

**DRUG DISPOSITION & PHARMACOKINETICS**

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# Long-Acting Injectable Risperidone in the Treatment of Schizophrenia in Special Patient Populations

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**ABSTRACT ~ Objective:** Although atypical antipsychotic agents are effective in the treatment of schizophrenia, certain populations such as the elderly, young adults or those with a first episode of schizophrenia, and patients with schizoaffective disorder require special consideration when selecting pharmacotherapy. The introduction of a long-acting injectable atypical antipsychotic, long-acting risperidone, may be of benefit in these special groups. To determine the effectiveness of long-acting risperidone, the literature was reviewed to evaluate the efficacy and safety of long-acting risperidone in these populations. The impact of race was also considered. **Experimental Design:** Studies published between January 2002 and November 2005 were reviewed as identified from literature searches using MEDLINE and Embase. The primary research parameter was "long-acting risperidone" and literature pertaining to these particular patient groups selected. Abstracts and posters on long-acting risperidone presented at key psychiatry congresses were also reviewed during this time period. **Principle Observations:** Results demonstrated that long-acting risperidone is effective and well tolerated in elderly patients, young patients or those with a first episode of schizophrenia, patients with schizoaffective disorder, and patients of different ethnicity. All patient groups demonstrated improvements in mean total Positive and Negative Syndrome Scale scores and Clinical Global Impressions of Severity Scale scores. Long-acting risperidone also reduced relapse rates and had a favourable tolerability profile. As such, long-acting risperidone has the potential to improve compliance in these vulnerable patient groups. **Conclusions:** Given the data presented here, further investigation of the effects of long-acting risperidone in these particular patient groups is warranted. *Psychopharmacology Bulletin. 2007;40(2):82-100.*

## INTRODUCTION

Schizophrenia is a severe, chronic psychiatric disorder affecting approximately 1% of the world's population,<sup>1</sup> and is characterized by a range of distinct symptoms, including delusions, auditory and visual hallucinations, behavioral dysfunction, and neurocognitive effects. As a result, schizophrenia significantly affects almost every

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aspect of a person's life. The major goals of effective treatment are to provide continuous relief from psychotic symptoms, reduce relapse rates, and improve patient functioning and quality of life.<sup>2,3</sup> Effective pharmacotherapy of schizophrenia is currently dominated by the atypical antipsychotics, which have superseded the conventional antipsychotics in the last decade. However, the clinical advantages of oral atypical agents are often limited by patients' non- and partial compliance, with more than 35% of patients demonstrating compliance problems in their first 4–6 weeks of treatment, and 75% being only partially compliant within 2 years.<sup>4</sup> The problem of partial compliance is a major issue in the treatment of schizophrenia and can lead to serious consequences such as relapse and rehospitalization, family discord, danger to self and others, and loss of job.<sup>5</sup> The recent 18-month CATIE (Clinical Antipsychotic Trials of Intervention Effectiveness) study highlighted that 74% of patients discontinued oral atypical treatment before the end of the study, suggesting major limitations in the effectiveness of atypical antipsychotic treatment.<sup>6</sup> Potential causes of partial compliance, some of which are related to the disease itself and the accompanying lack of insight, include adverse effects, memory deficits, cognitive dysfunction, complicated treatment regimens, and lack of patient education.<sup>7</sup>

Therefore, there is a need to develop long-acting antipsychotics that provide better effective treatment and improve patient compliance, as highlighted by the American Psychiatric Association (APA) Practice Guidelines for the Treatment of Patients with Schizophrenia, in 2004.<sup>8</sup> A single agent combining the advantages of both a long-acting formulation with that of an atypical agent would provide the next major advancement in antipsychotic treatment. Since then, the first long-acting injectable atypical antipsychotic, long-acting risperidone (Risperdal Consta, Johnson & Johnson) has been developed. The clinical effectiveness and tolerability of long-acting risperidone has been demonstrated and reviewed by a number of clinical studies.<sup>9–11</sup> Long-acting risperidone has been shown to be well tolerated and effective with significant improvements in total Positive and Negative Syndrome Scale (PANSS) scores, Clinical Global Impressions of Severity (CGI-S) scale scores, and reductions in the number and duration of hospitalization events.<sup>12,13</sup>