Medicine Guideline

Lamotrigine for use in Spinal Cord Injury Induced Neuropathic Pain OR for Intractable Trigeminal Neuralgia

Areas where Protocol/Guideline applicable	Initiation in SESLHD Adult inpatients.
Authorised Prescribers:	Pain Specialists. Spinal Staff Specialists.
Indication for use	Lamotrigine for use in Spinal Cord Injury Induced Neuropathic Pain. Lamotrigine for Intractable Trigeminal Neuralgia. *(Lamotrigine 5mg, 25mg, 50mg, 100mg tablets are also listed on the SESLHD Medicines Formulary for inpatient initiation on the advice of a neurology or Mental Health Service)*
Clinical condition	Spinal Cord Injury Pain. Intractable Trigeminal Neuralgia.
Proposed Place in Therapy	Add on or stand-alone therapy.
Adjunctive Therapy	As an adjunctive with Gabapentinoids, Tricyclic Anti-depressants or Serotonin and Norepinephrine Reuptake Inhibitors (SNRIs).
Contra-indications	Known hypersensitivity to lamotrigine, or to any other ingredient in lamotrigine tablets.
Precautions	• Skin Rash (There have been reports of adverse skin reactions which have generally occurred within the first 8 weeks after initiation of lamotrigine treatment). These have included potentially life-threatening rashes such as Stevens- Johnsons syndrome, toxic epidermal necrolysis (TEN) and drug reaction with eosinophilia and systemic syndrome (DRESS). • Patients with a history of allergy or rash to other anti-epileptic drugs as the frequency of non-serious rash after treatment with lamotrigine was approximately three times higher in these patients. • Hypersensitivity syndrome • Aseptic meningitis • Haemophagocytic lymphohistiocytosis • Cardiac rhythm and conduction abnormalities • Pregnancy (consider alternatives) • Breastfeeding (consider alternatives)

<table>
<tr><td rowspan="2">Important Drug Interactions
Further information on drug interactions can be found in MIMs Online. Product Information Lamotrigine (Lamictal) tablets</td><td>Medicine that increase lamotrigine concentration and it's toxicity</td><td>Medicines that increase lamotrigine metabolism and decrease lamotrigine concentration</td></tr>
<tr><td>Valproate

(if patient is already taking valproate, a lower dose of lamotrigine will be required and a slower dose titration)</td><td>Atazanavir with ritonavir (but not atazanavir alone)
Carbamazepine
Combined oral contraceptives
Lopinavir with ritonavir
Oxcarbazepine
Phenobarbitone
Phenytoin
Rifampicin</td></tr>
<tr><td>Dosage</td><td colspan="2">Lamotrigine 25mg orally daily for 2 weeks then 50mg daily for 2 weeks then do not increase by more than 50 to 100mg every one to two weeks until optimal dose achieved.

Daily dose generally would not exceed 200mg/ 24 hours. However, doses up to 400mg/ 24 hours can be used.

Reduce dose in patients with moderate to severe hepatic impairment.
Moderate (Child-Pugh class B), give about half the usual initial and titration dose.
Severe (Child-Pugh class C), give about one-quarter the usual initial and titration dose.
Reduce dose in patients with moderate to severe renal impairment.

GFR 10-50mL/min = Caution. Start with 75% of dose and monitor closely.</td></tr>
<tr><td>Duration of therapy</td><td colspan="2">Ongoing</td></tr>
<tr><td>Administration Instructions</td><td colspan="2">Oral tablets can be swallowed whole, chewed or dispersed in a small volume of water</td></tr>
<tr><td>Monitoring requirements</td><td colspan="2">Monitor patient for skin reactions.

Monitor for signs of hypersensitivity.

Pain score.

Monitor for changes in mood or behaviour.</td></tr>
<tr><td>Management of Complications</td><td colspan="2">Any sign of rash must be promptly evaluated by a medical officer. Lamotrigine should be discontinued unless the rash is deemed to be not drug related.
Severe, potentially life-threatening rashes have been associated with the use of lamotrigine (see Precautions).
Any signs of hypersensitivity must be reviewed immediately by a medical officer and medication discontinued.</td></tr>
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	It is recommended that lamotrigine should not be restarted in patients who have discontinued due to rash associated with prior treatment with lamotrigine. The patient should be assessed by Pain or Spinal Staff Specialist.
Basis of Protocol/Guideline: .	1. MIMs Online. Product Information Lamotrigine (Lamictal) tablets. Aspen Pharmacare Australia. Revised 1 October 2023. Accessed October 2023. 2. Rossi S. Australian Medicines Handbook July 2023. South Australia. Australian Medicines Handbook Pty Ltd. 3. eTGs. Accessed via CIAP. March 2021 edition. 4. Effectiveness of amitriptyline and lamotrigine in traumatic spinal cord injury-induced neuropathic pain: a randomized longitudinal comparative study. Spinal Cord 2017:55:126-130. 5. A fMRI Evaluation of lamotrigine for the Treatment of Trigeminal Neuropathic Pain: Pilot Study. Pain Medicine 2010: 11: 920-941 6. The Renal Drug Handbook. 5th edition. Edited by Carolien Ashley and Aileen Dunleavy. UK Renal Pharmacy Group, CRC Press, London, UK.
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GOVERNANCE	
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