North of Tyne, Gateshead and North Cumbria Area Prescribing Committee

Lithium
Shared Care Guideline (Amber)

Introduction	**Uses/Licensed Indications for Adult patients**: • Management of acute manic or hypomanic episodes • Prophylaxis against bipolar disorders • Management of treatment resistant depression • Control of aggressive or self-harming behaviours Refer to: NICE CG185: Bipolar disorder: assessment and management (https://www.nice.org.uk/guidance/cg185) **Criteria for Shared Care:** • The patient/carer is in agreement with the shared care arrangement • The patient must be clinically stable • Lithium dose has remained constant for a minimum of four weeks • Serum lithium levels within patient specific target range for a minimum of two consecutive results covering a minimum period of four weeks **Exclusions for Shared Care:** • Unstable disease state • Unstable dose and serum levels not in patient specific target range • Patient/carer do not consent to shared care **Dosage and preparations:** • MUST be prescribed by brand and form due to difference in bioavailability • Dosage as determined by serum lithium levels.

Monitoring	**Lithium serum levels**
	• Narrow therapeutic index. Range **0.4-1.0mmol/l** (CNTW specialist to communicate patient specific range where appropriate)
	• Blood samples to be taken 12 hours after previous dose
	• Minimum 3 monthly monitoring required for stable patients for at least 12 months
	• Minimum 6 monthly monitoring after this time if level <0.8mmol/l and **no risk factors** from below:
	  ○ Older people
	  ○ Co-prescribed interacting drugs
	  ○ Impaired renal/thyroid function, raised calcium or other complications
	  ○ Poor symptom control
	  ○ Poor adherence
	• Monitor lithium level more frequently if urea and creatinine levels have risen OR eGFR has reduced over 2 or more results.
	• Monitor weekly after any dose change or level out of range until stable
	
	Physical health monitoring (minimum 6 monthly)
	• Weight/BMI
	• U&Es
	• Renal function (eGFR)
	• Thyroid function (TSH)
	• Calcium
	
	Annual physical health check (where clinically indicated)
	• BP
	• Lipid profile
	• FBG/HbA1c

	• ECG

Specialist Responsibilities	Establish the diagnosis, suitability & need for lithium treatment and provide NPSA Lithium Information Pack.
	
	Follow the CNTW Lithium practice guidance note (CNTW C38 PPT PGN 19) during the initiation and stabilisation of lithium.
	
	Once stabilised and all checks completed, to ensure:
	• Patient consulted and agrees to shared care arrangement
	• Shared care agreement form completed and sent to GP requesting transfer
	• GP provided with details of the patient's management plan including:
	  ○ Indication for prescribing
	  ○ Serum lithium level range required
	  ○ Last recorded serum lithium level, calcium, renal & thyroid test results
	  ○ Brand of lithium used, tablet or liquid strength, dose & formulation
	  ○ When the patient received the last supply of lithium & when he/she will require the next supply
	  ○ Details of any potentially interacting medication that the patient is currently taking, with further advice as necessary
	  ○ Details of the patient's next outpatient visit &/or frequency of subsequent follow-up
	  ○ Name and telephone contact details of the specialist and CPN/Care co-ordinator (including secure email address where available)
	• Specialist available for advice if the patient's condition changes, for dosage queries and ensure procedures are in place for re-assessment when necessary.
	• GP notified of any changes in therapy and if the patient does not attend appointments for specialist review within 1 month, plus specific information on the planned course of action.

GP Responsibilities	**Monitoring**: • Monitor serum lithium levels and communicate results with mental health specialist. • Physical health monitoring/blood tests and annual physical health checks as outlined in the 'Monitoring' section above. • Update monitoring results in the NPSA information pack if available. • Consider mental state, adherence, side-effects at each visit. See 'Adverse Effects and Toxicity' section below if toxicity clinically suspected or serum levels high (>1.0mmol/l) **Prescribing:** • Prescribe lithium on a maximum **monthly** basis • Ensure prescribe by **brand and form** • Adjust dose as necessary according to levels, if needed discuss with mental health specialist for prescribing support. • Inform mental health specialist of dose and monitoring results • Be aware of potentially hazardous drug interactions when prescribing (see 'Common Drug Interactions' section below and also refer to BNF). **Advice:** Contact mental health specialist if advice needed regarding: • Mental health treatment (including dose adjustment), • Mental health status of patient, • Physical health concerns relating to lithium therapy • Patient does not attend appointments. When seeking advice, inform mental health specialist of any new medication or non-psychiatric secondary or tertiary referral

	Discontinuation: Slow withdrawal required to avoid possible relapse (immediate withdrawal required if toxic). Contact mental health specialist for advice If unable to accept shared care prescribing, contact mental health specialist to discuss these exceptional cases.
Adverse Effects and Toxicity	**Side effects:** GI disturbances (e.g. nausea, diarrhoea, dry mouth); fine tremor, thirst, polyuria, polydipsia, weight gain, oedema. May be short term and can often be prevented or relieved by a moderate reduction in dose. See SPC for full list **Toxicity:** Can occur without a rise in serum level. Can be fatal Signs of lithium toxicity: blurred vision, muscle weakness, drowsiness coarse tremor, slurred speech, ataxia, confusion, convulsions, nausea, vomiting and ECG changes**.** If lithium toxicity suspected, **stop Lithium immediately**, measure lithium serum level and renal function and seek advice from mental health specialist for future dosing. **If clinical condition severe, urgently refer patient to acute secondary care services.** Causes of toxicity include drug interactions, renal disease, concomitant diarrhoea or vomiting (dehydration); sodium depletion. If levels high (>1.0mmol/l) but no signs of toxicity clinically, same day action required – investigate reason and correct if possible. If no clear reason or following a pattern of elevated levels, seek advice from mental health specialist on future dosing. Recheck serum level in 1 week.
Common Drug Interactions	**Risk of lithium toxicity** in sodium depletion or reduced renal clearance so avoid concurrent diuretics (particularly thiazide diuretics), NSAIDs, ACE inhibitors and Angiotensin-II receptor antagonists. **Risk of potentially serious serotonin syndrome** with concurrent serotonergics including SSRIs, triptan migraine products, certain opioids e.g. tramadol, which resolves rapidly on stopping serotonergic agent. **Risk of neurotoxicity** due to concurrent diltiazem, verapamil, methyldopa, carbamazepine, phenytoin, haloperidol, phenothiazines or SSRIs **Theophylline/aminophylline** increase lithium excretion therefore can reduce plasma concentration of lithium. **Amiodarone** manufacturer advises avoidance of lithium due to risk of ventricular arrhythmias
Communication	**Contact details (email and telephone) of prescriber and/or team will be provided on referral.** *Out of hours:* *North Cumbria - Single Point of Access Line: Tel: 0300 123 9015* *North of Tyne - Initial Response Team – Northumberland, Newcastle, North Tyneside Tel: 0303 123 1146* *South of Tyne - Initial Response Team – South of Tyne and Wearside Tel: 0303 123 1145*

This information is not inclusive of all prescribing information and potential adverse effects.
Please refer to full prescribing data in the SPC or the BNF

Discharge of patients into the care of the GP

Patients prescribed lithium should not usually be discharged from secondary care mental health services. In exceptional circumstances an individual agreement for discharge may be considered in response to a patient who expressly indicates that they do not wish to remain within secondary care mental health services. In line with NICE CG185 - Bipolar disorder, these patients should be offered the option to return to primary care for further management providing symptoms have responded effectively to treatment and they remain stable.

Discharge to primary care must be a **shared** decision between the patient, the GP and the specialist prescriber and the rationale for discharge must be clearly documented. Discharge should only be considered if lithium treatment is stable for a significant period of time (usually about 1 year) and the patient is adherent to treatment and compliant with monitoring requirements. Renal and thyroid function must be stable and serum levels in range.

A medication plan should be agreed and a copy of the plan given to the patient and the GP. The patient should be encouraged and supported to visit their GP and discuss the plan before discharge from secondary care services.

If there is deterioration in mental or physical health related to lithium therapy, or the patient fails to attend appointments, the GP should contact the mental health specialist for advice (see communication section above). It may be necessary for the patient to return to secondary care mental health services under a shared care arrangement.

Private and Confidential

Lithium - Shared Care Request/Confirmation

- Specialist prescriber to complete first section of form, following discussion with patient, and send to patient's GP
- **GP to complete second section of form and return to specialist prescriber within 28 days**

Specialist Prescriber: **Department:** **Hospital/Team:** **Team/prescriber email:** **Team/prescriber telephone:**	**Patient details (use hospital label if preferred)** **Name:** **Address:** **Post code:** **M/F:** **NHS or Hospital no:** **DOB:**

Treatment Requested for Prescribing in Accordance with an Approved Shared Care Arrangement

Drug Name **Lithium** (State brand)… **Dose** **Frequency**
Indication

Other Information …….
e.g. Target Range

Signed (Specialist Prescriber) **Name (print)** **Date**

To be completed by GP

Please tick one box

I ACCEPT the proposed shared care arrangement for this patient ❑

or

I ACCEPT the proposed shared care arrangement with the caveats below ❑

or

I DO NOT ACCEPT the proposed shared care arrangement for this patient ❑

My caveats / reason(s) for not accepting include:

……..

…….

Signed …… **Name (print)** ..... **Date** ……..
(Patient's GP)

N.B. Participation in this shared care arrangement implies that prescribing responsibility is shared between the specialist prescriber and the patient's GP