Antipsychotic Drugs – Prescribing & Monitoring Information for Primary Care

Shared Care Status – Green +
This status applies to antipsychotics prescribed for adults within licensed doses and for licensed indications

Background
Life expectancy in people with schizophrenia is reduced by 20%, with 60% of the excess mortality due to physical illness. This may be partly explained by the higher prevalence of smoking, poor diet and lack of exercise in people with schizophrenia than in the general population; as a consequence the prevalence of type 2 diabetes and cardiovascular disease is increased. In addition to lifestyle factors, the illness itself may be a risk factor for some medical conditions: an association between schizophrenia and diabetes is well recognised and antipsychotic drugs, particularly second generation, have metabolic consequences that may contribute to the risk through weight gain, impact on the lipid profile, and insulin function.

Initiating antipsychotic treatment and associated monitoring
When starting a patient on antipsychotic treatment, baseline monitoring must be undertaken by the specialist clinical team before the initial prescription of an antipsychotic drug. The specialist prescriber should maintain responsibility for monitoring the patient’s physical health and the effects of antipsychotic medicines for at least the first 12 months of treatment or until the patient’s condition has stabilised whichever is longer. After this period the patient can be safely maintained in primary care without on-going specialist monitoring and the responsibility for this monitoring may be transferred to primary care under shared care arrangements. Appendix 1 details the annual monitoring requirements for adult patients prescribed antipsychotics.

Transfer of Prescribing Responsibilities from secondary to primary care
The specialist prescriber may transfer the prescribing responsibilities to primary care following the initiation and titration of the antipsychotic treatment. In some circumstances where it is in the best interests of the patient, it may be more appropriate for the GP to prescribe on the advice of the specialist during the initiation and titration phase. This must be done on a case by case basis by prior arrangement and all the necessary information for the GP to do this safely must be communicated by the specialist.

Recommendations for monitoring
The monitoring recommendations are summarised in the algorithm and detailed in appendix 1. These guidelines represent a recommended standard for the majority of patients. However, monitoring should be tailored to each patient. Patients may require more frequent monitoring e.g. because of increased cardiac risk.
When to seek Specialist advice / review
Please contact the specialist team for advice or refer back to the specialist team in the event of circumstances that cannot be managed in general practice which might include any significant deterioration in the patient’s mental state, intolerable adverse effects, non-concordance, lack of effect, special prescribing circumstances, e.g. pregnancy and breast feeding, co-morbid substance misuse, risk to self or others, serious physical co-morbidity or when considering a switch to an alternative antipsychotic drug.

Contact numbers
The specialist team can be contacted via the Initial Response Team – South of Tyne and Wearside Tel: 0303 123 1145

Algorithm for the physical health monitoring of patients on antipsychotics

| Initiation / Baseline Monitoring – to be done by the specialist team |
| Results should be communicated with the patients GP |

| Monitoring in the first 12 months or until the patient's condition has stabilised, whichever is longer – to be carried out by the initiating team unless prior arrangement has been made with primary care |

| Further Annual Monitoring in Primary Care. Appendix 1 details the annual monitoring requirements. |

Consider referral back into secondary care if:
- Any significant deterioration in patient’s mental state
- Poor response to treatment
- Non adherence to medication
- Intolerable side effects of medication
- Co-morbid substance misuse
- Risk to self or others
- Special prescribing circumstances e.g. pregnancy and breast feeding
- Serious physical co-morbidity
- When considering a switch to an alternative antipsychotic drug
## Appendix 1 – Annual monitoring requirements for adult patients prescribed antipsychotics

<table>
<thead>
<tr>
<th>Test/Measurement</th>
<th>Why is it important?</th>
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<tbody>
<tr>
<td><strong>Weight and BMI</strong> (Waist measurement where possible)</td>
<td>Antipsychotic drugs can cause weight gain and this can contribute to an ↑ risk of cardiovascular and metabolic problems (NICE Guidance recommends that these results are plotted on a chart) (Refs 1,4,5)</td>
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<td><strong>Urea and electrolytes</strong> (including creatinine or estimated GFR)</td>
<td>Patients with renal impairment may have reduced capacity to excrete drugs and dose reductions may be required. Hypokalaemia is linked to QTc lengthening and other ECG abnormalities (Ref 1)</td>
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<td><strong>Lipids</strong> (Total cholesterol, HDL cholesterol, Total/HDL-cholesterol ratio, Triglycerides - fasting sample if possible)</td>
<td>Some antipsychotics can cause small adverse changes in lipid profiles. Triglyceride levels can rise during periods of weight gain (Ref 1,4,5)</td>
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<tr>
<td><strong>Liver function</strong> (Bilirubin, Alk Phos, ALT, Albumin, Total protein, Gamma-GT)</td>
<td>Patients with hepatic impairment may have reduced capacity to metabolise drugs and dose reductions may be required. Drug induced liver damage can be due to direct dose related hepatotoxicity or hypersensitivity reactions. Risk factors for drug induced hepatotoxicity include ↑ age, female gender, alcohol, prescribed enzyme inducing drugs, obesity (Ref 1)</td>
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| **Full Blood Count** (Hb, WBC, Platelets) | BNF advises caution when using antipsychotics in patients with blood dyscrasias  
**Antipsychotics can cause blood dyscrasias including agranulocytosis and leucopenia** |
| **Glucose regulation** (Fasting blood glucose (FBG), random blood glucose (RBG) or HbA1c) | Antipsychotics can increase the risk of developing diabetes (Ref 1,4,5) |
| **Blood Pressure** (sitting / lying and standing) and Pulse | Hypotension is a side effect of many antipsychotics and it is important to monitor this during periods of initiation and stabilisation. Longer term it is important to monitor and manage factors that influence a patient's CV risk (Ref 1,4,5) |
| **Prolactin** | Antipsychotics can increase prolactin levels. This can inhibit sex hormones – oestrogen and testosterone and may ↑ risk of osteoporosis (Ref 1) |
| **CV risk assessment** | Compared with the general population, people with schizophrenia are at greater risk of dying from heart disease. CV risk must be monitored long term based on the QRISK-2 tool and managed in accordance with NICE / local clinical guidelines. |
| **Lifestyle Review** | Smoking, poor diet and a sedentary lifestyle are all linked to increased CV risk (Ref 4) |
| **Drug screening** | If indicated by history or clinical picture |
| **Review of the side effects of drug treatment, efficacy and adherence** | On review the treatment efficacy patient adherence and side effects experienced should be assessed. Including:  
- Extrapyramidal symptoms, akathisia, dystonia and tardive dyskinesia  
- Common side effects e.g. – sedation  
- Less common but serious adverse effects e.g. palpitations. |
| **Pregnancy test** | If there is any uncertainty about the possibility of pregnancy, a urine pregnancy test should be carried out |
For patients in the community, ECGs should be performed when at baseline and at least annually when clinically indicated. Factors that determine if ECG monitoring is indicated:

- If the patient has a history of family history of cardiovascular disease (e.g. known ischaemic / structural heart disease QT prolongation)
- If physical examination identifies cardiovascular risk factors (e.g. irregular pulse)
- Patients on antipsychotics that require ECG monitoring (e.g. haloperidol or pimozide (check summary of product characteristics for more information))
- If patient is on other drugs known to cause ECG abnormalities (e.g. Tricyclic antidepressants, erythromycin, anti-arrhythmics – see BNF for further information)
- If the patient has factors which may predispose to arrhythmias including:
  - Electrolyte abnormalities – hypokalaemia, hypocalcaemia, hypomagnesaemia
  - Systemic disease – liver disease, renal disease, hypothyroidism

### References

1. Maudsley Prescribing Guidelines 2015
2. SPC of individual medicines, available at [www.medicines.org.uk](http://www.medicines.org.uk)
3. BNF 68, September 2014
4. Lester UK Adaptation Positive Cardiometabolic Health Resource June 2014 [www.rcpsych.ac.uk/quality/NAS/resources](http://www.rcpsych.ac.uk/quality/NAS/resources)
5. NICE Guidelines CG178 – Psychosis and Schizophrenia in Adults - February 2014

Please refer to the Lester tool for support with interventions / managing results.