VCMC/SANTA PAULA HOSPITAL CLINICAL PRACTICE GUIDELINE
Metabolic Monitoring of Patients Receiving Antipsychotic Medications

The contents of this clinical practice guideline are to be used as a guide. Healthcare professionals should use sound clinical judgment and individualize patient care in the appropriate clinical setting. This CPG is not meant to be a replacement for training, experience, CME or studying the latest literature and drug information

Antipsychotic medications, particularly the second-generation antipsychotics (SGA), may be contributing factors in accelerating the development of cardiovascular disease. Use of the SGA's "has been associated with reports of dramatic weight gain, diabetes (even acute metabolic decompensation, e.g., diabetic ketoacidosis [DKA]), and an atherogenic lipid profile (increased LDL cholesterol and triglyceride levels and decreased HDL cholesterol)."

The Consensus Development Conference on Antipsychotic Drugs and Obesity and Diabetes recommends baseline screening before, and as soon as clinically feasible after initiation of antipsychotic medication. These assessments can determine if the patient is overweight (BMI 25-29.9) or obese (BMI > or = to 30), has pre-diabetes (fasting plasma glucose = 100-125 mg/dl), or diabetes (fasting glucose > or = 126 mg/dl), hypertension (blood pressure > 140/90 mmHg), or dyslipidemia. Assessments should be performed at the frequency stated below from the time of either initiation or change of dosage.

Elements to Monitor

- Personal/family history: baseline and annually
- Weight (BMI): baseline, then at 4, 8, 12 weeks, then quarterly
- Blood pressure: baseline, 12 weeks, and annually
- Plasma fasting glucose (or equivalent if FBS not possible): baseline, 12 weeks and annually
- Fasting lipid profile: baseline, 12 weeks and annually

Recommendations:

- Consider switch of SGA if weight gain of > or = 5%
- If patient shows worsening glycemia or dyslipidemia consider switching to SGA not associated with weight gain or diabetes
- All patients with diabetes should be referred for appropriate medical care
    - Education – patient, family and caregivers regarding metabolic risks and symptoms of diabetes and/or DKA
- Immediate consultation for: suspected DKA, symptomatic or severe hyperglycemia (glucose > or = 300 mg/dl), symptomatic hypoglycemia, or glucose levels < or = 60 mg/dl

DKA *clinical presentation*

Rapid onset of:

- Polyuria, polydipsia
- Weight loss
- Nausea, vomiting
- Dehydration
- Rapid respiration
- Clouding of sensorium coma

Drug	Weight Gain	Risk for Diabetes	Worsening lipid profile
1) Clozapine	+++	+++	+++
2) Olanzapine	+++	+++	+++
3) Risperidone	++	++	+
4) Quetiapine	++	++	++
5) Ziprasidone	+/0	+/0	+/0
6) Aripiprazole	+/0	+/0	+/0
7) Iloperidone	++	+/0	+/0
8) Paliperidone	+/++	+	+
9) Asenapine	+/++	+/0	+/0
10) Lurasidone	+/0	+/0	+/0
11) Brexpiprazole	--	--	--

+++: significant

++: moderate

+: low

+: low to neutral

--: no significant data

Sources for these guidelines:

- Consensus Development Conference on Antipsychotic Drugs and Obesity and Diabetes; *Diabetes Care*; Volume 27, Number 2, Feb 2004
- De Hert M, Yu W, Detraux J, et al. Body weight and metabolic adverse effects of asenapine, iloperidone, lurasidone and paliperidone in the treatment of schizophrenia and bipolar disorder: a systemic review and exploratory meta-analysis. CNS Drugs. 2012; 26(9): 733-759
- Stahl SM. Stahl's essential psychopharmacology, neuroscientific basis and practical applications. Oxford, United Kingdom: Cambridge University Press; 2008

Approval:
Psychiatry: 9/2015
MEC: 10/2015