

**Bipolar Affective Disorder Formulary Guidance [4]**

**(adapted from NICE guideline CG185)**

1. **Introduction**

These Guidelines are intended for routine use. However, there will be instances where they are not suitable for the patient you are managing, where more bespoke treatment will be necessary. In such instances the rationale for prescribing away from formulary must be recorded.

Bipolar Affective Disorder [BPAD] is a chronic, recurrent condition associated with high levels of suffering, occupational dysfunction, impaired social life and relationships, as well as increased morbidity and mortality.

Bipolar disorder is often co-morbid with a range of other mental disorders (for example substance misuse, personality disorders and ADHD) and this has significant implications for both the course of the disorder and its treatment.

The treatment of BPAD is based primarily on psychotropic medication to reduce the severity of symptoms, stabilise mood and prevent relapse. The treatments are determined by the phase of illness and subtype of disorder.

Individual variation in response to medication will often determine the choice of drug, as will side effects, interactions and cautions associated, the need for rapid onset, child bearing potential, previous history and individual preferences.

A range of psychological and psychosocial interventions can also be used.

See [table 4b](#TABFOURB) on Valproic acid for guidance on the Prevent Programme

1. **Pharmacological Treatment of Bipolar Disorder**

2.1 Bipolar Mania or Hypomania

* Consider withdrawing antidepressant at onset of manic episode, abruptly or gradually, as appropriate due to the propensity to exacerbate symptoms.
* Initiate oral antipsychotic, if the patient is not already on one or a mood stabiliser offer haloperidol, olanzapine, quetiapine or risperidone
* If this is ineffective or not tolerated, offer an alternative antipsychotic
* If this is still ineffective consider adding Lithium
* If Lithium is not suitable or is ineffective consider adding valproic acid (see MHRA guidance for use in women of child bearing age)
* Short term use of benzodiazepines may be considered in addition to manage agitation
* Aripiprazole is recommended as an option for treating moderate to severe manic episodes in adolescents with bipolar I disorder, within its marketing authorisation (that is, up to 12 weeks of treatment for moderate to severe manic episodes in bipolar I disorder in adolescents aged 13 and older). (NICE TA292)
  1. Acute manic episode while already taking antimanic medication
* If a patient  already taking an antipsychotic experiences a manic episode, the dose should be checked, and increased if necessary. If there is no improvement, Lithium or valproic acid should be considered in addition.
* If a patient  who is already taking lithium experiences a manic episode, plasma lithium levels should be checked. If the repsonse is inadequate, augmenting with an antipsychotic could be considered.
* If a patient  is already taking valproic acid and experiences a manic episode, the dose should be increased until symptoms start to improve depending on side effects, if there is no improvement consider augmenting with an antipsychotic.
* If a patient  who is already taking lithium or valproic acid presents with severe mania, consider increasing the dose and adding an antipsychotic.
* If a patient  on carbamazepine presents with mania, the dose should not be routinely increased –an antipsychotic should be considered, however be aware of interactions.

2.3 Bipolar Depression

* In patients are tretament naïve NICE reccomends offering Fluoxetine combined with Olanzapine or Quetiapine as monotherapy
* If fluoxetine is not appropriate consider using the depression guidelines for choosing an alternative antidepressant.
* If the person prefers, consider olanzapine or Lamotrigine as monotherapy
* If the patient is already on a mood stabiliser, maximise that first and then treat as above

2.4 Bipolar Disorder – Long Term Treatment

* First line offer lithium
* If ineffective, consider adding valproic acid.
* If poorly tolerated, or issues with monitoring consider valproic acid or olanzapine, or if it has been effective in acute treatment of depression or mania consider quetiapine
* If stopping long term treatment discuss with the patient how to recognise the signs of relapse and what to do.
* Continue monitoring symptoms, mood and mental state for two years after medication has been stopped entirely, this can be done in primary care

2.5 Bipolar Disorder - Rapid Cycling

NICE guidance recommends that patient s that have 4 or more acute episodes in a year are classified as having rapid-cycling bipolar disorder.

There is limited evidence on treatments on rapid cycling. A key element is to avoid treatment that may induce switching to a manic state, in particular with antidepressants, where there is a 12-20% chance of switching.

Treatment should be as for manic and depressive episode, but in addition:

* Review the patient ’s previous treatments for bipolar disorder, and consider a further trial of agents that were not given an adequate trial, or where there was poor compliance.
* Optimize long-term treatment rather than focussing on treating individual episodes and symptoms.
* Try a psycho-educational approach and encourage patient s to keep a regular mood diary to monitor progress and changes in severity and frequency of symptoms.
* If on an antidepressant – withdraw this due to risk of cycling.
* Identify and manage possible precipitants e.g. alcohol, thyroid dysfunction, and external stressors
* Optimise mood stabiliser treatment
* Each trial of medication should usually last at least 6 months
* For many, combination treatment may be required
* Consider prescribing a combination of Lithium and Valproic acid
* Consider other (adjunct) antipsychotic treatment options (e.g. in alphabetical order)
  + Aripiprazole (15mg - 30mg/day)
  + Carbamazepine
  + Clozapine (Usual doses; off-label use)
  + Lamotrigine (up to 225mg/day)
  + Olanzapine (usual doses)
  + Quetiapine (300mg -600mg/day) currently, may have the best supporting data.
  + Risperidone (up to 6mg/day)

Choice of drug is determined by patient  factors

2.6 Bipolar Disorder – Mixed Affective State

A small proportion of patients will present with a mixed affective state, where the patient will present with a combination of manic/hypomanic and depressive symptoms, along with commonly a marked dysphoria. These patients are at particular risk of switching when given antidepressants.

* Treat as hypomania/mania
* Stop/withdraw antidepressants
* Maximise mood stabilisers

1. **Monitoring**

During review of treatment, patient s should be specifically questioned about the efficacy of the medication, functioning, concordance, and adverse effects. Side effects should be documented in the notes, and where appropriate reported via the yellow card scheme. Doses and decision to continue should be reviewed on an ongoing basis.

BPAD is associated with poor physical health and drug treatments can add to this. Patients are at an increased risk of metabolic syndrome. NICE recommends monitoring physical health at baseline and at least annually as follows:

* Lipid profile,
* Glucose/HbA1c,
* Weight/Height,
* Blood Pressure,
* Prolactin,
* Thyroid Function Tests
* Liver Function Tests
* Full Blood Count
* Smoking and Alcohol status
* ECG, where cardiac history suggests or SPC requirement
* U&E / Renal Function (eGFR)

See [table 5](#TABFIVE) for more guidance

1. **Communication with Primary Care**

Different areas of the Trust have slightly different shared care arrangements with GPs, however in principle, with the GP’s agreement once the patient is on a stable dose then primary care can take over prescribing under shared care. Good communication is key, and clear lines of responsibility must be agreed between primary and secondary care. [In Doncaster a pro forma is in place to support these arrangements.]

1. **References**
2. NICE guidance for treatment of Bipolar Disorder. Available at [www.nice.org.uk](http://www.nice.org.uk)
3. British Association for Psychopharmacology. G. M Goodwin, Consensus Group of the British Association for Psychopharmacology.
4. BAP Evidence Based Guidelines for Treating Bipolar, Second edition. Available at: <http://www.bap.org.uk/pdfs/Bipolar_guidelines.pdf>
5. Scottish Intercollegiate Guidelines Network (SIGN). Bipolar Affective Disorder. (July 2005). Available at [www.sign.ac.uk](http://www.sign.ac.uk)
6. BNF online at: <http://bnf.org/>
7. SPC for all the drugs referred to in this guideline can be found in the Electronic Medicines Compendium (<http://emc.medicines.org.uk/>)
8. MHRA [https://www.gov.uk/guidance/valproic acid-use-by-women-and-girls](https://www.gov.uk/guidance/valproate-use-by-women-and-girls)

**Table 1: BIPOLAR AFFECTIVE DISORDER – Acute Treatment of Mania/Hypomania**

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| --- | --- | --- |
| **First Line** | **Relative costs** | **Notes** |
| Oral antipsychotics  Risperidone  Haloperidol  Olanzapine  Quetiapine  XL | £  £  £  £-  ££ | Evidence of advantage in acute mania. Consider atypical antipsychotics (because of their generally  more favourable short-term side effect profile) if manic symptoms are severe or there is marked  behavioural disturbance. Before prescribing consider side effect profile and individual risk factors  e.g. diabetes, weight and cardiovascular risk, adherence and previous response  Risk of weight gain, hyperglycaemia, dyslipidaemia, hypercholesterolaemia, hyperprolactinaemia  Monitor weight, glucose and lipids and prolactin. If stopping, discontinue gradually |
| Benzodiazepines e.g.  Lorazepam  Clonazepam | £  £ | Use PRN for as short time as possible; Consider if severe anxiety and agitation present of if sleep  deprived. Benzodiazepines can rapidly diminish overactivity.  Risk of disinhibited behaviour, tolerance, withdrawal symptoms and dependence.  Also increased risk of sedation, falls and ataxia. |
| **Second Line:** | **Relative Cost** | **Notes** |
| Lithium | £ | For less severe symptoms and control of overactive behavior not immediately required. Slower  onset of action ~7 days. Consider if previous good response and compliant with monitoring (see  notes on lithium, above) |
| valproic acidValproic Acid | ££ | Has rapid antimanic effect. Consider if previous good response; For monitoring, see notes above  Do not prescribe routinely for women of child-bearing potential –see MHRA guidance |
| Alternative  antipsychotic | £-£££ | Consider an alternative antipsychotic not tried eg haloperidol / Zuclopentixol |
| Carbamazepine | £ | No longer in NICE guidance, however may be considered if other reccomended options are ineffective or not tolerated |
| **Not Recommended** | **Relative Cost** | **Notes** |
| Antidepressants  Lamotrigine,  Topiramate, Gabapentin. | £-£££ | Antidepressants should be abruptly discontinued or dose tapered and discontinued, as appropriate  There is inadequate supporting evidence for these anticonvulsants in acute mania |
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**Table 2: BIPOLAR AFFECTIVE DISORDER – Acute Depressive Episodes**

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| **First Line:** | **Relative Cost** | **Notes** |
| Olanzapine + Fluoxetine | £ | In naïve patients |
| Quetiapine | £-££ | Consider if early effect is desirable. Appears to not be associated with a switch to mania.  and add an antimanic agent if not on maintenance treatment and Bipolar I. |
| Lamotrigine | £ | Does not induce switching or rapid cycling. Care with dose - very slow dose titration required.  NICE does not recommend Lamotrigine as a single first line agent in Bipolar I disorder  Increased risk of a rash is associated with rapid dose titration or concurrent use of valproic acid  and add an antimanic agent if not on maintenance treatment and Bipolar I disorder. |
| **Second Line:** | **Relative Cost** | **Notes** |
| Antidepressants | £-££ | * Always prescribe a mood stabiliser in combination * Add a selective serotonin reuptake inhibitor (SSRI) in moderate depression Avoid tricyclics or MAOIs * Care- When prescribing SSRIs concurrently with NSAIDS due to risk of bleeding. * Serotonin syndrome can occur with serotonergic drugs, with co-prescribing of SSRIs and lithium. it can present as: * agitation, confusion, tremor, hyperflexia, myoclonus, hypermania * NICE recommends venlafaxine or mirtazapine as alternative second line antidepressant options for * patient s who fail to respond to initial treatment.   \*\*Consider stopping the antidepressant if in remission from depressive symptoms (or symptoms have  been significantly less severe for 8 weeks \*\* |
| Valproic Acid and Lithium | £ | When depressive symptoms are less severe, lithium or valproic acid may be considered. Slower onset –  takes 6-8 weeks; If already on lithium or valproic acid as a prophylactic agent – optimise dose. |
| Olanzapine | £ | * If patient prefers monotherapy |
| **Third Line:** | **Relative Cost** | **Notes** |
| ECT | £££ | Consultant initiation only. Consider for high suicide risk and severe depression. . |
| **Not Recommended** | **Relative Cost** | **Notes** |
| Antidepressant  monotherpay | £-££ | Antidepressant monotherapy – due to risk of switching to mania especially in Bipolar I disorder.  Tricyclic antidepressants are more likely to result in switching to mania. |
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**Table 3: BIPOLAR AFFECTIVE DISORDER - Long Term Maintenance Therapy (Relapse prevention)**

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| **First Line:** | **Relative Cost** | **Notes** |
| Lithium | £ | Lithium monotherapy is probably effective against both manic and depressive relapse, although  more effective in preventing mania.  Lithium is associated with a reduced suicide risk in individuals with bipolar.  Prescribe by generic name and specify brand. Different preparations should not be assumed to be  bioequivalent; When prescribing liquid preparations, clearly specify strength and dose |
| Valproic Acid | ££ | Valproic acid probably prevents both manic and depressive relapse (but see MHRA guidance)  Interactions – valproic acid can increase levels of carbamazepine and lamotrigine. |
| Olanzapine | £ | Consider risks, response and preference. Olanzapine prevents manic and depressive relapse.  Consider Quetiapine if the patient has responded well to it during an episode of bipolar depression or mania |
| **Second Line:** | **Relative Cost** | **Notes** |
| Combination therapy | £-£££ | Use combinations of prophylactic agents if frequent relapses or significant functional impairment |
| Lamotrigine | £ | Consider if bipolar II disorder; Prevents depressive more than manic relapse. Can be used as  prophylaxis in patient s initially stabilised with lamotrigine or for recurrent depressive episodes |
| Carbamazepine | £ | Carbamazepine is less effective than lithium but can be used if lithium is ineffective.  Hepatic enzyme inducer (risk of significant interactions) with other medications.  Reduces effectiveness of oral contraceptives. The dose of contraceptive should be adjusted and  barrier methods used; Teratogenic risk of neural tube defects, craniofacial abnormalities. |
| **Third Line:** | **Relative Cost** | **Notes** |
| Clozapine | **££** | Consider clozapine for treatment-refractory symptoms (off-label use) |
| **Other:** | **Relative Cost** | **Notes** |
| Benzodiazepines | £ | Short- term use when an acute stressor (such as anxiety or lack of sleep)is present |
| Antidepressants | £-££ | Consider long-term treatment with SSRI and mood stabiliser for chronic recurrent depression |

**Table 4: PRESCRIBING INFORMATION FOR SPECIFIC DRUGS**

**4a: Lithium**

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| **Drug; Licenced**  **Indications** | **Dose** | **Contraindications and Cautions** | **Side Effects and Interactions** |
| **Lithium (Priadel/**  **Camcolit**  **Formulation**  Tablets m/r, lithium  carbonate 200mg and  400mg  Tablets 250mg ir  Liquid, sugar-free,  lithium citrate  520mg/5ml  (5mL dose is  equivalent to ~200mg  lithium carbonate)  **Licenced indications**  Prophylaxis of bipolar  affective disorder.  and  Treatment of acute  manic or hypomanic  episodes. | * Dose range for treatment and prophylaxis is 400-1200mg daily as a single dose or in 2 divided doses (if elderly or < 50kg, 400mg daily) * Dose adjusted to achieve lithium levels in the range of 0.4–1mmol/l. * Sample taken at least 12 hours after the last dose * Levels should not exceed 1.5mmol/l. * Optimal serum lithium levels may vary for each patient . * Additional serum-lithium levels should be made if significant intercurrent disease or change in sodium or fluid intake. * **Preparations vary widely in bioavailability; changing the preparation requires the same precautions as initiating treatment.** * Discontinue gradually | **Contraindications**   * Hypersensitivity to lithium or excipients * Cardiac disease * Cardiac insufficiency * Severe renal impairment * Untreated hypothyroidism * Breast-feeding * Hyponatremia, including due to   dehydration or low sodium diets   * Addison's disease * Brugada syndrome or family history of Brugada syndrome.   **Cautions**   * Renal and thyroid dysfunction, * Electrolyte imbalance/diuretics * Cardiac problems * Psoriasis * Seizures * QT interval prolongation * Elderly people * drug interactions * Low sodium diet * Dehydration, diarrhoea, vomiting   **Pregnancy**  Avoid in first trimester of pregnancy if possible  Dose adjustments in second and third trimesters with close monitoring of serum levels (neonatal toxicity) | **Side effects**   * Lithium has a narrow therapeutic index. * Side effects are related to serum levels, as follows:   + Mild gastrointestinal side effects such as nausea, abdominal discomfort and taste disorder   + Tremor, especially fine hand tremors   + Peripheral oedema and weight gain   + Hyperglycaemia,   + Leucocytosis   + Confusion   + Reduction in thyroid and renal function   + Polydipsia and/or polyuria   + Sexual dysfunction * High serum-lithium levels (usually >1.5mmol/litre) can cause toxic effects including restlessness, apathy, nausea, coarse tremor, vomiting, diarrhoea, drowsiness, blurred vision, ataxia, dysarthria, myalgia and arthralgia. Lithium should be stopped. Higher levels can lead to confusion, hyperreflexia, renal failure, convulsions, coma and death. * Long-term adverse effects may include thyroid function disturbances such as euthyroid goitre and/or hypothyroidism and thyrotoxicosis.   **Key interactions:**  NSAIDs; Diuretics e.g. thiazides, ACE Inhibitors; Angiotensin II antagonists, calcium channel blockers, additive effect with psychotropic drugs |

**4b: Valproic acid**

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| **Drug; Licenced**  **Indications** | **Dose** | **Contraindications and Cautions** | **Side Effects and Interactions** |
| **Valproic acid**  Depakote: tablets  250mg; 500mg  (Other valproic acid  preparations are  also used off label\*)  **Licenced indications**  Treatment of manic  episodes associated  with bipolar disorder.  Prophylaxis of  Bipolar disorder  \*reserved for when compliance issues arround Depakote | Initial dose: 750 mg daily in 2–3 divided doses, increased  according to response.  Maintenance dose: 1–2g daily  Doses greater than 45mg/kg daily require careful monitoring  See above for monitoring  schedule | **Contraindications**  Active liver disease; family history of severe hepatic dysfunction; acute  porphyria; Women and girls of child bearing  potential who are not in line with the PREVENT  programme  [MHRA Guidance](https://www.gov.uk/guidance/valproate-use-by-women-and-girls)  **Cautions**  Women of child-bearing potential;  Monitor liver function before therapy  and during first 6 months especially  in those most at risk;  Measure full blood count and ensure  no undue potential for bleeding  before starting and before surgery  Systemic lupus erythematosus;  False-positive urine tests for ketones;  Avoid abrupt withdrawal;  Consider vitamin D supplementation  in patients that are immobilised for  long periods or who have inadequate  sun exposure or dietary intake of  calcium  See MHRA guidance, link above | **Side effects**  Gastrointestinal disturbances, particularly at the start of  therapy. Increased appetite, and weight gain is common.  Less common adverse effects include oedema, headache,  reversible prolongation of bleeding time, and  thrombocytopenia. Leucopenia and bone marrow  depression have been reported. Tremor and ataxia have  also been reported usually when therapy is started.  Transient hair loss. Occasionally rashes. Rare but serious  side effect are liver damage and pancreatitis  **Interactions**  Caution is recommended when giving valproic acid with other.  drugs liable to interfere with blood coagulation, such as  aspirin or warfarin. Use with other hepatotoxic drugs  should be avoided. Use of highly protein bound drugs with valproic acid may increase free valproic acid plasma concentrations.  Care with dosing when used with lamotrigine  Potential for additive effects when used with other  psychotropic drugs |
| **Valproic acid Prevent Programme**  Valproic acid is an effective treatment for epilepsy and bipolar disorder. In girls and women of childbearing potential\* valproic acid must be initiated and supervised by a specialist experienced in the management of epilepsy or bipolar disorder. Valproic acid should not be used in girls and women of childbearing potential unless other treatments are ineffective or not tolerated. Valproic acid may be initiated in **girls and women of childbearing potential** only if the conditions of **prevent** – the valproic acid pregnancy prevention programme (outlined below) are fulfilled.  **Specialists**  • Discuss the risks with the patient (or parent/caregiver/responsible person)  • Exclude pregnancy in women of childbearing potential (by serum pregnancy test) before the first prescription is issued  • Arrange for highly effective\*\* contraception for women of childbearing potential before the first prescription is issued  • Complete the Annual Risk Acknowledgment Form with patient (or parent/caregiver/ responsible person); give them a copy and send a copy to the GP  • See the patient urgently (within days) if referred back in case of unplanned pregnancy or if she wants to plan a pregnancy  • Provide a copy of the Patient Guide to the patient (or parent/caregiver/responsible person)  **General practitioners**  • Ensure continuous use of highly effective contraception in all women of childbearing potential (consider the need for pregnancy testing if not a highly effective method)  • Check that all patients have an up to date, signed, Annual Acknowledgment of Risk Form each time a repeat prescription is issued  • Ensure the patient is referred back to the specialist for review, annually  • Refer back to the specialist urgently (within days) in case of unplanned pregnancy or where a patient wants to plan a pregnancy.  **CHM/MHRA are reviewing this guidance at time of writing, and may update it covering all patients under 55 including men** | | | |

**4c: Carbamazepine**

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| **Drug; Licenced**  **Indications** | **Dose** | **Contraindications and Cautions** | **Side Effects and Interactions** |
| **Carbamazepine**  Tablets 100mg, 200mg  and 400mg;  Prolonged Release  200mg and 400mg  Tablets;  Liquid 100 mg/5ml  **Licensed indications**  Prophylaxis of bipolar  disorder unresponsive  to lithium | Initial dose: 400mg daily in  divided doses  Maintenance dose: 400–  600mg daily; max. 1.6g daily | **Contraindications:**  AV conduction abnormalities (unless paced); history of bone-marrow depression; acute porphyria; known hypersensitivity to  carbamazepine or structurally  related drugs (e.g. tricyclic  antidepressants)  Not recommended in combination  with monoamine oxidase inhibitors  (MAOIs)  **Cautions**  Cardiac disease.  History of haematological reactions  to other drugs.  Susceptibility to angle-closure  glaucoma  Liver dysfunction or acute liver  disease.  Manufacturer recommends blood  counts and hepatic and renal  function tests  - Plasma monitoring is required to  exclude toxicity | **Side effects**  Common side effects include dizziness and ataxia;  gastrointestinal disturbances e.g. nausea and vomiting;  blurred vision; hypertension and hypotension; mild skin  reactions and transient leucopenia  - Serious dermatologic side effects include generalised  erythematous rashes Stevens-Johnson syndrome and toxic  epidermal necrolysis.  - Blood disorders reported include eosinophilia, leucopenia,  thrombocytopenia, haemolytic anaemia, and anaemia.  - Also reported are hepatitis, jaundice, pancreatitis  - Abnormalities of kidney function and cardiac conduction  disorders. Congestive heart failure. Hyponatraemia have  occurred.  - Exacerbation of seizures  - Congenital malformations have been reported in infants  born to women given carbamazepine during pregnancy  **Interactions**  - Carbamazepine is a hepatic enzyme inducer, and induces  its own metabolism as well as that of other drugs including  antibacterials (e.g. doxycycline), anticoagulants, and sex  hormones (notably oral contraceptives) reducing therapeutic  effect.  - Drugs that induce CYP3A4 may increase the metabolism  of carbamazepine,  - May interact with MAOIs, other antiepileptics/ mood  stabilisers. |

**4d: Lamotrigine**

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| --- | --- | --- | --- |
| **Drug; Licenced**  **Indications** | **Dose** | **Contraindications and Cautions** | **Side Effects and Interactions** |
| **Lamotrigine**  (non-proprietary) or  Lamictal  **Licenced Indication**  Adults aged 18 years  and above  - Prevention of  depressive episodes in  patients with bipolar I  disorder who  experience  predominantly  depressive episodes | Monotherapy or adjunctive therapy of bipolar  disorder (without enzyme inducing drugs)  without valproic acid,  initially 25mg once daily for 14 days, then  50mg daily in 1–2 divided doses for further 14  days, then 100mg daily in 1–2 divided doses  for further 7 days; usual maintenance 200mg  daily in 1–2 divided doses; max. 400mg daily  Adjunctive therapy of bipolar disorder with  valproic acid, initially 25mg on alternate days for  14 days, then 25mg once daily for further 14  days, then 50mg daily in 1–2 divided doses for further 7 days; usual maintenance 100mg daily  in 1–2 divided doses; max. 200mg daily  Adjunctive therapy of bipolar disorder (with  enzyme inducing drugs) without valproic acid,  initially 50mg once daily for 14 days, then  50mg twice daily for further 14 days, then  100mg twice daily for further 7 days, then  150mg twice daily for further 7 days; usual  maintenance 200mg twice daily dose adjustments may be required if other  drugs are added to or withdrawn from their  treatment regimen | **Contraindications**  Hypersensitivity to the active  substance or to any of the excipients  **Cautions**  Skin reactions - monitor and  withdrawal if rash, fever, or other  signs of hypersensitivity syndrome  develop  Increases clearance of hormonal  contraceptive  Parkinson’s disease - risk of  exacerbation  Blood disorders  Renal/hepatic impairment | Skin rash, Nausea, vomiting,  diarrhoea, dry mouth Aggression,  irritability, Headache, Somnolence,  dizziness, tremor, insomnia,  agitation, arthralgia, Tiredness, pain,  back pain nystagmus, diplopia, blurred  vision, hypersensitivity syndrome  Blood disorders |

**TABLE 5: PHYSICAL HEALTH MONITORING FOR PATIENTS WITH BIPOLAR DISORDER**

**Adapted from NICE CG30 for Lithium and Antipsychotics see tables 6 & 7**

|  |  |  |
| --- | --- | --- |
|  | **Monitoring for all patients** | |
| **Parameter** | **Initial Health**  **Check** | **Annual**  **check up** | **Valproic acid\*** | **Carbamazepine** |
| **Thyroid**  **function** | Yes | Yes a |  |  |
| **Liver function** | Yes |  | At start and at 6 months | At start and at 6 months |
| **Renal function** | Yes |  |  | Urea and electrolytes  every 6 months |
| **Full blood**  **count** | Yes |  | At start and 6 months | At start and at 6 months |
| **Blood (plasma)**  **glucose** | Yes | Yes |  |  |
| **Lipid profile** | Yes | Over 40s  only |  |  |
| **Blood pressure** | Yes | Yes |  |  |
| **Prolactin** | Yes |  |  |  |
| **ECG** | If indicated by  history or clinical  picture |  |  |  |
| **Weight and height** | Yes | Yes b | At start and at 6 months  If patient gains weight rapidly | At start and at 6 months  If patient gains weight rapidly |
| **Drug screening and**  **chest X-ray** | If suggested by  history or clinical  picture |  |  |  |
| **EEG, MRI, CT scans** | If organic aetiology  or comorbidity is  suspected |  |  |  |
| **Smoking/**  **alcohol** | Yes | Yes |  |  |
| **Serum levels of drug** |  |  | Only if there is evidence  Of ineffectiveness, poor  adherence or toxicity | Every 6 monthsc |

**Table 6 Monitoring of Patients on Lithium**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Test** | **Baseline** | **Weekly till stable** | **3 Monthly** | **6 monthly** | **Annually** |
| Weight/Height/BMI | X |  |  |  | X |
| Alcohol and Smoking | X |  |  |  | X |
| ECG | If indicated by cardiac history or other risk factors |  |  |  | X If indicated |
| U&E’s +eGFR | X |  | X (if CKD 3a or worse) | X if stable and no concerns |  |
| Calcium | X |  |  | X | X |
| TFT’s | X |  |  | X |  |
| ACR |  | If eGFR stage 3a or worse |  |  | X |
| Lithium levels | X | X | X (for first year)  AND   * + Lithium Levels (after the first year) *or every 3 months for people in any of the following groups:*   + older people >65)   + taking drugs that interact with lithium   + who are at risk of impaired renal or thyroid function, raised calcium levels or other complications.   + who have poor symptom control   + poor adherence   + last plasma lithium level was 0.8 mmol per litre or higher | X (after first year if not in at risk group – see previous box) |  |

**Table 7 Monitoring of Antipsychotics**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **GENERAL INFORMATION**   1. Diagnosis discussed with patient and appropriate information sheet given as necessary. 2. The choice of antipsychotic considered appropriate for the patient, has been discussed with the patient and or advocate. This includes advanced plans / directives if available and likely side effects of the specific drugs (see formulary). 3. Written information (<http://www.choiceandmedication.org/rdash/>) regarding specific antipsychotic(s) given to patient or carer. 4. Baseline physical health checks are carried out, recorded and discussed with the patient / carer to specifically include taking cardiac, smoking and alcohol histories. 5. Review date to assess efficacy and tolerability made in the diary, and patients treatment plan 6. This guidance is based on results being within normal limits. Tests may need to be repeated more often due to individual clinical indicators. 7. Additional detail is available in the [trust formulary](http://www.rdash.nhs.uk/corporate-information/publications/medicines-formulary/schizophrenia-formulary-section-v1-0/) and individual drug SPCs 8. Monitoring [not necessarily prescribing]. The secondary care team should maintain responsibility for monitoring service users' physical health and the effects of antipsychotic medication for at least the first 12 months or until the person's condition has stabilised, whichever is longer. Thereafter, the responsibility for this monitoring may be transferred to primary care under shared care arrangements. | | | | | | | |
| **CLOZAPINE: Clozapine monitoring covered separately** | | **MONITORING SCHEDULE** | | | | | | |
| **For BASELINE** | **At ONE month** | **At THREE months** | | **At SIX months** | **At 12 months then annually1** | |
| Blood pressure2,8 | | 🗸 |  |  | |  | 🗸 | |
| Pulse2,8 | | 🗸 |  |  | |  | 🗸 | |
| Bodyweight or BMI 3 | | 🗸 | 🗸 | 🗸 | |  | 🗸 | |
| HbA1c4 | | 🗸 | Olanzapine4 | 🗸 | |  | 🗸 | |
| Blood lipids | | 🗸 |  | 🗸 | |  | 🗸 | |
| Renal function (U&E, eGFR) | | 🗸 |  |  | |  | 🗸 | |
| Full blood count (FBC) | | 🗸 |  |  | |  | 🗸 | |
| Liver function test (LFT) | | 🗸 |  |  | |  | 🗸 | |
| TFT (Quetiapine only) | | 🗸 |  |  | |  | 🗸 | |
| Prolactin5 | | 🗸 |  |  | | 🗸 | 🗸 | |
| Creatine phosphokinase (CPK)6 | |  |  |  | |  |  | |
| Electrocardiogram (ECG) | | 🗸 |  |  | |  | 🗸 | |
| Side-effects (GASS or like)2 | | 🗸 |  |  | |  | 🗸 | |
| Adherence to medication2 | |  |  |  | |  | 🗸 | |
| Overall physical health2 | | 🗸 |  |  | |  | 🗸 | |
| Smoking status | | 🗸 |  |  | |  | 🗸 | |
| Alcohol/ Drug status | | 🗸 |  |  | |  | 🗸 | |
| Movement disorders2,7 | | 🗸 |  |  | |  | 🗸 | |
| Physical Activity7 | | 🗸 |  |  | |  | 🗸 | |
| Nutritional status7 | | 🗸 |  |  | |  | 🗸 | |
| LEGEND | | **ECG** – **Mandatory** for haloperidol, pimozide and sertindole  Not required for   * antipsychotics with no or low to moderate effect on QT interval **AND** * where there are no other risks for arrhythmia | | | | | | |
|  | |
|  | |
|  | |
|  | | **Inpatients**:   * at baseline for ALL patients on admission * at dose change and when reaching target dose * prior to discharge if there has been a change in treatment. | | | **Community Patients:**   * patients with a personal history of CVD * where there is an identified cardiac risk factors. * where specified in the drug’s SPC. * If ECG indicated – repeat at dose change and ideally annually | | | |
|  | |
| 🗸 | NICE guidance |
|  | |
| 🗸 | + Maudsley guidance |
|  | |