

# METABOLIC ASSESSMENT, SCREENING AND MONITORING TOOL

## P1

Client Details	Client Name (last, first):	PHN:	DOB: (dd/mm/yyyy)
	Hospital/Clinic ID:	Gender: <input type="checkbox"/> Male <input type="checkbox"/> Female → <input type="checkbox"/> Menstrual <input type="checkbox"/> Pre-menstrual	Assessment Date: (dd/mm/yyyy)

Target Symptoms	<b>(Check all that apply with respect to starting Second Generation Antipsychotic (SGA))</b>	
	<input type="checkbox"/> Mania <input type="checkbox"/> Mood/affect lability <input type="checkbox"/> Mood stabilization (Bipolar Disorder) <input type="checkbox"/> Oppositionality <input type="checkbox"/> Psychosis <input type="checkbox"/> Self-injurious behaviour	<input type="checkbox"/> Motor/vocal tic <input type="checkbox"/> Sedation/sleep <input type="checkbox"/> Aggression <input type="checkbox"/> Augmentation of _____ (i.e. Antidepressant, anti-anxiety, mood stabilizer, psychostimulant) <input type="checkbox"/> Other (list) _____

Diagnoses	Primary Diagnosis:
	Other Diagnoses:

Ethnicity	<input type="checkbox"/> Aboriginal* <input type="checkbox"/> Mexican/Hispanic* <input type="checkbox"/> Caucasian	<input type="checkbox"/> South Asian* (i.e. Indian/Pakistani/Bangladesh) <input type="checkbox"/> African/Caribbean* <input type="checkbox"/> Arab (i.e. Saudi Arabian/Egyptian/Iraqi)	<input type="checkbox"/> Asian* (i.e. Japanese/Chinese) * = high risk ethnicity
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Risk Factor Evaluation	<b>Family History</b>					
		No	Yes	Unknown	1st degree relative*	2nd degree relative*
	Diabetes		<input type="checkbox"/> Type 1 <input type="checkbox"/> Type 2 <input type="checkbox"/> Gestational			
	Hyperlipidemia					
	Cardiovascular Disease					
	Schizophrenia					
	Schizoaffective Disorder					
	Psychosis Not Otherwise Specified					
	Bipolar Disorder					
	* 1st degree relative (mother/father/sibling), 2nd degree relative (grandmother/grandfather/cousin/aunt/uncle)					

Individual Risk Factors	Smoking	<input type="checkbox"/> No	<input type="checkbox"/> Yes, _____ cigarettes/day
	Physical Activity eg. Exercise (walking)	<input type="checkbox"/> No	<input type="checkbox"/> Yes, _____ min/day
	Screen Time eg. computers, tv, video games	<input type="checkbox"/> No	<input type="checkbox"/> Yes, _____ min/day
	Sugar-sweetened beverages	<input type="checkbox"/> No	<input type="checkbox"/> Yes, _____ cans of pop/day <input type="checkbox"/> Yes, _____ juice boxes/day



P2

Monitoring Guidelines for patients treated with Second Generation Antipsychotics (SGAs)

Parameter	Pre-treatment Baseline	1 month	2 month	3 month	6 month	9 month	12 month
Assessment Date (dd/mm/yy): →							
Height (cm)							
Height percentile <sup>(1)</sup>							
Weight (kg)							
Weight percentile <sup>(1)</sup>	▲	▲	▲	▲	▲	▲	▲
BMI: (Wt (kg) / Ht (cm <sup>2</sup> ) x10,000)							
BMI percentile <sup>(1)</sup>							
Waist Circumference (At the level of the umbilicus)	▲	▲	▲	▲	▲	▲	▲
Waist Circumference percentile <sup>(2)</sup>	▲	▲	▲	▲	▲	▲	▲
Blood Pressure (systolic/diastolic)	/	/	/	/	/	/	/
Blood Pressure percentile <sup>(3)</sup> (systolic/diastolic)	/	/	/	/	/	/	/
Neurological Examination <sup>(4)</sup>	<input type="checkbox"/> completed				<input type="checkbox"/> completed	<input type="checkbox"/> completed	
<b>Laboratory Evaluations:</b> Normal Values							
Fasting Plasma Glucose ≤ 6.1 mmol/L <sup>(5)</sup>					◆		
Fasting Insulin <sup>(6)</sup> ≤ 100 pmol/L <sup>(7)</sup>					◆		
Fasting Total Cholesterol < 5.2 mmol/L					◆		
Fasting LDL-C < 3.35 mmol/L					◆		
Fasting HDL-C ≥ 1.05 mmol/L					◆		
Fasting Triglycerides < 1.5 mmol/L					◆		
AST					▲		
ALT					▲		
TSH <sup>(8)</sup>							
Prolactin <sup>(9)</sup>				§			
Other (eg. Amylase, A1C, OGTT) <sup>(10)</sup>							
Physician Initials: →							
<b>Interventions</b> (continue checking as conducted throughout the year)	<b>Pre-treatment</b> <input type="checkbox"/> Discuss metabolic risks <input type="checkbox"/> Discuss diet <input type="checkbox"/> Discuss physical activity <input type="checkbox"/> Risk/benefit assessment <input type="checkbox"/> Discuss smoking cessation	<b>Post-treatment</b> <input type="checkbox"/> Discuss diet <input type="checkbox"/> Refer to dietitian <input type="checkbox"/> Discuss signs and symptoms of diabetes/DKA <input type="checkbox"/> Discuss physical activity <input type="checkbox"/> Refer to rehab/groups for lifestyle		<input type="checkbox"/> Switch antipsychotic medication <input type="checkbox"/> Refer to specialized services (via GP) e.g. lipid clinic, diabetes clinic <input type="checkbox"/> Liaise with GP re: abnormal labs <input type="checkbox"/> Other _____			
Comments							
Frequency of follow up after 12 month assessment recommended as yearly or sooner if clinically indicated							

= not recommended    
 = highly recommended, but not required    
 = highly recommended, but not required unless issues identified at month 3, or other clinical indications.

= required    
 = required only for Risperidone & Olanzapine

<sup>1</sup> To determine height, weight and BMI percentiles, use age and sex-specific growth charts at: <http://www.cdc.gov/growthcharts/>

<sup>2</sup> To determine age and sex-specific percentiles, go to: [http://www.idf.org/webdata/docs/Mets\\_definition\\_children.pdf](http://www.idf.org/webdata/docs/Mets_definition_children.pdf) (pages 18-19); Use Adult cut-off (page 10) if lower.

<sup>3</sup> To determine age and sex-specific percentiles, go to: <http://pediatrics.aappublications.org/cgi/content/full/114/2/S2/555>. Note that height percentile is required for the calculation of BP percentile.

<sup>4</sup> Tools available for monitoring extrapyramidal symptoms that may be used: **AIMS** (Abnormal Involuntary Movement Scale), **SAS** (Simpson-Angus Scale), **ESRS** (Extrapyramidal Symptom Rating Scale), **BARS** (Barnes Akathisia Rating Scale).

<sup>5</sup> For FPG values of 5.6 – 6.0 mmol/L, consideration should be given to performing an oral glucose tolerance test (OGTT).

<sup>6</sup> Note that this assessment is NOT recommended for Aripiprazole or Ziprasidone, but IS appropriate for all other SGAs. Only recommended at baseline if other risk factors exist.

<sup>7</sup> For fasting insulin levels > 100 pmol/L, consideration should be given to performing an OGTT.

<sup>8</sup> Only for Quetiapine. Check yearly if clinical indications exist.

<sup>9</sup> Note that assessment of prolactin levels should be completed according to protocol EXCEPT when the patient is displaying clinical symptoms of hyperprolactinemia (ie: menstrual irregularity, gynecostasia, or galactorrhea), in which case more frequent monitoring may be warranted. Please also note that Risperidone is the SGA with the greatest effect on prolactin.

<sup>10</sup> It is recommended that Amylase levels be monitored in cases where the patient presents with clinical symptoms of pancreatitis (ie: abdominal pain, nausea, vomiting).



P3

	Drug Initiation	1 month	2 month	3 month	6 month	9 month	12 month
<b>SGAs</b>							
Assessment Date (dd/mm/yyyy): →							
Risperidone (Risperdal)	Dose _____ Freq _____	Dose _____ Freq _____	Dose _____ Freq _____	Dose _____ Freq _____	Dose _____ Freq _____	Dose _____ Freq _____	Dose _____ Freq _____
Quetiapine (Seroquel)	Dose _____ Freq _____	Dose _____ Freq _____	Dose _____ Freq _____	Dose _____ Freq _____	Dose _____ Freq _____	Dose _____ Freq _____	Dose _____ Freq _____
Olanzapine (Zyprexa)	Dose _____ Freq _____	Dose _____ Freq _____	Dose _____ Freq _____	Dose _____ Freq _____	Dose _____ Freq _____	Dose _____ Freq _____	Dose _____ Freq _____
Paliperidone (Invega)	Dose _____ Freq _____	Dose _____ Freq _____	Dose _____ Freq _____	Dose _____ Freq _____	Dose _____ Freq _____	Dose _____ Freq _____	Dose _____ Freq _____
Clozapine (Clozaril)	Dose _____ Freq _____	Dose _____ Freq _____	Dose _____ Freq _____	Dose _____ Freq _____	Dose _____ Freq _____	Dose _____ Freq _____	Dose _____ Freq _____
Ziprasidone (Zeldox)	Dose _____ Freq _____	Dose _____ Freq _____	Dose _____ Freq _____	Dose _____ Freq _____	Dose _____ Freq _____	Dose _____ Freq _____	Dose _____ Freq _____
Aripiprazole (Abilify)	Dose _____ Freq _____	Dose _____ Freq _____	Dose _____ Freq _____	Dose _____ Freq _____	Dose _____ Freq _____	Dose _____ Freq _____	Dose _____ Freq _____
<b>Other Medications</b>							
Assessment Date (dd/mm/yyyy): →							
	Dose _____ Freq _____	Dose _____ Freq _____	Dose _____ Freq _____	Dose _____ Freq _____	Dose _____ Freq _____	Dose _____ Freq _____	Dose _____ Freq _____
	Dose _____ Freq _____	Dose _____ Freq _____	Dose _____ Freq _____	Dose _____ Freq _____	Dose _____ Freq _____	Dose _____ Freq _____	Dose _____ Freq _____
	Dose _____ Freq _____	Dose _____ Freq _____	Dose _____ Freq _____	Dose _____ Freq _____	Dose _____ Freq _____	Dose _____ Freq _____	Dose _____ Freq _____
	Dose _____ Freq _____	Dose _____ Freq _____	Dose _____ Freq _____	Dose _____ Freq _____	Dose _____ Freq _____	Dose _____ Freq _____	Dose _____ Freq _____
	Dose _____ Freq _____	Dose _____ Freq _____	Dose _____ Freq _____	Dose _____ Freq _____	Dose _____ Freq _____	Dose _____ Freq _____	Dose _____ Freq _____
	Dose _____ Freq _____	Dose _____ Freq _____	Dose _____ Freq _____	Dose _____ Freq _____	Dose _____ Freq _____	Dose _____ Freq _____	Dose _____ Freq _____
	Dose _____ Freq _____	Dose _____ Freq _____	Dose _____ Freq _____	Dose _____ Freq _____	Dose _____ Freq _____	Dose _____ Freq _____	Dose _____ Freq _____
Physician Initials: →							
Comments and description of changes made to medication dose at other time interval							
Additional Comments							