#### THE SHEFFIELD AREA PRESCRIBING GROUP

### **Prescribing Guideline**

For

# Medication for prophylactic treatment of bipolar disorder in adults

### Prescribing guideline developed by:

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Review Date: 5 years from approval

Endorsed by the MOC at SHSC - January 2020

June 2018 – information around sodium valproate added.

January 2020 – Appendix 2 added, carbamazepine monitoring amended and information on the use of lithium in pregnancy added to appendix 1

<sup>\*</sup>Main amendments;

## Prescribing guideline for medication for prophylactic treatment for bipolar disorder in adults

#### **Statement of Purpose**

This prescribing guideline has been written to enable the continuation of care by primary care clinicians of patients initiated and stabilised on medication for prophylaxis treatment of bipolar disorder, by the psychiatrists within the Community Mental Health Teams (CMHT) at Sheffield Health and Social Care NHS Trust (SHSC).

Primary care clinicians will only be requested to take over prescribing medication for prophylaxis treatment for bipolar disorder within its licensed indication unless specifically detailed otherwise.

#### Responsibilities of Secondary Care Clinician / CMHT

- Assess and diagnosis
- To discuss benefits and side effects of treatment with the patient/carer and obtain informed consent. This is particularly important for unlicensed products.
- To prescribe as part of a treatment pathway, which will include psychological support
- To initiate treatment in appropriate patients
- Valproate should not be prescribed to female children, female adolescents or women of childbearing potential unless other treatments are ineffective or not tolerated. Valproate is contraindicated in pregnancy (when being used for Bipolar). Valproate is also contraindicated in women and girls of childbearing potential unless there is a Pregnancy Prevention Programme in place. These conditions are also applicable to female patients who are not sexually active unless the prescriber considers that there are compelling reasons to indicate that there is no risk of pregnancy. If a woman is planning to become pregnant the prescriber must switch the patient to another treatment. Switching should be achieved prior to conception and before contraception is discontinued. Pregnancy prevention programme (Prevent)
  - Exclude pregnancy in women of childbearing potential (by serum pregnancy test) before the first prescription is issued
  - If valproate is being used in woman of child bearing potential, ensure: the woman (or their carer) is made aware and understand the risks; is supplied with relevant literature; and signs a Risk Acknowledgement Form.
  - Ensure the women is on highly effective contraception (if necessary)
  - Ensure all women of childbearing potential on valproate are seen at least annually to re-valuate treatment, contraception (if necessary), discuss risks and sign an updated <u>Risk</u> Acknowledgement Form.
  - Further details on the responsibilities of the specialist are given in the <u>Guide for Healthcare professionals</u>.
- Lithium;
- If prescribing lithium, provide patient with initial information about its side effects and toxicity: how to avoid toxicity and how to recognise it. The patient booklet, alert card and record book developed by the NPSA will be given to all patients initiated on lithium. Where practical, details of patient, therapy and contacts should be completed on issue

- If prescribed lithium, routine monitoring until the lithium level is stable, at an acceptable level
- If prescribing lithium, inform GP of the brand being prescribed
- To prescribe the medication until the patient is stable and the GP has indicated they agree to continue to prescribe under prescribing guideline arrangements.
- If prescribed an antipsychotic, monitoring the efficacy and tolerability of antipsychotic medication for at least the first 12 months or until the person's condition has stabilised, whichever is longer
- To carry out an annual health check for patients under sole care of secondary care services and share results with patient's GP.
- To contact patient's GP to request prescribing under prescribing guidelines and send a link to or copy of the prescribing guideline.
- To advise the GP regarding continuation of treatment, including the length of treatment and monitoring requirements.
- To be available, to discuss any concerns with the GP regarding the patient's therapy. In the event of deterioration in mental state, an early appointment will be available (see Request for prescribing of prophylactic treatment for patients with bipolar disorder for more details).
- Where appropriate, counsel patient regarding advice if planning to conceive or becomes pregnant.

#### Responsibilities of the primary care clinician

- To refer appropriate patients to Single Point of Access for assessment
- To agree to prescribe for patients in line with the prescribing guideline agreement and communicate this to the overseeing psychiatrist.
- To report any adverse reaction to the MHRA and the referring consultant if appropriate
- To undertake prescribing and monitoring as per prescribing guideline
- For patients taking valproate Ensure all women and girls who are of childbearing potential have been reviewed by a specialist in the last year and are on highly effective contraception. (Methods of contraception considered 'highly effective' in this context include the long-acting reversible contraceptives (LARC): copper intrauterine device (Cu-IUD), levonorgestrel intrauterine system (LNG-IUS), progestogen-only implant (IMP), and male and female sterilisation. These all have a failure rate of less than 1% with typical use. See guidance from FSRH for more information on user-independent methods and failure rates). Further details on the responsibilities of the GP are given in the Guide for Healthcare professionals
- To inform the consultant if the patient discontinues treatment for any reason, see <a href="mailto:above">above</a>
- To seek the advice of the consultant if any concerns with the patient's therapy, details will be provided in the 'request for prescribing' letter.
- To conduct an annual face to face medication review or more frequent if required.
- To conduct an annual health check and share results with patients secondary care services if patient still under shared care.
- In the event that the GP is not able to prescribe, or where the shared care is agreed but the consultant is still prescribing certain items e.g. Hospital only product; the GP will provide the consultant with full details of existing therapy promptly on request.
- For medication supplied from another provider GPs are advised to follow recommendations for <u>Recording Specialist Issued Drugs on Clinical Practice</u> <u>Systems</u>

- Any concerns about management should be discussed / referred to psychiatrist secondary care.
- Be aware of drug interactions (see BNF for latest advice)

#### Specific Responsibilities for Prescribing Lithium.

- Purple record booklet developed by the NPSA should be updated by the general practitioner, (replacement booklets can be ordered from <a href="https://pcse.england.nhs.uk/services/supplies/">https://pcse.england.nhs.uk/services/supplies/</a>)
- Being aware of side effects for patients on lithium, changes in thyroid or renal function should be reported to psychiatrist. It is safe for a GP to start low dose levothyroxine in the interim, if appropriate.
- Prescribe by brand
- If there are signs of lithium toxicity, then
  - Stop lithium immediately
  - Urgent blood level and consider urgent medical review.
  - Review ongoing treatment
- Be aware that lithium can exacerbate psoriasis (or onset may occur). If such conditions are not readily resolved by conventional treatments, they should be reported to the psychiatrist.
- Remind patients of the importance of maintaining fluid and salt intake, especially in hot weather and on holiday.

#### **Responsibilities of Patients**

- To attend secondary care and GP clinic appointments and to bring monitoring booklet (if required). Failure to attend will potentially result in the medication being stopped.
- Present rapidly to the GP or specialist should their clinical condition significantly worsen.
- Report any suspected adverse effects to their specialist or GP whilst taking any medication within this guideline.
- To read the drug information given to them, including, if relevant <u>patient guide</u> for valproate pregnancy prevention programme.
- If women of child bearing potential prescribed valproate, attend annual review and engage in informed discussions and sign risk acknowledgment form, prior to treatment and at each annual review.
- To take medication as prescribed
- Inform the specialist, GP or community pharmacist dispensing their prescriptions of any other medication being taken including over-the-counter medication.
- To discuss with overseeing clinician if planning to conceive or becomes pregnant.

#### Indication

The treatments included within this guideline are; lithium, olanzapine, quetiapine, valproate, lamotrigine and carbamazepine and other antipsychotics continued for prophylaxis after use in the initial treatment of the acute phase.

See the table in <u>appendix 1</u> for details on indications, contraindications and a summary of side effects and drug interactions. This is not a complete list and the current <u>BNF</u> and the <u>SPC</u> remain authoritative. See individual SPC or the BNF for individual dosing advice.

<u>NICE CG185</u> also advises non-medication interventions that are not covered in this prescribing guideline.

#### Monitoring

#### Prior to initiation

This monitoring will be done by the specialist

#### Table 1 – Baseline monitoring (overleaf)

Drug	Monitoring	Special Precautions
Lithium (prescribe by brand)	Measure weight or BMI. Arrange tests for thyroid, liver function tests, full blood count, urea and electrolytes, including Estimated Glomerular Filtrate rate and calcium ECG for known cardiac disease or risk factors.	Pregnancy will be confirmed or excluded where appropriate
Antipsychotics	Measure weight or BMI, pulse, blood pressure, fasting glucose, HbA1c, lipid profile.  ECG for known cardiac disease or history of QT prolongation.	See individual drugs
Valproate  (including *sodium valproate, semisodium valproate and *valproic acid)  *Used in line with NICE but outside the SPC	Measure weight or BMI, FBC, liver function tests. Women of child bearing potential - exclude pregnancy before first prescription (by serum pregnancy test).	Valproate should not be prescribed to female children, female adolescents and women of child bearing potential unless other treatments are ineffective or not tolerated.  If it is deemed appropriate to prescribe, and for those currently prescribed valproate, prescribers should follow the responsibilities in the guide for healthcare professionals (Valproate Pregnancy Prevention Programme) to check all the necessary steps have been taken.  Note - Valproate is contraindicated in pregnancy when being prescribed for Biploar.
Lamotrigine	Full blood count, urea and electrolytes and liver function tests	Slow initiation to minimise risk of serious skin reactions (slower initiation in patients already taking valproate)
Carbamazepine	Height, weight, FBC, liver function tests (U and Es in severe cardiac disease or renal disorders)	Increase dose gradually to reduce the risk of ataxia

#### **Routine monitoring**

Psychiatrist or a SHSCFT non –medical prescriber will be responsible for medication monitoring until the patient is stable (as agreed by the patient and prescriber). After that, by agreement with the GP, responsibility for medication monitoring can be transferred to the GP.

**Annual Health Check** NICE recommends that an annual health review is carried out which includes;

- weight or BMI, diet, nutritional status and level of physical activity
- cardiovascular status, including pulse and blood pressure
- metabolic status, including fasting blood glucose, glycosylated haemoglobin (HbA1c) and blood lipid profile
- liver function

smoking status and alcohol use.

Both the specialist and the primary care clinician should be clear on who is responsible for this; it is generally the patient's general practitioner. A copy of the results should be sent to the care coordinator and psychiatrist (if care is being shared) and put in the secondary care notes.

#### **Medication Monitoring**

The monitoring required for each medication is detailed in the table below. The responsible clinician ordering the tests will be expected to take immediate action on receiving the results if there are abnormalities detected.

Results of routine testing should be accessible via ICE to allow monitoring of long-term trends.

**Table 2 – Ongoing monitoring** 

Drug	Monitoring	Frequency
Lithium – Prescribe by brand. A change of brand requires the same monitoring as when treatment with lithium is initiated. Patients should have their results written into their *NPSA purple book.	Serum lithium concentration (12 hours post dose)	Weekly after initiation and after each dose change until lithium concentrations are stable (0.4 – 1 mmol/litre). See appendix 2 for advice if levels are out of range.  Then every 3 months for the
NPSA guidance recommends that prior to prescribing (re-authorising) evidence of monitoring should be seen. However, therapy should not be stopped abruptly and if necessary a supply should be made and results chased later.  * Supplies of the Lithium purple book are available from Primary Care Support England Online Portal, which can be accessed on: http://pcse.england.nhs.uk/supplies/		first year.  Every 6 months after the first year or every 3 months for people in the following groups:  Older people, People taking drugs that interact with lithium. People at risk of impaired renal or thyroid function, raised calcium levels or other complications People who have poor symptom control, poor adherence, last plasma lithium level was 0.8mmol/L or higher.  Additional serum lithium monitoring is recommended if patient develops significant intercurrent disease or if there is change in the patient's sodium or fluid intake
	Weight or BMI, urea and electrolytes including calcium, eGFR, thyroid function	Every 6 months  More often if there is evidence of any of the following;  • impaired renal or thyroid function

	Signs of neurotoxicity	<ul> <li>raised calcium levels</li> <li>an increase in mood         (symptoms that might         be related to impaired         thyroid function).</li> <li>other risk factors such         as starting ACE         inhibitors, NSAIDS or         diuretics</li> <li>Enquire about side effects at</li> </ul>
	including paraesthesia, ataxia, tremor and cognitive impairment	each review (these can occur at therapeutic levels)
Antipsychotics	Plasma glucose or HbA1c	At 3 months after starting treatment and then annually. More frequently if evidence of elevated levels. For Olanzapine repeat after first month of treatment, at month 3, then annually.
	Blood lipids	At 3 months, and then annually more often if evidence of elevated levels
	Liver function tests and full blood count	Every 12 months
	Serum electrolytes and urea including Creatinine and estimated gromerular filtration rate	Every 12 months
	Pulse and blood pressure	During dose titration and at each dose change. Then annually
	Weight or BMI	Weekly after initiation for the first 6 weeks. Then at 12 weeks and subsequently every 12 weeks for the 1st year. Thereafter annually (more frequently if rapid weight gain)
	Prolactin	6 months after starting treatment then yearly (if symptoms of raised prolactin).
	Emergence of movement disorders	Monitor and record any movement disorders during dose titration and then regularly and systematically throughout treatment
	Side effects and their impact on physical health and functioning	Enquire about side effects at each review
Valproate  (including *sodium valproate, semi sodium valproate and *valproic	Valproate blood levels	Routine levels <b>not</b> recommended unless there is evidence of ineffectiveness, poor adherence or toxicity
acid) *(Used in line with NICE but outside the SPC)	Liver function test and Full Blood Count	Measure after 6 months of starting treatment then repeat annually

A patient guide and card should be provided to all female children,	Weight or BMI	After 6 months of treatment with valproate and repeat annually
female adolescents, and women of child bearing potential or pregnant women.	Pregnancy Prevent Plan in place for all women and girls of child bearing potential	Complete Risk Acknowledgement Form annually with the patient (Specialist). Ensure highly effective contraception is used in all women and girls of child bearing potential (GP and specialist)
Lamotrigine	No routine monitoring of plasma levels is required unless there is evidence of ineffectiveness, poor adherence or toxicity	
Carbamazepine	Consider measuring blood levels if drug toxicity or non-compliance is suspected. The SPC recommends; Periodic FBC and LFTs or if side effects suspected and periodic Uand Es in severe cardiovascular disease and renal disorders	

#### <u>Treatments not covered by these guidelines include:</u>

- Management of patients with bipolar disorder during an acute manic or depressive episode.
- Use of lithium as an adjunct to antidepressant or antipsychotic treatments for recurrent depressive disorder.
- Treatment with any medication covered in this guideline but not for Bipolar Disorder.

#### Frequency of review

Monitoring in primary or secondary care depends on the needs of the individual patient and should be done at least annually (also see tables above).

#### **Additional information**

#### Maintenance Treatment

Prescriptions will need to be arranged to meet the needs of the patient.

Early in the treatment, it may be appropriate to limit the quantities supplied at any one time (e.g. to 2-4 weeks supply)

#### <u>Discontinuation of treatment</u>

It would generally be useful for a patient to have a discussion with a psychiatrist before discontinuing treatment with a prophylactic treatment for bipolar disorder.

If the treatment is to be stopped the withdrawal should be gradual to reduce the risk of rebound mood disturbance.

#### Re-Referral guidelines

[See <u>appendix 3</u> for re-referral guidelines in the request for prescribing of prophylactic treatment]

If the patient is planning to conceive or becomes pregnant.

#### **Financial implications**

This is an update of an existing guideline; no financial implications are associated with this update.

#### **Ordering information**

All medication included within this prescribing guideline are available from major wholesalers.

#### Support, education and information

Sheffield Health and Social Care NHS foundation Trust Michael Carlisle Centre Pharmacy Department 75 Osborne Road Sheffield

Tel: 01142718633

#### References

- Assessment and Management of Bipolar disorder https://www.nice.org.uk/guidance/cg185
- Antenatal and Post natal Mental health Quality standard http://nice.org.uk/guidance/qs115
- 3. Tool kit on the risks of Valproate medicines for female patients <a href="https://www.gov.uk/government/publications/toolkit-on-the-risks-of-valproate-medicines-in-female-patients">https://www.gov.uk/government/publications/toolkit-on-the-risks-of-valproate-medicines-in-female-patients</a>
- 4. Valproate check list <a href="https://www.gov.uk/government/publications/toolkit-on-the-risks-of-valproate-medicines-in-female-patients">https://www.gov.uk/government/publications/toolkit-on-the-risks-of-valproate-medicines-in-female-patients</a>
- 5. Patient Card <a href="https://www.gov.uk/government/publications/toolkit-on-the-risks-of-valproate-medicines-in-female-patients">https://www.gov.uk/government/publications/toolkit-on-the-risks-of-valproate-medicines-in-female-patients</a>
- Patient Safety Alert NPSA 2009/PSA005, Safer Lithium Therapy; December 2009
  - http://www.nrls.npsa.nhs.uk/resources/type/alerts/?entryid45=65426
- 7. CKS https://cks.nice.org.uk/epilepsy#!scenario:2
- 8. MHRA Antiepileptic drugs: new advice on switching between different manufacturers' products for a particular drug <a href="https://www.gov.uk/drug-safety-update/antiepileptic-drugs-updated-advice-on-switching-between-different-manufacturers-products">https://www.gov.uk/drug-safety-update/antiepileptic-drugs-updated-advice-on-switching-between-different-manufacturers-products</a>
- GUIDE FOR HEALTHCARE PROFESSIONALS. Information on the risks of valproate (Epilim, Depakote, Convulex, Episenta, Epival, Kentlim, Orlept, sodium Valproate, Syonell & Valpal) use in girls (of any age) and women of childbearing potential -<a href="https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment">https://assets.publishing.service.gov.uk/government/uploads/system/uploads/ attachment data/file/708850/123683</a> Valproate HCP Booklet DR15.pdf

- 10. Valproate medicines and serious harms in pregnancy: new Annual Risk Acknowledgement Form and clinical guidance from professional bodies to support compliance with the Pregnancy Prevention Programme https://www.gov.uk/drug-safety-update/valproate-medicines-and-seriousharms-in-pregnancy-new-annual-risk-acknowledgement-form-and-clinicalguidance-from-professional-bodies-to-support-compliance-with-thepregnancy-prevention-programme
- 11. Suggestions for Therapeutic Drug Monitoring in Adults in Primary Care <a href="https://www.sps.nhs.uk/articles/suggestions-for-therapeutic-drug-monitoring-in-adults-in-primary-care/">https://www.sps.nhs.uk/articles/suggestions-for-therapeutic-drug-monitoring-in-adults-in-primary-care/</a>
- 12. SPC carbamazepine https://www.medicines.org.uk/emc/product/5932/smpc

Appendix 1 Summary of medicines included in this guideline
The details below are not a complete list and the current BNF and the SPC remain authoritative.

Drug  Lithium (see	Indication	Contra-indications  Hypersensitivity to	Side effects (This is not an exhaustive list please see online BNF/individual SPCs for up to date information)	Interactions* (This is not an exhaustive list please see online BNF for up to date information)
appendix 2 for advice around lithium levels out of range)	Prophylaxis against bipolar affective disorders	lithium or excipients. Cardiac disease. Cardiac insufficiency. Severe renal impairment. Untreated hypothyroidism. Breast-feeding. Patients with low body sodium levels, including for example dehydrated patients or those on low sodium diets. Addison's disease. Brugada syndrome or family history of Brugada syndrome. Lithium therapy should not be used during pregnancy, especially during the first trimester, unless considered essential.	Weight gain, metallic taste in the mouth, gastro intestinal disturbances  Signs and symptoms of toxicity  Vomiting, diarrhoea, ataxia, weakness, muscle twitching,  Severe poisoning (lithium concentrations in excess of 2 mmol/litre are usually associated with convulsions, coma, renal failure,	<ul> <li>Lithium toxicity made worse by sodium depletion. Avoid concurrent use of diuretics (particularly thiazide diuretics)</li> <li>Excretion of lithium reduced by ACE inhibitors, aminophyline, angiotensin II receptor antagonists (increased plasma concentration)</li> <li>Excretion of lithium reduced by aldosterone antagonists, potassium sparing diuretics, thiazide and related diuretics, NSAIDs, (increased plasma concentration and risk of toxicity).</li> <li>Risk of ventricular arrhythmias with amiodarone (Avoidance of lithium advised by manufacturer of amiodarone</li> <li>Increased risk of CNS effects when lithium given with SSRIs</li> <li>Increased risk of QT interval prolongation with concomitant medication known to prolong the QT interval</li> </ul>

Carbamazepine	Prophylaxis of manic-depressive psychosis in patients unresponsive to lithium therapy	Hypersensitivity to carbamazepine or structurally related drugs (e.g. tricyclic antidepressants) or excipients. Patients with atrioventricular block, a history of bone marrow depression or a history of hepatic porphyrias (e.g. acute intermittent porphyria, variegate porphyria, porphyria cutanea tarda). In combination with monoamine oxidase inhibitors (MAOIs), voriconazole and St John's wort	Drowsiness, headache, dry mouth, nausea, vomiting Allergic skin reactions, blood dyscrasia, leucopenia, thrombocytopenia, urticaria,  Withdraw carbamazepine immediately if blood, hepatic or skin disorders occur.	<ul> <li>Carbamazepine reduces plasma concentration of Aripiprazole (avoid concomitant use)</li> <li>Plasma concentration of carbamazepine increased by clarithromycin (consider reducing dose of carbamazepine)</li> <li>Carbamazepine accelerates metabolism of tricyclics (reduced plasma concentration and reduced effect)</li> <li>Carbamazepine often reduces plasma concentration of Clonazepam,</li> <li>Carbamazepine accelerates metabolism of coumarins (reduced anticoagulant effects)</li> </ul>
Olanzapine	In patients whose manic episode has responded to olanzapine treatment. For the prevention of recurrence in patients with bipolar	Hypersensitivity to the active substance or to any of the excipients. Patients with known risk for narrow-angle glaucoma.	Hypercholesterolemia, Malaise, oedema, weight gain, extra pyramidal symptoms, photosensitization, purplish pigmentation of cornea, retina, conjunctiva, and skin. Tarditive dyskinesia  Neurolpetic malignant syndrome – discontinue potentially fatal	<ul> <li>Increased risk of hypotension, bardykinesia, respiratory depression when IM olanzapine given with parenteral benzodiazepine</li> <li>Increased risk of side effects including neutropenia when olanzapine given with sodium valproate or valproic acid</li> <li>Plasma concentration of olanzapine reduced by Ritonavir (consider increasing dose of olanzapine)</li> </ul>

	disorder			
Quetiapine	In patients whose manic episode has responded to quetiapine treatment. For the prevention of recurrence of manic or depressed episodes in patients with bipolar disorder who have previously responded to treatment	Hypersensitivity to the active substance. Concomitant administration of cytochrome p450 inhibitors eg clarithromycin, erythromycin, HIV-protease inhibitors, azole-antifungal agents	Decreased Haemoglobin, leucopenia, hyperprolactinaemia, weight gain, increases in TSH	<ul> <li>Concurrent use of quetiapine with amisulpride can increase risk of CNS depressive effects</li> <li>Atazanir increases exposure of quetiapine manufacturer advices avoid</li> <li>Grapefruit juice increases exposure of quetiapine, manufacturer advises avoid.</li> <li>Quetiapine potentially increases the risk of neurotoxicity when given with lithium</li> <li>Rotigotine effects decreased by quetiapine</li> </ul>
Semisodium valproate	Treatment of Manic	Active liver disease Personal or family history of severe	Diarrhoea, Confusion, convulsion, headache, Hyponatraemia, nausea,	<ul> <li>Plasma concentration of sodium valproate reduced by carbapenems – avoid concomitant use</li> <li>Metabolism of sodium valproate inhibited by</li> </ul>
Note - sodium valproate / valproic acid is used in line with NICE but outside the	episode in bipolar disorder when lithium is contraindica	hepatic dysfunction, drug related Patients with known urea cycle disorders Hypersensitivity to valproate semisodium	weight gain, Hyponatraemia, Gastric irritation, anaemia,	cimetidine (increased plasma concentration)  Increased risk of side effects including neutropenia when sodium valproate given with olanzapine  Increased risk of toxicity with nephrotoxic and myelosuppressive drugs – for further details consult product literature

SPC/product	ted or not	or any excipients		Hyperammonaemia and CNS toxicity reported when
licence	as effective	Porphyria		sodium valproate given with topiramate
	The	Mitochondrial		<ul> <li>Metabolism of sodium valproate possibly inhibited</li> </ul>
	continuation	disorders caused by		by erythromycin (increased plasma concentration).
	of treatment	mutations in the		
	after manic	nuclear gene		
	episode	encoding the		
	could be	mitochondrial enzyme		
	considered	polymerase γ		
	in patients	(POLG), e.g. Alpers-		
	who have	Huttenlocher		
	responded	Syndrome.		
	to Depakote	In pregnancy (if for		
	for acute	Bipolar)		
	mania			
Lamotrigine	Prevention	Hypersensitivity to the	Blurred vision, aggression,	<ul> <li>Plasma concentration reduced by rifampicin</li> </ul>
	of	active substance or to	dizziness, rash, diarrhea,	<ul> <li>Plasma concentration of lamotrigine</li> </ul>
	depressive	any of the excipients	diplopia, headache,	<ul> <li>Increased risk of toxicity with myelosuppressive</li> </ul>
	episodes in		insomnia, nausea,	drugs
	patients		drowsiness, rash	· ·
	with bipolar			
	disorder		Serious skin reactions	
	who		including Stevenson -	
	experience		Johnson's syndrome and	
	predominan		toxic epidermal necrolysis.	
	tly		Consider withdrawal if	
	depressive		rash or signs of skin	
	episodes		sensitivity	

#### \*Drug Interactions with oral contraception (See BNF for further interactions)

**Carbamazepine and lamotrigine** do affect the efficacy of both combined and progesterone only oral contraceptives - other methods may be preferable, see contraception chapter in BNF.

**Valproate** appears not to reduce the efficacy of both combined and progesterone only oral contraceptives. (See warning above about using valproate in female children, female adolescents, and women of child bearing potential).

**Lamotrigine levels** can be affected by stopping or starting oral contraceptives and the dose may need to be altered - please consult specialist literature or seek further advice.

See the Faculty of Sexual and Reproductive Sexual Health - CEU <u>Clinical</u> <u>Guidance: Drug Interactions with Hormonal Contraception</u> - November 2017 for full details.

#### **Appendix 2 - Lithium levels**

When checking lithium levels please clarify with the initiating consultant the level the patient is aiming for. Higher levels are sometimes aimed for to help protect against manic symptoms. The target levels should also be recorded in the patients purple lithium book, along with each reading. Prescribers and pharmacists should check blood levels are monitored regularly and that it is safe to issue a repeat prescription and/or dispense the prescribed item.

Blood samples for plasma lithium levels should be taken 10-14 hours (ideally 12 hours) post dose for once daily dosing. If on twice a day dosing the level should be taken prior to the morning dose. Please note that twice daily dosing usually gets lower peak lithium plasma levels.

Levels should be taken 5-7days after a dose change or an initiation of a medication that interacts with lithium and affects the level.

Prior to change of any dosing ensure that the level was taken at the appropriate time and patient is adherent with medication. Check for interacting medications and co-existing illness. Also compare to previous levels taken.

Below is guidance only: please use professional judgment at all times. The specialist overseeing the patient can also be contacted for advice.

Lithium Plasma level	Action
<0.4mmol/L	Increase dose by 200mg, recheck after 1 week
0.4-0.6mmol/L	A partial response maybe seen at this level, increase dose by 200mg/day. Recheck after 1 week.
0.6-0.8mmol/L	Maintain dose, no change.
0.8-1.0mmol/L	Check if aiming for higher level (previous relapse whilst on lithium/subthreshold symptoms).  If not aiming for higher plasma levels, reduce dose by 200mg/day if aiming for

	lower level.
1.0-1.5mmol/L	Clarify if any toxic symptoms (noted in
	Appendix 1) and severity.
	Symptomatic
	Severe: Refer to A &E
	Moderate: Hold lithium for 48 hours, restart
	once symptoms resolved. Reduce dose by
	200mg/400mg/day and recheck level after 1
	week.
	<u>Asymptomatic</u>
	Reduce dose by 200mg/400mg /day and
	recheck level after 1 week.
>1.5mmol/L	Check if toxic symptoms (noted in Appendix
	<u>1</u> ).
	Symptomatic –
	Severe: Refer to A & E.
	Moderate: Hold lithium until symptoms
	resolve. Check for causes of high level.
	Once resolved restart at 50% of original
	dose and recheck level after 1 week.
	Asymptomatic –Reduce dose by 400mg/day
	and recheck after 1 week. Ensure counsel
	for toxic symptoms.

**Note**: Dose changes based on lithium carbonate. Lithium carbonate 200mg equates to 509mg/520mg lithium citrate (dependent on brand used)

#### **Reference**

CKS - Bipolar - https://cks.nice.org.uk/bipolar-disorder#!prescribingInfoSub:16

SPS - Suggestions for Drug Monitoring in Adults in Primary Care

Author - Shrewti Moerman, Deputy Director of Pharmacy Services, Sheffield Health and Social Care FT

## Appendix 3 Request for prescribing of prophylactic treatment for patient with bipolar disorder (Lithium)

Consultant Psychiatrist	Community MH team	GP
Name	Name	Name
Address	Address	Address
Phone number	Phone number	Phone number
Fax number	Fax number	Fax number

1 ax mambon	1 ax Hambon	1 ax named	
Patient Name:	Patie	nt Address:	
Patient DOB:			
Patient NHS Number:	Patient Insight Number:		
treatment (lithium) and issu		bilised the patient on prophylactic prescribing guideline please will you ent as detailed below?	
If mental health deteriorated circumstances change or partial be made available (configuration occur).	ntact consultant as above).	), ment then an earlier appointment named psychiatrist or out of hours	
	gements. Please can you con	concerns about this patient or the firm the receipt and activation of the	
Lithium			
Brand / Form (prescribing must b	pe by brand)		
Dose / Frequency			
Monitoring Frequency (lithium le	vels)	3 months/ 6months (frequency may need to be increased to 3 monthly see prescribing guidelines for more details), (delete as appropriate / see details in prescribing guideline)	
Target lithium level			
Most recent lithium level			
Date of last lithium levels			
Lithium levels next due			
Monitoring Frequency (thyroid ar	nd renal function)	6 months/ 3 months for patient groups listed above	
Date of last thyroid and renal fun	ction tests		
Date next tests due			
If neurotoxicity effects susp The patient has a NPSA re	pected(see table 2 in presecord book	cribing guideline)	
To be completed by the GI The above patient has been		service	
Signed Post stamp	Date	Practice	

### Request for prescribing of prophylactic treatment for patient with bipolar disorder (olanzapine / quetiapine – delete as appropriate)

Consultant	Community MH team	GP
Name	Name	Name
Address	Address	Address
Phone number	Phone number	Phone number
Fax number	Fax number	Fax number

Fax number	Fax number		Fax number
Patient Name:		Patient Address:	
Patient DOB:			
Patient NHS Number:	Patie	nt Insight Number:	
I am treating this patient for bipo treatment (olanzapine/quetiapin please will you now take over th	ie – delete as appr	opriate). Under the preson	cribing guideline
Follow up appointment at  If mental health deteriorates (wacircumstances change or patien will be made available (contact If acute deterioration occurs (excontact SHSC switchboard on the Please contact the psychiatrist in prescribing guidelines arrangen	arning signsnt considers stoppi consultant as aboug. manic episode) elephone 0114 27	ng treatment then an earl ve). contact named psychiatri 1 6310. u have concerns about th	ier appointment st or out of hours is patient or the
request for prescribing by faxing	g back this form.	·	
Olanzapine/quetiapine – dele	te as appropriate		
Form			
Dose / Frequency			
Monitoring Frequency (weight)			
Most recent weight (or BMI)			
Date of last weight			
Weight next due			
Monitoring Frequency (plasma ( lipids)	glucose and		
Date of last plasma glucose and	d lipid tests		
Monitoring frequency BP and poper FBC and U and E's	ulse, LFTs,		
At review check for signs of mo	vement		
disorder and raised prolactin lev	/els		
Date next tests due			
Other monitoring requirements.			
Psychiatrist signature To be completed by the GP pra The above patient has been acc	ctice;		
Signed Post Stamp	Date		Practice

### Request for prescribing of prophylactic treatment for patient with bipolar disorder (Valproate)

Consultant	Community MH team	GP
Name	Name	Name
Address	Address	Address
Phone number	Phone number	Phone number
Fax number	Fax number	Fax number

Fax number	Fax number		Fax number
Dationt Name:	Б	lationt Address.	
Patient Name:	P	atient Address:	
Patient DOB: Patient NHS Number:	Patient In	nsight Number:	
I am treating this patient for bipo			
treatment (Valproate). Under the prescribing and monitoring of this			u now take over the
Follow up appointment at If mental health deteriorates (wa circumstances change or patient	rning signst considers stopping t	reatment then a	),
will be made available (contact of If acute deterioration occurs (e.g. contact SHSC switchboard on te	. manic episode) con	tact named psyc	chiatrist or out of hours
Please contact the psychiatrist n prescribing guideline arrangeme request for prescribing by faxing	nts. The GP will con		
This patient is on the PREVENT they wish to try to conceive betwany change in medication, valpro	een appointments pl	ease refer them	back to us to manage
Valproate			
Form			
Dose / Frequency			
Monitoring Frequency (weight)			
Most recent weight (or BMI)			
Monitoring Frequency for LFTs a	and FBC		
Date of last weight			
Weight next due			
Date next tests due			
Other monitoring requirements			
Psychiatrist signature	Name (pri	nt)	Date
To be completed by the GP prac The above patient has been acc Signed		oring service	
Post stamp	Date		Practice

### Request for prescribing of prophylactic treatment for patient with bipolar disorder (Lamotrigine)

Consultant	Community MH team	GP
Name	Name	Name
Address	Address	Address
Phone number	Phone number	Phone number
Fax number	Fax number	Fax number

Patient Name: Patient DOB:	Patient Address:			
Patient NHS Number:	Patient Insight Num	ber:		
I am treating this patient for bipolar disc treatment (Lamotrigine). Under the pre prescribing and monitoring of this patien	escribing guideline please			
Follow up appointment at  If mental health deteriorates (warning s circumstances change or patient considuil be made available (contact consultations)	signsders stopping treatment th	),		
If acute deterioration occurs (e.g. manic contact SHSC switchboard on telephon		psychiatrist or out of hours		
Please contact the psychiatrist named a prescribing guideline arrangements. The request for prescribing by faxing back to	he GP will confirm the rec			
Lamotrigine				
Form				
Dose / Frequency				
Other monitoring requirements				
Psychiatrist signature	Name (print)	Date		
To be completed by the GP practice; The above patient has been accepted i Signed Post stamp	into our monitoring service	e Practice		

### Request for prescribing of prophylactic treatment for patient with bipolar disorder (Carbamazepine) The Sheffield Formulary recommendation on brand is

Tegretol Prolonged Release.

Consultant	Community MH team	GP
Name	Name	Name
Address	Address	Address
Phone number	Phone number	Phone number
Fax number	Fax number	Fax number

Patient Name: Patient DOB:	Patient Address	:
Patient NHS Number:	Patient Insight Number:	:
I am treating this patient for bipolar disorde treatment (Carbamazepine). Under the pr the prescribing and monitoring of this patie	escribing guideline please	
Follow up appointment at	ss stopping treatment then as above). bisode) contact named psy	), an earlier appointment
Please contact the psychiatrist named about prescribing guideline arrangements. The crequest for prescribing by faxing back this  Carbamazepine The Sheffield Formulary	GP will confirm the receipt form.	t and activation of the
Release.	recommendation on branc	a is regretor Froidinged
Brand / Form		
Dose / Frequency		
Monitoring Frequency (Plasma levels)		
Most recent plasma level		
Date of last test		
Other monitoring requirements Psychiatrist signature		Date
To be completed by the GP practice; The above patient has been accepted into Signed	our monitoring service	
Post	Date	Practice