**Gabapentin for the Treatment of Behavioral and Psychological Symptoms of Dementia. A Review of the Evidence**

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**Background:** Behavioral and psychological symptoms in dementia (BPSD) are a matter of major clinical relevance. Management of BPSD is challenging and requires non-pharmacological approaches as first choice. Use of antipsychotics, though evidence for their efficacy is better than for any other drug class, is heavily counterbalanced by safety concerns and therefore alternative effective treatments are needed.

**Objectives:** To evaluate whether evidence supports use of gabapentin for treatment of BPSD.

**Methods:** Through a PubMed search from 1950 to February 2014, using the terms “dementia” plus “gabapentin”, 48 articles were identified; the combination “Alzheimer’s Disease” plus “gabapentin” offered 4 additional results. After screening of the results, 24 unique and pertinent articles were found, consisting of 17 original papers and 7 review articles.

**Results:** Twelve case-reports including 23 demented patients with agitation showed that 16 patients with Alzheimer dementia (AD), 3 with vascular dementia, 1 with mixed dementia, 1 with not otherwise specified dementia responded positively whereas 2 patients with Lewy bodies dementia failed in demonstrating gabapentin efficacy. Still encouraging but more conflicting results derive from larger case-series. In particular: in 2000, 5 out of 12 patients and 21 out of 24 patients affected by multiple dementia subtypes, respectively in Herrmann et al. and in Hawkins et al. series, showed improvement according to Clinical Global Improvement (CGI) and Neuropsychiatric Inventory (NPI) scales; in 2003, Moretti et al. published on 20 AD patients being successfully treated with gabapentin (using NPI scale among the outcome measures); in Raudino et al. (2004), 7 out of 9 AD patients were much or greatly improved at 1 month, but only 2 patients retained sustained benefit at 6 months, as assessed by means of NPI scale; in 2013, Cooney et al. reported on 7 patients with vascular or mixed dementia all showing clinical significant response to low doses (200-600 mg/day) gabapentin over a 6-months follow-up. Review articles agree in indicating that studies available have numerous design flaws and an inherent risk of bias favouring gabapentin. Neither specific dosage recommendations (daily doses reported range from 300 to 3600 mg), nor specific target plasma concentrations can be suggested. Gabapentin was overall well tolerated, being sedation the most common adverse effect.

**Conclusions:** To date limited evidence supports the use of gabapentin in BPSD, since no randomized controlled trials have ever been conducted. Given its relatively benign adverse-effect profile and its limited potential for drug-drug interactions, it seems worthwhile to investigate it further.