Impact of Adherence Education and Monitoring on Community Pharmacy Performance Scores and Patient Satisfaction

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BACKGROUND: Nonadherence to medications can lead to poor health outcomes and quality of life, which leads to increased health care costs; adherence is affected by the patient’s relationship with health care providers or the health care system. Adherence is often measured using a proportion of days covered (PDC) calculation which is based on the fill dates and day supply for each prescription. Adherence, specifically to noninsulin diabetes medications, statins, and renin angiotensin system antagonists (i.e. ACE inhibitors, ARBs, and aliskiren), is one of the measures that the Centers for Medicare and Medicaid Services tracks in order to give Medicare Part D plans a star rating; pharmacies are affected by these star ratings. Based on the performance of the pharmacy, insurance plans can determine whether or not they want a certain pharmacy to be included in their network. Some pharmacies use Electronic Quality Improvement Platform for Plans and Pharmacies (EQuIPP), which is a platform that allows pharmacies to better understand the impact they have on patient care by providing performance information.

OBJECTIVES: (1) To evaluate if a monthly adherence monitoring and education service impacts the percent of patients adherent based on pharmacy performance scores; (2) To determine the change in proportion of days covered (PDC) after monthly adherence monitoring and education; (3) To determine patient satisfaction with the service in a grocery-chain pharmacy.

METHODS: A six-month prospective interventional pilot study including patients with a PDC of less than 80% for oral diabetes or renin-angiotensin system antagonists (RASA) medications will be conducted in two pharmacies in a national grocery-chain in Virginia. At the start of the study, using internal data analytics, the percent of patients who are adherent to oral diabetes or RASA medications will be determined, and the researchers will record the PDC for each patient. Current standard of care in this grocery-chain pharmacy is to initially address adherence, then follow-up in one month and every three months thereafter. In this study, pharmacists will provide monthly adherence monitoring and education over the phone for a six-month period. Each call will be scripted for medication adherence history, education and data collection. The pharmacist will provide guidance and counseling based on how the patient answers the questions. Pharmacists will also gather information about adherence patterns and behaviors using a 14 item Likert-scale and multiple choice-based questionnaire during the first telephone session. After completion of the final adherence monitoring and education session, pharmacists will gather patient satisfaction information using an eight item Likert-scale questionnaire. Using internal data analytics, the percentage of patients adherent to oral diabetes or RASA medications will be determined, and the researchers will record the PDC for each patient at the end of the six-month period. The data will be analyzed using uni-variate and bi-variate statistics to determine if there is a difference in both pharmacy performance scores and PDC from the pre-study analysis. The adherence patterns and behaviors, as well as patient satisfaction with the program will be evaluated to determine the factors influencing nonadherence.

PRELIMINARY RESULTS: A total of 54 patients were identified in two pharmacies, nine of which were excluded or declined involvement, leaving 45 enrolled in the adherence monitoring and education service. Of the 45 enrolled patients, nine completed the adherence patterns and behaviors questionnaire. The patient population was 50.95% male with an average age of 71.17 years and taking an average of 6.86 medications (prescription and non-prescription). The majority had Medicare Part D insurance and a yearly income of less than $40,000. The average baseline PDC among the enrolled patients was 68.92. The percentage of patients adherent to oral diabetes medications underwent a 10.98% and 15.97% increase between baseline and current for store 1 and store 2, respectively. The percentage of patients adherent to
RASA medications underwent a 10.27% and 18.29% increase between baseline and current for store 1 and store 2, respectively. After evaluation of the adherence patterns and behaviors questionnaire, the majority of patients state they rarely forget to take medications or run out of medications. Cost of medications does not seem to impact adherence. Survey responses indicate the majority of patients know the names and indications of their medications.

**PRELIMINARY CONCLUSIONS:** It is likely that engaging patients in an adherence monitoring and education service will impact/improve patient adherence and pharmacy performance scores.

**REFERENCES:**