

# Nortriptyline - Palliative Care (Adults)

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## 1. Overview

### Purpose

This protocol outlines the administration, prescribing and monitoring of nortriptyline at Waitemata District Health Board.

### Scope

All medical and nursing staff

 This guideline is for use in Palliative Care ONLY.

## 2. Presentation

Nortriptyline 10mg and 25mg tablets

## 3. Indications

### Licensed:

Depression, smoking cessation<sup>1</sup>

### Unlicensed:

Neuropathic pain<sup>2,3</sup>

## 4. Mechanism of Action

Nortriptyline is a tricyclic anti-depressant and an active metabolite of amitriptyline. It blocks the pre-synaptic re-uptake of noradrenaline and inhibits the activity of serotonin, histamine and acetylcholine. It has a sedative effect which helps to improve sleep but is generally less sedating than amitriptyline. It has less anticholinergic effects than amitriptyline.

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### 5. Dose

Indication	Dose
Neuropathic Pain	<ul style="list-style-type: none"> <li>• 10 – 50mg nocte</li> <li>• Start with 10mg nocte and increase slowly according to response</li> <li>• As this will take 3 to 5 days to take effect, the dose can be increased by 10mg every 3 days as necessary if the patient tolerates it.<sup>2</sup></li> </ul>
Depression	<ul style="list-style-type: none"> <li>• 25 – 100mg nocte (max of 50mg in the elderly).<sup>1</sup></li> <li>• Start with 25mg nocte (10mg in the elderly) and increase every 2-4 weeks according to the response.<sup>2</sup></li> </ul>

**Note:** Nortriptyline's anticholinergic effects are less potent than amitriptyline and therefore side effects may be better tolerated.<sup>4</sup> (*refer Amitriptyline protocol*)

### 6. Administration

- Only available as an oral preparation.
- Administer once daily, preferably at bedtime due to possible sedation.

### 7. Observation and Monitoring

- Monitor for constipation, urinary retention, confusion and excessive sedation.
- Consider blood pressure monitoring when starting nortriptyline if at risk for postural hypotension e.g. if patient taking cardiac medications.

### 8. Contraindications and Precautions

#### Contraindications<sup>1</sup>

- Hypersensitivity to nortriptyline or amitriptyline
- Acute recovery phase following a myocardial infarction
- Use within two weeks of a mono-amine oxidase inhibitor (MAOI)

#### Precautions<sup>1, 5</sup>

- |                     |   |
|---------------------|---|
| • Elderly           | • Narrow angle glaucoma                       |
| • Cardiac disease   | • Hepatic impairment                          |
| • Arrhythmias       | • Hyperthyroid                                |
| • Epilepsy          | • Emergence of suicidal ideation              |
| • Bipolar disorder  | • Clinical worsening of depression            |
| • Urinary retention | • Diabetes (increased risk of hypo glycaemia) |
| • QT prolongation   |   |

The potential for tricyclics to cause delirium is high (due to anticholinergic activity) and great care should be exercised when using these agents in the frail elderly, agitated patients or in patients on multiple other medications

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### 9. Possible Adverse Effects

- Dry mouth
- Blurred vision
- Mydriasis
- Constipation
- Urinary retention
- Drowsiness
- Palpitations
- Arrhythmias
- Confusion/Delirium
- Paralytic ileus
- Increased intraocular pressure
- Restlessness
- Insomnia
- Hallucinations
- Nightmares
- Hyponatraemia
- Non-specific ECG changes
- Postural hypotension
- Anorexia/Nausea
- Withdrawal on abrupt cessation

### 10. Drug Interactions

- Monoamine oxidase inhibitors
- Selective serotonin reuptake inhibitors (SSRIs)
- Other antidepressants
- Other anticholinergic/sympathomimetic medications
- Concomitant administration of medications known to lower the seizure threshold (i.e. quinolones, tramadol)
- Central nervous system depressants
- Medications that prolong the QT interval
- Cimetidine and terbinafine increase the plasma concentration of nortriptyline
- Carbamazepine decreases the plasma concentration of nortriptyline<sup>1,2</sup>

### 11. References

1	Medsafe Website – Nortriptyline Datasheet <a href="http://www.medsafe.govt.nz/profs/datasheet/n/Norpresstab.pdf">http://www.medsafe.govt.nz/profs/datasheet/n/Norpresstab.pdf</a> [cited 20/4/2016]
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5	New Zealand Formulary online, release 46-1 April 2016 – Nortriptyline monograph. <a href="http://nzf.org.nz">http://nzf.org.nz</a> [cited 28/4/2016]

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