Cochrane systematic review of Quetiapine versus other atypical antipsychotics for schizophrenia: an update

Student: Laila Asmal

Supervisor: Prof Robin Emsley

Background: In many countries, second-generation ('atypical') antipsychotic drugs have become the first-line drug treatment for people with schizophrenia. It is not clear how the eJects of the various second-generation antipsychotic drugs diJer.

Objectives: To evaluate the eJects of quetiapine compared with other second-generation (atypical) antipsychotic drugs in the treatment of people with schizophrenia and schizophrenia-like psychoses.

Search methods: We searched the Cochrane Schizophrenia Group Trials Register (May 2010), inspected references of all identified studies, and contacted relevant pharmaceutical companies, drug approval agencies and authors of trials for additional information.

Selection criteria: We included all randomised controlled trials (RCTs) comparing oral quetiapine with other oral forms of atypical antipsychotic medication in people with schizophrenia or schizophrenia-like psychoses.

Main results: EJicacy data tended to favour the control drugs over quetiapine (Positive and Negative Syndrome Scale (PANSS) total score vs olanzapine: 11 RCTs, n = 1486, mean quetiapine endpoint score 3.67 higher, CI 1.95 to 5.39, *low quality*; vs risperidone: 13 RCTs, n = 2155, mean quetiapine endpoint score 1.74 higher, CI 0.19 to 3.29, *moderate quality*; vs paliperidone: 1 RCT, n = 319, mean quetiapine endpoint score 6.30 higher, CI 2.77 to 9.83, *moderate quality*), but the clinical meaning of these data is unclear. No clear mental state diJerences were noted when quetiapine was compared with clozapine, aripiprazole or ziprasidone. Compared with olanzapine, quetiapine produced slightly fewer movement disorders (7 RCTs, n = 1127, RR use of antiparkinson medication 0.51, CI 0.32 to 0.81, *moderate quality*) and less weight gain (8 RCTs, n = 1667, RR 0.68, CI 0.51 to 0.92, *moderate quality*) and glucose elevation, but increased QTc prolongation (3 RCTs, n = 643, MD 4.81, CI 0.34 to 9.28). Compared with risperidone, quetiapine induced slightly fewer movement disorders (8 RCTs, n = 2163, RR use of anti Parkinson medication 0.5, CI 0.36 to 0.69, *moderate quality*), less prolactin increase (7 RCTs, n = 1733, MD -35.25, CI -43.59 to -26.91) and some related adverse eJects but greater cholesterol increase (6 RCTs, n = 1473, MD 8.57, CI 4.85 to 12.29). On the basis of limited data, compared with paliperidone, quetiapine induced fewer parkinsonian side eJects (1 RCT, n = 319, RR use of anti-Parkinson medication 0.64, CI 0.45 to 0.91, *moderate quality*) and less prolactin increase (1 RCT, n = 319, MD -49.30, CI -57.80 to -40.80) and weight gain (1 RCT, n = 319, RR weight gain of 7% or more of total body weight 2.52, CI 0.5 to 12.78, *moderate quality*). Compared with ziprasidone, quetiapine induced slightly fewer extrapyramidal adverse ejects (1 RCT, n = 522, RR use of antiParkinson medication 0.43, CI 0.2 to 0.93, *moderate quality*) and less prolactin increase. On the other hand, quetiapine was more sedating and led to greater weight gain (2 RCTs, n = 754, RR 2.22, CI 1.35 to 3.63, *moderate quality*) and cholesterol increase when compared with ziprasidone.

Authors' conclusions

Available evidence from trials suggests that most people who start quetiapine stop taking it within a few weeks (around 60%). Comparisons with amisulpride, sertindole and zotepine do not exist. Although eJicacy data favour olanzapine and risperidone compared with quetiapine, the clinical meaning of these data remains unclear. Quetiapine may produce fewer parkinsonian eJects than paliperidone, aripiprazole, ziprasidone, risperidone, and olanzapine. Quetiapine appears to have a similar weight gain profile to risperidone, as well as clozapine and aripiprazole (although data are very limited for the latter two comparators). Quetiapine may produce greater weight gain than ziprasidone and less weight gain than olanzapine and paliperidone. Most data that have been reported within existing comparisons are of very limited value because of assumptions and biases within them. Much scope is available for further research into the eJects of this widely used drug.

Public citation: Asmal L, Flegar SJ, Wang J, Rummel-Kluge C, Komossa K, Leucht S. Quetiapine versus other atypical antipsychotics for schizophrenia. Cochrane Database of Systematic Reviews 2013, Issue 11. Art. No.: CD006625. DOI: 10.1002/14651858.CD006625.pub3