Improvement in Blood Pressure Measures Through Community Pharmacist-Prescriber Coordinated Care

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BACKGROUND

- As the healthcare landscape shifts from fee-for-service to pay-for-performance, the focus on improving patient outcomes has increased.
- Quantifying the pharmacist’s role in impacting quality measures and patient outcomes is imperative for inclusion in coordinated care in the changing healthcare environment.
- Fairview pharmacies are uniquely located within Fairview clinics, which provides opportunities for pharmacists to be directly involved in impacting clinic quality measures.

The Blood Pressure Goals Achievement Program (BPGAP) is a pharmacy-based program initiated in December 2012 where participants receive:
- Pharmacist-provided blood pressure measurements
- Education regarding blood pressure reading and patient-specific goals
- Medication recommendations
- Follow-up recommendation to either the clinic (provider, MTM pharmacist, nurse) or community pharmacy
- Patients can be enrolled directly at the pharmacy or referred from a clinic
- BPGAP program measurements and recommendations are communicated directly to the primary care provider via the EHR.

METHODS

- Retrospective analysis of patients enrolled in BPGAP between January 1, 2013, and May 9, 2015, with the following inclusion criteria:
  - At least 1 follow-up visit with internal medicine or family practice
  - Age 18-85 at BPGAP enrollment
  - At least 1 follow-up visit with a recorded BP measure within 12 months
- Outcome:
  - Blood Pressure Pass Rate
    - ≥ 1 visit with internal medicine or family practice
    - Age 18-85 at BPGAP enrollment
    - ≥ 1 follow-up visit with BP measurement within 12 months
  - Blood Pressure Goal:
    - ≥ 18 years without diabetes (<140/90 mm Hg)
    - ≥ 60 years with diabetes (<140/90 mm Hg)
- Analysis:
  - Baseline BP levels at enrollment vs. BP at 12-month follow-up
  - McNemar’s test was used to evaluate changes in pass rate

FIGURES

FIGURE 1: Inclusion criteria

FIGURE 2: Patient Demographics

FIGURE 3: Example of Care in BPGAP Patient

Pharmacist-Prescriber Coordination

FIGURE 4: Overall Pass Rate

FIGURE 5: Pass Rate Stratified by # of Pharmacy Visits

RESULTS

- Among the 1,450 patients meeting all inclusion criteria (Figure 1), 51.5% were female, 88.1% were white, and the average age was 56.5 years (Figure 2).
- The BPGAP program improved communication and team-based care with other care providers and helped to identify changes in blood pressure between primary care visits (Figure 3).
- Overall, patients enrolled in the BPGAP program had an improvement of 33% in their pass rate (95% CI: 25%-41%, p<0.001) (Figure 4).
- Among patients with the greatest improvement in BP pass rate, we also identified a trend of increased blood pressure visits with the clinic (Figure 5).

CONCLUSION

- Pharmacist-provided blood pressure program demonstrated significant improvements in BP pass rates.
- Patients seeking BP monitoring at the pharmacy may be more complex or difficult patients due to low BP pass rate at enrollment.
- Use of standardized quality improvement indicators in community pharmacy programs creates a standard language to communicate impact to clinics.
- Integration within clinic system allows for direct communication and collaboration with providers ultimately improving patient outcomes with the greatest improvement seen in patients who may need the most help.
- Further analysis is needed to quantify the association between pharmacy engagement and clinic communication.

Abbreviations: PCP, primary care provider; BP, blood pressure; f/u, follow-up; HTN, hypertension; f/u, follow-up; HTN, hypertension; EHR, electronic health record; MTM, medication therapy management; CI, confidence interval; p-value, p-value.