Medication Safety Series: MSS 2

Lithium (inpatients)

For patients taking lithium consideration must always be given to:

- **Clinical presentation:** renal impairment (beware deterioration), dehydration, nausea/vomiting
- **Signs of toxicity:** ***GI effects***: increasing anorexia, nausea and diarrhoea; ***CNS effects***: muscle weakness, drowsiness, ataxia, muscle twitching, tremor.
- ***If features of lithium toxicity occur stop lithium immediately, check serum lithium levels, creatinine, urea & electrolytes***
- **Effectiveness:** non-compliance, incomplete effect, target lithium levels for indication (usual range 0.4-1.0 mmol/L; usual target 0.6-0.8 mmol/L, higher target ranges [0.8-1.0 mmol/L] are used for patients with symptoms/presentations consistent with relapse. Lower target levels may be appropriate for elderly patients)
- **Interacting medicine:** newly prescribed, stopped or any dose changes; check lithium levels (12-14 hours post dose) 5-7 days after changes to interacting medicines

Patient admitted – already prescribed LITHIUM:

As part of the medicines reconciliation process:

- Identify brand, form and dose being taken.
- Ensure lithium has been prescribed on EPMA in line with above.
- Identify the patient's personal target serum level (e.g. from EPR or lithium registers team)
- Check with patient – compliance, any side-effects or signs of toxicity, any over the counter medicines or newly prescribed medicines.
- Check - is the patient managed under shared care arrangements?

If lithium toxicity is suspected ensure doses are withheld until levels are available.

Initial monitoring & review:

- Ensure U+Es, eGFR & lithium level (ideally 12-14 hours post-dose) has been checked on admission to confirm compliance and/or exclude toxicity - record on Lithium Monitoring Sheet
- Is patient on the Trust lithium register? If yes, notify lithium registers team of admission, access latest monitoring results and check for any overdue monitoring.
- Review effectiveness – if clinical presentation is consistent with relapse, consider if a higher target serum range should be used

Lithium initiated during admission:

Before lithium is started ensure:

- Pregnancy is excluded
- Baseline monitoring is completed in line with Psychotropic Monitoring Guide and results entered on Lithium Monitoring Sheet .
- Lithium has been prescribed by brand on EPMA and the dose is clinically appropriate.

During admission:

- Ensure blood samples to check levels are taken 5-7 days after initiation and dose changes (12-14 hours post dose).
- Continue monitoring weekly until stable levels are established (two consecutive levels in range at stable dose).
- Complete & send initiation form to lithium registers team to add patient to Trust lithium register.

Title	MSS2 – Lithium for in-patients v5
Approved	28th November 2024
Review by	1st December 2027

All patients prescribed lithium - monitoring and tasks during inpatient admission:

- Ensure significant medication alert for lithium is added to electronic patient record.
- Ensure EPMA is annotated to indicate “other charts” & “lithium monitoring”.
- Check EPMA for any interacting medications & take appropriate action if necessary.
- Ensure ward team is aware of date of next monitoring test(s).
- Remind ward team of importance of blood sampling for lithium levels 12-14 hours after the last dose.

Patient Information:

- Supply NPSA purple lithium book if the patient doesn’t already have one.
- Counsel/remind patients regarding monitoring requirements (inc. importance of 12–14 hour post-dose sampling for lithium levels), shared care arrangements, side effects/signs of toxicity
- Remind patients of child-bearing potential to speak to their community team for pre-conception counselling if planning pregnancy

All patients prescribed lithium - discharge tasks :

- Prescribe 28-days’ supply of lithium (unless not yet stable, or overdose risk) to facilitate transfer to GP or Community Mental Health Team (CMHT).
- Include information about start date (if applicable), current lithium dose, target range (essential if changed), latest lithium level & other monitoring results and when next monitoring tests are due in the GP discharge summary, so both the GP & CMHT are aware and can resume or start (if appropriate) shared care arrangements.
- Ensure latest lithium level is recorded in the purple book (if available) & patient knows how & when to take lithium.
- If necessary, notify relevant CMHT of need to continue prescribing until transfer to GP is appropriate and in line with local shared care protocols:
    - *DTVF care group:*

      https://ntag.nhs.uk/wp-content/uploads/2025/03/NENC-SCP-lithium-in-adults-v1.0-approved-Feb-2025.docx
    - *NYY care group:*

      https://humberandnorthyorkshire.org.uk/area-prescribing-committee-apc/area-prescribing-committee-apc-approved-documents/
- Notify lithium registers team when patient is discharged from ward and, for new patients, which CMHT will be managing / overseeing their care.