

Connected CareSM for Multiple Sclerosis (MS): Improving Adherence with Managed Therapy for Patients with Indications of Fatigue or Depression.

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Background

- Walgreens Connected CareSM for MS (CCMS) program provides enhanced management for patients taking MS medications to improve adherence; and was updated in 2013 to assist those taking delayed-release dimethyl fumarate (DMF; also known as gastro-resistant DMF) for relapsing forms of MS.
- CCMS incorporates discussions about disease progression, appropriate medication dosing and administration, adherence counseling, recommendations regarding supportive care, and advice about overall health and wellness. The program includes assessments of patient reported side-effects and standardized screenings for depression and fatigue.

Objective

• Examine 9-month adherence levels in relation to the duration of a patient's managed status and patient reported depression and fatigue while controlling for demographics, medication comorbidities, reported drug side effects, and starter dosage.

Methods

- Adherence was measured using PDC (proportion of days covered)¹ for a 9 month follow-up period from index date.
- Patient reported side effects and screenings for depression or fatigue were collected through the CCMS assessments.
- The study population included Walgreens Central Specialty patients, 18 years or older, initiating therapy between April 2013 and December 2013, and followed through June 2014.

Methods Continued

- Mixed model analysis controlled for patient age, gender, comorbidities, prior use of MS medications, and examined reported side effects, adjunctive medication use, DMF starter dosage use, and screening indications combined, and interaction of screenings with duration in CCMS.
- There were 1,153 patients with two or more DMF fills, not concurrently on antidepressants or amphetamines, and with CCMS assessment information.

Results

- The study sample was similar to the national MS population and indicated 13.4% of patients had positive indications of fatigue or depression (see Table 1). Average total days of patient participation in CCMS up to one-year follow-up time was 255.6 days.
- Mean 9-month adherence improved by 42.4% when patients managed within 3 months in the program were compared to those managed over 9 months (p < 0.001).
- When patients had indications for depression or fatigue, adherence was significantly lower compared to those without positive screening results (p < 0.001).
- The interaction between managed duration and depression/fatigue indication was also significant (p < 0.04) (see Figure 1.), where patients managed within 3 months with a positive screen had a significantly lower PDC (-13.5%), compared to negative screen patients. However, patients managed over 9 months, and with a positive screen no longer had a significantly lower PDC (-2.3%).

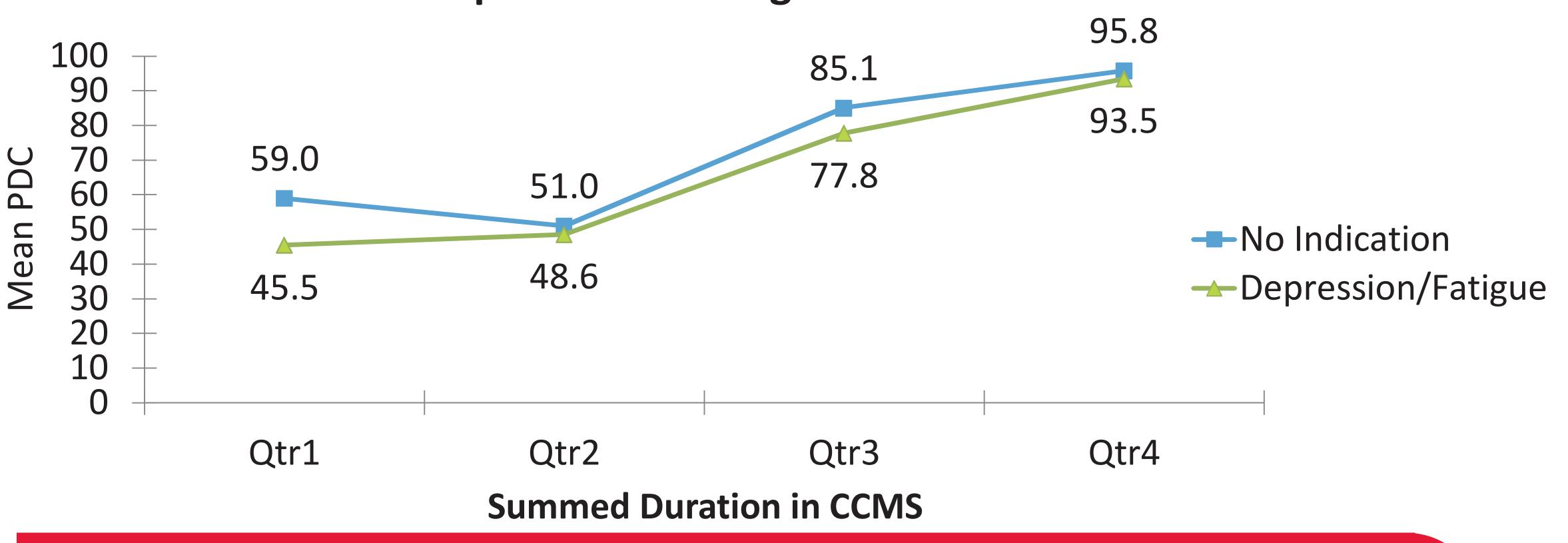
Table 1. Descriptive Statistics for Model Variables

Model Variable	n=1,153	%/SD
Age	47.5	11.1
Gender Female	875	75.9%
Comorbidities ¹ 1+	344	29.8%
Adjunctive Medications ² 1+	157	13.6%
Prior DMT within 365 Days ³	317	27.5%
Reported Side Effect	726	63.0%
Assessed Depressed or Fatigued	155	13.4%
Used Starter Kit	1,017	88.2%
CCMS Participation Mean (SD) (days managed) Median (IQR)	255.6 297.0	(114.6) (175.0)
9 month PDC Mean (SD) Median (IQR)	80.5 92.7	(24.4) (31.8)

¹One year prior to and concurrent with DMT fills, count of different categories from Medi-span's Medical Condition Master DatabaseTM ²Concurrent with DMF fills, not in prior comorbidities.

³Based on prior year utilization of at least 2 fills for 8 DMTs

Figure 1. Adjusted Adherence by Length of CCMS Participation and Indications of Depression or Fatigue.



Conclusion

• The 9-month DMF adherence rate was significantly improved by patient participation in CCMS, even with positive screening results of depression or fatigue. This study replicated and extended prior research indicating that medication therapy management for MS patients significantly increases adherence to MS biologic medications.²

¹Nau DP. Proportion of Days Covered (PDC) as a Preferred Method of Measuring Medication Adherence. Pharmacy Quality Alliance (PQA). 2012. http://www.pqaalliance.org/images/uploads/files/PQA%20PDC%20vs%20%20MPR.pdf. Accessed February 18, 2015.
²DuChane J, Clark B, Staskon F, Miller R, Love K, Duncan I. Walgreens ConnectedCare™ Multiple Sclerosis: Impact of Managed Therapy on Adherence to Medications Used to Treat Multiple Sclerosis and Related Comorbid Conditions. International Journal of MS Care. 2015 (in Press).

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