



LITHIUM

Top tips for MURs

- Ensure that lithium is prescribed by proprietary name as levels of lithium can vary between products
- Ensure that lithium tablets are swallowed whole at night
- Counsel patients on signs of lithium toxicity that need referral (see below)
- Counsel patients on common side effects (see below)
- Counsel patients on importance of maintaining adequate fluid intake
- Counsel patients on avoiding any dietary changes, which reduce or increase sodium levels (do not go on a low salt diet or take sodium based antacids / urinary alkalinising agents)
- Check that patient has lithium blood tests every three months to check that lithium levels are correct (between 0.4mmol/l and 1.0mmol/l)
- Check that the patient has kidney and thyroid tests every six months
- Check patient has a lithium booklet and alert card
- Advise patient on OTC interactions with lithium (i.e. avoid NSAIDs as can increase lithium levels)
- Advise patient that full prophylactic effect from lithium may not occur for six to twelve months after initiation
- Advise to avoid alcohol
- Advise not to stop treatment abruptly as risk of relapse very high so reduce medication over one month

What is lithium used for?

Lithium is licensed for use in the treatment and prophylaxis of mania, bipolar disorder and recurrent depressive disorders, as well as for the control of aggressive behaviour and intentional self-harm.

Red flags that need referral

- Any sickness and diarrhoea for more than two days as patients may need lithium levels checked
- Any signs of lithium toxicity (nausea / vomiting / diarrhoea, blurred vision, severe hand shake (coarse tremor), drowsiness, muscular weakness, being unsteady on feet, confusion)
- Pregnancy, as risk of teratogenicity in first trimester and dose adjustments needed in later stages of pregnancy
- Breastfeeding as present in milk and a risk of toxicity in the infant

How does lithium work?

Lithium may alter intracellular second messenger systems, and modulate dopaminergic and serotonergic neurotransmission, however the exact way it works is unknown.

What are the common side effects to look out for?

Gastro-intestinal disturbances particularly at initiation of therapy; fine shake (tremor) of your hands; metallic taste in your mouth; weight gain; swelling of your ankles which may respond to dose reduction, feeling more thirsty than usual and passing a lot of urine.

Potential drug interactions

- The plasma concentration of lithium is increased by ACE inhibitors, angiotensin II receptor antagonists, diuretics and NSAIDs resulting in increased plasma levels and toxicity
- The plasma concentration of lithium is reduced by high levels of sodium; hyponatraemia can cause lithium retention and toxicity
- Amiodarone should not be used in conjunction with lithium
- Neurotoxicity may occur in patients taking methyl dopa and lithium without increasing plasma concentration of lithium. Similarly there have been occasional reports of neurotoxicity in patients receiving concomitant SSRIs and antipsychotics

Where can you find more information?

- NPSA has issued a safety alert for safer lithium therapy and can be found on the NPSA website (www.nrls.npsa.nhs.uk/alerts/?entryid45=65426)
- Lithium – BNF sub-section 4.2.3 Antimanic drugs
- Mental Health distance learning pack that can be found on WCPPE website (www.wcppe.org.uk)
- NICE guidance on management of bipolar disorders, self harm and depression that can be found on NICE website (www.nice.org.uk)
- British Association for Psychopharmacology bipolar guidelines can be found at: www.bap.org.uk/pdfs/Bipolar_guidelines.pdf