# NHS GRAMPIAN MENTAL HEALTH AND LEARNING DISABILITY PHARMACEUTICAL SERVICE



## Algorithm for the Antipsychotic Treatment of Schizophrenia in Adults

Effective & tolerated but problems with concordance or if patient prefers:

Consider depot and once stable consider reduction to minimum effective dose.

#### PRESCRIBE ANTIPSYCHOTIC

- Agree on the choice of antipsychotic with patient and/or carer (see Table 1).
- · Discuss benefits and relevant side-effect profile.
- Adjust dosage regimen according to therapeutic response and tolerability/safety (up to BNF maximum).
- Evaluate over 2 3 weeks at clinically effective dose. If some response continue for 10 weeks (total) and reassess.
- Monitor side-effects.

Effective & tolerated but problems with concordance or if patient prefers:

Consider depot & once stable consider reduction to minimum effective dose.

## INADEQUATE/NO RESPONSE OR NOT TOLERATED, CHANGE TO ANOTHER ANTIPSYCHOTIC

- Titrate to effective/tolerated dose up to BNF maximum.
- Evaluate over 2 3 weeks at clinically effective dose. If some response continue for 10 weeks (total) and reassess.

#### IF NOT TOLERATED:

- Discontinue treatment.
- Consider evidence based combination treatment.

### INADEQUATE/NO RESPONSE OR NOT TOLERATED, CONSIDER CHANGE TO CLOZAPINE

(At least one drug should have been a second generation antipsychotic)
Initiation, ongoing prescribing and

Initiation, ongoing prescribing and monitoring as per NHS Grampian Shared Care Protocol for Clozapine.

## EFFECTIVE & TOLERATED:

Continue treatment & once stable consider reduction to minimum effective dose.

#### **INEFFECTIVE OR PARTIAL RESPONSE:**

- Review concordance.
- Check blood levels and if appropriate increase dose.
- Consider evidence based combination treatment.

#### **Treatment and Management Guidance**

- Choice of drug should be made jointly with clinician and patient following an informed discussion. Offer information including patient information leaflets. Carers should be involved as appropriate.
- If patient liable to detention, ensure that medication regime complies with current Form T2B or T3B Mental Health (Care and Treatment) (Scotland) Act 2003.
- Check if patient has an advanced statement.
- Before starting antipsychotic medication perform an electrocardiogram (ECG) if:
   Specified in the SmPC, a physical examination has identified specific cardiovascular risk, personal history of cardiovascular disease, or the person is being admitted or is an in-patient.
- The prescribing of more than one antipsychotic, except for short periods to cover a changeover of medication or during period of acute illness, should generally be avoided. There is no good objective evidence that combined antipsychotics (that do not include clozapine) offer any efficacy advantage over the use of a single antipsychotic.
- Evaluate response and side-effects using relevant rating scales, e.g. Glasgow Antipsychotic Side Effects Scale (GASS) or Glasgow Antipsychotic Side Effects Scale for Clozapine (GASS Clozapine).
- Document fully in patient's notes all drug changes, response to and side-effects from treatment.
- Once stable consider reduction to minimum effective dose.
- Consider psychological treatments.
- If poor response to treatment, review patient's diagnosis and consider other causes for non response such as comorbid substance misuse, the concurrent use of other prescribed medication, physical illness or poor concordance.
- If treatment resistant or signs of catatonia consider electroconvulsive therapy (ECT).
- The physical health of patients with schizophrenia should be monitored at least once a year (see Table 2).

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Table 1: RELATIVE ADVERSE EFFECTS OF ANTIPSYCHOTICS

	Adverse effect (Key +++ High incidence/severity; ++ Moderate; + Low; - Very low)												
	Extra- pyramidal	Akathisia	Sedation	Weight Gain	Anti- cholinergic	Prolactin elevation	Diabetes	Cardiac	Hypo- tension				
Second generation antipsychotic													
Amisulpride	+	+	-	+	-	+++	-	++	-				
Aripiprazole	-	+	-	-	-	-	+	++	-				
Cariprazine	-	+	-	-	-	-	+	++	+/-				
Clozapine	-	-	+++	+++	+++	-	+++	+++	+++				
Lurasidone	+	+	+	-	-	-	-	+/-	-				
Olanzapine	-	-	++	+++	+	+	+++	++	+				
Quetiapine	-	-	++	++	+	-	++	+	++				
Risperidone	+	+	+	++	+	+++	+	++	++				
Paliperidone (injection)	+	+	+	++	+	+++	+	++	++				
First generation antipsychotic													
Chlorpromazine	++	+	+++	++	++	+++	++	++	+++				
Flupentixol	++	++	+	++	++	+++	++	++	+				
Haloperidol	+++	+++	+	+	+	++	+/-	+++	+				
Promazine	+	+	+++	++	++	++	+	++	++				
Sulpiride	+	+	-	+	-	+++	-	++	-				
Trifluoperazine	+++	+	+	+	+	+++	+	++	+				
Zuclopenthixol	++	++	++	++	++	+++	++	++	+				

#### PHYSICAL HEALTH MONITORING

Antipsychotic medications are associated with a range of adverse effects which can influence physical health. The table below outlines a proposed schedule of physical monitoring based on recommendations in NICE, SIGN and Maudsley.

For in-patients, on discharge or for out-patients, it is the responsibility of the specialist to discuss and agree the monitoring plan with the GP and/ or other relevant community mental health personnel. See <a href="Responsibility for Prescribing across Secondary and Primary Care Appendix1">Responsibility for Prescribing across Secondary and Primary Care Appendix1</a> for an individual patient care plan.

# Table 2: SUGGESTED MONITORING SCHEDULE FOR PATIENTS TAKING ANTIPSYCHOTIC MEDICATIONS FOR SCHIZOPHRENIA

Test	Baseline	At 1 month	At 3 months	At 6 months	Annually
Individual and family history of physical illness	V				V
Smoking history	V		<b>√</b>		V
Body mass index / weight / waist circumference	V		during first 3		V
Blood pressure	V	Frequently during titration	V		V
Pulse	V		V		V
Urea and Electrolytes	V				V
Liver Function tests	V				V
Full Blood Count	V				V
HbA1c / random glucose / fasting glucose	V		<b>√</b>		V
Random lipids / fasting lipids	V		V		V
Prolactin*	√ Only if indicated*			√ Only if indicated*	√ Only if indicated*
ECG^	V	When target	dose reached		V

## Key:

- \* Amisulpride, risperidone, paliperidone and first generation antipsychotics are particularly associated with hyperprolactinaemia.
- ^ ECG if specified in the SmPC (e.g. clozapine, haloperidol, chlorpromazine, pimozide), a physical examination has identified specific cardiovascular risk, personal history of cardiovascular disease, or the person is being admitted or is an in-patient.

### References

- 1. Maudsley Prescribing Guidelines, 14th edition, Wiley Blackwell, 2021
- 2. Bazire S., Psychotropic Drug Directory 2020/21, Lloyd Reinhold
- Scottish Intercollegiate Guidelines Network (SIGN) Management of schizophrenia.
   Edinburgh: SIGN; 2013. (SIGN publication no.131 (cited October 2014). Available from: https://www.sign.ac.uk/assets/sign131.pdf
- 4. Psychosis and schizophrenia in adults: treatment and management. NICE clinical guideline 178 (2014). <a href="https://www.nice.org.uk/guidance/cg178">https://www.nice.org.uk/guidance/cg178</a>