COMPLETED GRANT SYNOPSIS

Community Pharmacist integration into team-based care provided by an Accountable Care Organization (ACO): A toolkit for future partnerships.

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Objectives
• Create a model for the integration of a community pharmacist into the Accountable Care Organization care team. • Approach an Accountable Care Organization about a potential partnership. • Obtain access to the electronic health record on and off site. • Educate providers and office staff about pharmacy services. • Deliver comprehensive medication reviews and targeted disease state education sessions to patients by referral. • Explore billable opportunities to sustain the partnership. • Create an implementation guide to assist community pharmacists in building future partnerships with an Accountable Care Organization Model.

Methods	

Design	• **Study Design**
	  ○ Prospective, cohort pilot study conducted over a 90-day period by an independent community pharmacy in partnership with three clinics affiliated with an Accountable Care Organization in North Carolina.
	• **Subject Characteristic/Identification**
	  ○ Patients receiving medical care under the Accountable Care Organization with the following criteria were included:
	  ▪ Adult patients 18 years and older
	  ▪ Residing at home
	  ▪ Existing or new diagnosis of CHF or COPD documented in the EHR
	  ▪ Medicare or Medicare-eligible
	  ○ Patients were included with and without a recent hospitalization to increase pharmacist-patient interactions.
	  ○ Cognitively impaired patients were excluded.
	• **Study protocol:**
	  ○ Nurses and care managers identified patients with an active diagnosis in the EHR of CHF or COPD after receiving a transition of care (TOC) office visit. Care managers or nurses referred patients to the pharmacist and scheduled the patient for a visit with the pharmacist within 30 days of the TOC visit. Appointment times with the pharmacist were reserved at each clinic location. Patients were also identified through routine office visits and care management interactions; however, priority for appointment times was given to transition of care patients.
	  ○ At the first pharmacist clinic visit, the pharmacist completed a comprehensive medication review, provided disease education and a symptom control log chart, and had the patient complete either the Minnesota Living Heart Questionnaire (MLHFQ) or St. George Respiratory Questionnaire for COPD (SGRQ-c).
	  ○ The pharmacist reinforced knowledge and assessed medication adherence through follow-up at week 2 (phone), week 4 (in-person), week 6 (phone), week 8 (in-person), and week 10 (phone) post-enrollment.

	○ Upon study completion, patients again completed the MLHFQ or SGRQ-c. Pre-post quality of life, symptom control, and adherence data was analyzed using descriptive statistics. ○ Sustainability of this model will be assessed using chronic care management codes to bill for the pharmacist's time with each patient. • **Analysis** ○ Descriptive statistics were conducted to assess symptom control, medication adherence, and changes in quality of life questionnaire scores. Clinically significant improvement in quality of life scores included a change in MLHFQ score by 5 points and SGRQ-c scores by 8 points or 0.025%. ○ Evaluation of readmission rates and financial sustainability.
Study endpoints	• Integration of community pharmacist within an Accountable Care Organization. • Delivery of comprehensive medication reviews and targeted disease state education sessions. • Obtaining an agreement to bill chronic care management incident to a physician for pharmacy services.

Results

- Over the course of 20 months, October 2016 to May 2018, 52 patients met with the pharmacist in clinic. Ten patients enrolled in the study and 4 completed the study - two patients with heart failure and two with COPD. A subset of the patients enrolled were evaluated through a residency research project.
  - Six patients were identified as meeting inclusion criteria and were introduced to the study. Of all study participants, 67% (n=4) had COPD and 23% (n=2) had heart failure.
  - Study participants were a mean of 68.7 years old, 16.7% (n=1) reported active tobacco smoking, 50% (n=3) were on guideline recommended therapy, and had a mean of 3 drug therapy problems.
  - Two COPD patients were lost to follow up and failed to complete a post-SGRQ-c questionnaire.
  - Individuals with COPD who completed the study demonstrated a clinically significant mean decrease in pre- and post- SGRQ-c of 3.5% over 60 days.
  - The participants with heart failure experienced a clinically significant 42 point average reduction in MLHFQ scores, equating to an average improvement of 70.5% improvement in quality of life over 60 days.
  - According to pre- and post-evaluation data, participants experienced a mean decrease of 1.6 missed doses of medication per week.
  - Due to the small sample size it was determined that readmission data would not provide meaningful information for this pilot study.
- Between February and March of 2018 an estimated 87 team members of the health care team were surveyed. Of the 87 team members, sixteen responded.
  - Of the sixteen respondents, there were six physicians, one nurse practitioner, one physician assistant, two nurses, two care managers, and 4 "others".
  - Members of the care team provided perspective through free text responses regarding the role of the community pharmacist:

    "Work in conjunction with physicians to coordinate the optimum medication decision making for patients, especially those with multiple medications."
  - Among the suggested services the care team most commonly suggested that the community pharmacist provide: education, medication reconciliation, cost mitigation strategies, and medication optimization.
  - Care team satisfaction was positive with 63% satisfied and 0% unsatisfied. The remaining 37% chose "other" stating that they either did not know of the community pharmacists' involvement, had not had the opportunity to refer patients to the community pharmacist, or they desired more interaction with the community pharmacist.
- While the initial service implementation pilot was not successful due to limited recruitment, the experience provided insight on how a community pharmacy could successfully implement patient care services and build a

financial relationship with an Accountable Care Organization. Through this project, a plan was developed to utilize a community pharmacist to provide chronic care management services.

- A toolkit was developed to aide in community pharmacist integration into team-based care provided by an Accountable Care Organization. This toolkit details the successes and setbacks seen in building a relationship with an entity where pharmacy was previously absent. The toolkit includes the following sections:
    - Making connections
    - Developing a service set
    - Obtaining access to the Electronic Healthcare Record (EHR)
    - Marketing services
    - Providing pharmacy services
    - Addressing set backs
    - Obtaining feedback
    - Presenting results
    - Implementing feedback
    - Creating a payment model

Conclusion

With the support of the Community Pharmacy Foundation, Realo Discount Drugs was able to pilot an initiative that embedded a pharmacist within an Accountable Care Organization. The initial pilot that proved to be too intensive with many patients missing or canceling appointments. There also appeared to be some challenges with getting patients scheduled in the available appointment slots. This could have been a result of the specific time slots available at each clinic or the understanding or motivation of the office staff to refer patients into this program. Throughout the grant period other methods were attempted to boost patient recruitment from adjusting the scheduled appointment slots, adding and removing clinics, and including additional disease states. Ultimately, it was decided to allow patients to choose meeting with the pharmacist in clinic, at the pharmacy or by phone and to remove the disease state requirement.

From the experience and collaboration under this project Realo was able to show their commitment to patient care which allowed for conversations about reimbursement to occur. The Accountable Care Organization partner for this project has a vast chronic care management (CCM) program. From the commitment to this collaboration it was decided that the pharmacists at Realo could assist in the provision of CCM by contributing billable minutes through the provision of medication reviews, a billable opportunity with Medicare. The pharmacist providing the medication review documents the encounter in the electronic healthcare record and the physician co-signs the note. Under this agreement, Realo will receive 80% of the income collected by the Accountable Care Organization for the medication review provided.

Final thoughts

Through this project there were many learning opportunities. It was clear that the service set developed was too intense early on by the limited number of referrals received. Choosing a study protocol that required only one in-clinic visit and collaborating with one or two providers who were ready to work with pharmacy could have produced better results. While Realo had the support of leadership within the ACO for the implementation of this project, it is important to also consider the perspective of the care team and the expectations they have around the new service. It would have been beneficial to survey the care team within the first six months so that further education could have been provided around the service and the new role of the community pharmacist on the care team.

While the study did not permit a statistical clinical outcomes analysis, it did result in the ability to showcase the skills of a community pharmacist and allowed for the development of a partnership and the creation of a financially reimbursable team-based care model. Replication of this new model by other pharmacists and health care partners will allow community pharmacists to have access to more information about the patients under their care. Through access to the electronic healthcare record (EHR) and the ability to communicate with providers and members of the care team

directly, the community pharmacist will be able to make meaningful interventions, resolve issues at a faster rate and have a better understanding of the patient's care plan. Utilizing the billable opportunity under chronic care management will also decrease the financial constraints of providing medication reviews and could allow more patients to receive this valuable service. The financial sustainability analysis is ongoing.