Reviewer's report

Title: The switch from conventional to atypical antipsychotic treatment should not be based exclusively on the presence of cognitive deficits in individuals with schizophrenia.

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Reviewer: trevor norman

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This is a well written paper describing the switch from conventional to atypical antipsychotic medications in a small group of patients meeting DSM criteria for schizophrenia. The switch patients were compared to a comparable group who remained on conventional drugs. Various aspects of cognitive function were examined prior to the switch and then at a minimum of two years later. The neuropsychological assessments seemed to be relatively straightforward and tapped into executive function, memory, processing speed and verbal fluency. The main findings were that there were some improvements in aspects of cognitive function but that these improvements were equal between the two groups. The authors suggest that the switch to atypical agents should not be made on the presence of cognitive deficits alone.

Major Compulsory Revisions

Given the small number of subjects in this study it should be regarded more as a pilot finding and although it supports recent larger trials the title of the paper (and the conclusions) might be altered to reflect this.

Minor Essential Revisions

The authors appear to have taken into account a variety of potential of confounding factors which could influence the results including differences in dose of antipsychotics as well as adjunctive medication use e.g., diazepam and biperiden. Furthermore severity of illness may be a factor accounting for differences in cognitive outcomes. The discussion reflects these potential confounders. Although the authors point out that they do not have a healthy control group it would be illuminating for the reader to know what are the expected norms for at least some of the tests for an age and gender matched control group. In this way it would be possible to judge the level of cognitive impairment in the patient groups.

It would appear that patients in the ‘typical’ group are somewhat disadvantaged compared to the ‘atypical’ group in that they have a slightly younger age at onset, more episodes of illness and therefore a longer duration of illness. Is there a potential ceiling effect here i.e., the longer the patients is ill the less likelihood there is of significant cognitive improvement?
Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:

I have served on advisory boards and / or received support for travel, talks or research from, Astra-Zeneca, Boehringer Ingelheim, Bristol-Myers Squibb, Eli-Lilly, Janssen, Lundbeck, Organon, Pfizer, Servier, and Wyeth in past five years.