

# Abstract

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## Switching from pathogenetic treatment with alpha-lipoic acid to gabapentin and other analgesics in painful diabetic neuropathy: a real-world study in outpatients.

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**OBJECTIVE:** In this retrospective real-world study, we aimed to evaluate whether switching from the pathogenetic treatment option alpha-lipoic acid to drugs for symptomatic treatment of neuropathic pain such as gabapentin would be associated with changes in efficacy, safety, and cost-effectiveness.

**METHODS:** A cohort of 443 diabetic patients with chronic painful neuropathy were treated with alpha-lipoic acid 600 mg qd orally for a mean period of 5 years. After stopping this treatment, 293 patients were switched to gabapentin (600-2400 mg/day), while 150 patients remained untreated because of no acute symptoms.

**RESULTS:** In the untreated group, 110 (73%) patients developed neuropathic symptoms as soon as 2 weeks after the end of treatment with alpha-lipoic acid. In the group started on gabapentin, 131 (45%) patients had to stop taking the drug due to intolerable side effects. Among the patients treated with gabapentin 132 (45%) were responders on an average dose of 1200 mg/day, whereas 161 (55%) were nonresponders at gabapentin doses up to 2400 mg/day. These patients required an alternative treatment which consisted of pregabalin, carbamazepine, amitriptyline, tramadol, or morphine as monotherapy or in combination. The daily costs for alpha-lipoic acid were considerably lower than those for gabapentin or several frequently used drug combinations. The frequency of outpatient visits was 3.8 times per 3 months during the treatment period with alpha-lipoic acid, while it increased to 7.9 per 3 months after switching to gabapentin or the other pain medications.

**CONCLUSION:** In conclusion, switching from long-term treatment with alpha-lipoic acid to central analgesic drugs such as gabapentin in painful diabetic neuropathy was associated with considerably higher rates of side effects, frequencies of outpatient visits, and daily costs of treatment. The pathogenetic treatment option represents for the practicing diabetologist an effective, safe, and cost-effective treatment option for the majority of patients with diabetic polyneuropathy.

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