Antipsychotic Monitoring

Individuals with severe mental illness, for example bipolar disorder, schizophrenia, and schizoaffective disorder are at increased risk for medical illnesses including diabetes, cardiac, and other cardiovascular disorders as well as stroke. Many of the second generation (so called "atypical") antipsychotic medications aggravate factors associated with metabolic disorders. In particular, weight gain may occur as well as elevations in glucose, triglycerides, and cholesterol. These metabolic changes appear to interact with the predisposition these patients already have towards diabetes and other metabolic pathology. It is for this reason that the American Diabetes Association and the American Psychiatric Association have developed guidelines for safely monitoring patients treated with these medications. Prudent medical practice includes monitoring the physical health of all patients treated with second generation antipsychotics in accordance with these guidelines (see table).

ADA Screening Guidelines for Patients on Second-Generation Antipsychotics

	Baseline	4 Weeks	8 Weeks	12 Weeks	Annually
Personal family history[1]	X				X
Weight (BMI)[1] Overweight (25.0-29.9)[1] Obese (≥30.0)[1]	X	X	X	X	
Waist circumference[1] (<40″ in males, <35″ in females)[3]	X				X
Blood pressure[1]	X			X	X
Fasting plasma glucose[2] IFG (100-125 mg/dL)[2] Diabetes (≥126 mg/dL)[2]	X			X	X
Fasting lipid profile[1] Total cholesterol (<200 mg/dL)[3] HDL (>40)[3] LDL (<100)[3] TG (<150)[3]	X		X		

Normal values (in parentheses) based on 2007 ADA Guidelines and National Cholesterol Education Program (NCEP) Guidelines. More frequent assessments may be warranted based on patient results and the monitoring recommendations in the package inserts for individual antipsychotic drugs used. LDL=low density lipoprotein.

1. ADA. *Diabetes Care.* 2004;27(2):596-601.
2. ADA. *Diabetes Care.* 2007;30(suppl 1):S4-S41.
3. Adult Treatment Panel. *JAMA.* 2001;285(19):2486-2497.

Furthermore, the different second generation antipsychotics have different effects on these metabolic parameters. Clozapine (Clozaril and others), and olanzapine (Zyprexa) appear to have the largest effect on weight gain and worsening metabolic parameters such as glucose, cholesterol, and triglyceride levels. Aripiprazole (Abilify) and Ziprasidone (Geodon) have the least effect on weight and metabolic parameters; quetiapine (Seroquel) and risperidone (Risperdal) appear to be in the middle.

It is clinically essential that we follow our patients weight and metabolic parameters in order to identify early on weight gain and metabolic worsening that serve to put our patients in harms way. Such monitoring will lead to early intervention in addressing weight gain and other metabolic disorders.