COMPLETED GRANT SYNOPSIS

Implementation of Continuous Medication Monitoring in a Cohort of Community Pharmacies

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Objectives
1) Facilitate and describe the process for planning and implementing continuous medication monitoring (CoMM) in a set of community pharmacies participating in payer programs [Value-Based Pharmacy Program (VBPP) and enhance MTM (EMTM)] and who are members of CPESN Iowa, and 2) Evaluate the effects of the implementation of continuous medication monitoring on pharmacy performance metrics, as well as documenting patient care activities in an e-care plan platform.

Methods	
Design	A total of 53 community pharmacies are participating in the Value-Based Pharmacy Programs (VBPP) and also are members of CPESN Iowa – which serves as the study sample frame. A sample of 9 pharmacies will be selected to implement CoMM. Four strata (quartiles) of pharmacies will be created using the most recent pharmacy performance score from Wellmark's VBPP. Two pharmacies will be selected from each quartile to assure that the study involves (N=9) pharmacies with a range of performance levels. This approach will enhance the validity of the practice transformation model that is derived. • **Objective 1 Facilitate and describe planning and implementing CoMM** Once the intervention group of pharmacies has been recruited, work will be done to support implementation of Continuous Medication Monitoring in each, tailoring the key CoMM components to fit within the practice. The first step will be a group meeting or webinar with personnel from each of the 9 participating pharmacies to provide an interactive overview of the project. Next, the project team will work individually with each pharmacy to develop a detailed plan to implement CoMM in the practice. It is expected that this planning work will require at least one site visit to each pharmacy by the project team (depending on need for on-site assistance), subsequent phone calls, and email exchanges. The CoMM implementation plan will contain information about how to free up the pharmacists to perform CoMM tasks, description of the CoMM process in the practice, a plan for CoMM documentation, and a staff training plan. After the CoMM implementation plan is prepared, a multi-faceted implementation approach will be undertaken at each pharmacy. This approach will include: site visits by project team members, pharmacy staff training and reports on progress. Once initial implementation has begun, Plan-Do-Study-Act (PDSA) cycles will be used to support full rollout of the implementation plan and to make adjustments to improve areas not working well. In addition, periodic group conference calls will be held to provide peer support and sharing of successes among the participating pharmacies. Mixed methods will be used to collect information about the planning, implementing, and performing CoMM in each pharmacy. Data will be collected to characterize the implementation process, identify obstacles to performing CoMM, describe facilitators of successful CoMM implementation, and report pharmacy performance (i.e. CoMM process variables, Wellmark VBPP

performance metrics). A copy of the CoMM implementation plan, pharmacy personnel interviews about the CoMM operations, patient record extraction of CoMM notes and medication-related problems (MRPs) identified during CoMM, and PDSA cycle information will be collected for each participating pharmacy. These data will be used to write a case report for each pharmacy to describe the CoMM process, its implementation and operation during the 6-month CoMM performance period. For the overall project analyses, these case reports will be combined with the data collected for Objective 2 (i.e. pharmacy performance, MRP data) to fully describe the planning, implementing and operating of CoMM in the participating pharmacies.

- **Objective 2 Evaluate effects of CoMM on Pharmacy Performance and e-Care Plans**
  The effects of CoMM implementation on pharmacy performance will be assessed through VBPP performance data, EQuIPP performance data, and quantity of eMTM eCare plans submitted for each of the nine participating pharmacies. The performance data during a 6-month baseline period will be collected, and compared to similar performance data during a 6-month CoMM when CoMM is performed at the participating pharmacies. Pharmacy performance data will be provided by two payer programs that the pharmacies are participating in—Value-Base Pharmacy Program (VBPP) and enhanced Medication Therapy Management (eMTM). The primary comparison will be the composite performance score from the baseline period to the CoMM performance period. This composite metric reflects a pharmacy's performance on a set of performance metrics that includes: medication adherence measures, disease-focused indicators, utilization measures and a total cost of care metric.

Study endpoints	- Mixed-method multi-stakeholder process evaluation of the CoMM implementation (practice infrastructure changes) to support and improve delivery of patient care services - Assess the influence of implementing CoMM on the participating pharmacies' performance metrics and on their ability to documenting their patient care activities through e-care plan platforms

Results

- Staff members in all nine pharmacies actively participated throughout the CoMM implementation process and made practice transformation changes to support the delivery of patient care services.
- Key areas of practice infrastructure changes were identified to support the pharmacists' ability to provide patient care services including:
  - Implementing medication synchronization and the appointment-based model,
  - optimizing technicians to drive dispensing functions, participate in practice management activities (e.g. medication synchronization), and assist in patient triage
  - optimizing use of technology
  - Identifying and utilizing key staff as "slack resources"
  - Making changes in workflow to support patient care activities
  - Making changes in pharmacy layout to improve practice efficiencies, patient privacy, and patient care activities.
  - Collaborating with key stakeholder/other health care providers
  - Documenting patient care activities and utilizing e-care plan platforms
- Improvement in performance measures were variable among each pharmacy.
  - 15 performance metrics were identified (mix of EQuIPP and VBPP)
  - One pharmacy was unable to provide post performance score measures
  - Pre-Post Scores available for eight of nine pharmacies
    - Improvement in 7 or more performance measures for each pharmacy (min = 7, max =

14)
- Decline in 7 or less performance measures for each pharmacy (min = 0, max = 7)
- All nine pharmacies had improvement in labs measured (A1c and BP) with the exception of one pharmacy whose A1c measurements declined pre-post—but BP measures improved
- All pharmacies had positive changes in number of e-care plans submitted from baseline.
  - Six of the nine pharmacies had a significant number (>100) of e-care plans submitted since implementing CoMM.
  - One corporate pharmacy, although the pharmacists were documenting their patient care activities, it was not captured in the e-care plan platform due to corporate policy and data sharing.

Conclusion

Practice Transformation of community-based pharmacy practices can occur with appropriate engagement and coaching of pharmacy staff. To be successful in CoMM implementation, the community-based pharmacy's practice infrastructure needs to be changed to support patient care services. Optimizing medication synchronization with the appointment-based model (ABM) is a key practice management strategy to improve practice efficiencies that improves success of implementation of patient care services. Other practice-based changes that support implementation and delivery of patient care services includes optimal use of technicians, technology, and staffing. Workflow and pharmacy layout can also important considerations. As these practice changes occur, pharmacist can focus their time and effort on patient care activities, collaboration with other providers, and clinical documentation. Ultimately, practice transformation can have a positive effect on number of e-care plans submitted and improvement in practice performance measures.