Ampyra Improves Walking and Community Participation in Veterans with Multiple Sclerosis

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Objective
To determine tolerability and effects of dalfampridine on walking endurance, walking speed, self-perceived impact of multiple sclerosis (MS) on walking, and community participation, for a 12 month cohort of patients with MS prescribed dalfampridine at a VA Medical Center.

Background
On 01/22/2010 the FDA approved dalfampridine to improve walking in patients with MS based on research demonstrating improved walking speed on the timed 25-foot walk test (T25FWT) and self-perceived walking using the Multiple Sclerosis Walking Scale-12 (MSWS-12). Since dalfampridine became clinically available, no analyses of its real-world tolerability or effectiveness have been published.

Design / Methods
All patients prescribed dalfampridine at the Portland VA Medical Center from 10/01/10-09/30/11 were tracked to assess drug safety and efficacy. Tracking consisted of completing a T25FWT, MSWS-12, two minute timed walk (2MTW) as a measure of walking endurance, and the Community Integration Questionnaire (CIQ) as a measure of community participation. All measures were assessed at baseline, prior to taking dalfampridine. Individuals reporting a favorable response to dalfampridine at 3-4 weeks continued to take the drug and all measures were repeated at 1-4 months and at follow-up MS clinic visits. Where measures were available, they were compared with baseline using paired t-tests.

Results
1. 39 individuals total were prescribed dalfampridine during the 12 month period analyzed.
2. 23 individuals (58%) continued beyond the initial 3-4 week trial.
3. 16 individuals (42%) stopped within 3-4 weeks due to intolerance and/or perceived lack of efficacy.
4. Walking speed, endurance and self-perceived walking improved significantly at 1-4 month follow-up.
5. There was a trend towards improvement in walking speed and self-perceived walking at 5-10 month follow-up.

Conclusions
- Walking speed, endurance, and self-perceived walking were improved at 1-4 months with dalfampridine.
- Community participation was not significantly improved at 1-4 month follow-up.
- More complete follow-up of the sample is needed to reliably and validly assess longer term impacts.

References