



Thiamine IM in the treatment of alcohol dependency

Version:	Owner:	Created:
1.0	Catherine Patel	17 th April 2025
Published:	Approving Director:	Next Review
01/05/2025	Kathy Ryan (Medical Director)	01/05/2026

Standard Operating Procedure
Thiamine IM in the treatment of alcohol dependency

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Standard Operating Procedure

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Introduction

This SoP replaces the May 2022 SoP on prescribing IM Pabrinex, following its discontinuation of supply to the community. This SoP provides clinicians working at the Homeless Health Service with instructional guidance on the use of intramuscular thiamine. It does not replace the need for clinical expertise as part of the management of alcohol dependency.

This SoP is derived from the TurningPoint PGD.

Objectives

Pabrinex is a high dose combination of several B vitamins and vitamin C. Intramuscular Pabrinex has been used in the community setting for the prophylaxis of Wernicke's Encephalopathy (WE). Following its discontinuation of supply, IM thiamine has been advised to give as a replacement, in those cases where absorption of or compliance with oral thiamine supplements is considered ineffective to the patient's benefit, leaving the patient at risk. Intramuscular thiamine can be administered in the community/general practice setting and is an important clinical intervention.

*N.B. Intravenous Pabrinex is still used for the treatment of WE in a hospital setting and must not be given in the community for this indication. **If WE is suspected, the patient must be transferred immediately to an acute hospital for treatment doses of intravenous Pabrinex.***

Procedure

Prescribing Thiamine

Note that administration is OFF LICENSE so off-label use should be recorded on the client record.

IM thiamine may be prescribed for:

All clients who are harmful or dependent alcohol users **not undergoing an alcohol detoxification in the community** who score 4 or more on the Pabrinex/Thiamine IM Prescribing Scoring System **or** who present with features which put them at risk of WKS e.g. diarrhoea, vomiting, physical illness, weight loss or poor diet, evidence of cognitive impairment or decompensated liver disease.

or

Clients who have demonstrated poor compliance to an oral thiamine treatment programme.

Clinical guidance on prescribing thiamine can be accessed here:

[Using and prescribing thiamine in alcohol dependence – SPS - Specialist Pharmacy Service – The first stop for professional medicines advice](#) to which there is a link from <https://remedy.bnssgccg.nhs.uk/adults/drug-and-alcohol-misuse/alcohol-misuse/> (although not updated, refers still to Pabrinex) [Thiamine | Prescribing information | Alcohol - problem drinking | CKS | NICE](#) refers only to oral thiamine

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Prescriptions should not be sent to pharmacy or dispensed to patients; doses are administered from HHS stock. Therefore, prescriptions should be printed and signed and then stored in the lockable drugs cupboard to enable BrisDoc to reclaim cost charges as FP34 prescriptions.

Prescribing in outreach setting.

In settings where no printer is available or it is impractical to return FP34s to HHS at Compass Centre in a timely way the following procedure should be followed:

1. Thiamine IM should be prescribed but not issued.
2. An EMIS task should be sent to the 'pabrinex team'. The duty team member at HHS can then print the prescription and store as usual and delete the task from EMIS

Documentation and coding.

Thiamine injections administered should be coded as 'Injections' with free text Thiamine IM and dose, and include the expiry date, lot number, manufacturer & site of injection.

Storage

Thiamine solution for injection ampoules should be stored in a locked medicines cupboard and record of use, and stock checks, recorded in the appropriate (non-Controlled Drug) stock book.

Administration

IM thiamine must be administered by a trained healthcare professional.

[Using and prescribing thiamine in alcohol dependence – SPS - Specialist Pharmacy Service – The first stop for professional medicines advice](#) advises 200mg to 300mg daily for at least 3 days.

A typical dose is 250mg thiamine IM once daily for x3 days, followed by PO thiamine 100mg tds.

As thiamine ampoules come in doses of 50mg/ml in 5ml ampoules, a 5ml dose (250mg) is to be given.

Process

1. Check you have the right patient and that the prescription is correct
2. Check ampoules are in date and labelled for intramuscular use
3. Explain the procedure to the patient and gain consent, and explain that this can be a painful injection and the patient should be reassured that this is quite normal
4. Wash hands thoroughly before preparation and after giving injection. Gloves need not be worn for this procedure if the health workers and patients' skin are intact.
5. Expose the skin site for the injection
6. Wipe area with an alcohol wipe for 30 secs, let the area dry for 30 secs.
7. Each ampoule should be visually inspected prior to administration and should not be used if particulates are present
8. Draw up the thiamine immediately before administration
9. When drawing up the medication from the glass ampoule you should be using a blunt fill needle with 5 micro filters BN 1815F.
10. Draw contents of ampoule into a 10 ml syringe

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11. Disperse air bubbles from the syringe.
12. When giving the deep intramuscular injection, it is preferable to use safety needle 21G x 2" (21G x 1 ½" can be used for those patients with less muscle mass).
13. Position patient as per their preference. Usually in prone position, although some patients may prefer to stand and this may be preferable for administration in outreach settings.
14. Select injection site:
 - a. This should be high in the gluteal muscle (ventrogluteal site), in the upper outer quadrant of the buttock, 5cm below the iliac crest.
 - b. With repeated injections, vary injection sites as much as possible and avoid previous sites by at least 2.5cm.
 - c. As the volume is large consideration should be given for using split sites
15. If standing, ask patient to lean their weight into the opposite leg to the injection site.
16. Using Z-track technique, gently pull the skin 2.5-3.75cm, to displace the underlying tissue.
17. Position the needle at 90 degrees to the skin surface and insert.
18. Check for blood by slowly pulling back the plunger. If no blood appears then depress the plunger slowly; this aids absorption of the drug and reduces pain. Wait for 10 seconds to allow the drug to diffuse into the tissue and then quickly withdraw the needle and release skin at the same time.
19. Having already checked for allergies to plasters, apply a small plaster to the injection site as leakage often occurs.
20. Dispose of the used needle in a sharp's container.
21. Observe the patient for allergic reactions for at 15 minutes following the injection.

N.B. Z track technique video can be found here:

<https://www.youtube.com/watch?v=xEfAF4M8sis>

Cautions for use

Adverse reactions: Mild gastrointestinal events such as nausea, vomiting, diarrhoea, and abdominal pain, hypersensitivity, paraesthesia, hypotension and injection site reactions (including pain and swelling) **Clients should be alerted to these adverse effects.** Any suspected adverse reaction should be documented in the client's notes and the client's GP notified.

Allergic and anaphylactic reactions, with symptoms of pruritus, urticaria, itching, hives, angioedema, abdominal pain, respiratory distress, tachycardia, palpitations, and shock (rare).

Intramuscular thiamine is contra-indicated if a patient has experienced an allergic reaction from it previously

Initial warning signs include sneezing or mild asthma. If these symptoms occur the client should be monitored for worsening symptoms.

Immediate facilities for treating anaphylaxis : adrenaline 1 in 1000 IM injection is the "treatment of choice" (Resuscitation Council guidelines) and must be available when administering Thiamine IM Injection

Healthcare staff will need to observe the client for at least 20 minutes after administration to observe for signs of a serious allergic reaction

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If the client has an anaphylactic reaction, then an ambulance should also be called

If an allergic reaction is suspected this must be recorded as an allergy in the patients care record. A warning prompt should be added to the generate prescription function on EMIS.

Contraindications

- Hypersensitivity to any of the active constituents or excipients of Thiamine IM injection
- Clients aged under 18
- A patient has experienced an allergic reaction from it previously

Transportation

Adrenaline auto-injectors must be carried to any site where IM thiamine is to be administered. Clinicians must have access to a phone so they can call for help via 999 if anaphylaxis is suspected.

For non-clinical settings, knowledge of public access defibrillators is good practice. A database of registered defibrillators can be accessed here: <https://www.nddb.uk/>

Monitoring

This SOP will be reviewed subject to any changes in best practice guidance, national evidence or in response to learning. It will also be reviewed in accordance with the date specified.

Version Control

Date	Version	Author	Change Details
14 th April 2025	1.0	Catherine Patel	New SOP, replace Pabrinex SoP