Second-Generation Antipsychotic Tip Sheet

Second-Generation Antipsychotic Medications

- Risperidone/Risperdal
- Risperidone/Risperdal Consta
- Asenapine/Saphris
- Iloperidone/Fanapt
- Olanzapine/Zyprexa
- Paliperidone/Invega/Sustenna
- Ziprasidone/Geodon
- Clozapine/Clozaril
- Aripiprazole/Abilify
- Quetiapine/Seroquel
- Lurasidone/Latuda

Medical Issues Related to Second-Generation Antipsychotic Usage in Adults

Second-generation antipsychotics may cause abnormal blood work in adults such as:

- Elevated serum glucose
- Elevated serum lipid levels
- Increased prolactin levels

Conditions experienced may include:

- Weight gain
- Increased abdominal girth
- Increased risk of type 2 diabetes
- Diabetic ketoacidosis
- Cardiovascular side effects
- Sudden death in elderly

Monitoring Patients on Second-Generation Antipsychotic Medications

The American Diabetes Association, the American Psychiatric Association, the American Association of Clinical Endocrinologists, and the North American Association for the Study of Obesity recommend the following screening measures for monitoring patients using second-generation antipsychotics.1

<table>
<thead>
<tr>
<th>Measure</th>
<th>Baseline</th>
<th>4-weeks</th>
<th>8-weeks</th>
<th>12-weeks</th>
<th>Annually</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal/family history</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Body Mass Index (BMI)</td>
<td>X</td>
<td>X</td>
<td></td>
<td>X</td>
<td>X</td>
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<tr>
<td>Waist circumference</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
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<tr>
<td>Blood pressure</td>
<td>X</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
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<tr>
<td>Fasting blood glucose</td>
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<td></td>
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<td>X</td>
<td>X</td>
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<tr>
<td>Fasting lipid profile</td>
<td>X</td>
<td></td>
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<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

- There is also a need to monitor prolactin levels in patients prescribed risperidone, at baseline and follow-up intervals.
- Encourage all patients on second-generation anti-psychotics to follow a healthy diet and engage in a rigorous exercise program.

Both the psychiatric and medical communities have determined that the monitoring for metabolic side effects of second-generation antipsychotics is an important part of patient treatment. There are however, differences in the side-effect profiles of these agents. According to The American Psychiatric Association Clinical Practice Guideline for the Treatment of Patients with Schizophrenia (2004) and its Guideline Watch (September 2009), along with other more recently published head-to-head comparison studies, clozapine and olanzapine are the most likely to lead to weight gain and glucose and lipid abnormalities. These are followed by quetiapine and then risperidone. Clinical trial data has shown that aripiprazole and ziprasidone are relatively benign.3, 6, 7

The Potential Benefits of Second-Generation Antipsychotic Medications:

- Prescribed for a wide variety of uses
- Much reduced neurological sequelae over older agents
- Much less incidence of extrapyramidal symptoms
- Much less incidence of tardive dyskinesia
- Increased effectiveness for some of these agents in treating the negative symptoms of schizophrenia (i.e., clozapine, olanzapine and risperidone).8

Issues Related to Use in Children

In 2004, Cooper et al. reported a doubling of the use of this class of medication in children enrolled in TennCare, the state of Tennessee’s Medicaid program, for diagnoses other than schizophrenia or Tourette’s syndrome. In this study, conducted from 1996 to 2001, the use of second-generation antipsychotics for ADHD, conduct disorder and affective disorders accounted for the doubled rate of use.4 Careful consideration of the need for a second-generation antipsychotic, in addition to monitoring weight, serum glucose, lipid profile and abdominal girth in this population, is imperative in children and adolescents.
Summary

- Second-generation antipsychotics should be used for approved indications
- Second-generation antipsychotics have significant metabolic side effects
- Monitoring can reduce the risk of metabolic side effects.

Practitioners should base selection of antipsychotic medications on individual factors for each patient – e.g., previous response, side effect susceptibilities, family history, co-morbid conditions, medical vulnerabilities, tolerances and patient preferences/expectations.

These guidelines are not intended to replace a practitioner’s clinical judgment. They are designed to provide information and to assist practitioners with decisions regarding care. The guidelines are not intended to define a standard of care or exclusive course of treatment. Health care practitioners using these guidelines are responsible for considering their patients’ particular situations in evaluating the appropriateness of these guidelines.