



COMPLETED GRANT SYNOPSIS

Utilizing pharmacy technicians to maximize pharmacist interventions in home health services to reduce hospital readmissions

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Background

Home health services can include skilled nursing, home health aide, physical therapy, speech-language pathology, occupational therapy, medical social services and medical supplies. According to the CDC, in 2014 there were 12,400 Home Health Agencies (HHAs), and in 2013 4.9 million patients received and ended care with a home health care provider.¹ As part of the Home Health Quality Reporting Program (HH QRP), HHAs are evaluated under two quality measures: process measures and outcome measures.² Process measures evaluate the use of evidence-based processes of care including immunizations and use of risk assessment tools for falls or depression.² Outcome measures assess the experience of the patient and are derived from the data collected in the Outcome and Assessment Information Set (OASIS) submitted by HHAs and Medicare claims.² OASIS data accounts for the complete episode of care from admission to discharge, transfer to inpatient facility or death under the care of the HHA, and evaluates a patient’s understanding of their medication regimen and their ability to prepare and take their medications reliably and safely.² A subset of the outcome measures includes claims-based utilization, evaluating the rate of potential problems in care based on the utilization of specific services.² These measures include the following:

- Acute care hospitalization during the first 60 days of home health
- Emergency department (ED) use without hospitalization during the first 60 days of home health
- Rehospitalization during the first 30 days of home health
- ED use without hospitalization readmission during the first 30 days of home health
- Discharge to community
- Potentially preventable 30-day post-discharge readmission.²

OASIS measures and Medicare claims affect Home Health star ratings and factor into value-based purchasing.^{3,4} Hospital readmissions, specifically, play a large role in determining the payment received by home health agencies and their ability to attract new patients to their services. Thirty-day readmissions are weighted heavily by the referring facilities (i.e. Accountable Care Organizations and hospitals). Sixty-day readmission rates affect the value-based purchasing of the HHA, and both 30 and 60 –day readmission rates are available for patients to review when choosing a HHA. By reducing hospital readmission rates through pharmacy team interventions, community pharmacies can establish the value a pharmacy team adds to the home health team.

Objectives

- Develop a medication review process that is driven by a pharmacy technician for home health patients receiving skilled nursing services
- To evaluate the effect of the pharmacy team’s medication reconciliation and regimen review process on 30 and 60 day hospitalization rates
- To assess the number of medication therapy problems identified during pharmacy technician-driven medication reconciliation
- Develop and implement a payment model for a medication reconciliation process provided by a community pharmacy team for home health partnerships.

Methods

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| Design | <ul style="list-style-type: none"> • This is a 8-month non-randomized, non-blinded, prospective cohort study. • Pharmacy team received a report of incoming referrals who were high to very high risk according to the LACE tool. The pharmacy team would then determine patient eligibility. <ul style="list-style-type: none"> ○ Inclusion Criteria: Only patients receiving services under Medicare or an insurance utilizing a |
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| | <p>Medicare-like payment structure (i.e., episodic payment) were included.</p> <ul style="list-style-type: none"> ○ Exclusion Criteria: Patients who lived in a skilled nursing or assisted living facility were excluded. ● The pharmacy referral coordinator, a Realo employee, would then assign patient cases to the pharmacy technician-pharmacist team. The pharmacy technician would then contact the patient within 4-7 days from Start of Care. Start of Care (SOC) is defined as the initial assessment provided by the Home health agency (HHA) and includes a comprehensive assessment including OASIS data items. ● The pharmacy technician obtained a full medication history including prescription, over the counter and herbal medications and would ask the patient about medication allergies and vaccinations. Vaccinations that were assessed include: influenza, pneumococcal (Pneumovax-23[®], Prevnar 13[®]), and herpes zoster (Zostavax[®] and/or Shingrix[®]). The pharmacy technicians would then screen the patient for falls utilizing key screening questions under the algorithm for fall risk screening, assessment and intervention. Following that assessment, the pharmacy technician would provide a depression screening using the PHQ-2 if patient did not have a self-reported depression diagnosis. The PHQ-9 was utilized if the patient stated they had depression or the patient had a positive PHQ-2. The pharmacy technicians then updated the electronic health record used by the HHA with the current medication list and vaccination status. ● The pharmacist reviewed the medication list for appropriateness of therapy, assessed the medication list for fall risk, assessed for medication interactions, generated a letter to the provider for clarifications or recommendations if needed, and documented counseling points that would need to be conveyed by the home health nurse. The pharmacist would then fax the provider recommendations and document responses in the EHR. |
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| Study endpoints | <ul style="list-style-type: none"> ● Thirty and Sixty day hospitalization rates ● Number of medication therapy problems identified ● Average time spent per encounter for pharmacist and technicians |
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Results

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| <ul style="list-style-type: none"> ● There were 1,244 patients referred to the pharmacy teams with a start of home health care between November 30, 2018 and June 21, 2019. The average LACE score of patients who received the service was 12.4 and the average LACE score of patients who did not receive pharmacy services was 12.5. In total, 695 high- to very high-risk patients interacted with the pharmacy team for medication reconciliation and 534 patients did not receive pharmacy services. Of the patients who did not receive pharmacy services, 469 patients either declined or could not be reached after 3 attempts and 66 patients were readmitted before their call from the pharmacy team. There were 11 patients who cancelled home health before their call and 3 patients had non-qualifying LACE scores whose data was not included. Medication therapy problem data was unavailable for 13 patients who received pharmacy services. ● At 30 days from the start of care, 13.4% (93/695 patients) of those who received pharmacy services were hospitalized compared to 26.8% (143/534 patients) who did not receive pharmacy services (p<0.01). ● At 60 days from the start of care, 20.9% (145/695 patients) of those who received pharmacy services were hospitalized compared to 33.3% (178/534 patients) who did not receive pharmacy services (p<0.01). ● In total, 1,632 medication therapy problems across 682 patients were identified by the pharmacist after the patient completed a medication review with the pharmacy technician. Of the patients who interacted with the pharmacy team, 654 patients (95.9%) had at least 1 medication therapy problem. The three most commonly identified MTPs identified were falls risk medications (570/1,632; 34.9%) medication list discrepancies (321/1,632; 19.7%) and adherence issues (176/1,632; 10.8%) (Figure 1). On average, 2 medication therapy problems were identified per patient, 5 updates to the medication list were required, and 2 vaccines had to be recorded. ● Average time spent on completed referrals: Pharmacist-57 minutes, Technicians 37 minutes. Average time spent on each referral received- Pharmacist 31 minutes, Technician 21 minutes. |
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Conclusion

In collaboration with a home health agency, the pharmacy team conducted medication reconciliation at the start of care to help ensure optimal, guideline-driven medication regimens and minimize patient harm related to medications. Hospitalization rates were positively impacted with the addition of a pharmacy team to the home health transition of care process. Additionally, pharmacists were able to identify medication therapy problems after the technician-driven medication reconciliation process.

In comparison to a pharmacist led version of this project where on average pharmacist spent 34 minutes on completed cases the proposed model takes more time. It should be noted however, that the pharmacist led project provided services to all risk categories.

References

1. Harris-Kojetin L, Sengupta M, Park-Lee E, et al. Long-term care providers and services users in the United States: Data from the National Study of Long-Term Care Providers, 2013–2014. National Center for Health Statistics. Vital Health Stat 3(38). 2016. <https://www.cdc.gov/nchs/fastats/home-health-care.htm>.
2. Home Health Quality Measures. <https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/HomeHealthQualityInits/Home-Health-Quality-Measures.html>. Last Modified June 8, 2018. Accessed June 27, 2018.
3. Home Health Star Ratings. <https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/HomeHealthQualityInits/HHQIHomeHealthStarRatings.html>. Last Modified July 3, 2018. Accessed July 12, 2018.
4. Home Health Value-Based Purchasing Model. <https://innovation.cms.gov/initiatives/home-health-value-based-purchasing-model>. Last updated December 17, 2019. Accessed January 16, 2020

Figure 1: Medication Therapy Problems Identified

