

Medicines Optimisation

Best Practice Guidance for Care Homes – *Bulletin 30*

Lithium

Lithium is a medication known as a mood stabiliser and can be used to treat mood disorders including:

- Mania and hypo-mania (feeling highly excited, overactive or distracted)
- Recurrent or severe depression where other medicines have not worked
- Help to prevent mood changes between feeling very high (mania) and very low (depression) caused by bipolar disorder (previously known as manic depression)
- Reduce aggressive or self-harming behaviour

Some people prescribed lithium may also need to take other drugs in combination with mood stabilisers such as antipsychotics or antidepressants.

Lithium Prescribing

Lithium will only be initiated by a Mental Health Specialist or a Psychiatrist. The patient will be counselled and given a purple book and folder containing useful information about lithium and space to make their own notes following appointments. A lithium alert card will also be provided which the resident should carry with them if they leave the home.

Before starting treatment, the patient will be examined with the following checked:

- Weight, height, and BMI
- Kidney function – lithium is removed from the body by the kidneys. The kidneys must be functioning well to ensure lithium does not build up in the body. In patients where the kidneys are not working so well, the dose may need to be adjusted.
- Thyroid function – sometimes symptoms of an underactive thyroid can be mistaken for depression so underlying causes should be investigated before starting lithium. In some patients, taking lithium long-term can affect the function of the thyroid.
- Heart – lithium may not be suitable in patients with certain heart problems.

Patients will be started on a low dose of lithium and then it will gradually be increased as appropriate. Lithium is usually a long-term treatment. **Patients should not alter their dose or stop taking without consulting a GP or their specialist first.** If a resident is refusing their lithium medication, the GP should be made aware without delay.

Lithium Brand Names

There are several available brands of lithium available in both regular tablets, slow-release tablets, and liquid. These brands include Priadel, Camcolit, Liskonum and Li-Liquid.

Patients will always be prescribed a brand of lithium. **It is very important that your resident remains on the same brand of lithium. The care homes should make a note of the brand they are using in the front of their purple record book and in the resident's care plan to ensure they receive the same one each time.** If a different brand is prescribed, the dispensing pharmacy and GP surgery must be contacted.

Lithium Database

Lithium can be toxic if levels in the body become too high and therefore patients prescribed lithium will need regular blood tests and monitoring to ensure the lithium level remain in a range which will treat the patient without causing toxicity. All patients prescribed lithium will be registered on the [Norfolk and Suffolk NHS Foundation Trust Therapeutic Drug Monitoring Lithium Database](#) who will record the monitoring and ensure recall letters for blood tests are sent. When a resident moves into the home who is prescribed lithium, their contact details must be updated with this service. The contact details are:

- Telephone: 01603 421480 ext. 6480
- email: tdm.support@nhs.net.

The resident would have been provided with a pack containing lots of useful information, a helpline number, and a Lithium Alert Card, when first registered.

The monitoring service SystemTDM will send letters and blood test forms to the patient when due, please ensure your residents share this information with you to ensure you can arrange the blood tests. If blood tests are missed a reminder letter will be issued, following this the patient's GP will be informed.

Lithium Monitoring

As lithium can cause toxicity, regular blood monitoring is needed. Within a week of starting lithium, patients will have a blood test to check the levels in the body. The daily dose of lithium prescribed may change, depending on the result. This blood test will be repeated every week until lithium levels in the body are stable. **Bloods will then be repeated every three months** to make sure levels remain steady.

Patients will also need regular checks to make sure that the thyroid and kidneys are working as they should be. These will be checked before starting lithium and then every six months while patient continues to take it (more frequently if there are signs of impairment).

If the patient is at risk of cardiovascular disease and is being treated for depression, they may also have regular electrocardiograms (ECGs) to ensure the heart is working as it should be.

It is the homes responsibility to ensure monitoring is conducted promptly as requested.

Side Effects

Lithium can cause several side effects and adverse reactions. More common ones include:

- stomach ache, nausea and vomiting, and diarrhoea
- hand tremor
- a dry mouth, feeling thirsty or metallic taste in the mouth
- Feeling tired or sleepy
- Weight gain especially if lithium has been taken for a long time.
- Ankle swelling

Lithium Toxicity and Serious Allergic Reaction

If lithium levels in the bloods are too high, this is known as '**lithium toxicity**' or '**lithium poisoning**'. If a resident has any of the symptoms below it is a medical emergency and 999 should be called immediately

- Stomach ache, nausea **AND** having diarrhoea
- Blurred vision or problems with eyesight
- Feeling very thirsty **AND** needing to pass urine more than usual, **AND** a lack of control over wee or poo
- Feeling lightheaded or drowsy
- Confusion and blackouts
- Shaking, muscle weakness, muscle twitches, jerks or spasms affecting the face, tongue, eyes, or neck
- Difficulty speaking

Toxicity can occur for a number of reasons including:

- Not having regular blood tests to monitor lithium levels
- Dehydration – residents should drink plenty of water, especially during exercise or in hot weather when sweating will increase.
- Alcohol intake – drinking alcohol causes the body to lose water and can cause dehydration. Alcohol intake should be limited, especially in hot weather.
- Diarrhoea and sickness – can lead to dehydration. If a resident has either vomiting or diarrhoea, a Clinician must be contacted for advice.
- Salt intake – residents must not reduce their salt intake levels suddenly without speaking to Clinician. It is important to remember soluble pain relief tablets, such as paracetamol, have high levels of salt.

In rare cases, lithium may cause a serious allergic reaction. This is a **medical emergency and 999 must be contacted**. Signs include

- Lips, mouth, throat or tongue suddenly become swollen
- Very fast breathing or struggling to breathe, including feeling very wheezy or gasping for air
- Throat feels tight or struggling to swallow
- Skin, tongue or lips turn blue, grey or pale
- Sudden confusion, drowsiness or dizziness
- Fainting
- In some cases there may be a rash that is swollen, raised, itchy, blistered or peeling

Medication interactions

There are some medicines that may affect the way lithium works and this can change the levels of lithium in the body. It is important that when a new medication is started, the clinician is aware the resident is prescribed lithium. Medication which can interact include:

- Diuretics (medicines that make you wee more) such as furosemide or Bendroflumethiazide
- Non-steroidal anti-inflammatory drugs (NSAIDs) – used for pain relief and include ibuprofen, aspirin and diclofenac
- Medicines for heart problems or high blood pressure – this includes the group of medicines known as ACE inhibitors such as lisinopril, ramipril and enalapril
- Some medicines used in depression – including paroxetine and fluoxetine
- Antibiotics – including trimethoprim, metronidazole, co-trimoxazole and oxytetracycline
- Medicines used to treat epilepsy including carbamazepine or phenytoin

Other medication can affect the way the kidneys deal with lithium. If a resident prescribed lithium is being treated with steroids, antibiotics or medication for high blood pressure, heart problems or some types of pain relief the GP must be made aware as more frequent monitoring may be needed.

References

1. NHS. Lithium. Accessed 24/09/24 <https://www.nhs.uk/medicines/lithium/>
2. <https://tdmsupport.co.uk/login.aspx> accessed September 2024

Title

Title	Best Practice Guidance – Bulletin 30: Lithium
Description of policy	To inform healthcare professionals
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Dissemination	Is there any reason why any part of this document should not be available on the public website? <input type="checkbox"/> Yes / No <input checked="" type="checkbox"/>
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1.1	October 2023	Medicine Optimisation Team LE	Final	Uploaded to new template only
1.2	September 2024	Medicines Optimisation Team -HH	Draft	Significant changes made including addition of brands and allergic reaction sections. Further detail added around toxicity, side effects and changes made to monitoring section to clarify document. Changes made to make it more reader friendly as too much terminology. Formatting changes. References added

