Description of Medication Therapy Management Pilot for Home Health Care Service
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Background and Introduction

Background
- Estimated annual cost of medication misuse is estimated at more than $200 billion and estimated 1.5 million preventable medication related adverse events occur yearly2,3
- Medication therapy management (MTM) services have been shown to improve outcomes and lower health care costs;2,4
- Approximately 12 million individuals receive home health care services annually. Studies have demonstrated that around one-third of home health patients had potentially inappropriate drugs;1,2
- The Medication Management Center (MMC) has been providing MTM services since 2006, completing approximately 1,000 MTM cases daily. Although the MMC mostly services Medicare Part D patients, the clinical skills of the center are applied towards multiple unique patient populations to improve healthcare outcomes.
- Assurance Healthcare is a Tucson-based Home Health Care Provider for outpatient and in-home nursing contracted with the MMC to deliver MTM services for their patients.

Objective
- The purpose of this quality improvement (QI) project is to assess the frequency of potential drug-related problems identified by clinical pharmacists at The University of Arizona College of Pharmacy MMC and to coordinate care between pharmacists, home health caregivers, and providers for home health patients.

Methods
- Medication lists were compiled by home health caregivers using interviews, medical records, and pill boxes or medicine cabinets
- Clinical pharmacists conducted weekly comprehensive medication reviews on in-progress medication lists
- Comprehensive medication reviews included:
  - Cost-savings opportunities
  - Brand to generic conversions
  - Drug optimization interventions
- Gaps in therapy interventions
  - American Diabetes Association (Add ACE Inhibitor, Add Statin, Add Aspirin)
  - American Heart Association (Heart Failure Add ACE, Heart Failure Add Beta Blocker)
  - National Heart, Lung, and Blood Institute (Asthma - Add Rescue, Asthma - Add Controller)
- Safety concerns
  - Drug-drug interactions
  - Drug-disease interactions
  - Beers Criteria
- Personal medication lists and medication action plans were delivered to the home health provider and to the patient’s primary care provider with a summary of the review and clinical recommendations.
- Descriptive statistics were used to summarize the results from the pilot.

Results

<table>
<thead>
<tr>
<th>Interventions</th>
<th>Safety</th>
<th>Cost</th>
<th>Guideline</th>
</tr>
</thead>
<tbody>
<tr>
<td>TD</td>
<td>26</td>
<td>40</td>
<td>81</td>
</tr>
<tr>
<td>Drug-Disease</td>
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<td>DDI</td>
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<td>Beer’s List</td>
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<td>Monitoring</td>
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<td>Dose Related</td>
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<td>Therapeutic</td>
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<td>Optimization</td>
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<tr>
<td>Other</td>
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</table>

Figure 1: Safety interventions

<table>
<thead>
<tr>
<th>Gastrointestinal</th>
<th>Post-MI</th>
<th>CHF</th>
<th>Diabetes</th>
<th>Respiratory</th>
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<tbody>
<tr>
<td>3</td>
<td>2</td>
<td>11</td>
<td>30</td>
<td>35</td>
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</tbody>
</table>

Figure 2: Guideline interventions

- A total of 297 medication lists were reviewed by clinical pharmacists
- There were 427 interventions found or 1.44 interventions per medication review
- 72% were safety related interventions
- 19% were gaps in therapy interventions
- 9% were cost saving opportunity interventions

Discussion

- This descriptive report was conducted to demonstrate the opportunity to provide clinical pharmacy services that may result in significant interventions to home health patients.
- A significant rate of 1.44 interventions per review suggests considerable potential to improve care. A larger sample of home health patients is needed to better evaluate the impact on patient care.
- Further research is needed to evaluate provider acceptance of recommendations.

Limitations
- Diagnoses provided were not comprehensive, therefore disease state assessments had to be made on medication lists which may exclude relevant patients.
- Medication lists may be inaccurate depending on the quality of the medication reconciliation.

Conclusion

- The collaboration of clinical Pharmacists at the MMC, along with SinfoniaRx, identified numerous potential problems indicating the opportunity to prevent medication misuse.
- This type of service can be of immense value for patients in the setting of home health care.

References

Disclosure
Authors of this presentation have the following to disclose concerning possible financial or personal relationships with its companies or entities that may have a direct or indirect interest in the subject matter of this presentation:
- The authors are employees of The University of Arizona College of Pharmacy Medication Management Center.

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