON & WED 3TABS FRI Breathalysed & Supervised On Day Of Collection <000000000323278009></p> <p>Please report any single missed dose or positive reading via the NEO system within 24 hours. The NEO system sends an automated e-mail to the team. Patients require review prior to further dosing.</p>	<p>START DATE: 28/05/2021 Disulfiram Tablets 200 mg Send <28> tablet Label 3TABS TUES 4TABS FRI SUPPLY 3TABS TUES 4TABS FRI Breathalysed & Supervised On Day Of Collection <000000000323278009></p> <p>Please report any single missed dose or positive reading via the NEO system within 24 hours. The NEO system sends an automated e-mail to the team. Patients require review prior to further dosing.</p>
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“Breathalysed and supervised” should be stated on all prescriptions for patients attending for community pharmacy disulfiram supervision. It is best practice that this is undertaken on each occasion the patient attends the pharmacy to collect medication i.e. “Breathalysed and supervised on day of collection”.

8. Measurement of Breath Alcohol

Patients must be breathalysed prior to each dose of disulfiram.

The breathalyser device is very simple to use:

- Fit a new mouthpiece (use wrapper to cover mouthpiece end so it is not handled, therefore clean for the patient)
- Press the trigger button to turn the device on.
- The battery symbol and temperature of the device will show on screen.
- *Blo* will then show on screen indicating the device is ready for a sample.
- Ask the patient to “Take a big deep breath, hold it slightly and then blow long and constant into the mouthpiece, until you hear a click”.
- A numerical result will show on screen.

Any result above 0mcg/100ml is a positive result.

(See Breathalyser FAQs ^{Appendix D} for advice if you run out of mouthpieces, or patient has a respiratory condition and therefore finds it difficult to provide a breath sample).

Breathalyser result	Action
If result is zero	<p>-Supervise the dose of disulfiram with a glass of water.</p> <p>-Be confident the dose has been swallowed before the patient leaves the shop i.e. check their mouth as per agreement.</p>
Positive result i.e. more than zero	<p>-Withhold dose</p> <p>Patients should be:</p> <ul style="list-style-type: none"> -Informed why they are not receiving their disulfiram dose. Please note: Withholding a dose may cause upset for patients. Reinforce the reasons and risks of using Disulfiram and Alcohol. - Advised to contact their prescribing team for further support. - Advised to attend A&E if they start to feel unwell. - Advised that the pharmacist will contact the prescribing team. - Advised that disulfiram remains in the system for 2 weeks after the last dose. <p>Record the missed dose and positive reading on the NEO system. It would be <u>good practice to do this immediately, 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 been refused his/her disulfiram dose as they have provided a positive breath test.</p> <p>The worker 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. It would be good practice for the team to see the patient within 24 hours to review the current Care Plan, as a minimum the team should be contacting the patient by phone.</p> <p>Do not give any further doses until the team has been in touch to say it is appropriate to restart dispensing.</p> <p>If the positive reading seems to be due to a fault with the breathalyser, contact the ADRS pharmacy team for advice ASAP.</p>

- Please note when a patient gives a positive breath test the prescription is still valid. Initially doses are withheld for patient safety and follow up.
- Please be aware that a prescription can only be cancelled on instruction from the prescriber. The cancellation of a prescription could be detrimental.

The NEO system will save the missed dose and breathalyser reading for future reference. Continued recording via the NEO system is therefore preferred to telephone contact. Telephone contact may also be required if other specific details are thought relevant. A *NEO alcohol module user guide* is held on the NEO system under *Help*. Otherwise contact the ADRS pharmacy team with any issues.

9. Supervision of disulfiram

Supervision, if required, will be clearly stated on the prescription. The frequency of supervision may vary as detailed in section 7 i.e. supervision can be daily, twice weekly, three times weekly or possibly once weekly with the remainder of doses to take away. During the COVID-19 pandemic 'dispense all' and instalment dispensing without supervision became more common to minimise contact.

It is important that the patient is breathalysed **prior** to supervision of the disulfiram to ensure no recent alcohol use. Many patients have a high tolerance to alcohol therefore may be under the influence of alcohol without any outward signs of intoxication.

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 i.e. check their mouth as per agreement.

Any take away 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 the dose supervision. Attach a PC70 form to the prescription (even though disulfiram is not a control drug) and complete the reverse after every supervised dose. The Alcohol and Drug Recovery Service may phone at any time requesting information on attendance. The NEO system should be used as standard when missed doses/instalments (DNA or positive breath test) need to be recorded/communicated.

N.B. Days of attendance

The prescription will state what days the patient should attend for supervised dosing, these days should be adhered to within reason, with ADRS input. This is to ensure smooth running of the service.

10. DNA (Did Not Attend)

- If a patient does not attend for a dose/instalment as per the prescription details. Record this on the NEO system, this should be completed within 24 hours. The NEO 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 worker will liaise with the patient, and prescriber, and contact the pharmacy to let them know when/if it is suitable to supervise the next dose.

- The NEO system will save the missed dose/instalment for future reference. Continued recording via the NEO system is therefore preferred to telephone contact (unless further detail is relevant).

For example if a patient has a prescription for 'disulfiram 400mg on a Monday, Wednesday, Friday to be breathalysed and supervised on day of collection' and the patient does not attend on the Monday for a dose, record the missed dose on NEO on the Monday night/Tuesday morning. It would be good practice for the team to see the patient within 24 hours to review the current Care Plan.

11. Bank Holiday Doses

Disulfiram is a Prescription Only Medicine (POM) and therefore the home office wording 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(s)* on the previous day of supervision after the patient is breathalysed (zero result) and the dose for that day supervised
- or supply the bank holiday dose* (to take away) on the last day of opening prior to closure after a 0mcg/100ml breathalyser reading. (*Safe storage of medication should be highlighted).

12. Other reasons for contacting the Alcohol and Drug Recovery Service

There are several different reasons for contacting the ADRS. It is important that information is shared to ensure seamless care and any queries can be dealt with quickly and efficiently. Below are some examples, this list is not exhaustive.

Reasons for a referral include:

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

13. Locums and other staff

Please make sure all staff are aware of the protocols involved with this service, so it is not disrupted when different staff are present.

14. Disulfiram shortage

The UK has dealt with a national shortage of disulfiram multiple times. If you believe there is a current problem with supply please email ADRS.pharmacyteam@ggc.scot.nhs.uk so this can be investigated.

15. Other pharmacies providing the service

An up to date list of all the pharmacies providing the disulfiram service in the GGC area can be found at:

<https://www.glasgow.gov.uk/CHttpHandler.ashx?id=29531&p=0>

16. Payment for the service

NHS GGC Alcohol and Drug Recovery Service pay a set monthly fee per patient for the Disulfiram service. A pharmacy is eligible to claim if they are 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.

The Service Level Agreement can be found here:

<https://www.communitypharmacy.scot.nhs.uk/nhs-boards/nhs-greater-glasgow-clyde/pharmacy-services/disulfiram/>

17. Endorsing the prescription

Endorse the prescription with:
Number of tablets (only)

The number of supervisions and instalments are irrelevant as these payments are made locally as per point 16.

N.B Your employer may have different guidance on this.

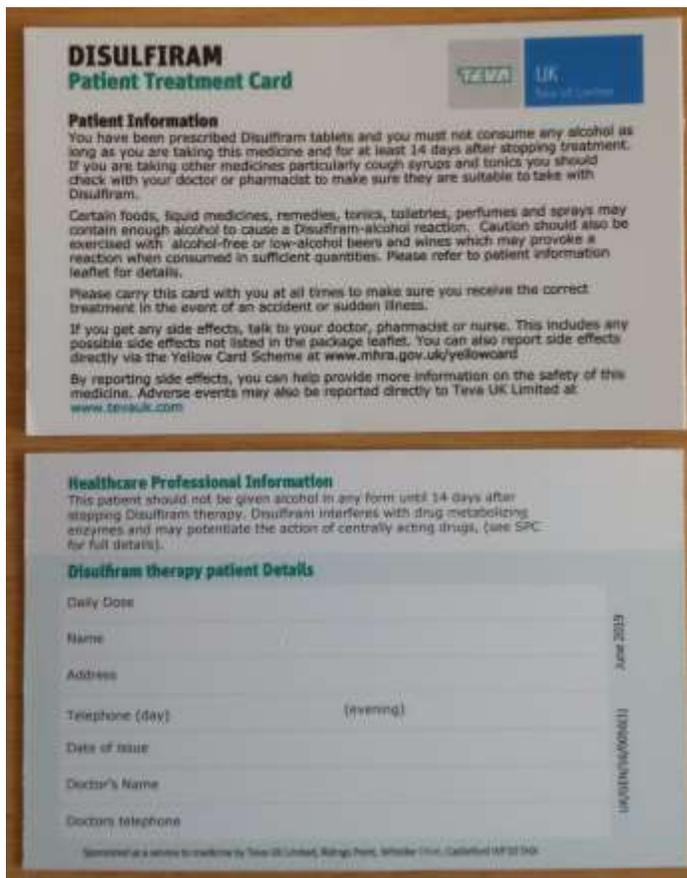
18. Prescribed medicines

Medications can contain alcohol (ethanol, ethyl alcohol) as an excipient, for example it may be contained in sprays, liquids and Metered Dose Inhalers (MDIs). Check other prescribed medications for alcohol, and contact the ADRS team for advice. The interaction may have been considered already.

19. Queries

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

Appendix A – Patient Treatment Card



DISULFRAM
Patient Treatment Card

TEVA UK
Teva of London

Patient Information
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 suitable to take with Disulfiram.

Certain foods, liquid medicines, remedies, tonics, tinctures, perfumes and sprays may contain enough alcohol to cause a Disulfiram-alcohol reaction. Caution should also be exercised with alcohol-free or low-alcohol beers and wines which may provoke a reaction when consumed in sufficient quantities. Please refer to patient information leaflet for details.

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.

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 www.mhra.gov.uk/yellowcard

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 www.tevauk.com

Healthcare Professional Information
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).

Disulfiram therapy patient Details

Daily Dose

Name

Address

Telephone (day) (evening)

Date of issue

Doctor's Name

Doctors telephone

14631016/0006611
June 2015

Approved as a written formwork by Teva UK Limited, Ridge Park, Wheeler Close, Calderhead WF22 2AQ

ADRS teams can request supplies (pack of 50) direct from the manufacturer via email (Medinfo@tevauk.com).

Appendix B – Link for PILs

Standard Patient Information Leaflets are available at:
<https://www.choiceandmedication.org/nhs24/printable-leaflets/>

Appendix C

Disulfiram Patient Agreement

- I, (name of patient) agree, that in order to support me to remain abstinent from alcohol, I have consented to take disulfiram, as prescribed. It will be supplied as per my prescription, (instalments with/without supervision) by staff at.....
.....(name and location of pharmacy).
- I agree to **be breathalysed** before receiving my disulfiram tablet(s) in the pharmacy if requested on my prescription.
- The tablet(s) will be taken with water and I will **swallow them whole** under supervision.
- I understand I will be asked to **prove I have swallowed the tablet(s) by opening my mouth.**
- I understand side effects can occur and these can be serious. I know to contact my worker/prescriber as soon as possible if I have concerns.
- **I understand that taking any form of alcohol while taking disulfiram can result in severe and immediate illness. Death can occur.**
- I agree to **carry a disulfiram treatment card (provided by ADRS)** with me at all times, to show to the pharmacist or doctor when consulting them and in case of an accident, to ensure proper treatment.
- **If I stop taking my Disulfiram, without medical agreement, or present with a positive breathalyser reading, the pharmacist will inform the Alcohol and Drug Recovery Service so I may be followed up. No further doses will be dispensed/supervised until deemed safe and appropriate.**

Signed (Patient).....

Signed (Pharmacist).....

Date:

AGREEMENT IS SIGNED AND A COPY KEPT BY THE PHARMACY.
PROVIDE PATIENT WITH A COPY IF REQUESTED

Appendix D

Breathalyser FAQs

How do I order more mouthpieces?

Pharmacies can request mouthpieces by the ADRS pharmacy team generic email (Adrs.PharmacyTeam@ggc.scot.nhs.uk) or call 0141 303 8931. They will be sent via first class mail and should be received within two working days.

What if I run out of mouthpieces?

If you have run out of mouthpieces, order them immediately (as above).

In the interim, the *funnel like* attachment in the breathalyser pack can be used;

- Fit the funnel over the ports.
- Change the mode of the device; press the *on* and *off* buttons simultaneously to enter the menu function. Scroll down the menu using the *on* button until *PAS* shows on the screen, press the *off* button to select this function. This mode gives a positive or negative result rather than a more accurate numerical value.
- *PAS* will flash on the screen meaning the device is ready for a sample. The device should be held approximately 2-3 inches from the mouth and the breath directed into the funnel. The device will click when the sample is collected.
- A positive (*PoS*) or negative (*nEg*) result will show on screen.
- As the mouth does not touch the funnel these are kept and reused.

N.B. When the device switches off, it will return to the original mode therefore every time the funnel has to be used, *PAS* mode needs to be selected.



What if the patient does not have enough breath for the device i.e. in COPD?

Patients with respiratory conditions might find it difficult to get a reading from the breathalyser as it requires a large breath. If this is a problem:

- Fit a mouthpiece and turn the breathalyser on as usual, the battery level and temperature of the device will show on screen, after a few seconds *b/o* will show on screen.
- Ask the patient to 'Take a big deep breath, hold it slightly and then blow long and constant into the mouthpiece, until you hear a click.'
- While the patient is blowing into the mouthpiece press the *on* or *trigger* button, you will hear a click and this will capture the sample early (try and wait as long as possible before pressing the button so you have as large a sample as possible).
- The screen will then show a numerical reading.

Breathalyser error messages

The breathalyser can show various error messages:

Bat – battery power low, change the batteries (2 AA batteries required)

FLO Lo - The flow of breath is too low.

FLO Hi - The flow of breath is too high.

FLO InS - The flow of breath was not consistent.

FLO Cut - The flow of breath stopped too abruptly.

E09 -The device is too cold to perform the test (must be at least 15°C).

E10 - The device is too hot to perform the test (must be below 35°C).

If any other errors are showing on screen please contact the ADRS pharmacy team as the device may need to be calibrated or replaced.

Breathalyser maintenance

The breathalyser will be accuracy checked and calibrated prior to delivery to store, then annually thereafter. Contact the ADRS pharmacy team with any issues.