

Table 1: Different types of neuropathic pain are managed differently

| Neuropathic pain condition | Start treatment with | Other treatment options |
|-------------------------------|---|--|
| Diabetic neuropathy | <p>Start with a tricyclic antidepressant (amitriptyline, nortriptyline) or gabapentin.^{1,2}</p> <p>Amitriptyline or nortriptyline: start with 10–25 mg at night; increase by 10–25 mg every 7 nights, to a maximum dose of 150 mg at night.¹</p> <p>Gabapentin: start with 100 mg three times a day; increase to 300 mg three times a day over 7 days, to a maximum dose of 3600 mg daily.¹</p> | <p>Other treatment options (with varying levels of evidence for efficacy and little consensus about 'order') include:</p> <ul style="list-style-type: none"> • topical capsaicin 0.075%¹ • carbamazepine: 200 mg two to four times a day² • opioids (e.g. oxycodone 10–100 mg daily, tramadol 100–400 mg daily)^{3,4} • pregabalin 150–600 mg daily^{3,5} • serotonin–noradrenaline reuptake inhibitors: venlafaxine 150–225 mg daily or duloxetine 60–120 mg daily.³ |
| Postherpetic neuralgia | <p>Start with a tricyclic antidepressant (amitriptyline, nortriptyline) or gabapentin.^{2,6}</p> <p>Amitriptyline or nortriptyline: start with 10 mg at night, increase by 10 mg every 7 nights, to a maximum dose of 150 mg at night.⁷</p> <p>Gabapentin: start with 100 mg three times a day, increase by 100–300 mg every 5 days, to a maximum dose of 3600 mg daily.^{3,7}</p> <p>If response to either a tricyclic antidepressant or gabapentin is inadequate, switch to or add a drug with a different mechanism of action.</p> | <p>Other treatment options include:</p> <ul style="list-style-type: none"> • pregabalin: start with 75 mg twice a day, if needed, after 7 days increase to 150 mg twice a day then increase by 150 mg every 3–7 days, to a maximum dose of 300 mg twice a day^{7,8} • topical preparations such as capsaicin 0.075% or lignocaine may be useful.^{2,6} <p>There is limited evidence for the use of tramadol (start with 50 mg daily, increase by 50 mg every 3–4 days up to 100–400 mg daily in 4 divided doses) and opioids (e.g. morphine).⁷</p> |
| Trigeminal neuralgia | <p>Carbamazepine: start with 50–100 mg once or twice a day, increase gradually up to 400–800 mg daily in 2–4 doses, to a maximum dose of 1600 mg daily.⁹ After a pain-free month, gradually taper then stop.¹⁰</p> <p>If carbamazepine is not tolerated or ineffective, consider other anti-epileptic drugs (there is little evidence for treating trigeminal neuralgia with non-epileptic drugs¹¹) and/or referral to a neurosurgeon.^{3,10} Oxcarbazepine (an analogue of carbamazepine) may be an alternative to carbamazepine for people with trigeminal neuralgia who cannot tolerate carbamazepine or for whom its efficacy has declined. Oxcarbazepine seems to be effective for 3–4 years in up to two thirds of people with trigeminal neuralgia that is refractory to carbamazepine.¹² Start with 150 mg twice a day; increase by 300 mg every 3 days if needed to usual dose of 300–600 mg twice a day, to a maximum dose of 900 mg twice daily.^{3,13}</p> | <p>Second-line options (with varying levels of evidence for efficacy and little consensus about 'order') include:</p> <ul style="list-style-type: none"> • gabapentin: start with 100 mg three times a day, increase to 300 mg three times a day over 7 days; to a maximum dose of 3600 mg daily¹⁰ • lamotrigine: start with 25 mg twice a day, increase by 50 mg per week (to reduce the risk of life-threatening skin rashes e.g. Stevens–Johnson syndrome, toxic epidermal necrolysis), to a maximum dose of 600 mg daily in divided doses^{12,13} • phenytoin: start with 150–300 mg daily in one or two divided doses. Once steady-state has been reached (7–10 days) increase the dose if needed. Usual dose: 300–500 mg daily.¹² |



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Table 2: Prescribing drugs for adults with neuropathic pain: TGA approval status* and PBS listing restrictions^{9,14}

| drug (Brand) | TGA approved indication | PBS listing restriction |
|---|--|---|
| Antidepressants | | |
| amitriptyline (Endep) | Not TGA approved for neuropathic pain | Unrestricted |
| duloxetine (Cymbalta), nortriptyline (Allegron), venlafaxine (Efexor) | Not TGA approved for neuropathic pain | Major depressive disorders (Restricted benefit) |
| Anticonvulsants | | |
| carbamazepine (Tegretol, Teril) | Idiopathic trigeminal neuralgia, trigeminal neuralgia due to multiple sclerosis, idiopathic glossopharyngeal neuralgia | Unrestricted |
| gabapentin (Gabaheal, Gabaran, Gantin, Neurontin, Nupentin, Pendine) | Neuropathic pain in adults >18 years | Epilepsy (Streamlined authority) Refractory neuropathic pain not controlled by other drugs (RPBS authority listing only) |
| lamotrigine (Elmendos, Lamictal, Lamidus, Lamitrin, Lamogine, Seaze) | Not TGA approved for neuropathic pain | Epilepsy (Streamlined authority) |
| oxcarbazepine (Trileptal) | Not TGA approved for neuropathic pain | Epilepsy (Streamlined authority) |
| phenytoin (Dilantin) | Not TGA approved for neuropathic pain | Unrestricted |
| pregabalin (Lyrica) | Neuropathic pain in adults >18 years | Refractory neuropathic pain (RPBS authority listing only) |
| Opioid analgesics (including tramadol) | | |
| morphine (Anamorph, Kapanol, MS Contin, MS Mono, Ordine) | Moderate to severe acute or chronic pain | Immediate-release preparations (e.g. oral liquid, tablet): severe disabling pain not responding to non-narcotic analgesics (Restricted benefit) |
| oxycodone (Endone, OxyContin, OxyNorm) | | Controlled-release preparations (e.g. tablet, capsule, granules): <i>chronic</i> severe disabling pain not responding to non-narcotic analgesics (Restricted benefit) |
| tramadol (Durotram, Tramahexal, Tramal, Tramedo, Zydol) | Moderate to severe pain | Short-term treatment of acute pain, where aspirin and/or paracetamol alone are inappropriate or have failed (Restricted benefit) |
| Topical preparations | | |
| capsaicin 0.075% (Zostrix HP) | Diabetic neuropathy and postherpetic neuralgia | Not applicable (unscheduled) |
| lignocaine (Xylocaine) | Not TGA approved for neuropathic pain | Not applicable (Schedule 2) |

* Refer to TGA-approved product information for individual products.

References

- Sowerby Centre for Health Informatics at Newcastle (SCHIN). Diabetes Type 1 and 2 - foot disease. Clinical Knowledge Summaries. Newcastle-upon-Tyne, UK: National Library for Health, 2007. http://cks.library.nhs.uk/diabetes_foot_disease/management/detailed_answers/how_should_i_manage_painful_diabetic_neuropathy#176029001 (accessed 20 May 2008).
- Neurology Writing Group. Therapeutic Guidelines: Neurology. Version 5 Updated March 2008 [eTG complete CD-ROM]. Melbourne: Therapeutic Guidelines Ltd, 2007.
- Attal N, et al. *Eur J Neurol* 2006;13:1153–69.
- Chong MS, Hester J. *Drugs* 2007;67:569–85.
- Lewis MAO, et al. *Oral Surg Oral Med Oral Pathol Oral Radiol Endod* 2007;103 Suppl:S32.e1–24.
- Sowerby Centre for Health Informatics at Newcastle (SCHIN). Postherpetic neuralgia. Clinical Knowledge Summaries. Newcastle-upon-Tyne, UK: National Library for Health, 2007. http://cks.library.nhs.uk/post_herpetic_neuralgia#338025004 (accessed 14 August 2008).
- Christo PJ, et al. *Drugs Aging* 2007;24:1–19.
- Dworkin RH, et al. *Pain* 2007;132:237–51.
- Australian Medicines Handbook, 2008.
- Sowerby Centre for Health Informatics at Newcastle (SCHIN). Trigeminal neuralgia: management. Clinical Knowledge Summaries Newcastle upon Tyne, UK: National Library for Health, 2007. http://cks.library.nhs.uk/trigeminal_neuralgia (accessed 20 May 2008).
- He L, et al. *Cochrane Database Syst Rev* 2006;(3):CD004029.
- Canavero S, Bonicalzi V. *Expert Rev Neurother* 2006;6:429–40.
- Cheshire Jr WP. *Expert Rev Neurother* 2007;7:1565–79.
- Department of Health and Ageing. PBS for Health Professionals. Canberra, 2008. www.pbs.gov.au (accessed 10 July 2008).

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