



# Improving Adherence to Multiple Sclerosis Disease Modifying Therapies through an Integrated Specialty Pharmacy Model

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## BACKGROUND

- Disease Modifying Therapies (DMTs) have been shown to be effective for preventing relapses and delaying disease progression and disability.<sup>1</sup>
- Prior studies have revealed adherence rates to DMTs range from 56-87%.<sup>2,3</sup>
- Hanson et al. found an improvement in patient adherence to Multiple Sclerosis (MS) treatments when patients were enrolled in an integrated specialty pharmacy practice model, including an interdisciplinary team of physicians, pharmacists and nurses.<sup>4</sup>
- The Vanderbilt Specialty Pharmacy (VSP) has integrated two full time clinical pharmacists and two certified pharmacy technicians (CPhT) into the Vanderbilt University Medical Center Multiple Sclerosis (VUMC MS) Center who assist with coordination of care for patients being treated with a self-administered DMT. The goal of this “high touch” integrated model is to optimize treatment with MS therapies leading to reduced relapse rates and disease progression.

## OBJECTIVE

- The objective of this study is to describe the dynamic role clinical pharmacists play in the multidisciplinary care of MS patients at the VUMC MS Center, along with present data on medication adherence rates of patients on self-administered immunomodulatory therapy using VSP.

## METHODS

- This is a single-center, retrospective, cohort study of MS patients receiving a self-administered DMT through VSP between January 2016 and December 2016.

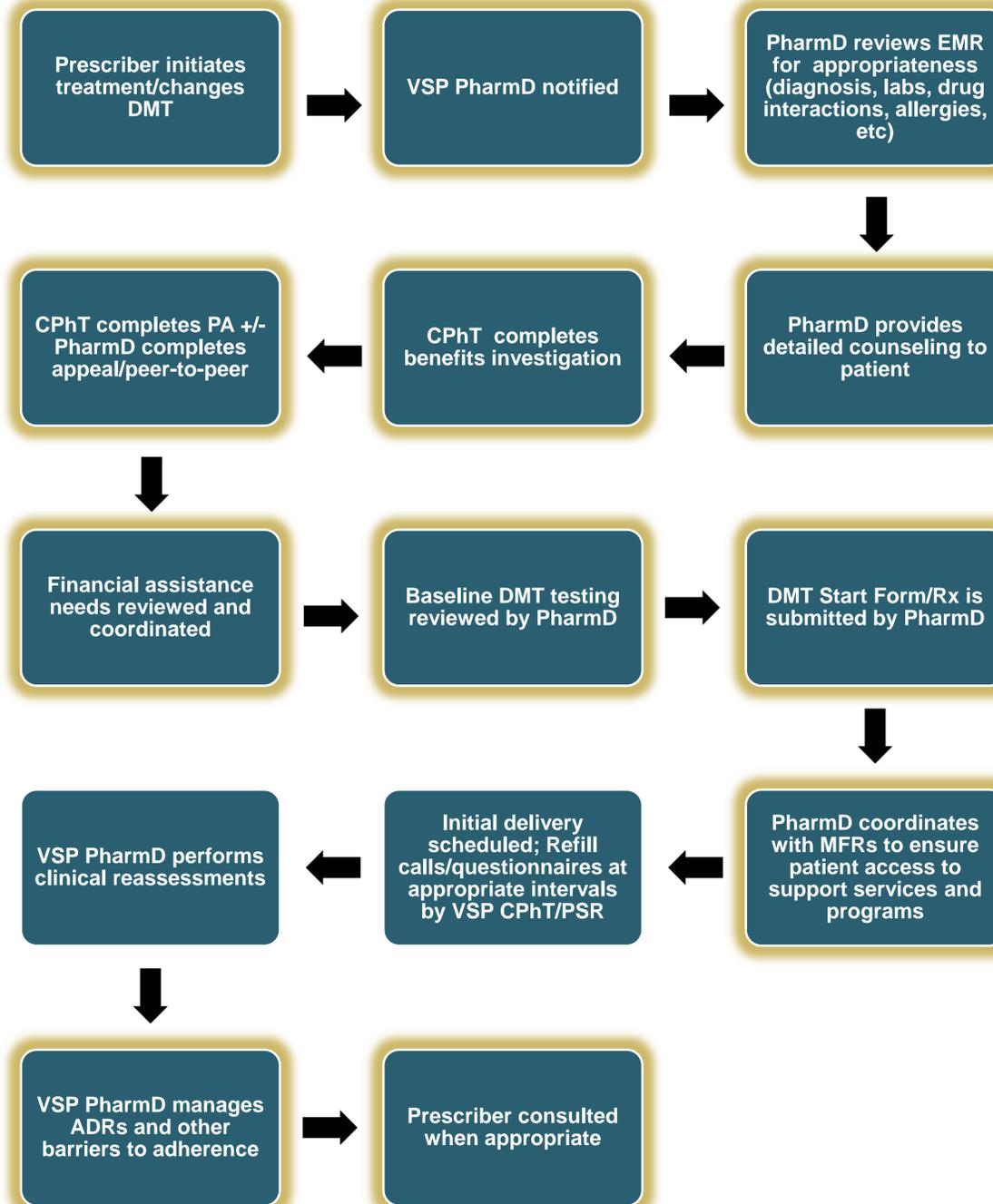
## Endpoints

- **Primary endpoint:** Medication adherence, as measured by Medication Possession Ratio (MPR) and Proportion of Days Covered (PDC).
- **Secondary endpoints:** Percent of patients achieving adherence above the industry standard of 80%, and average patient out of pocket (OOP) cost for DMTs.

## Study Population

- ICD-10-CM code of G35 (Multiple Sclerosis).
- At least three prescription claims through VSP for one or more of the self-administered DMTs between January 2016 and December 2016.

## VANDERBILT SPECIALTY PHARMACY PROCESS



PharmD = Pharmacist; MFR = manufacturer; EMR = Electronic Medical Record; PA = Prior Authorization; PSR = Patient Services Representative; ADR = Adverse Drug Reaction; Rx = prescription

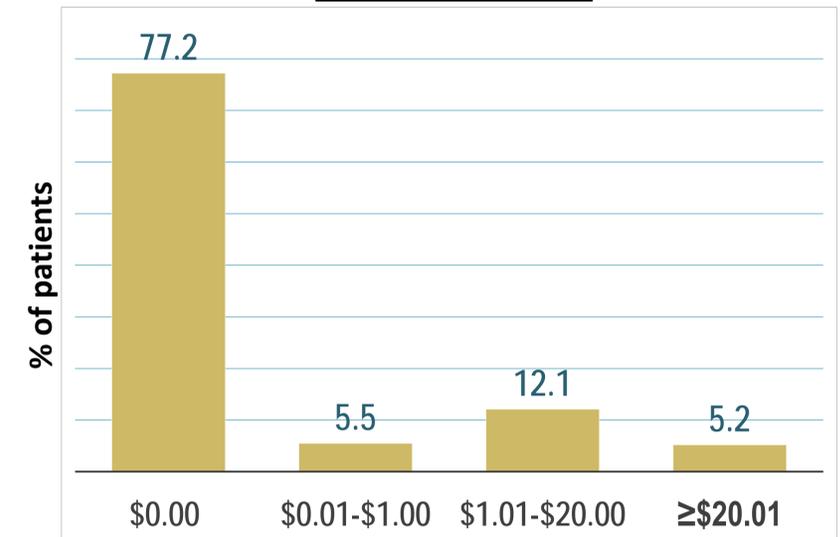


## RESULTS

### Adherence Data

	MPR (%)	≥80% MPR (%)	PDC (%)	≥80% PDC (%)
<b>TOTAL (N=653)</b>	<b>92.9</b>	<b>88</b>	<b>94.25</b>	<b>89</b>

### Out of Pocket Cost



## CONCLUSIONS

- VSP clinical pharmacists play a unique role as care coordinators for patients in the VUMC MS Center. Additional analysis is ongoing to determine if OOP cost has a positive impact on medication adherence.
- The average overall MPR and PDC are 92.9% and 94.25%, respectively. These averages are higher than other published reports of adherence to DMTs in patients with MS, even among other specialty care programs.
- More than three-fourths (77.2%) of patients using VSP have a \$0 OOP cost for their DMT. For those patients who do incur OOP costs, the average is less than \$30 per fill.

### References:

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4. Hanson RL, Habibi M, Khamo N, Abdou S, Stubbings J. Integrated clinical and specialty pharmacy practice model for management of patients with multiple sclerosis. *Am J Health Syst Pharm.* 2014;71(6):463-469.