

# RGH Pharmacy E-Bulletin

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A joint initiative of the Patient Services Section and the Drug and Therapeutics Information Service of the Pharmacy Department, Repatriation General Hospital, Daw Park, South Australia. The RGH Pharmacy E-Bulletin is distributed in electronic format on a weekly basis, and aims to present concise, factual information on issues of current interest in therapeutics, drug safety and cost-effective use of medications.

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## Anticonvulsants & BPSD

Behavioural and psychological symptoms of dementia (BPSD) affect at least 90% of patients with dementia at some stage during the course of their disease. Examples of BPSD include calling out, screaming, verbal and physical aggression, apathy, hostility, hypersexuality, resistiveness, wandering, intrusiveness, repetitive behaviour and/or vocalisations, hoarding, nocturnal restlessness, psychosis (hallucinations or delusions), emotionality and paranoid or reckless behaviours. Symptoms of paranoia, aggression and incontinence are more important predictors of caregiver burden than cognitive impairment and are more strongly associated with nursing home admission.

The initial management option for BPSD should focus on non-pharmacological interventions. Drug therapy may be indicated if the behaviour:

- is persistent or recurrent and causes clinically significant functional disruption;
- has not adequately responded to non-pharmacological interventions;
- is not due to other treatable causes (e.g. infection, pain).

Trials of low dose atypical antipsychotics in patients with BPSD have shown modest reductions in agitation, aggression and psychosis compared to placebo.

Anticonvulsants have also been trialled in patients with BPSD. A systematic review of three placebo-controlled, six-week trials of sodium valproate (mean dose 480-1000 mg/day) in patients with dementia and agitation/aggression found that this drug was no more effective than placebo. Significantly more patients taking sodium valproate withdrew due to adverse effects (e.g. sedation, somnolence and thrombocytopenia, urinary tract and respiratory tract infections).

Two small placebo controlled six-week trials of carbamazepine (mean dose 300-388 mg/day) suggested modest benefit for agitation and aggression in patients with Alzheimer's disease who had responded poorly to antipsychotics in the past. Adverse effects (ataxia, drowsiness and rash) were significantly more common in the carbamazepine group.

Comparative trials of anticonvulsants versus antipsychotics have not been undertaken. Evidence does not support the use of an anticonvulsant as an initial pharmacological option for BPSD. However, a cautious, time-limited trial of low dose sodium valproate or carbamazepine may be initiated for dementia-related agitation/physical aggression if other management options have been exhausted.

The target symptoms or behaviour for remedy should be identified prospectively, and methodically charted following medication initiation, with regular review for response, adverse effects and drug interactions. Suggested starting doses are sodium valproate 100 mg daily or carbamazepine 50 mg daily. The dose may be increased, after no less than three days, to twice daily (according to response and tolerability). If response is not evident, cease the anticonvulsant. BPSD can vary or remit over time - therefore, as with other drugs used in BPSD, the anticonvulsant should be withdrawn after three months, with a subsequent review of symptoms.

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