

## Antipsychotic Drugs for Children and Adolescents: A Review

### Context

Antipsychotic drugs are used to treat a variety of psychiatric conditions in children and adolescents. These include autistic spectrum disorder, disruptive behaviour disorder, schizophrenia, bipolar disorder, Tourette syndrome, and attention-deficit/hyperactivity disorder (ADHD).

### Drug

Antipsychotic medications are the cornerstone of treatment for schizophrenia and other psychotic disorders. Most of these fall into one of two classes:

- Typical antipsychotics (first-generation antipsychotics — FGA)
- Atypical antipsychotics (second-generation antipsychotics — SGA).

Antipsychotic drugs are associated with a number of adverse effects such as weight gain, sedation, and extrapyramidal side effects (EPS) that include unusual movements, muscle contractions, and restlessness that can be permanent. Compared with FGAs, the SGAs are generally associated with a lower risk of motor side effects but a higher risk of weight gain, elevated lipid and prolactin levels, and the development of type 2 diabetes.

### Issue

The use of antipsychotics to treat children and adolescents has increased dramatically during the past 20 years. Although normally approved for the treatment of schizophrenia or bipolar disorder, antipsychotic drugs are increasingly being prescribed off-label. This increased use in younger patients is controversial. A review of the clinical benefits and harms of antipsychotic medications in children and adolescents will help to inform clinical treatment decisions. A review of evidence-based guidelines will also contribute to the decision-making process.

### Methods

A limited literature search of key resources was conducted, and titles and abstracts of the retrieved publications were reviewed. Full-text publications were evaluated for final article selection according to predetermined selection criteria. Due to the large volume of literature, the final selection of articles was restricted to health technology assessments, systematic reviews, and meta-analyses. Individual randomized controlled trials (RCTs) and non-randomized studies were not considered.

### Key Messages

In children and adolescents, second-generation (atypical) antipsychotics:

- Improve a variety of conditions
- Are associated with side effects (i.e., weight gain, elevated lipid and prolactin levels, extrapyramidal side effects).

Findings are based on shorter-term studies. Evidence on long-term safety and effectiveness is lacking.

### Results

Of the 577 citations from the literature search, 36 potentially relevant articles were selected for full-text review. One potentially relevant article was identified from the grey literature and another from a website provided in an included article. Of these 38 articles, 15 met the inclusion criteria.

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