



BEHAVIORAL HEALTH GUIDELINE

Guidelines for Monitoring Adult and Pediatric Patients treated with Atypical Anti-psychotics

Guideline History

Date Approved	07/07
Date Revised	07/09, 07/11, 09/22
Date Reviewed	04/07, 07/13, 07/15, 07/17, 07/19, 09/22, 9/24
Next Review Date	09/25

These Guidelines are promulgated by Sentara Healthcare (SHC) as recommendations for the clinical management of specific conditions. Clinical data in a particular case may necessitate or permit deviation from these Guidelines. The SHC Guidelines are institutionally endorsed recommendations and are not intended as a substitute for clinical judgement.

Key Points

- ✓ Individuals with major mental health illnesses often have concurrent major risk factors for cardiovascular disease. These may include obesity, hypertension, diabetes, hyperlipidemia, hypercortisolemia and cigarette smoking.
- ✓ The association between atypical antipsychotics and adverse metabolic effects is well established. Therefore, baseline and periodic monitoring is advised for both adults and pediatric patients. Patients and/or their parents/guardians should be advised of this risk and the need for ongoing monitoring.
- ✓ A baseline personal and family history of cardiovascular disease, vital signs including BMI & waist circumference, EKG, Hgb A1C, BMP and Lipid profile should be obtained. Therefore, baseline and periodic monitoring is advised for both adults and pediatric patients. Patients and/or their parents/guardians should be advised of this risk and the need for ongoing monitoring.
- ✓ Please see Table 2 for recommended monitoring intervals.
- ✓ Supportive counseling and coordination with their Primary Care Team, Nutritionists, Physical Therapists, etc. may be needed. See also Clinical Guidelines of the care of Diabetes, Lipid Management on <https://www.sentarahealthplans.com/>

	RECEPTOR BINDING PROFILE																	RISK								
	D ₁	D ₂	D ₃	D ₄	H ₁	H ₂	H ₃	S-HT _{1A}	S-HT _{1B}	S-HT _{1A}	S-HT _{2A}	S-HT _{2B}	S-HT _{2C}	S-HT ₆	S-HT ₇	M ₁	M ₃	α ₁	α _{2A}	α _{2B}	α _{2C}	Transporter	Weight Gain	Glucose Abn	Lipid Abn	
Olanzapine	++	++	++	++	+++	++	+	+	+	+++	++	++	++	+++	++	++	++	++	++	+	++	++		++++	++	++
Zotepine	++	+++	+++	+	+++	+		+	++	+++	++	+++	+++	+++	++	+	+	+++	+++	+	+++	++	SERT, NET	+++	(LD)	(LD)
Clozapine	+	+	+	++	+++	+	+	+	+	++	+++	+++	++	++	++	+++	+++	++	+++	++	++	++		+++	++	++
Chlorpromazine	++	+++	+++	+++	+++	+	+	+++	+++	+++	+++	+++	+++	+++	+++	++	++	++	+++	+	++	++		+++	+/+	+/+
Sertindole		+++	+++	+++	+		+	++++	++	++++	++	+++	+++	++	++			+++	+++	+	+	+		+++	+/+	+/+
Iloperidone	+	+++	+++	++	+		++	+++	++	+++	++	++	++	+	+			+++	+++	+	++	++		+++	+/+	+/+
Risperidone	+	+++	+++	+++	+++	+	+	++++	++	++++	++	++	++		+++			+++	+++	++	+++	+++		+++	+/+	+/+
(Nor)quetiapine	+	+	+		+++		++	++		++		+	+	+	++	+	+	+++	+++	+	++	++	NET	+++	+	+
Paliperidone	+	+++	+++	+++	++	+	+	+++	++	+++	++	++	++	+	+++			+++	+++	+++	+++	+++		+++	+/+	+/+
Asenapine	+++	+++	++++	+++	+++	+++	+++	++++	++++	++++	++++	++++	++++	++++	++++			+++	+++	+++	+++	+++		++	+	+
Amisulpride		+++	+++	+++							++				++									++	+	++(LD)
Aripiprazole		+++	+++	+	++		+++	+	+	+++	++++	++	++	+	++			++	++	++	++	SERT	++	+	+	+
Brexpiprazole	+	+++	+++	+++	++		++++	+++	+++	++++	+++	+	++	++	+++			+++	+++	+++	+++	SERT, NET	+(LD)	+(LD)	+(LD)	+(LD)
Cariprazine		+++	+++	+++	++		+++	++	+++	+++	+++	+	+	+	+			+	+	+	+		+(LD)	+(LD)	+(LD)	+(LD)
Haloperidol	+	+++	+++	+++		+		+		+	+				+			++	++	+	+		+	+	+	+
Lurasidone	+	+++					+++	+++		+++	+++	+			++++			++	++	+++	+++			+	+	+
Ziprasidone	+	+++	+++	++	++		+++	++++	++	++++	++	++++	++++	++	+++			++	++	++	++	SERT, NET	+	+	+	+

A. Receptor-binding profile. Antagonism and inverse agonism are indicated by blue color whereas partial agonism by yellow. The number of crosses and color intensity are correlated to binding affinity. Quetiapine is demonstrated along

Table 2

Recommended monitoring for a patient taking an atypical antipsychotic

Parameter	Baseline	1 Mo	2 Mo	3 Mo	6 Mo	Annually
Body Mass Index	X	X	X	X	X	X
Waist Circumference	X	X	X	X	X	X
HbA	X			X		X
Fasting plasma glucose	X			X		X
Fasting lipid panel	X			X		X

Encourage patients to monitor their weight in addition to being weighed at the clinic.

Unless patient develops diabetes mellitus, in which case American Diabetes Association guidelines for managing diabetes are recommended. SOURCE: References 2,10

Kathryn Zeier, PharmD, Robert Connell, PharmD, BCPS, William Resch, DO, FAPA, and Christopher J. Thomas, PharmD, BCPS, BCPP, CGP https://cdn.mdedge.com/files/s3fs-public/Document/September-2017/051_0913CP_SavvyPsych_FINAL.pdf

Antipsychotic Drugs: From Receptor-binding Profiles to Metabolic Side Effects. Spyridon Sifis,^a Dimitrios Tzachanis,^{a,b} Myrto Samara,^c and Georgios Papazisis. *Current Neuropharmacol.* 2018 Oct; 16(8): 1210–1223. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6187748/>