NHS
Dorset
Clinical Commissioning Group

MEDICINES STANDARD A3:
PRESCRIBING LITHIUM

These guidelines have been developed to ensure that the management of Lithium therapy is safe, effective, evidence based, and in line with current NICE Guidance. Lithium blood levels need to be maintained within a narrow range; if too low there may be a lack of therapeutic effect; if too high symptoms of toxicity occur which can be serious or even fatal in extreme cases.

Lithium at therapeutic levels can have some long term adverse effects, particularly on kidney and thyroid function. As lithium usually has to be taken for long courses, monitoring of thyroid and kidney function is also very important.

There is discrepancy between the monitoring requirements in QOF and those specified within NICE guidance. The NPSA Patient Safety Alert supports the National Institute for Health and Care Excellence (NICE) guidelines, which describe a pattern of monitoring that is more stringent than the QOF audit standards. The NPSA Alert directs healthcare practitioners to comply with monitoring aspects of NICE guidance in relation to lithium therapy. It requires that blood test results are available at the point when clinical decisions are made.

ROLES AND RESPONSIBILITIES

The consultant psychiatrist who initiates lithium will

- Ensure all monitoring has been completed until the patient is stabilised on a therapeutic dose (usually a minimum of three months).
- Issue patients' booklets, lithium alert cards and record books
- Contact the patient's GP to request shared care of the patient.

Primary care prescribers who accept shared care responsibilities for patients prescribed lithium caring will ensure that patients are fully monitored in line with NICE guidance and the local shared care guideline, and providing the test results to the consultant psychiatrist (as appropriate).

Prior to dispensing every prescription for lithium, pharmacists and dispensing doctors should check the scheduling of blood tests to reassure themselves that, given the test results, no patient harm will result

It is the responsibility of all healthcare professionals to ensure that they adhere to the legislation covering the prescribing of lithium.

The Head of Medicines Management is responsible for ensuring that there are robust policies related to medicines safety for contractors to the CCG to access and adopt.

SAFE PRESCRIBING OF LITHIUM

Initiation of lithium in secondary care

Prior to starting lithium, patients will receive full information about the risks and benefits of treatment so that they have the opportunity to make an informed choice. In particular patients need to be informed of the side effects of lithium, signs and symptoms of toxicity and risk factors for toxicity, and the risk of stopping abruptly.

Baseline renal, thyroid and (where appropriate) cardiac function monitoring should be performed before prescribing commences, (see shared care guideline for more details). If the results do not fall within the normal range, then the decision to commence prescribing lithium should be reviewed or the starting dose reconsidered, as appropriate.

In women of child bearing age, pregnancy should be excluded. The patient should be advised to use suitable contraception during treatment.

The patient must be informed of the importance of maintaining adequate fluid intake and sodium intake and interactions with medication that can be bought over the counter such as NSAIDs.

The brand of lithium predominately prescribed within the local Health Community is Priadel®. Different preparations may vary in bioavailability, so the same brand of lithium should always be prescribed.

Care should be taken, including additional monitoring, when changing between brands or between tablets and liquid. The tablets contain lithium carbonate, and the liquid contains lithium citrate. Doses are usually prescribed as lithium carbonate.

Monitoring and prescribing as per NICE guidance and local shared care guideline will be performed initially by secondary care. The prescribing and monitoring may be transferred to primary care, with the prior agreement of the patient's GP, after at least three months of treatment, to establish response and efficacy.

The results of initial assessment tests and all monitoring will be included with the referral documentation from consultant psychiatrist to primary care prescriber at the point of commencing the shared care agreement.

The doctor initiating lithium is responsible for issuing the patient with the patient information booklet, patient held record card and patient held alert card. The doctor should explain to the patient the importance of carrying the alert card and monitoring booklet with them at all times, and keeping these documents up to date.

Prescribing of Lithium in GP practices

Lithium is classified as 'amber' according to the Dorset formulary. This means that treatment is initiated by a specialist, and responsibility remains with the specialist until the patient is stabilised on the optimum dose. Prescribing responsibility may be transferred to primary care if agreed by the patient's GP, when treatment has been initiated and stabilised (at least three months after initiation).

Prior to prescribing every prescription for lithium, prescribers should check the scheduling of blood tests to reassure themselves that, given the test results, no patient harm will result.

There should be a process in place to ensure that repeat lithium requests are brought to the attention of a GP so they can be assured that the necessary monitoring has taken place before signing the prescription. A template standard operating procedure for the management of lithium prescribing can be found in appendix 3.

For clarity, prescriptions should not be issued if any of the following apply:

- If the current blood level is above 2mmol/L, or above 1.5mmol/L and the patient has symptoms of toxicity (see shared care guideline) - arrange for the patient to be transferred to Accident and Emergency.

- For elderly patients if the current blood level is above 1mmol/L and the patient has symptoms of toxicity - arrange for the patient to be transferred to Accident and Emergency.

- If the current blood level is above the target range and the patient has symptoms of toxicity - refer the patient immediately to the consultant or, if the patient is unlikely to be seen promptly, to Accident and Emergency.

If any of the following apply the prescription **may** be issued but the remedial action indicated must be taken:

- If the current blood level is below the target range - inform the consultant at the earliest opportunity

- In cases of suspected lithium toxicity, lithium should be stopped and an urgent serum lithium level taken. In all cases of lithium toxicity advice should be obtained from a specialist. For levels between 1.0-1.5mmol/L reduce dose and review treatment. In mild cases of toxicity (levels between 1.5 and 2.0mmol/L), withdrawal of lithium and administration of copious fluids and sodium will often alleviate the problem. Patients with levels over 2.0mmol/L will require hospital admission for appropriate management. When toxic concentrations are reached there may be a delay of 1-2 days before maximum toxicity occurs..

- If the lithium blood level has not been checked within the last three months (or within one week following a dose change) – ensure a repeat blood test is performed without delay and make any dosage adjustment necessary.

- If the patient refuses to cooperate with blood tests – refer to specialist.

- If renal or thyroid tests are overdue – ensure they are performed without delay.

SAFE DISPENSING OF LITHIUM

Community pharmacists and secondary care pharmacists should inform the prescriber (GP or consultant as appropriate) if an interacting drug is prescribed, and provide advice on appropriate actions if required.

Prior to dispensing every prescription for lithium, pharmacists and dispensing doctors should check the scheduling of blood tests to reassure themselves that, given the test results, no patient harm will result.

Prescriptions should not be dispensed if any of the following apply:

If the current blood level is above 2mmol/L, or above 1.5mmol/L and the patient has symptoms of toxicity (see shared care guideline) – arrange for the patient to be transferred to Accident and Emergency and contact the prescriber to let them know

For elderly patients if the current blood level is above 1mmol/L and the patient has symptoms of toxicity - arrange for the patient to be transferred to Accident and Emergency and contact the prescriber to let them know

If the current blood level is above the target range and the patient has symptoms of toxicity - refer the patient immediately to the consultant or, if the patient is unlikely to be seen promptly, to Accident and Emergency

Patients should be instructed to carry the alert card with them at all times and to ensure they have the record book with them whenever they see their Consultant or GP, when requesting a prescription or having one dispensed, or when admitted to hospital.

Any patient who is prescribed lithium but who does not have the information leaflet, record book or alert card should be issued one as soon as possible. Supplies of these materials can be obtained from Shared Business Services.

If any of the following apply the prescription **may** be issued but the remedial action indicated must be taken:

- If the current blood level is below the target range - inform the consultant at the earliest opportunity.

- If the lithium blood level has not been checked within the last three months (or within one week following a dose change) – ensure a repeat blood test is performed without delay and make any dosage adjustment necessary.

In all such cases contact the prescriber prior to making a further supply of lithium if possible and the action to be taken jointly agreed.

INTERACTIONS WITH OTHER DRUGS

Systems should be in place to identify and deal with medicines (including over the counter preparations) that might adversely interact with lithium therapy.

Diuretics, especially thiazides, non-steroidal anti-inflammatory drugs (NSAIDs) and angiotensin converting enzyme (ACE) inhibitors may all cause lithium toxicity as they reduce renal excretion of lithium. If they are used lithium dosage should be reduced and levels should be checked more frequently.

Use with concomitant QT prolonging drugs (e.g. Class IA and III antiarrhythmics, arsenic trioxide, dolasetron mesylate, mefloquine, IV erythromycin) is not recommended. Use with drugs causing electrolyte imbalance is also not recommended.

If a new drug (or change in dosage) is to be prescribed for a patient on lithium the potential for drug interaction should be checked in the shared care guideline and additional information resources (BNF, summary of product characteristics etc). If an interaction is listed then further advice should be sought, normally from the secondary care team that is responsible for the shared care of the patient.

If an interacting drug is to be used then all involved (patient, consultant, GP, pharmacist and nurse as appropriate) should be informed of the additional monitoring requirements and who to contact should the patient develop symptoms of toxicity or worsening mental state.

Patients should be warned to check with their doctor or pharmacist before taking any additional medication 'over the counter' and to follow the advice in section 6 and 7 of the patient booklet with regard to diet, dehydration and signs of toxicity.

The manufacturer's summary of product characteristics (SPC) and the most current edition of the British National Formulary should be consulted for full information on contra-indications, warnings, side-effects and drug interactions.

LIAISON WITH SECONDARY CARE PRESCRIBERS

A shared care guideline published by the Dorset Medicines Advisory Group is available, which sets out the prescribing and monitoring responsibilities where prescribing is undertaken in primary care on a shared care basis.

Prior to transfer of prescribing from secondary care the shared care guideline should be received by the GP and agreed upon and the dose of lithium confirmed in writing.

The results of initial assessment tests and all monitoring to date will be included with the referral documentation from consultant psychiatrist to primary care doctor at the point of commencing the shared care agreement.

PATIENT INFORMATION AND RECORD BOOKS

Patients should be instructed to carry the alert card with them at all times and to ensure they have the record book with them whenever they see their Consultant or GP, when requesting a prescription or having one dispensed, or when admitted to hospital.

Any patient who is prescribed lithium but who does not have the information leaflet, record book or alert card should be issued one as soon as possible. Supplies of these materials can be obtained from Shared Business Services.

IDENTIFICATION OF TOXICITY

The patient should be assessed regularly for signs and symptoms of lithium toxicity. Symptoms of nephrogenic diabetes insipidus are particularly prevalent in patients receiving concurrent treatment with tricyclic or tetracyclic anti-depressants.

TRAINING

All health professionals contracted to provide services to the CCG are responsible for maintaining their own continuing professional development (CPD) and seeking updates when alerts arise. The CCG will provide direction to suitable CPD resources if appropriate.

CONSULTATION

The Head of Medicines Management/Chief Pharmacist at Dorset CCG will communicate with the Risk manager and any relevant health professional group to ensure appropriate CCG actions for risks and alerts about medicines safety are implemented and communicated to member practices.

All policies will be reviewed by the Medicines Optimisation Group. The head of Medicines Management will present then as an agenda item for full discussion and ratification.

REFERENCES

Reference		Link
1	National Patient Safety Agency (NPSA), December 2009	Safer lithium therapy Alert and supporting documents
2	NICE, CG 185, September 2014	Bipolar disorder: the assessment and management of bipolar disorder in adults, children and young people in primary and secondary care
3	NICE CG 90, October 2009	Depression in adults: The treatment and management of depression in adults)
4	Shared care guideline for prescribing lithium, Dorset Medicines Advisory Group	Shared care Guideline