Guidelines for the Management of Patients on Lithium

Review Date: September 2011

Introduction

These guidelines have been developed by a multidisciplinary team to ensure a safe, effective and consistent approach to the management of patients receiving lithium.

Scope of Guideline

These guidelines include advice to prescribers and other healthcare professionals on managing patients on lithium, e.g. monitoring requirements, managing lithium levels and also counselling points for patients.

This guidance does not cover treatment for under 18s, as this is a sub specialist area requiring tertiary referral and monitoring.

Lithium Treatment Practice Points

To improve safety and management of patients on lithium the following practice points identify essential elements for patient care:

Practice Point 1:

The **hospital doctor** should notify the GP in the agreed standard letter format (see Appendix 1).

Necessary information:-

Treatment

- Current indication
- Dose regimen
- Brand prescribed

Monitoring

- Proposed therapeutic range
- Last recorded level
- Frequency of lithium monitoring (typically 3 monthly)
- When next level due
- Other monitoring requirements

Counselling Checklist

- Compliance essential
- Dosage/missed dose and appropriate action
- Need for regular monitoring requirements
- Risk of hypothyroidism
- Salt/fluid intake
- Lithium side effects/toxicity risks and appropriate actions
- Drug interactions
- Pregnancy or planning to start a family**
  **(Seek advice before stopping contraception or if pregnancy is suspected)

Minimum monitoring requirements for established lithium treatment

It is essential to monitor the following regularly:

- How lithium is being prescribed (e.g. the brand used, desired therapeutic range, concomitant medication).
- How it is taken by the patient (e.g. compliance with dosing regimen, use of over the counter preparations, in particular ibuprofen).

Practice Point 2:	❑ Different preparations of lithium may vary widely in bioavailability i.e. the amount absorbed into the blood. • New patients in NHS Borders will be initiated on a specific lithium brand, generally Priadel. • Check that patient continues on same brand of lithium. • All prescriptions for lithium should be written in proprietary form, i.e. brand name. • If changing between brands or between tablets and liquid, more frequent monitoring may be required initially as the change may result in alterations in lithium levels. • Take particular care when changing from tablets to liquid or vice versa. e.g. Lithium *carbonate* tablet 200mg (Li^{+}5.4 *mmol*) **is approx. equal to** Lithium *citrate* liquid 509mg/5ml (Li^{+}5.4 *mmol*)

Practice Point 3:

- After stabilization of new patients, blood lithium levels should be monitored typically **3 monthly**:
  - Sample should be taken at least 8 hours post dose
  - The time interval should be the same at each measurement
  - **State sample time clearly on the form**

  If ACE Inhibitor, diuretic or NSAID is started or there is evidence of deterioration in renal function then eGFR should be checked more frequently

- Every 6 months – (see letter to GP – Appendix 1)
  - U&Es and eGFR
  - T4 /TSH

- Every 12 months
  - Weight, BP, pulse, urine dipstick
  - Request eGFR

Practice Point 4:

- Certain patients may require more frequent or additional monitoring.
  - If clinical indications arise
  - "high risk" patients:
    - *over 65s.*
    - *those on interacting medicines.*
    - *those with, or at risk of, renal/thyroid/cardiac disease.*
    - *serum calcium should be checked if any clinical signs suggestive of hypercalcaemia.*

- If further concerns re eGFR, contact renal Physicians.

- Consider stopping lithium for up to 7 days in acute severe illness with a metabolic or respiratory disturbance from whatever cause.

Practice Point 5:

- If urine dipstick shows more than trace of blood or protein, the dipstick should be repeated on an early morning sample. In the absence of a urinary infection, if there is a positive dipstick (for blood or protein), consider further investigation and possible referral.

Side Effects

It is important to enquire about side effects and to consider how these might be best managed.
Some side effects can be expected but it is vital to be alert for symptoms suggestive of lithium toxicity (*see below*).

Common side effects of lithium include

- GI disturbances (e.g. nausea, diarrhoea, dry mouth)
- Weight gain
- Oedema
- Fine tremor
- Polyuria
- Polydipsia
- Hypothyroidism

Side effects may be short term and are usually dose dependent.

They can often be prevented or relieved by a moderate reduction in dose.

Practice Point 6:	❑ **Signs of lithium toxicity include:** Blurred vision, muscle weakness, nausea, vomiting, drowsiness, coarse tremor, dysarthria (slurred speech), ataxia (unsteady gait, problems with balance, falling over), confusion, convulsions, ECG changes.

Practice Point 7:	❑ **If patient exhibits signs of lithium toxicity** (see practice point above) ⇩ **STOP LITHIUM IMMEDIATELY** • Check lithium levels, eGFR, U&Es • Refer to hospital if clinical condition warrants • Seek advice from psychiatrist for re-initiation of lithium

Drug Interactions

Some medicines may result in increased lithium levels and increase risk of toxicity. These include:

- Diuretics (mainly thiazides)
- NSAIDs (e.g. ibuprofen)
- ACE inhibitors
- SSRIs (e.g. fluoxetine) and other psychotropic medicines
- Theophylline

Refer to Appendix 1 in the current BNF for further details and a full list of interacting medication.

Psychiatric Review and Referral

For patients managed only in primary care, general practitioners may wish to consider referring patients for formal psychiatric review after 2-5 years of treatment, to consider appropriateness of continuing lithium therapy.

Other reasons for referral (at any stage) may include:

- Patient relapse
- Problematic side effects
- Deterioration of renal/thyroid function
- Requests to stop lithium
- Pregnancy or planning for pregnancy - see Appendix 6

Managing Lithium Levels

Practices will record information on the GPASS system wherever practical but a paper system may be of additional use in some situations – see Appendix 4.

(Always check that the timing of the blood sample has been appropriate, i.e. at least 8 hours post-dose)

If the level is low (typically < 0.6 mmol/l)

- If the patient is well and the levels are consistently low but within the documented specified range for that patient (this would be unusual but might be the specialist recommendation), *do not alter dose*
- If the patient is unwell and pattern of levels have been bordering on the lower end of the range:
  - Assess compliance
  - Increase the dose if appropriate
  - Recheck the level in 5 days
- If the low level is inconsistent with the trend, i.e. a one off:
  - Assess compliance

- Consider other factors, e.g. drug interactions, excess intake of fluid, brand change
- Recheck the level

If the level is within therapeutic range (typically 0.6-1.0 mmol/l)

- If the patient is well and tolerating lithium, *do nothing!*
- If the patient is well but complaining of side effects, e.g. polyuria, polydipsia, reduce the dose and check:
  - If change in diet e.g. dietary salt restriction or crash diets can cause blood lithium to rise
  - Initiation of interacting medicines by doctor or use of over the counter pharmaceutical products/herbal or dietary supplement products.
- If the patient is clinically unwell, liaise further with CPN / psychiatrist

If the level is high (typically > 1.0 mmol/l), but with no signs of toxicity

- If there is an explanation for the high level e.g. dehydration, timing of level, interacting medicines, brand change, correct where possible and recheck level
- If the level is part of a pattern of levels which have bordered on being too high:
  - Decrease the dose
  - Encourage fluids
  - Recheck the level in 5 days
- If there is no clear explanation for high level:
  - Recheck level
  - Investigate renal function

Counselling Points for Patients on Lithium

Note
A patient information leaflet (Appendix 3) has been produced to accompany this guideline, and may be freely photocopied.
People taking lithium need to know the following:

1. **Name of drug**
   Reinforce importance of continuing on same brand of lithium and if possible, attend same pharmacist.

2. **What the drug is used for**
   Used mainly as a mood stabiliser to help normalise or even out mood swings. It also prevents mood swings in the future.

   It can also be used for other reasons, e.g. to increase the effect of antidepressants/other medication when they are not working enough on their own.

3. **Dosage/missed dose**
   - Reinforce importance of taking:
     - As directed
     - At same time(s) each day
     - With glass of water
   - Important not to crush tablets as this will affect the sustained release preparations.
   - If dose is missed, take as soon as possible as long as it is no longer than 3 hours after the usual time. Advise that they should **not** take double the dose the following day.

4. Blood tests

Advise patient that:

- It is essential to have regular blood tests to check lithium levels and that initially they will be checked weekly or fortnightly. Once levels of lithium in the blood are steady, they will be checked regularly (typically 3 monthly) at least 8 hours after the last dose.
- They will have blood tests at least every 6 months to check on kidney and thyroid function.

5. Other medicines

Advise patient that:

- Some medicines whether prescribed or bought from a pharmacy may result in increased lithium levels and increase the risk of toxicity/side effects, e.g: water tablets (mainly thiazides), anti-inflammatories (e.g. ibuprofen), sodium bicarbonate (baking powder) and theophylline.
- They should always check with their doctor or pharmacist before starting any new medication.

6. Salt/fluid intake

Advise patient that:

- The amount of salt in the diet can change the level of lithium in the blood and to avoid changing from a high to low sodium diet and vice versa. It is important to maintain a good fluid intake, particularly in situations where there is a risk of dehydration, e.g. after exercise, long distance air travel, sickness, fever, diarrhoea and hot weather.
- They should avoid crash diets.
- They should consult a doctor if they are elderly and develop a chest infection or pneumonia or are immobile for long periods.

7. Alcohol intake

Advise patients that:

- Alcohol and lithium may cause drowsiness and alcohol can also change the level of lithium in the blood.
- They should avoid alcohol in the first week, then drink in moderation, i.e. no more than 1-2 units per day.

8. Women of child bearing age/pregnancy

Advise patients that they should:

- Seek medical advice before stopping contraception if they are planning to become pregnant.
- Seek medical advice as soon as possible if they are taking lithium and are pregnant.

9. Compliance

Advise patient that:

- Lithium is not addictive
- It should not be stopped suddenly as original symptoms may return
- It may take several weeks or months to work
- Lithium will normally have to be taken long term, ie for at least 2-3 years
- They should carry a Lithium Treatment Card at all times – available from Pharmacies

Patient Advice on Side Effects

NB. The following table is also available as a patient information leaflet (Appendix 3)

Common

Side Effect	What happens/What you may notice	What to do about it
Tremor	Fine shaking of your hands	This is not dangerous but it can be irritating. If it annoys you, your doctor may be able to give you something for it. If it gets worse and spreads to the legs or jaw, stop taking your lithium and see your doctor*
Stomach upset	This includes feeling and being sick and diarrhoea	If it is mild, see your pharmacist. If it lasts for more than a day, see your doctor*
Polyuria	Passing a lot of urine	Don't drink too much alcohol. Tell your doctor about it* – some blood and urine tests may be needed
Metallic taste	Your mouth tastes as if it has had metal or something bitter in it	This should wear off after a few weeks - if not, mention this to your doctor next time you meet.* A change in dose may help
Polydipsia	Feeling very thirsty Your mouth is dry and there may be a metallic taste	Try drinking water or low calorie drinks in moderation. Try sucking sugar free boiled sweets.

* The doctor who issues your prescription

Less common

Weight gain	Eating and drinking more. Putting on weight	Try drinking water or low calorie drinks in moderation. Exercise and a healthy diet are important - ask your Practice Nurse for advice
Hypothyroidism	Low thyroid activity. You feel tired	Tell your doctor as it may be necessary for him/her to prescribe some thyroid replacement tablets.*

Rare

Skin changes	For example:- rash, acne, psoriasis	Stop taking your lithium and contact your doctor immediately during routine hours*.
Blurred vision	Your lithium level may be too high. Things look fuzzy and you can't focus properly.	Stop taking your lithium and contact your doctor immediately.*
Drowsiness	Your lithium level may be too high. You feel sleepy and sluggish in the daytime	Stop taking your lithium and contact your doctor immediately.*
Confusion	Your lithium level may be too high. Your mind is all mixed up	Stop taking your lithium and contact your doctor immediately.*
Palpitations	Your lithium level may be too high Your heartbeat feels fast.	Stop taking your lithium and contact your doctor immediately.*

* The doctor who issues your prescription or NHS 24 at evenings and weekends.

Authorship

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Appendix 1

Letter to GP for Patients on lithium (normally Priadel)

The proprietary brand is _____ (please specify)

Dear Dr

Your patient has been recommended to commence on lithium. This proprietary brand should not be changed without considering the different bioavailability. **Please use every opportunity to encourage your patient to take the medication**, (unless problems have emerged). **Research shows many patients take it only when they are due a blood test!**

Patient Specific Details CHI No/Casenotes No: …….

Name: …….. Consultant Psychiatrist:: ……...

Date of Birth …….

Treatment

- Current indication ……. (eg, bipolar prophylaxis, augmentation)
- Dosage regimen ……
- Brand prescribed ……
- Proposed therapeutic range (if different from 0.6-1mmol/l) ……
- Last in-patient lithium level (where relevant) ……
- Frequency of lithium monitoring (typically 3 monthly) ……..
- Next level due ……..

Other Minimum Monitoring Requirements (in primary care for all out-patients)

- Urea, electrolytes and eGFR – 6 monthly
- T_4/TSH – 6 monthly
- Weight/BP/pulse/urine dipstick – 12 monthly

NB: More frequent monitoring may be required if clinical indications arise and in higher risk patients, eg over 65s, those on interacting drugs, those with or at risk of renal/thyroid/cardiac disease.

Counselling Checklist

- Compliance essential
- Dosage/missed dose and appropriate action
- Need for regular monitoring requirements
- Risk of hypothyroidism
- Salt/fluid intake
- Lithium side effects/toxicity risks and appropriate actions
- Drug interactions
- All women of child- bearing age should be counselled about the need to discuss pregnancy or planning a pregnancy with their GP.

Both the standard patient letter and patient leaflet are enclosed for your information.

Full information on lithium monitoring and your role in primary care is provided.

Key points for new patients

- Check blood level **weekly** and adjust dose accordingly as per Guidelines
- On occasions the Consultant may specify a higher level as optimal, eg in treatment refractory situations
- The guideline also confirms that any adjustment of the dose is the responsibility of the GP who will bear in mind that there is a straight-line relationship between dose and serum level, for example 400mg and level of 0.4mmols would predict 600mg, will result in level of 0.6 mmols etc. The half life is 20 hours in a person with normal renal function.
- **For interpretation of result note time post-dose of the sample; it should be at least 8 hours.**
- If consecutive levels are stable and in agreed therapeutic range double the interval up to a maximum of 3 months.
- Toxic levels can occur above 1.0mmol/l and patients should be assessed for need for possible urgent hospital treatment; if level is above 2mmol/l this will definitely be required.
- Compliance should always be closely monitored in this patient population.

The Mental Health Community Team Annual Review covers the necessary actions for lithium patients (see Appendix 5).

The Community Mental Health Team will follow up your patient in the future unless advised otherwise.

Yours sincerely

Appendix 2

Letter to Patient on lithium (normally Priadel)

Dear

As I have discussed with you, I write to confirm the recommendation that you commence on lithium (Priadel) as treatment for your bipolar illness/depression.

I enclose an information leaflet for you.

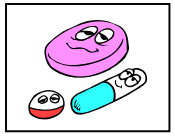
I would like to emphasise the importance of: -

- Taking your medication regularly at the same time of day, preferably in a single dose at bed time.
- Attending your Health Centre for regular monitoring of the level of lithium (normally Priadel) in a blood sample.
- Adjusting the dose if the GP recommends this after any of the blood test results.
- Alerting anyone treating you, for example, when on holiday or if admitted to hospital, that you are taking lithium.
- Always check with your Pharmacist before buying any medicines.
- Your medication will be adjusted to achieve a level between 0.6 and 1 on your blood test unless otherwise recommended by your psychiatrist.
- It is important that you continue the lithium for the duration recommended by your psychiatrist, usually 2 years in the first instance.
- Please bring any problems or side effects to the attention of your GP, psychiatrist or CPN so that these can be discussed with you and an appropriate plan agreed with you.

Yours sincerely

Appendix 3

Personal details, for you to complete



The trade name of my lithium is: -

……..

(Remember to tell you doctor or pharmacist this name)

In case of emergency, my doctor's telephone number is …….

Ask your doctor or pharmacist for a Lithium Treatment Card which you should carry with you at all times.

This leaflet has been produced by NHS Borders Lithium Guideline Working Group and may be freely photocopied.

Adapted from:
United Kingdom Psychiatric Pharmacy Group 2001

Lithium
(Lith – ee – um)

NHS Borders

Why Have I been prescribed lithium?

Some people suffer from severe mood swings. Sometimes you may be full of energy and feel very happy, or you may be very irritable and not feel like sleeping. At other times, your mood can be low and you may feel depressed. Lithium is used mainly as a mood stabiliser to help normalise or even out these mood swings. It also prevents mood swings in the future. Lithium can also be used for other reasons, for example, to increase the effect of other antidepressant/other medication when they are not working well enough on their own.

How should I take my lithium?

Always try to take your dose at the same time each day and with a full glass of water. It is important not to crush the tablets. If a dose is missed, take as soon as possible, as long as it is only up to three hours after the usual time – do not take double the dose the following day. Always make sure that you tell your doctor and pharmacist the trade name of your lithium – it is important to continue on the same brand. Try to attend the same pharmacist if possible.

Why do I need to have some blood tests?

Regular blood tests are necessary to check lithium levels and to make sure you are taking the right dose. They will be checked weekly or fortnightly at first. Once levels of lithium in the blood are steady, they will be checked regularly (typically 3 monthly), usually 12 hours after the last dose. You will also have blood tests at least every 6 months to check on kidney and thyroid function.

Is lithium safe to take with other medicines?

Some medicines, whether prescribed or bought from the pharmacist may result in increased lithium levels and increase the risk of side effects. Examples of such medicines include: water tablets, anti-inflammatories (such as ibuprofen), sodium bicarbonate (baking powder) or theophylline. Always check with your doctor or pharmacist before starting any new medication.

What about salt and fluid intake?

- The amount of salt in your diet can change the level of lithium in your blood. Eat a balanced diet and avoid crash diets. It is important to keep taking lots of fluid especially in situations where there is risk of dehydration and increased loss of salt, eg after exercise, long distance air travel, sickness, fever, diarrhoea and hot weather.

What about alcohol?

Taking lithium and alcohol can make people feel very drowsy and can also change the level of lithium in the blood. It's best to avoid alcohol in the first week. After this try a glass of your normal drink. If you feel OK you should be able to drink in moderation, ie 1-2 units per day. Don't stop taking lithium just because you fancy a drink.

What about pregnancy?

Lithium may affect the unborn baby. If you are pregnant, tell your doctor now. If you are planning a baby, speak to your doctor before stopping contraception.

When I feel better can I stop taking it?

No, lithium is not addictive but you should not stop taking it suddenly. This can be dangerous and might bring back your original symptoms. You and your doctor should decide together if and when you can come off it. Most people need to be on lithium for quite a long time, usually, years.

What will happen to me when I start taking my lithium?

Any depression should get better after only a couple of weeks. Your swings in mood may, however, not go away for quite some months, but don't give up. Good days will be followed by bad days – this is quite normal. Eventually, you should have fewer and fewer days when you feel sad or on edge. Give your lithium a chance to work.

It's a bit of a nuisance, but you might get some side-effects before your mood gets any better. Most of these are quite mild and should go away after a week or so. Sometimes, the amount of lithium in your body gets too high which can be dangerous. You need to be able to spot the side-effects which can mean a high level of lithium. Look at the table opposite. It tells you what to do if you get any side-effects. Not everyone will get the side-effects shown.

Side-Effect	What happens/What you may notice	How common is it	What to do about it
Tremor	Fine shaking of your hands.	COMMON	This is not dangerous but it can be irritating. If it annoys you, your doctor may be able to give you something for it. If it gets worse and spreads to the legs or jaw, stop taking your lithium and see your doctor.*
Stomach Upset	This includes feeling and being sick and getting diarrhoea.	COMMON	If it is mild, see your pharmacist. If it lasts for more than a day, see your doctor.*
Polyuria	Passing a lot of urine.	COMMON	Don't drink too much alcohol. Tell your doctor about it as some blood and urine tests may be needed.*
Metallic Taste	Your mouth tastes as if it has had metal or something bitter in it	COMMON	This should wear off after a few weeks – if not, mention this to your doctor next time you meet*. A change in dose may help.
Polydipsia	Feeling very thirsty. Your mouth is dry and there may be a metallic taste.	COMMON	Try drinking water or low calorie drinks in moderation. Try sucking sugar free boiled sweets.
Weight gain	Eating and drinking more. Putting on weight	LESS COMMON	Try drinking water or low calorie drinks in moderation. Exercise and a healthy diet are important. Ask your Practice Nurse for advice.
Hypothyroidism	Low thyroid activity. You feel tired.	LESS COMMON	Tell your doctor as it may be necessary for him/her to prescribe some thyroid replacement tablets.*
Skin Changes	For example, rash, acne, psoriasis	RARE	Stop taking your lithium and contact your doctor immediately.*
Blurred Vision	Your lithium level may be too high. Things look fuzzy and you can't focus.	RARE	Stop taking your lithium and contact your doctor immediately.*
Drowsiness	Your lithium level may be too high. Feeling sleepy and sluggish in the daytime.	RARE	Stop taking your lithium and contact your doctor immediately.*
Confusion	Your lithium level may be too high. Your mind is all mixed up.	RARE	Stop taking your lithium and contact your doctor immediately.*
Palpitations	Your lithium level may be too high. Your heartbeat feels fast.	RARE	Stop taking your lithium and contact your doctor immediately.*

*The doctor who issues your prescription.

Appendix 4

GP Practice Lithium (Priadel) Monitoring Chart

Name: …… DofB: ……

Address: ……

Tel No: …… GP: ……

Diagnosis: ……..

Standard = lithium (Priadel) Level 3 monthly – U&E/TFTs 6 monthly

Current lithium therapy, dose and recommended therapeutic range

……

<u>NB</u> - If Lithium discontinued please notify BGH laboratory (Tel: 01896 826242)

Date	Lithium Level	U & E's		eGFR		T4/TSH		Action taken	Result given to patient(date &initial)
		Normal Y/N	Result	Normal Y/N	Result	Normal Y/N	Result		

Date	Lithium Level	U & Es		eGFR		T4/TSH		Action taken	Result given to patient(date &initial)
		Normal Y/N	Result	Normal Y/N	Result	Normal Y/N	Result		

Appendix 5 **Date……..**

Optional CHECK LIST FOR GP ANNUAL REVIEW

(Please tick boxes on completion)

Preventative Care – **physical (use SPICE screens)**

Weight ……. Height ……. BP ……. Cervical cytology ☐ Alcohol ☐

Smoker ☐ Non-smoker ☐ Ex-smoker ☐ Illicit drug use ☐

IHD risk factors discussed ☐ Diet ☐ Exercise ☐

Symptoms suggestive of arrhythmias (anti-psychotics) ☐

Risk of diabetes (in long-term psychosis and anti-psychotic drugs) ☐

Psychiatric Symptom Review ☐

Medication Review

Compliance ☐ If injections, given by:- T/R nurse ☐ or CPN ☐

Side Effects ☐ Monitoring ☐

Atypical anti-psychotic drugs

Urea and electrolytes ☐ Blood Sugar ☐

Weight ☐ BP/pulse/urine dipstick ☐

Lithium

eGFR ☐

T4/TSH ☐

Clozapine

Regular blood monitoring via CPMS (Clozapine Monitoring Service) ☐

Sertindole

ECG ☐

Alcohol above recommended limits

LFT with any anti-psychotic ☐

Co-ordination Arrangements

CPN/psychiatrist name and contact details ……..

Or refuses offer of secondary mental health service involvement ☐

Support worker …….

Other people or agencies (e.g. New Horizons, Penumbra, supported work, day care) ……

Special circumstances form for out of hours care if appropriate ☐

Consider ‘Adults with Incapacity’ act, if appropriate ☐

Annual Review Recorded (SPICE Screen) ☐

Taken from **NICE clinical guideline 38 : Bipolar disorder**

These guidelines will form part of the updated perinatal ICP standards.

Managing bipolar disorder in pregnant women

General principles

- Discuss the absolute and relative risks of treating and not treating the bipolar disorder during pregnancy and the postnatal period. Consider more frequent contact by specialist mental health services, working with maternity services.
- Develop a written plan for managing a woman's bipolar disorder during the pregnancy, delivery and postnatal period with the patient and significant others, and share it with her obstetrician, midwife, GP and health visitor.
- Record all medical decisions in all versions of the patient's notes, and include information about her medication in the birth plan and postnatal care notes.
- If a pregnant woman is stable on an antipsychotic and likely to relapse without medication, continue treatment and monitor for weight gain and diabetes.
- Do not routinely prescribe lithium for pregnant women.

Women planning a pregnancy

- Raised prolactin levels associated with some antipsychotics reduce the chances of conception. If prolactin levels are raised, consider an alternative drug.
- For a woman taking lithium who is planning a pregnancy, consider:
  - if she is well and not at high risk of relapse – gradually stopping lithium
  - if she is not well or is at high risk of relapse:
    - switching gradually to a low-dose typical or atypical antipsychotic, or
    - stopping lithium and restarting it in the second trimester if she is not planning to breastfeed and her symptoms have responded better to lithium than to other drugs in the past, or
  - continuing with lithium, after full discussion, if manic episodes have complicated her previous pregnancies, and her symptoms have responded well to lithium.
- If a woman remains on lithium during pregnancy, monitor serum levels every 4 weeks, then weekly from the 36th week, and less than 24 hours after childbirth. Adjust the dose to keep serum levels within the therapeutic range, and ensure the woman has an adequate fluid intake.
- If a woman planning a pregnancy becomes depressed after stopping prophylactic medication, offer psychological therapy (CBT) in preference to an antidepressant because of the risk of switching.
- If an antidepressant is used, it should usually be an SSRI (but not paroxetine because of the risk to the fetus). Monitor the woman closely.

Women with an unplanned pregnancy

- If a woman with bipolar disorder has an unplanned pregnancy:
  - confirm the pregnancy as quickly as possible
  - advise her to stop taking valproate, carbamazepine and lamotrigine*
  - if the pregnancy is confirmed in the first trimester, and the woman is stable, stop lithium gradually over 4 weeks, and explain there is still risk of cardiac defects in the fetus
  - if the woman remains on lithium, check serum levels every 4 weeks, then weekly from the 36th week, and less than 24 hours after childbirth; adjust the dose to keep serum levels within the therapeutic range and ensure the woman has an adequate fluid intake
  - offer an antipsychotic as prophylactic medication
  - if the woman stays on medication, offer screening and counselling about continuing with the pregnancy, the need for additional monitoring and the risks to the fetus.
- The newborn baby should have a full paediatric assessment, and the mother and child should have social and medical help.

Treating acute symptoms in pregnant women

Acute mania

*Drug names marked with an asterisk * did not have UK marketing authorisation for the indication in question at the time of CG38 publication (July 2006) and publication of this document. Prescribers should check each drug's summary of product characteristics for current licensed indications.*

- If the woman is not currently on medication:
  - consider an atypical or a typical antipsychotic
  - keep the dose as low as possible and monitor carefully.

- If the woman is taking prophylactic medication:
  - check the dose of the prophylactic agent and adherence
  - increase the dose if the woman is taking an antipsychotic, or consider changing to an antipsychotic if she is not
  - if there is no response and mania is severe, consider ECT, lithium and, rarely, valproate.

- For mild symptoms:
  - guided self-help and computerised CBT
  - brief psychological interventions
  - anti-depressant medication.
- If symptoms are moderate to severe:
  - consider CBT (moderate symptoms)
  - consider combined medication and structured psychological interventions (severe symptoms)

– if prescribing, consider quetiapine* alone or SSRIs (but not paroxetine) with prophylactic medication; monitor closely for switching and stop the SSRI if manic or hypomanic symptoms develop

- tell women taking an antidepressant about the potential short-lived, adverse effects of antidepressants on the neonate.

Care in the perinatal period

- Women taking lithium should deliver in hospital, and be monitored by the obstetric medical team as well as midwives. Fluid balance should be monitored, because of the risk of dehydration and lithium toxicity.
- After delivery, if a woman who is not on medication is at high risk of developing an acute episode, consider establishing or reinstating medication as soon as the fluid balance is established.
- If a woman maintained on lithium is at high risk of a manic relapse in the postnatal period, consider augmenting with an antipsychotic.
- If a woman develops severe manic or psychotic symptoms and behavioural disturbance in the intrapartum period, consider rapid tranquillisation with an antipsychotic in preference to a benzodiazepine because of the risk of floppy baby syndrome. Treatment should be in collaboration with an anaesthetist.

Breastfeeding and care of the infant

- If a woman is taking psychotropic medication:
  - advise on the risks and benefits of breastfeeding
  - advise not to breastfeed if taking lithium, benzodiazepines or lamotrigine* and offer an alternative prophylactic agent that can be used when breastfeeding (normally an antipsychotic, but not clozapine*)
  - prescribe an SSRI if an antidepressant is used (but not fluoxetine or citalopram).

- Monitor babies whose mothers took psychotropic drugs during pregnancy in the first few weeks for adverse drug effects, drug toxicity or withdrawal (for example, floppy baby syndrome, irritability, constant crying, shivering, tremor, restlessness, increased tone, feeding and sleeping difficulties and rarely seizures). These may be a serotonergic toxicity syndrome, rather than a withdrawal reaction.

* In this guideline, drug names are marked with an asterisk if they do not have UK marketing authorization for the indication in question at the time of publication (July 2006) Prescribers should check each drug's summary of product characteristics for current licensed indications.