# ANTIPSYCHOTICS

## Top tips for MURs

- Counsel patient on the need to take medication regularly
- Advise patient that all antipsychotic drugs may take around four to six weeks to have an effect on symptoms
- Advise patient that therapy should not be discontinued without supervision and that withdrawal is gradual with regular monitoring of symptoms of relapse for at least 2 years after withdrawal
- Check that patients have had full blood cell counts, U & Es, and liver function tests at baseline and then annually, and prolactin level at baseline, 6 months then yearly
- Check whether patients taking clozapine have constipation, hypersalivation or signs of GI bleeding (see red flags below)
- Counsel patient on signs and symptoms of complications that need referral (see red flags below) and common side effects (see overleaf)
- Check that patients have had weight and blood lipids measured at baseline and then annually (for patients taking clozapine or olanzapine test every three months for first year)
- Counsel patient that antipsychotic medication can affect the performance of skilled tasks (e.g. driving). Hangover effects of a night dose may persist the following day
- Advise patient that alcohol can increase the sedative effects of antipsychotics and should be avoided
- Check that patients are having physical health checks at least annually to include weight, BMI, blood pressure, alcohol consumption and smoking status
- Check that patients have had fasting blood glucose measured at 4-6 months and then annually (for patients taking clozapine test after 1 month and then every 4-6 months)
- Check that patients have had an ECG annually (for patients taking haloperidol or pimozide)
- Counsel patients on avoiding direct sunlight if taking chlorpromazine or olanazapine
- Signpost patient to other local services and support groups
- Report any relevant adverse drug reactions to the Yellow Card Scheme

## What are they used for?

Antipsychotics are used to treat schizophrenia, acute mania, psychotic depression, nausea, delirium, to calm disturbed patients, to stabilise mood and to alleviate severe anxiety in the short term. Antipsychotics can also be used in dementia patients for psychosis or agitated behaviour causing severe distress and harm. Risperidone is licensed for short term use (up to 6 weeks) for persistent aggression in patients with mild to moderate Alzheimer's disease. Schizophrenia is a complex disorder whose exact cause is unknown but stress, trauma, infection and genetics are considered contributory factors. Symptoms are related to alterations in neurotransmitter function, with dopamine, glutamate, serotonin (5HT), gamma-amino butyric (GABA) and acetylcholine (which modulates dopaminergic activity) all thought to be involved. Schizophrenia is characterised by positive symptoms (hallucinations, delusions, thought disorder, disorganised speech), negative symptoms (avolition, blunted effect, anhedonia and alogia) and cognitive symptoms.

## Lifestyle issues

- Counsel patient on reducing alcohol intake to within safe limits (up to 14 units a week, spread evenly over 3 more days, with several alcohol free days)
- Counsel patients on healthy eating, exercise & weight loss (if BMI > 25kg/m$^2$) - reduce saturated fat and salt intake, avoid salt substitutes, increase oily fish intake, complete 30 minutes of aerobic exercise three to five times a week, reduce caffeine intake to no more than 5 cups a day and recommend 5 portions of fruit and vegetables a day
- Advise patients who smoke of the benefits of stopping smoking and how to access enhanced smoking cessation services in community pharmacy and GP practices (caution with patients taking clozapine or olanzapine as smoking affects metabolism of these drugs)

## Red flags that need referral

- Any symptoms of tardive dyskinesia (involuntary movement of tongue, face and jaw)
- Any symptoms of parkinsonism (rigidity, tremor, akinesia, slowness of movement), dystonias or akathisia
- Any symptoms of blood dyscrasia (fever, sore throat, stomatitis and signs of infection)
- Any cardiovascular symptoms especially breathlessness, ankle oedema and chest pain
- Any symptoms of neuroleptic malignant syndrome (raised temperature, severe muscle rigidity, incontinence, confusion and sweating)
- Any symptoms of deterioration of condition – emergence of symptoms or taking medication at a therapeutic dose for more than 6 weeks with no improvement
- Any constipation or signs of GI bleeding in patients taking clozapine

## How do antipsychotic drugs work?

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| First-generation antipsychotic | Dopamine $D_2$ receptor antagonism (non selective for any of the four brain dopamine pathways). They also antagonise muscarinic, noradrenergic and histaminergic receptors and HERG channels leading to adverse effects. |
| Second-generation or atypical antipsychotic | Dopamine $D_2$, 5-HT2A & 2C, alpha1, histamine and muscarinic receptor antagonists. Aripiprazole is a dopamine D2 and 5-$HT_{1A}$ partial agonist and 5-$HT_{2A}$ receptor antagonist. |



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## Potential serious drug interactions?

Antipsychotics interact with many other medications including: alcohol, anxiolytics & hypnotics (↑ sedative effect), antidepressant drugs including St John's Wort, fluoxetine, fluvoxamine, paroxetine (altered plasma levels) and citalopram/escitalopram (prolonged QT interval – contra-indication); anti-arrhythmics (prolonged QT interval); antibacterials & antimalarials (↑ risk of ventricular arrhythmias, altered plasma levels); antifungal & antiviral (altered plasma levels), antihypertensives, other antipsychotics, cytotoxics (especially clozapine), lithium, analgesics, anticoagulants, antiepileptics (lower seizure threshold), dopaminergics and antimuscarinics - **See BNF Appendix 1: Interactions for more details.**

## What are the common side effects to look out for?

| Common side effects | Recommendation |
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| Extrapyramidal side effects : Akathisia (restlessness); Dystonia (abnormal face and body movements); Tardive dyskinesia (involuntary movement of tongue, face & jaw) & Parkinsonian symptoms - **more commonly seen in first generation antipsychotics** | Urgent referral to prescriber if new or no longer tolerated. |
| Anticholinergic side-effects especially dry mouth, constipation, blurred vision, confusion and sedation - **more commonly seen in atypical antipsychotics** | Advise newly prescribed patient that side effects usually only last 3 weeks, if not tolerated refer to prescriber. |
| | Advise patient to drink plenty of water, avoid sugary drinks and chew sugar free chewing gum if dry mouth persists. |
| | Advise patient to increase fibre, water intake and exercise or recommend a bulk forming laxative if constipation persists. |
| | Advise patient that close up vision can be affected and to see an optician if a problem. |
| | Clozapine induced constipation requires urgent referral. |
| Weight gain **(especially with clozapine and olanzapine)** | Give lifestyle advice and refer to prescriber if not tolerated. Weight monitoring is important. |
| Hyperglycaemia and diabetes - **commonly seen with clozapine and olanzapine (less commonly quetiapine and risperidone)** | Refer to prescriber for glucose monitoring. |
| Drowsiness | Warn patient that this may affect performance of skilled tasks (e.g driving or operating machinery). |
| Postural hypotension – **(especially during initial dose titration)** | Advise patient to sit up and stand slowly. Consider referral to prescriber for review if troublesome. |
| Photosensitivity – **more commonly seen in chlorpromazine or olanzapine** | Advise using sunscreen and avoiding strong sunlight. |
| Hyperprolactinaemia (breast enlargement, acne, hirsutism, galactorrhoea, menstrual disturbances,) - **more commonly seen with risperidone, amisulpride and first-generation antipsychotics** | Refer to prescriber for dose reduction or switching medication. |
| Cardiovascular – tachycardia, arrhythmias, breathlessness | Urgent referral to prescriber. |
| Insomnia - **more commonly seen with amisulpride (low dose), aripiprazole** | Give sleep hygiene advice, suggest antipsychotic is taken in the morning and if persistent refer to prescriber for medication review. |
| Postural hypotension – **commonly seen in clozapine, chlorpromazine and quetiapine (especially during initial dose titration)** | Postural hypotension - Advise patient to sit up and stand slowly. Consider referral to prescriber for review if troublesome. |
| Hypersalivation – **commonly seen with clozapine** | Refer to prescriber. |
| Blood dyscrasias (unexplained bleeding, sore throat, flu like symptoms, fever) - **seen with clozapine, risperidone, olanzapine and quetiapine** | Urgent referral to prescriber. Recommend immediate blood count. |

## Where can you find more information?

- Distance learning pack *"Introduction to Pharmaceutical Care in Mental Health"* found on the WCPPE website (**http://www.wcppe.org.uk**)
- The National Centre for Mental Health (NCMH) website has downloadable patient information leaflets written by specialist mental health pharmacists and other information (**http://ncmh.info**)
- NICE guidance: *CG178 Psychosis and Schizophrenia in adults: treatment and management* and *CG42 Dementia: supporting people with dementia and their carers in health and social care can be found on NICE website* (**http://www.nice.org.uk**)
- Clinical Knowledge Summary schizoprenia can be found on CKS website (**http://www.cks.nice.org.uk**)
- NHS choices – Schizophrenia can be found on the NHS website (**http://www.nhs.uk/Conditions/Schizophrenia/Pages/Introduction.aspx**)

**References**

1. Introduction to Pharmaceutical Care in mental health, NHS education for Scotland, 2012



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