Te Awakairangi Health NETWORK

September 2018

Atypical antipsychotic monitoring audit

Background

Patients with serious mental illness are at increased risk of cardiovascular disease and diabetes. In recognition of this risk the latest Cardiovascular Risk Assessment Guidance has been updated to include regular screening of patients with serious mental illnesses. In addition, although no antipsychotic drug is entirely free of the risk of metabolic disturbance, which can occur at low doses, each drug has its own risk profile; clozapine and olanzapine have significantly higher risk, followed by quetiapine and risperidone. Guidelines therefore recommend specific routine monitoring for patients being treated with antipsychotics.

Anti-muscarinic activity occurs with several atypical antipsychotics or their active metabolites, mostly reported as dry mouth or constipation and less often as blurred vision or urinary retention. In the case of clozapine, hypersalivation rather than dry mouth is common, but other anticholinergic effects follow the expected pattern. Weight gain is also a well-established side effect of antipsychotic therapy, so the rationale for monitoring metabolic parameters during the course of antipsychotic treatment is clear.

Goals of metabolic monitoring include:

- Identification of individuals at high risk of metabolic disorder (metabolic syndrome, pre-diabetes, severe obesity) for prevention and health promotion initiatives
- Early identification of treatable metabolic conditions (diabetes, dyslipidaemia, and hypertension)
- Tracking and linking of metabolic disturbances in relation to antipsychotic treatment

Key Actions

Identify patients on atypical antipsychotics that:

1. *Are not on a regular recall system for monitoring*

Ensure patients are part of a regular recall system to monitor for metabolic disturbances including CVD risk assessment

2. *Have not had baseline parameters recorded*

Baseline monitoring for metabolic disturbances is necessary to identify changes and the need for management of metabolic diseases

3. *Do not have a primary indication for their antipsychotic medication coded*

Ensure a primary indication is coded to ensure the patients is part of a regular recall system for monitoring.

4. *Have abnormal metabolic parameters*

Early identification of metabolic changes and treatment will reduce the risk of developing complications of metabolic disorders

Table 1: Comparison of effects of atypical antipsychotics

Generic name (funded brand(s))	Weight Gain	Dyslipidaemia	Hyperglycaemia	Anticholinergic
Clozapine (Clozaril, Clopine)	+++	+++	+++	+++
Olanzapine (Zypine)	+++	+++	+++	+++
Quetiapine (Quetapel)	++	++	++	++
Risperidone (Risperon, Risperidone Actavis)	++	++	++	0
Amisulpride (Solian, Sulprix)	+/0	+	+	0
Ziprasidone (Zeldox, Zusdone)	+/0	+	+	+
Aripiprazole (Abilify, Aripiprazole Sandoz)	+/0	+	0	0

Antipsychotic monitoring Audit

A RNZCGP-accredited audit has been developed to capture patients on atypical antipsychotics and measure how well the recommended routine metabolic monitoring parameters are being met (Table 1). Selected patients should have been prescribed an atypical antipsychotic for at least a year (i.e. the previous 12 months). Secondary measurements will include whether the patient has a primary indication for the medication and is on regular recall system. Patients should also be monitored for the development of extrapyramidal side effects and constipation.

Consider the following:

- How do we identify patients on atypical anti psychotics for monitoring?
- What mechanisms do we have to ensure regular recall and monitoring of patients taking antipsychotics?

Table 1: Recommended monitoring schedule#

Parameter	Baseline	1 mth	2 mths	3 mths	6 mths	Annually
Weight, BMI, girth	x	x	x	x		x
Blood pressure & pulse	x	x	x	x		x
HbA_{1c} (non-fasting)	x			x		x
Lipids (non-fasting)	x			x		x
LFTs	x					x*
Prolactin	x				x**	x**
Creatinine	x					x
Electrolytes	x					x
CVD risk assessment	x					x
Complete blood count (CBC)	x					x

additional or more frequent screening may be necessary based on a patient's individual risk
*except amisulpride – baseline only required
** **Prolactin** - for amisulpride, risperidone, paliperidone & first generation antipsychotics (typicals) – also monitor at 6 months, then annually or if symptoms occur. For all other antipsychotics – do baseline and if symptoms occur

Note: Antipsychotics should be used with caution in patients with CVD. An ECG may be required, especially with amisulpride

References:

1. Ministry of Health. 2018. Cardiovascular Disease Risk Assessment and Management for Primary Care. February 2018.
2. Jibson MD. Second generation antipsychotic medications: Pharmacology, administration, and side effects. UpToDate May 2017. Retrieved from https://www.uptodate.com/contents/second-generation-antipsychotic-medications-pharmacology-administration-and-side-effects?search=antipsychotics%20metabolic%20syndrome&source=search_result&selectedTitle=2~150&usage_type=default&display_rank=2
3. CCDHB Metabolic monitoring guideline. CapitalDoc ID 1.102027. April 2016
4. Te Awakairangi Health Network - Update. Monitoring Atypical Antipsychotics and Mood Stabilisers – what and why. March 2016.