Impact of a Targeted Approach to Recruiting Patients into Medication Synchronization and Medication Adherence Packaging Programs

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BACKGROUND

- The Community Preventative Services Task Force and the Surgeon General's 2020 Call to Action to Control Hypertension recommend tailored pharmacy-based interventions to increase medication adherence for cardiovascular disease.[1]
- Pharmacies currently offer these interventions to patients, but several unenrolled patients remain who could benefit from these programs.[2]
- Using methods to target these patients for adherence programs could increase their proportion of days covered (PDC) and improve their chronic disease states.[3]
- Lewis Drug is a 59-pharmacy regional chain which provides free medication adherence packaging and medication synchronization services to patients. There are no formal enrollment requirements for these services.[4]
- While many patients are perceived to benefit from these services, Lewis Drug has never formally studied their impact, nor specifically targeted patients for recruitment based on health status, health history, or social determinants of health.
- Therefore, standardizing targeted recruitment methods using pre-specified criteria may assist site pharmacists in incorporating recruitment for medication adherence programs into their workflow and other clinical services.

OBJECTIVE

- To determine if a targeted approach to recruit patients into medication synchronization and medication adherence packaging programs is successful at recruitment, retention, and improving adherence-related metrics compared with the usual untargeted approach.

METHODS

- Eight practice sites were identified within the chain for this project and the other 51 practice sites remain unenrolled and served as the control group. The eight sites were spilt evenly into urban and rural categories and were compared to their respective control sites.
- Patients were identified by a central pharmacist for the study based on existing Pioneer software reporting functionalities if:
  - Their Pioneer Patient Risk Score was 'high-risk' (75-100),
  - They took ACEi (angiotensin converting enzyme inhibitors) or ARB (angiotensin receptor blocker) therapy, and
  - A profile review showed at least one oral diabetes medication and seven or more active chronic medications.
- Pharmacists at each enrolled site were trained via webinar on how to utilize standard patient enrollment and data submission materials, including call scripts and data templates. Pharmacy staff at each site contacted eligible patients and completed site-level data tracking, while patient identification and comprehensive tracking was completed by a single centralized pharmacist for all eight sites.
- The results of this project were evaluated based on initial patient recruitment success by comparing the number of targeted patients who agreed to adherence services as compared to those that refused as well as retention of recruited patients through the initial year. In addition, medication adherence service growth rates of enrolled sites were compared to growth rates of unenrolled sites within their respective urban or rural categories.
- Assessments of adherence were based on changes to PDC for ACEi or ARB therapy documented every three months. Risk scores were also documented every three months and assessed for changes.

RESULTS

- As of April 14, 2021, eight practice sites were enrolled in the targeted recruitment program. Identification and recruitment of patients was initiated on May 3, 2021, and the first patient lists were created on May 11, 2021.

Figure 1: Initial patient recruitment success and retention.

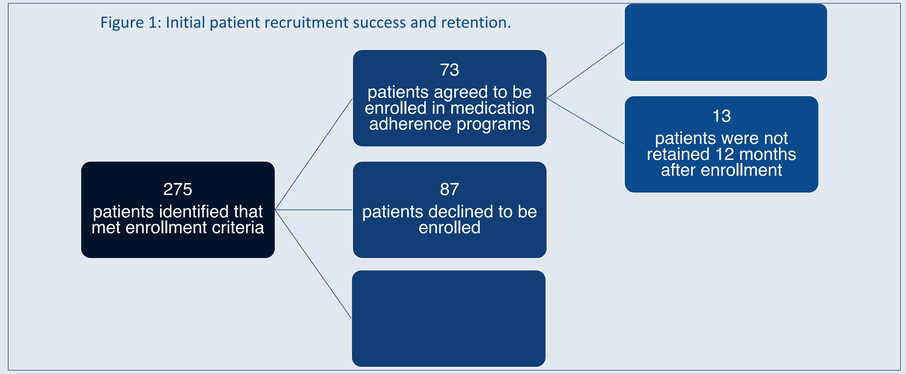

Figure 2: Mean number of patients enrolled in medication adherence programming over time.

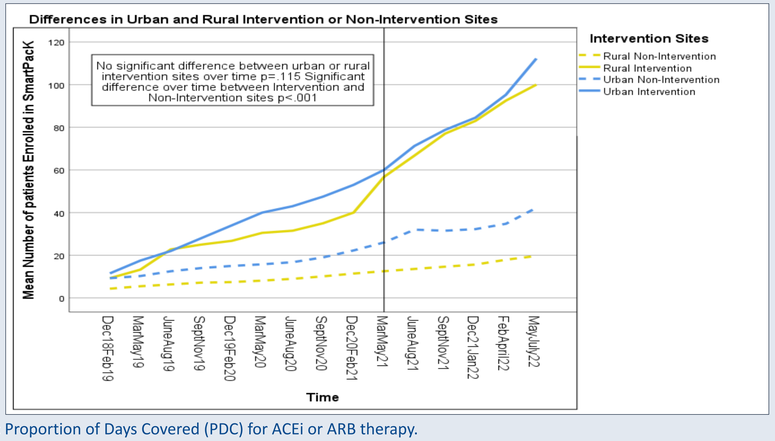

Table 1: Proportion of Days Covered (PDC) for ACEi or ARB therapy.

n=73	Baseline	12 Months
Mean PDC	93.1% for 66 patients	93.8% for 60 patients
PDC 80% or greater	90.9% for 60 patients (patients were adherent)	86.7% for 52 patients (patients were adherent)

Table 2: Changes in 'Pioneer Patient Risk Score' for enrolled patients at baseline and 12 months.

	Baseline (n=68)	12 Months (n=56)
Minimum Risk Score	4	21
Maximum Risk Score	96	96
Mean Risk Score	82.62	78.5
Percentage of Patients at High Risk (75+)	89.7%	74.1%

DISCUSSION

- Creating a systematic targeted approach to enrolling high-risk patients in adherence programming could have the potential to positively impact the health outcomes of patients and standardize the adherence program enrollment process.
- This may influence perceived value of these programs and provide a pathway to reimbursement opportunities to continue service expansion to patients in need.
- Of the 275 patients that met enrollment criteria, 21.8% of patients were retained after 12 months of the study. In comparison to other studies with similar interventions impacting patient medication adherence, this study had similar patient enrollment and retention rates.[5,6]
- The significant increase in enrollment in adherence programs at Lewis Drug Stores could be due to other pharmacy operations, such as medication therapy management (MTM) services. Such programs should be considered when assessing the results of this study.
- Due to the time-frame of this study, more research should be completed on a larger scale to determine the full impact of this intervention. This data may not represent the true significance of standardized targeted recruitment for medication synchronization and medication adherence packaging programs because of the implications of the COVID-19 pandemic on the workload of community pharmacies.

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