The Metabolic Syndrome: 
Psychopharmacologists Should 
Weigh the Evidence for Weighing the Patient

Stephen M. Stahl, M.D., Ph.D.

Issue: We are in the midst of a North American epidemic of obesity and type 2 diabetes. Since patients with psychiatric disorders who receive psychopharmacologic treatments may be at even greater risk than the general population for weight gain, dyslipidemia, and diabetes and their complications, psychopharmacologists now need standards for how to monitor and manage these risks.

It is no secret that the population of the United States is getting bigger—and not just more people, but more pounds per person as well. In fact, more than 60%, or about 100 million people, are overweight, and half of these are obese, which increases risk for diabetes, cardiovascular disease, and some cancers. Furthermore, it is becoming increasingly clear that psychiatric disorders and their treatments also impact these same health factors. And the news is not good. Diabetes in particular may be even more common in patients with schizophrenia and bipolar disorder than in the general population. Add to that the potential for some psychotropic drugs to increase weight and the incidence of diabetes, and it seems obvious that psychopharmacologists should now be on the lookout for The Metabolic Syndrome (Table 1) in their clinical practices, since they are in a powerful position to recognize and treat this syndrome as well as possibly cause or worsen it.

What is The Metabolic Syndrome and Can Psychotropic Drugs Contribute to It?

The hallmark of The Metabolic Syndrome, or Syndrome X, is the presence of insulin resistance associated with a cluster of metabolic abnormalities independent of whether the individual develops type 2 diabetes or not. It is well known that an individual with a vulnerable genetic makeup and excessive caloric intake, high fat ingestion, and decreased physical activity can become obese and develop insulin resistance. Numerous psychotropic drugs are widely recognized to be factors in weight gain, and, ultimately, obesity. What is only now being uncovered by case reports and pharmacoepidemiologic studies is the association of various atypical antipsychotics with hyperglycemia, new onset of type 2 diabetes, and occasionally ketoacidosis due to a mechanism not completely explained by weight gain. Whether one drug or another is more likely to cause these adverse effects is greatly debated, and the field eagerly awaits the results of definitive prospective randomized studies of sufficient power to tell us the answer.

Monitoring and Managing the Risks in Psychopharmacology

In the meantime, there should be no debate that well-established risk factors have already been identified (Table 2) and that the time has come for prescribers of a broad range of psychoactive drugs to begin to monitor (Table 3) and manage (Table 4) these risk factors in their practices.

The natural history of type 2 diabetes begins with the development of insulin resistance, with compensatory hyperinsulinemia, which is at first sufficient to overcome the insulin re-
syndrome or Syndrome X)

Table 1. Core Features of The Metabolic Syndrome (also called Insulin Resistance Syndrome or Syndrome X)

| Abdominal (central) obesity
| Atherogenic dyslipidemia (ie, elevated triglycerides and reduced HDL cholesterol)
| Insulin resistance
| Hypertension

Table 2. Some Important Risk Factors for Diabetes and Complications

| Living in North America in the 21st Century
| Having a psychiatric disorder, especially schizophrenia or bipolar disorder
| Taking a psychotropic drug, especially an antipsychotic
| Being ≥ 45 years of age
| Being an African American, Hispanic American, Native American, Asian American, Pacific Islander
| Being overweight or obese (BMI ≥ 27)
| Having hypertension
| Having a family history of diabetes
| Having low HDL cholesterol
| Having high triglycerides

At minimum, psychopharmacologists should get a scale and weigh the metabolic evidence for themselves. ♦

REFERENCES


Table 3. “No Brainer” Monitoring Tips

Get a scale, weigh patients, and track BMI each visit for everyone
Take a history and record whether known risk factors are present or absent at baseline and monitor at regular intervals thereafter
Get a baseline fasting glucose and lipid profile for psychiatric patients who have a BMI ≥ 27 and who are treated with psychotropic drugs, then track glucose and lipid levels at regular intervals, especially if further weight gain occurs
Monitor glucose levels more frequently, including shortly after beginning a new antipsychotic agent and when treating diabetic patients

Table 4. “No Brainer” Management Tips

Refer patients with abnormal glucose or lipid levels for medical consultation
Do your best to encourage weight loss, since even modest weight loss can have health benefits
Leverage your therapeutic rapport to establish moderate exercise and discourage smoking proactively whenever possible
Be alert to the possibility of diabetic ketoacidosis, especially in diabetic patients newly begun on atypical antipsychotics
Consider discontinuing the antipsychotic, because it may resolve hyperglycemia and diabetes in some cases

Take-Home Points

♦ The weight of evidence indicates that weight gain is associated with various psychopharmacologic treatments.
♦ The weight of the evidence also indicates that additional risk factors for diabetes and cardiovascular disease are associated with psychiatric disorders and their treatments.
♦ Monitoring and managing risk factors such as weight gain, body mass index, and fasting glucose and lipids should now be incorporated into best-practice standards for psychopharmacology as they are for internal medicine and primary care.

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