**High- v low-dose quetiapine in schizophrenia: meta-analysis**

*Painuly N*

**CRD summary**

The review concluded that high-dose quetiapine was not superior to low doses in the acute treatment of schizophrenia, both in terms of efficacy and effectiveness. In light of the absence of an assessment of trial quality and the limited follow-up periods of the included trials, the author's conclusion should be interpreted with a degree of caution.

**Authors' objectives**

To compare the effectiveness of high-dose and low-dose quetiapine in the acute treatment of schizophrenia.

**Searching**

PubMed, EMBASE, PsycINFO, AMED, CINHAL and Social SciSearch (SSCI) were searched to August 2007; search terms were reported. References lists of obtained articles were also searched.

**Study selection**

Double-blind, randomised controlled trials (RCTs) of the acute treatment of schizophrenia with fixed doses of quetiapine were eligible for inclusion. Trials of patients with schizoaffective disorder, and trials of 50mg/day (which was deemed sub-therapeutic) were excluded.

In the included trials, low doses ranged from 300 to 400mg/day, and high doses from 750 to 800mg/day. One trial was of in-patients only; the other trial excluded hospitalised patients.

Response rates, discontinuation rates, and changes in symptoms scores were the main outcomes of interest. Studies used different scales to measure outcomes.

It appeared that one reviewer selected studies.

**Assessment of study quality**

Trial quality was not assessed (a hierarchy of design was presented).

**Data extraction**

Data were extracted in order to calculate odds ratios (OR) and standardised mean differences (SMD) with 95% confidence intervals (CI). AstraZeneca were contacted for access to any missing data.

It appeared that one reviewer extracted data.

**Methods of synthesis**

Meta-analyses to calculate pooled odds ratios or standardised mean differences were performed using a fixed-effect model, or a random-effects model if evidence of statistical heterogeneity was found. Heterogeneity was assessed using the $\chi^2$ test.

**Results of the review**

Two RCTs were included in the review (n=340 patients), both running for six weeks.

There were no statistically significant differences between doses in terms of improvement in positive symptoms scores, response rates, or discontinuation rates due to lack of response, or due to adverse effects. Statistically significant heterogeneity was seen for the positive symptoms scores analysis.

An analysis of response rate after excluding individuals who had dropped out also revealed no significant differences between doses.
Authors' conclusions
This meta-analysis did not prove the therapeutic superiority of high-dose quetiapine in acute treatment of schizophrenia, both in terms of efficacy and effectiveness.

CRD commentary
The review addressed a clear question and was supported by appropriate inclusion criteria. Attempts to identify relevant studies were undertaken by searching appropriate databases and checking references, but it was unclear whether there were language restrictions. No attempts seem to have been made to identify unpublished studies. Since only one author appeared to conduct the review, the risks of reviewer error and bias during the review process were unlikely to have been minimised (e.g. by using independent duplicate procedures for study selection and data extraction).

There was no appraisal of trial quality, so it was not possible to assess the strength and reliability of the trials. Few details were provided describing the trial population characteristics. Appropriate methods were used to pool data and assess heterogeneity. The two included trials only assessed short-term use of quetiapine.

In light of the absence of an assessment of trial quality, and the limited follow-up periods of the included trials, the author’s conclusion should be interpreted with a degree of caution.

Implications of the review for practice and research
Practice: The author stated that 300 to 400 mg/day seems to be the optimal dose of quetiapine and the common practice of targeting quetiapine dosage to 600 mg/day or above is not supported by the evidence from fixed-dose trials.

Research: The author did not state any implications for research.

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This is a critical abstract of a systematic review that meets the criteria for inclusion on DARE. Each critical abstract contains a brief summary of the review methods, results and conclusions followed by a detailed critical assessment on the reliability of the review and the conclusions drawn.