Effectiveness of treatments of depression in older ambulatory patients

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Authors' objectives
To determine the effectiveness of acute-phase pharmacological and psychological treatments of depression in older ambulatory patients.

Searching
MEDLINE was searched from 1981 to 1995, and PsycINFO from 1984 to 1995, for studies published in English or French. Manual searches of the bibliographies of relevant articles and books were also performed.

Study selection
Study designs of evaluations included in the review
Controlled clinical trials, both randomised and non-randomised, were considered.

Specific interventions included in the review
The pharmacological treatments included the use of heterocyclic drugs, antianxiety drugs and other drug treatment. The heterocyclic drugs studied included desipramine, amitriptyline, mianserin, imipramine, nortriptyline, and doxepin. The antianxiety drugs included alprazolam and buspirone. Other drug treatments included fluoxetine, paroxetine, sertraline, moclobemide, nomifensine, trazodone, bupropion, phenelzine and sulpiride.

The psychological treatments included rational therapies such as cognitive or behavioural therapy, and emotive therapies such as psychodynamic therapy and interpersonal psychotherapy.

Participants included in the review
Patients meeting criteria for depression, using an accepted diagnostic system or cut-off point on a depression symptom scale, who were aged at least 55 years. Studies were also included if at least 20% of the participants were aged at least 60 years, and the results were reported separately for this subgroup.

Outcomes assessed in the review
The effectiveness of the treatment had to be assessed on an accepted outcome measure of depression, such as the Hamilton Depression Rating Scale.

How were decisions on the relevance of primary studies made?
Each article identified in the search was screened by one reviewer to determine if it met the inclusion criteria. Each article meeting the criteria was reviewed by at least two reviewers.

Assessment of study quality
The methodological quality of each study was assessed using the criteria proposed by Chalmers et al (see Other Publications of Related Interest). Two raters independently assessed the papers for validity.

Data extraction
One reviewer extracted the data using a standard data extraction form.

Methods of synthesis
How were the studies combined?
The studies were combined by a meta-analysis.
How were differences between studies investigated?
Differences between the studies were investigated using a statistical test of heterogeneity.

Results of the review
Twenty-six studies of pharmacological treatments and 14 studies of psychological treatments were included:

1,058 patients were included in the drug-placebo comparisons;

1,066 patients were included in the drug-drug comparisons; and

587 patients were included in the psychological treatments.

In studies comparing active drugs with placebo, the heterocyclic drugs significantly reduced the post-treatment Hamilton Depression Rating Scale score (mean difference -5.78, 95% confidence interval: -8.31, -3.25); other drugs had smaller effects. In studies comparing active drugs, there were no significant differences overall between the different classes of drugs: selective serotonin re-uptake inhibitors appeared to be as effective as heterocyclic drugs. The rational psychological treatments performed significantly better than untreated controls; the mean post-treatment Hamilton Depression Rating Scale difference was -7.25 (95% confidence interval: -10.10, -4.40). However, they did not perform significantly better than controls who received similar attention. Adjustment for the study quality score did not affect these results.

Authors' conclusions
Based on comparisons with untreated controls, heterocyclic antidepressants and rational psychological therapies appeared to be the most effective treatments for older ambulatory patients with mild to moderate depression. Based on drug-drug comparisons, selective serotonin re-uptake inhibitors appeared to be as effective as heterocyclic drugs. Overall, however, the magnitude of the treatment effects was modest.

CRD commentary
The validity of pooling this disparate group of randomised and non-randomised trials of varying quality was doubtful. The authors noted that the summary effect sizes were similar when adjusted for the quality score of the included studies, although no details were presented. It would have been more informative to have presented the results of the randomised, double-blinded trials separately for comparison, but the designs of the individual trials could not be determined from the data presented. The majority of the trials were very small, and publication bias may also have had a strong influence on the results of this review; as the authors noted, this would have had the effect of reducing the already modest treatment effects observed. The search was limited, and it is possible that relevant trials may have been missed, particularly those published in European pharmaceutical journals, and those published since 1995 when the search was ended. The adverse effects of the treatment were not assessed in the review, and these need to be taken into consideration when assessing the effectiveness of the included treatments. The reliability of this meta-analysis is, therefore, unclear.

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Other publications of related interest


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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.