# Impact of an Integrated Specialty Pharmacy Model on Patient Access to Dalfampridine

Gabrielle Givens, PharmD Candidate, Aimee Banks, PharmD, BCPS, MSCS, Josh DeClercq, MS, Leena Choi, PhD, Autumn Zuckerman, PharmD, BCPS, AAHIVP, CSP, Megan Peter, PhD

# Quick Facts

## Evaluated

**262**
Patients prescribed dalfampridine

**290**
Prescriptions (260 Pre-Vanderbilt Specialty Pharmacy and 30 Post-Vanderbilt Specialty Pharmacy)

## Results

### Insurance approval rate

**97%** Pre-Vanderbilt Specialty Pharmacy | **100%** Post-Vanderbilt Specialty Pharmacy

### Patient starting therapy

**93%** Pre-Vanderbilt Specialty Pharmacy | **100%** Post-Vanderbilt Specialty Pharmacy

### Median time to medication access decreased from

**22** Days to **1** Day

VSP inclusion in the dalfampridine distribution network enabled all patients to start prescribed dalfampridine and the time to access dalfampridine was faster.

VANDERBILT HEALTH

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## Background

Dalfampridine, an oral specialty medication, increases walking speed and duration in patients with multiple sclerosis (MS).[1]

Patients often struggle to access specialty medications due to:

- Limited distribution networks (LDNs), which restrict which pharmacies can dispense a drug, requiring patients to fill medication from select pharmacies
- Insurance restrictions, costs, or challenges navigating specialty pharmacies.[2]

Integrated specialty pharmacies embed pharmacists in clinics and dispense drugs from the internal pharmacy.[3]

## Objective

To assess the impact of LDNs on patient access to dalfampridine by comparing patient access before and after Vanderbilt Specialty Pharmacy (VSP) gained access to dispense the medication.

### Figure 1: Prescription Timeline

**Pre-VSP Prescriptions**

New Rx/ start form completed → Manufacturer hub processed prescription → Clinic nurses managed PA → Insurance approved or denied PA → External pharmacy dispensed drug

**Post-VSP Prescriptions**

New Rx/ start form completed → VSP pharmacists manage PA, counseling, and care coordination → Insurance approves or denies PA → VSP dispenses and mails drug

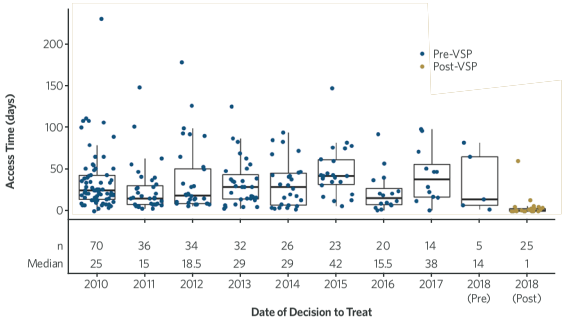
*Rx=Prescription, PA =Prior Authorization, VSP = Vanderbilt Specialty Pharmacy*

## Methods

| | |
|---|---|
| **Design** | Single center retrospective cohort study |
| **Sample** | ***Inclusion:*** Adult patients with MS, prescribed dalfampridine by a VUMC provider from 3/2010 to 12/2018<br>***Exclusion:*** Prescriptions initiated at an external pharmacy or non VUMC provider, transferred to VSP (without need for new PA), or without documentation of the original prescription |
| **Outcomes** | 1. Insurance approval<br>2. Medication access time: Time from decision to treat to insurance approval<br>3. Rate of therapy initiation |

## Results

### Figure 2: Median Time from Decision to Treat to Insurance Approval

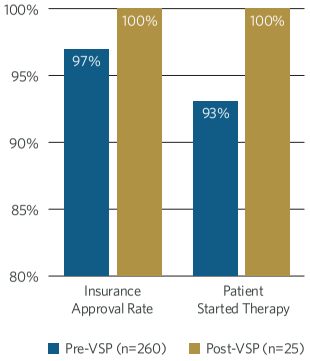



### Table 1: Sample Characteristics

| Characteristic | Mean [SD] or n (%) |
|---|---|
| Patient characteristics (n=258) | |
| Age, years | 52 [11] |
| Gender, female | 174 (67%) |
| Race, Caucasian | 228 (88%) |
| Prescription characteristics (n=285) | |
| Patient diagnosis | |
| Relapse Remitting MS | 118 (41%) |
| Secondary Progressive MS | 107 (38%) |
| Primary Progressive MS | 58 (20%) |
| Transverse Myelitis | 2 (<1%) |
| Patient ambulatory status | 261 (92%) |
| Concurrent DMT use | 144 (51%) |

*MS=Multiple Sclerosis*
*DMT=Disease Modifying Therapy*

### Figure 3: Prescription Outcomes




### Prescriptions

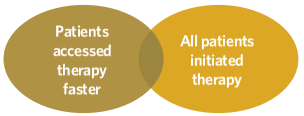
- Twenty-six patients had more than one prescription due to prior discontinuation or lapse in therapy, resulting in 285 dalfampridine prescriptions from 258 patients.
- Most (84%) prescriptions were new starts, 16% were restarts after a prior lapse or discontinuation.

Post-VSP, **rates of insurance approval and number of patients starting therapy increased to 100%.** *(Figure 3)*

**Post-VSP , median access time decreased to 1 day (IQR 0-3).** *(Figure 2)*

## Conclusions

- After VSP gained access to dispense dalfampridine,




- When LDNs are removed, integrated specialty pharmacists can provide medication monitoring, counseling, and safety interventions after patients initiate treatment.

## References

1. *AMPYRA (dalfampridine) [package insert]. Ardsley, NY: Acorda Therapeutics, Inc.;2017.*
2. *Karas L, Shermock KM, Proctor C, et al. Limited distribution networks stifle competition in generic and biosimilar drug industries.* Am J Manag Care. *2018 Apr 1;24(4):e122 e127*
3. *Bagwell A, Kelley T, Carver A, et al. Advancing Patient Care Through Specialty Pharmacy Services in an Academic Health System.* J Manag Care Spec Pharm. *2017;23(8):815 820.*

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