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Evaluation of a discharge medication access service program at two large tertiary medical centers

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Background

• According to the 2017 Truven Health Analytic-NPR Health Poll, medication cost is the most-cited reason among respondents for not filling their prescriptions.¹
• This cost barrier may exist when patients are prescribed new medications at discharge from hospitalization. Insurance coverage and issues are often unidentified until patients present to the pharmacy. Ultimately, this may result in delay in medication initiation, increase stress for patients and caregivers, and reduce throughput in the hospital and pharmacy.
• Pharmacy interventions on medication prior authorizations (PA) have shown to reduce delays in hospital discharge and significantly improve time to PA approval, time to first-fill, and time to first-up.²,³
• Beginning end of March 2021, a discharge medication access service (DMAS) program was piloted in the integrated pharmacies of two large tertiary medical centers in the Portland metropolitan areas, Oregon.
• The program features include benefits investigation, affordability assessment, prior authorization facilitation, and communication with hospital care team via progress notes and electronic health record messaging.
• This proactive approach allows the pharmacy to provide accurate and consistent cost information to the patients and hospital providers.
• Program goals include:
  • Improving patient experience and continuity of care
  • Improving patient safety and reducing readmissions
  • Improving pharmacy resource utilization

Objectives

• The primary objective is to describe DMAS’s impact on medication prescribing trends and pharmacy prescription capture rate at hospital discharge.
• Secondary objectives include evaluating DMAS’s financial impact for the pharmacy and patient as well on patient retention.

Methods

• Study design
  • Institutional Review Board-Approved study
  • Retrospective review of the following:
    • Outpatient medication orders and prescription records from health system electronic health record (March 2020 to March 2022)
    • Dispensing data from outpatient pharmacy report (January 2021 to December 2021)
• Inclusion criteria
  • Hospitalized adult patients at the two studied large tertiary medical centers (inpatient and outpatient-based patient class)
  • Encounter with an active inpatient order for any of the following medications:
    • SGLT2 inhibitors (empagliflozin, dapagliflozin, canagliflozin, ertugliflozin)
    • ARNI (sacubitril-valsartan)
    • Platelet aggregation inhibitors (ticagrelor, prasugrel)
    • PCSK9 Inhibitors (evolocumab, alirocumab)
    • Rifaximin
    • Lacosamide
• Exclusion criteria
  • Pediatric patients (age <18 years)

Discussion

DMAS Implementation

• From Quarter 1 (Q1) 2021 to Q1 2022, 1325 new start medication orders have been serviced by DMAS program.
• Of the 1025 serviced patients, 24% had a medication order that required prior authorization and 77% were provided with a 1-month free medication trial card.

Rx Capture Rate and Prescribing Trends

• Consistent growth of eligible medication orders and Rx capture rate by the integrated pharmacies is demonstrated since DMAS implementation. The number of eligible prescription orders and discharge prescription capture rate increased by 86% and 10% from Q1 2021 to Q1 2022, respectively.
• The medications with the largest difference in capture rate from pre- to post-DMAS implementation are SGLT2 inhibitors (+9%), lacosamide (+13%), and PCSK9 inhibitors (+26%).

Financial Implications

• There is continuous growth in total pharmacy margins since DMAS implementation. Of note, the total pharmacy margin increased by 260% in approximately one year from Q1 2021 to Q1 2022.
• The growth in prescribing and patient retention were key contributors to total margin growth. Since DMAS implementation, patient retention has increased from 7.9% to 11.2% for those who were served by DMAS and dispensed with one of the studied medications.
• Despite the growth in pharmacy margin, the average patient out-of-pocket medication cost per eligible medication dispensed remains similar ($23.87 pre-DMAS and $24.28 post-DMAS).

Conclusion

• This retrospective review shows promising patient care and financial outcomes with proactive pharmacy-led benefits investigation for high-cost medications at discharge.

Study Limitations

• Retrospective data review
• Inability to assess long-term patient outcomes and pharmacy utilization due to study time constraints
• Due to limited data availability, the pre- and post-program implementation time periods for evaluation of prescribing data were disproportional.
• One potential confounder for the change in prescribing trend is the emerging literature and change in guideline recommendations favoring the utilization of SGLT2 inhibitors and ARNI.

Next Steps

• Longitudinal follow-up studies to investigate the intervention’s long-term impact on hospital and pharmacy throughout and patient care outcomes, such as readmission rate, length of stay, and time to discharge.
• Direct oral anticoagulants and other medications of high utility and cost may be considered for future program expansion. Alternatively, the current included medications may be investigated to optimize DMAS resource allocation.

References