Medication Synchronization is Associated with Greater Adherence and Lower Healthcare Expenditures

Presented at the International Society for Pharmacoeconomics and Outcomes Research Annual Meeting - Virtual ISPOR 2020

OBJECTIVES

• Previous studies have shown that medication synchronization is a promising intervention to improve medication adherence and health outcomes, especially for patients with multiple chronic conditions and complex medication regimens.1-4

• To evaluate the association of medication synchronization with adherence for three therapeutic classes (Oral diabetes, Hypertension, and Hyperlipidemia) as well as the annual expenses for subjects covered by commercial health plans.

METHODS

• Study Design: A retrospective, propensity matched, cohort study.

• Study Population: Data from patients with four chronic medications filled between January - June 2015 and with at least one fill in the three therapeutic classes were identified from 2015 - 2017 IBM MarketScan® Databases. A total of 74,526 cohort patients under commercial plan included the self-synchronized group (Test) with medications filled on the same date between January-June 2015 and the non-synchronized group (Ctrl) with medications filled on more than 1 single day within the same period.

• Study Period: January 2015 to December 2017

• Outcome Measures: Medication adherence rate (proportion of days covered, PDC ≥ 0.80) as defined by CMS and Medical/Pharmacy cost in outpatient service for all reasons annually.

• Statistical Analyses: The Student t-test was applied to compare the difference between paired groups. The statistical significance was determined as p-value < 0.01.

©2020 Walgreen Co. All rights reserved.
RESULTS

- Self-synchronized patients (Test) revealed higher adherence in 3 therapeutic classes than that of non-synchronized patients (Ctrl) in 2015. The trend was kept in 2016 while the differences are narrowed, and then disappeared in 2017. (DIAB: Oral diabetes, HTN: Hypertension, STAT: Hyperlipidemia).

- Non-synchronized patients (Ctrl) spent more on healthcare services than self-synchronized patients (Test) did in all 3 years. Around 1.5 fold higher in drug spending and 1.2 fold increase in outpatient cost were shown in payment data of non-synchronized patients vs. self-synchronized patients.

CONCLUSIONS

- Chronic medication self-synchronization in commercial populations are associated with the greater medication adherence for three major therapeutic classes, and the lower trends in healthcare expenditures.

- This study leveraged real-world evidence to reveal a possible intervention strategy towards the economic outcome of patients with multiple medications for their chronic conditions.

References:

AMA Citation:

Contributing Authors:
Liang Feng, PhD; Ying Mu, PhD, MS; Michael Taitel, PhD
Walgreens, Deerfield, IL

All authors are employees of Walgreen Co.
Walgreens Center for Health & Wellbeing Research www.walgreens.com/research
For more information on this poster, please contact: research@walgreens.com

©2020 Walgreen Co. All rights reserved.