COMPLETED GRANT SYNOPSIS

Better care for high-risk patients: A community-based partnership to deliver in-home medication management

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Objectives

To provide an in-home medication coaching program for patients with Heart Failure discharged from Virginia Mason Medical Center that identifies and resolves medication related problems (MRPs) in an effort to reduce readmissions

Methods

Design

A partnership between Kelley-Ross Pharmacy Group and Virginia Mason Heart Institute was formed to collaborate and form an interdisciplinary team that spanned the entire continuum of care.

- Patient Selection
  - Must be followed in outpatient setting by a VMMC cardiologist
  - Taking >5 chronic medications
  - Discharged from hospital to home with a primary diagnosis of heart failure
  - Reside in the surrounding tri-county area
- VMMC CHF Triage nurses identify and introduce program to patients
- Kelley-Ross integrated with read/write access to EMR system – this allowed for all notes to be directly in the provider workflow and for instantaneous messaging between the Kelley-Ross pharmacists and the Virginia Mason care team.
- Each patient received up to 3 home visits and 3 follow-up calls over a 3 month period

Study endpoints

- 30-day heart failure readmissions
- 30-day all-cause readmissions
- Patient rating on usefulness of the program
- Provider satisfaction (post service score only)
- Process metrics for the service
- Medication-related problems & acceptance of recommended interventions

Results

- 30 Day All-Cause readmissions were at 8% (4 out of 50), vs. usual care for VMMC patients at 22.1%
- Patient satisfaction on 1-5 likert scale on usefulness of program went from 3.28 prior to service to 4.66 at end of service
- Provider Satisfaction on 1-5 likert scale on whether this service would be beneficial I the care of their patients was 4.8
- In the breakdown of types of MRPs, 40% were related to patient safety concerns, 25% were efficacy issues, 18% were Harm reduction or preventative concerns, and 17% were related to social/behavioral/economic issues
- Of the interventions/recommendations to providers, 68% were accepted, 24% had no response, 5% were refused, and 3% were accepted with modifications

In applying this project to the quadruple aim:

- **Better Care:** High patient satisfaction and positive patient experience. 100% of survey respondents would recommend this service to others (n = 22)
- **Healthy People:** Demonstrated improvement in patient outcomes and health by reducing readmissions
- **Provider Work Life:** High satisfaction for providers that improves their efficiency and experience working in healthcare

- **Lower Cost:** Cost analysis of the service reveals that total cost of care may be reduced, thus resulting in savings to insurers, employers, families, and individuals. The estimated cost savings per patient in this model was $1,117.26, for a total estimated cost reduction over the 50 patient sample of $55,863.

Some limitations of the project include efficiency in identifying patients during hospitalization and scheduling patients post-discharge (if not scheduled during hospital stay). More work is warranted in determining potential candidates for this model earlier in the admission process and simplifying the referral process into the standard discharge process. Payment models for providing this care also may need review, though the cost savings may prompt payors to have this a benefit for their population. Other models may include this as part of bundled payment models or other value based payment models to reduce the total cost of care for this high-risk population.