

LINEZOLID

PRESCRIBING GUIDANCE



Linezolid is an oxazolidinone antibiotic with activity against gram positive bacteria but has no gram negative cover. It is reserved for resistant gram positive infections such as VRE or MRSA.

Authorisation: Linezolid is an '[Alert Antibiotic](#)' and its use **MUST BE AUTHORISED** by a member of the Infectious Diseases or Microbiology teams before it can be prescribed in NHS Tayside.

There is no longer a requirement to complete a Linezolid form.

Route: Linezolid is available as tablets, liquid and IV infusion.
Oral linezolid is very well absorbed (approx. 100% bioavailability). The IV form should only be prescribed for patients who are unable to take oral medicines.

Dose: Usual adult dose – 600mg twice daily

Duration: **There is evidence that prolonged courses of linezolid are associated with increased toxicity including blood disorders and optic neuropathy.**

Normally only a 7-14 day course will be recommended. However, very occasionally, a course of up to 28 days may be recommended but see note re monitoring below. The maximum licensed duration is 28 days.

Supply: If linezolid is started in hospital the full course should be supplied by the hospital. GPs can prescribe linezolid under the specialist direction of Infectious Diseases or Medical Microbiology only. Community Pharmacists will not routinely stock this product so it would be prudent to communicate, at the earliest opportunity, with the patient's regular pharmacy to expect a prescription. The cost of 1 week of linezolid in primary care is in the region of £300.

Monitoring: **WEEKLY FBC, LFTs, U&Es, lactate** (and BP – see interaction section) must be done for the duration of therapy. More frequent monitoring is required if:

- duration is longer than 14 days
- severe renal impairment
- pre-existing myelosuppression
- concomitant medicines that affect FBC

It is the responsibility of the medical team to organise monitoring if the patient is discharged while on treatment.

Toxicities: **Myelosuppression** (particularly in the elderly) – see monitoring above
Optic neuropathy/neuritis – patients should be asked to report any visual disturbances or impairment
Serotonin syndrome – see interactions below
Peripheral neuropathy
Rash
See [SPC](#) for full details.

Interactions: See [SPC](#) for full details.

Linezolid is a reversible MAOI inhibitor and is therefore it is contra-indicated with MAOI inhibitors e.g. phenelzine, moclobemide, selegiline or within two weeks of taking any such medicinal product

The SPC states: unless there are facilities available for close observation and monitoring of blood pressure, linezolid should not be administered to patients with the following underlying clinical conditions or on the following types of concomitant medications:

- Patients with uncontrolled hypertension, phaeochromocytoma, carcinoid, thyrotoxicosis, bipolar depression, schizoaffective disorder, acute confusional states.

- Patients taking any of the following medications: serotonin re-uptake inhibitors (see section 4.4), tricyclic antidepressants, serotonin 5-HT₁ receptor agonists (triptans), directly and indirectly acting sympathomimetic agents (including the adrenergic bronchodilators, pseudoephedrine and phenylpropanolamine), vasoconstrictive agents (e.g. epinephrine, norepinephrine), dopaminergic agents (e.g. dopamine, dobutamine), opioid analgesics (e.g. pethidine, methadone, tramadol, dextromethorphan) or buspirone.

Monitor for signs and symptoms of serotonin syndrome such as hypertension, tachycardia, cognitive dysfunction, hyperpyrexia, hyperreflexia and incoordination.

Rifampicin reduces linezolid concentrations (AUC reduced by 30%). This is not a CYP450 mediated interaction but is thought to be due to induction of p-glycoprotein transporter and subsequent increased linezolid excretion. **It is no longer recommended to co-prescribe these antibiotics and rifampicin should be stopped 2 weeks prior to starting linezolid.**

Counselling points: Patients should be warned about the potential for dizziness or symptoms of visual impairment and should be advised not to drive or operate machinery if any of these symptoms occurs.

Patients should report immediately any visual disturbances or impairment.

Avoid consuming excessive amounts of tyramine rich foods (e.g. mature cheese, yeast extracts, soya bean extracts, draught beers and wine).

Patients should be advised not to take any OTC medicines e.g. decongestant cold and flu remedies, without first consulting their medical team.

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[eBNF](#)

[Stockley's Drug Interactions](#)

Rein Willekens, Mireia Puig-Asensio, Isabel Ruiz-Camps, Maria N Larrosa, Juan J González-López, Dolors Rodríguez-Pardo, Nuria Fernández-Hidalgo, Carles Pigrau, Benito Almirante, Early Oral Switch to Linezolid for Low-risk Patients With *Staphylococcus aureus* Bloodstream Infections: A Propensity-matched Cohort Study, *Clinical Infectious Diseases*, , cty916, <https://doi.org/10.1093/cid/cty916>

<https://www.sps.nhs.uk/articles/what-is-the-risk-of-interaction-between-opioids-and-monoamine-oxidase-inhibitors-maois/> - Updated March 2018, Accessed May 2019