**Impact of the 2016 Missed Refill Intervention Program on Medication Fill Rate and 2016 CMS Star Adherence for Medicare Populations**

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**Background**

- Medication adherence can improve health outcomes and reduce healthcare costs.
- Medication adherence is part of the Centers for Medicare and Medicaid Services (CMS) Star Rating quality measurement. The CMS Star Ratings measure overall patient outcomes across six medication adherence categories (diabetes, hypertension, and hyperlipidemia).

**Objective**

To assess the impact of a GuidedHealth™ 2016 Missed Refill Intervention Program on:

1. Post-refill medication claim percentage (i.e., refill) and (refill) per day.
2. 90-day fills
3. Non-adherence defined by gap in medication supply.
4. PDC was calculated using 2016 CMS criteria that requires a member to have at least 21 days of supply except in the case of patients with a 90-day supply who only have a 7-day gap in supply. If members did not have a medication claim within the study period, they were considered adherent, (i.e., PDC greater than or equal to 0%).

**Methods**

- The Missed Refill Intervention Program was run weekly from Jan. 1, 2016 to Dec. 31, 2016 (52 weeks).
- Members identified who:
  1. Had at least a 7-day gap in medication supply in the Star drug categories; and
  2. Had a PDC of 0%–15% within the Star drug category during the prior 365 days.

- The fill rate was calculated using all Medicare members whose plans were part of the Missed Refill Intervention Program run in 2016, creating a concurrent control group.
- Among the 578,776 average monthly members whose contracts did not participate in the Missed Refill Intervention Program, 158,754 (27%) members with an equal or greater opportunity were identified with a 90-day drug supply gap.
- Among the 578,776 average monthly members whose contracts participated in the Missed Refill Intervention Program and 271,992 (47%) members, 112,524 (42%) opportunities were identified with a 90-day drug supply gap.
- To assess the impact of the GuidedHealth™ 2016 Missed Refill Intervention Program, we fit adjusted generalized linear models to estimate the impact of the GuidedHealth™ 2016 Missed Refill Intervention Program on: 1) Indirect individual adherence improvement measured as 0.9% (95% CI: 0.0% to -0.2%); 2) the GuidedHealth™ 2016 Missed Refill Intervention Program improved the refill rate (0.9% (95% CI: 0.0% to 0.0%)); and 3) the GuidedHealth™ 2016 Missed Refill Star drug adherence program improved the proportion adherent (0.5% (95% CI: 0.0% to 0.0%)).

**Results**

**Study population**

Among the 459,500 average monthly members in the Medicare contracts that participated in the Missed Refill Intervention Program, 354,682 (77%) members of these 90-day drug supply gap were identified for a missed refill intervention. Note a member could have more than one opportunity due to being identified in more than one adherence category.

- Rajamohan et al. (2016) observed 0.9% (95% CI: 0.0% to 0.0%) improvement in percentage adherent compared to 0.3% (95% CI: -0.5% to 0.5%) observed in a national pharmacy benefit manager’s data.

**Limitations**

- Our results suggest the Prime Therapeutics’ 2016 Missed Refill Intervention Program improved the refill rate average PDC and 2016 Star drug category adherence.
- A total of 489,900 Medicare members whose plans were part of the Missed Refill Intervention Program throughout 2016 were included in our analysis.
- A post-identification refill was defined as a drug claim within 7 days of a refill gap to refill their cholesterol, diabetes and hypertension medications.

**Conclusions**

- Our results suggest the Prime Therapeutics’ Missed Refill Intervention Program improved the refill rate average PDC and 2016 Star drug category adherence.
- Implementation of the GuidedHealth™ 2016 Missed Refill Intervention Program throughout 2016 was associated with a statistically significant 0.9% (95% CI: 0.0% to 0.0%) increase in refill rate compared to members that did not have a 90-day drug supply gap in the Star drug category (90-day fills).

- Implementation of the GuidedHealth™ 2016 Missed Refill Intervention Program throughout 2016 was associated with a statistically significant 0.7% (95% CI: 0.0% to 0.0%) increase in 2016 Star drug category adherence.

**References**