Review: pharmacological and non-pharmacological interventions improve outcomes in patients with dementia and their caregivers


QUESTION: Do pharmacological, educational, or other non-pharmacological interventions improve outcomes in patients with dementia or their caregivers?

Data sources
Studies were identified to July 2000 by searching Medline, EMBASE/Excerpta Medica, CINAHL, Current Contents, Psychological Abstracts, PsychINFO, and the Cochrane databases using search terms including Alzheimer's disease (AD), vascular or multi-infarct dementia, dementia with associated parkinsonian disorder, progressive supranuclear palsy, frontotemporal dementia, and senile dementia. Additional search terms were question specific. Bibliographies of relevant papers were also reviewed.

Study selection
Studies were selected if they were randomised controlled trials published in any language or other types of studies published in English, and if they included > 20 participants.

Data extraction
Data were extracted on study quality, participant characteristics, interventions, outcome measures, and results.

Main results
380 papers met the selection criteria. Several studies comparing cholinesterase inhibitors (eg, tacrine, donepezil, galantamine) with placebo showed that the drugs were more effective than placebo for improving cognitive outcomes in patients with mild to moderate AD. Studies of cholinergic precursors (eg, lecithin) and muscarinic agonists (eg, xanomeline) have not shown beneficial effects in the treatment of AD. 1 large 2 year study showed that oral selegiline, 5 mg twice daily, and oral vitamin E, 1000 IU twice daily, delayed clinical worsening of AD symptoms; however, no additive effects were seen from the combined use of selegiline and vitamin E. Insufficient data exist to support the use of other antioxidants, anti-inflammatory, or putative disease modifying drugs in the treatment of AD. Antipsychotic drugs were effective for agitation or psychosis in patients with dementia where environmental manipulation failed, and antidepressants (eg, selected tricyclics, monoamine oxidase B inhibitors, and selective serotonin reuptake inhibitors) were effective for depression in patients with dementia. Evidence from observational studies showed that educating family caregivers of patients with AD improved caregiver satisfaction and delayed time to nursing home placement of patients and that educating staff in long term care facilities about AD minimised the unnecessary use of antipsychotic drugs. Randomised trials have shown that behaviour modification, scheduled toileting, and prompted voiding reduced urinary incontinence in people with dementia. Graded assistance, skills practice, and positive reinforcement increased functional independence.

Conclusions
Cholinesterase inhibitors improve outcomes in patients with Alzheimer's disease (AD). Antipsychotics reduce agitation and antidepressants reduce depression in patients with dementia. Education for family caregivers of patients with AD may improve caregiver burden and long term patient outcomes. Non-pharmacological interventions such as behaviour modification are minimally effective.