



# NeuRA

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## SCHIZOPHRENIA Factsheet

October 2020

### What are cognitive symptoms of schizophrenia?

Cognitive symptoms of schizophrenia have been found in all cognitive domains, including executive function, memory, and attention, and often develop prior to the other symptoms of schizophrenia. They are highly disabling and predict poor functional outcomes.

### What is the evidence for treatments for cognitive symptoms?

Overall, moderate to high quality evidence suggests second-generation antipsychotics are associated with small improvements in processing speed, verbal fluency, learning, motor skills, long-term memory, and global cognition when compared to first generation antipsychotics, but have no benefit over first generation antipsychotics for improving attention, cognitive flexibility, working memory, delayed recall, or visuospatial processing. High quality evidence shows a small benefit of first-generation antipsychotics over placebo for general cognitive functioning.

For specific antipsychotics, moderate to high quality evidence shows haloperidol is associated with small improvements in global cognition (low haloperidol dose only), verbal learning (low and high dose), delayed recall (low and high dose), and attention (low dose only) when compared to second generation antipsychotics, with no differences in executive function, verbal fluency, motor skills, or processing speed. Sertindole may be superior to; clozapine, quetiapine, and first generation antipsychotics for general cognitive ability; clozapine, quetiapine, and olanzapine for memory; clozapine, quetiapine, olanzapine and ziprasidone for executive functioning; and quetiapine for processing speed. Olanzapine may be superior to clozapine and first generation antipsychotics for visuospatial skills and verbal fluency.

Moderate quality evidence finds small improvements in overall cognition after treatment with clozapine, olanzapine, quetiapine, risperidone, and ziprasidone, particularly on measures of memory, attention, processing speed, and executive functioning. Fluency was improved with clozapine, olanzapine, and quetiapine only. There were no significant improvements in visuospatial skills, language, or motor functioning.

For other agents, moderate to high quality evidence suggests small benefits of antidepressants over placebo for global cognition and executive functioning. There was a small improvement in verbal learning with adjunctive anti-dementia medications compared to placebo, with no improvements in overall cognition, memory, speed of processing, attention, problem solving, executive functioning, social cognition or visual learning. There were no differences in adverse events between anti-dementia medications and placebo. There were no benefits of varenicline for cognition over placebo, and varenicline may cause more nausea.

**For more information see the technical table**



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*NeuRA (Neuroscience Research Australia) is one of the largest independent medical and clinical research institutes in Australia and an international leader in neurological research.*

*Diseases of the brain and nervous system pose the greatest health, economic and social burden of any disease group because they are chronic, debilitating and have no known cures.*

*Medical research is the cornerstone of efforts to advance the health and wellbeing of families and the community. Our dedicated scientists are focussed on transforming their research into significant and practical benefits for all patients.*

*While we hope you find this information useful, it is always important to discuss any questions about schizophrenia or its treatment with your doctor or other health care provider.*

### HOW YOUR SUPPORT HELPS

We are able to make significant advances due to the generosity of countless people. Your donation allows us to continue to work towards transforming lives. For information on how you can support our research, phone **1300 888 019** or make a secure donation at [neura.edu.au/donate/schizophrenia](http://neura.edu.au/donate/schizophrenia).