Evaluation of Intervention Alert Frequency and Acceptance Rates by Medicare Insurance Type

Julianne Kowalski, PharmD1; Kevin P. Boesen, PharmD2; Chanadda Chinthammit, BSPharm, MS1; Terri Warholak, PhD1; Ann M. Taylor, MPH, MCHES2

1University of Arizona, Tucson, AZ; 2SinfoniaRx, Tucson, AZ

BACKGROUND

• The Centers for Medicare and Medicaid Services (CMS) require Medicare Part D plans, including Medicare Advantage Prescription Drug Plans (MAPDs) and Prescription Drug Plans (PDPs), to provide Medication Therapy Management (MTM) services.1

• MTM services utilize pharmacists (or other qualified providers) to evaluate individual medication profiles for optimization that include addressing: adherence problems, appropriate guideline care gaps, high-cost drug use and potential cost savings, and medication safety concerns.1

• Within the CMS payment structure, MAPDs receive significantly more incentive for improvement of medication adherence, as measured by star ratings, than PDPs. This may lead to variations in MTM outcomes between the two different plan types.2

OBJECTIVES

• Primary Objective: To compare the rate of occurrence of interventions (adherence, guideline care gap, cost, and safety) between MAPDs and PDPs.

• Secondary Objective: To compare the intervention acceptance rates of the different types of alerts between MAPDs and PDPs.

RESULTS

Data was collected from the outcome summary reports for 354 plans: 77 MAPD plans, combined 152,231 members with a total of 136,647 alerts fired. The 273 PDP plans contained 571,013 members with a total of 510,615 alerts fired. Table 1 shows the data for alert frequency.

Differences in alert frequency per 1000 patients between MAPDs and PDPs were statistically significant: P < 0.0001.

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Alert Intervention Acceptance Rates

Table 2: Alert Intervention Acceptance Rates

<table>
<thead>
<tr>
<th>Year</th>
<th>Type of Alerts</th>
<th>MAPD</th>
<th>PDP</th>
<th>N accepted</th>
<th>N measurable</th>
<th>%</th>
<th>N accepted</th>
<th>N measurable</th>
<th>%</th>
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</thead>
<tbody>
<tr>
<td>2015</td>
<td>Adherence</td>
<td>51,007</td>
<td>41,092</td>
<td>41,092</td>
<td>51,007</td>
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<tr>
<td></td>
<td>Cost</td>
<td>6,253</td>
<td>5,225</td>
<td>28</td>
<td>6,253</td>
<td>34</td>
<td>0.0001</td>
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<tr>
<td></td>
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<td>6,253</td>
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<tr>
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<td>Safety</td>
<td>16,313</td>
<td>15,225</td>
<td>369</td>
<td>16,313</td>
<td>543</td>
<td>0.0001</td>
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</table>

MAPD = Medicare Advantage Prescription Drug Plan; PDP = Prescription Drug Plan

• At the end of the 2015, Sinfonia, a national MTM provider, generated outcome summary reports for each individual contracted insurance plan. Plans were excluded:
  - From all analysis if no outcome summary was generated.
  - From the intervention acceptance rate analysis if no measurable interventions were made.

• Data was collected retrospectively for each contract including plan type, total number of eligible patients, total number of intervention alerts fired, total number of measurable interventions, and number of interventions accepted.

• Interventions were categorized by type: adherence, cost, guideline gap, and safety. Acceptance was calculated based on the number of alerts fired divided by the total number of members within the plan.

• Secondary dependent variable, intervention acceptance rate, was computed based on number of measurable alerts accepted by plan members and/or providers of plan members divided by the number of alerts with measurable data.

• The Chi Squared Test was used to analyze and compare alert frequencies and alert intervention acceptance rates between MAPDs and PDPs. Statistically significant differences in frequency were assessed at an alpha level < 0.05.

DISCUSSION

• Members in MAPDs appear to be less adherent and more likely to experience guideline care gaps than PDP members. This may lead to more programs in place to proactively assess medication related problems.

• It was not surprising that PDPs had more safety alerts since we did not expect these plans to have as many programs in place to proactively assess medication related problems.

• Further information regarding member demographics and socioeconomic status as well as plan discontinuities, copays, and formulations could provide further insight into these observed differences in alert frequencies and alert intervention acceptance rates between MAPDs and PDPs.

• Limitations:
  - This evaluation included data for one year only. It is unclear whether these results are limited to this dataset or if similar results would be observed across multiple years.
  - Data regarding member characteristics such as income, proximity to medical care, and other environmental factors that could affect intervention acceptance rates were not collected.
  - There were significantly more PDPs than MAPDs evaluated for this project; the larger sample size could further increase the sensitivity of the statistical analysis and overestimate the results.

CONCLUSIONS

• This retrospective evaluation showed some statistically significant differences in the number of alerts fired and interventions accepted between MAPDs and PDPs.

• Given the reimbursement incentive models and star rating programs for MAPDs, it was surprising to see that these members were less adherent and more likely to experience guideline care gaps.

• Future investigations are warranted to identify reasons for these observed differences and to determine whether these trends hold across longer-term investigations.

ACKNOWLEDGMENTS

The authors want to thank Justin Liu, Kyle Le, Bryan Long, and Wendy Lau for their assistance with data collection.

REFERENCES


Table 1: Frequency of Alerts Fired

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<thead>
<tr>
<th>Year</th>
<th>Type of Alerts</th>
<th>N fired</th>
<th>N/1000 members</th>
<th>MAPD</th>
<th>PDP</th>
<th>N fired</th>
<th>N/1000 members</th>
<th>MAPD</th>
<th>PDP</th>
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Figure 1: Alert Frequency Per 1000 Patients

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