Moving Past Medication Reconciliation:
Using an Interdisciplinary Approach to Tailor Medication Appropriateness

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Purpose
The purpose of the Quality Improvement (QI) project is twofold. Clinically, it will address medication use and appropriateness in a hospital setting. Medication use and appropriateness is targeted due to its impact on patient health outcomes both in the hospital setting and after the patient has been discharged. Additionally, by collaborating on a project that tackles a multi-systems wide-quality issue offering patient care and overall efficiency, the professional learners are increasingly engaged to participate in an inter-professional education activity.

Learning Objectives
- Recognize the value and effectiveness of interprofessional collaboration
- Consistently communicate sensitively and in a responsible and responsible manner
- Implement and use new and simple tools to work effectively with other healthcare providers
- Learn skills to the healthcare and patient care setting
- See clinical improvements in patients followed as part of the pilot

Interprofessional Competencies Addressed

Values and Ethics
- Place the interest of patients and populations at the center of interprofessional healthcare delivery
- Work in cooperation with those who receive care, those who provide care, and others who contribute to or support the delivery of prevention and health services

Roles and Responsibilities
- Engage diverse healthcare professionals who complement one’s own professional expertise, as well as associated resources, in developing strategies to meet specific patient care needs
- Communicate with team members to clarify each member’s responsibility in executing components of a treatment plan or public health intervention
- Use unique and complementary abilities of all members of the team to optimize patient care

Teams and Teamwork
- Engage other health professionals - appropriate to the specific case situation - in shared patient-centered problem-solving
- Integrate the knowledge and experience of other professionals - appropriate to the specific case situation - to form care decisions, while respecting patient and community values and priorities preferences for care
- Share accountability with other professionals, patients, and communities for outcomes relevant to prevention and health care

Communication
- Choose effective communication tools and techniques, including information systems and communication technologies, in facilitating discussions and interactions that enhance team function
- Listen actively, and encourage ideas and opinions of other team members

Methods
Participants
Project participants will be practicing professionals from medicine, nursing, pharmacy and social work with other healthcare professionals and ancillary staff on a consultation basis. The pilot project evolves, it is anticipated that secondary participants, specifically medical residents and students, as well as nursing, pharmacy and social work graduate students completing rotations or internships in the medical center will also be exposed to the project objectives and protocol.

Program Activities
The following activities will be conducted over the course of six months:

Pre-Project Seminar
Participants will have an introductory seminar that will include information on:
- Goals and objectives of the pilot project
- Issues associated with medication use and why medication tailoring is important for patient care
- Interprofessional education skills and importance of interprofessional collaboration

Project Protocol
Participants will attend weekly meetings to discuss patients. Focusing initially on critically ill patients in the Intensive Care Unit (ICU) and expanding to include selected patients during intermediate care (MIC) and discharge.

- Each patient’s medication regimen will be assessed for appropriateness both while the patient is in the hospital and in the few weeks after discharge
- In general, during the hospital stay, medications must be therapeutically appropriate with minimal side effects and drug interactions and with minimal cost
- Additionally, at discharge, patient must be able to reasonably continue medication therapy and have knowledge of alerted adverse effects
- A simple assessment tool will be introduced for the interdisciplinary team to use to conduct this assessment

Evaluation
- Participants will engage in evaluation of both the pilot project protocol and interprofessional skills gained through participation
- Evaluation will take place formally before the project begins, two months into implementation and at the end of the project’s conclusion
- Informal feedback on the protocol will also be obtained throughout the course of the project

Outcomes

Interprofessional Competencies
- Participants will complete a self-evaluation survey at the beginning, 2 months into, and at the end of the project
- Anonymous evaluation of the other members of the team will also be completed 2 months into and at the end of the project
- The anonymous ratings will be compiled and the results returned to the participants for use in their individual professional growth
- Patient outcomes will also be utilized in evaluation as improved patient outcomes can point to improvement in care based on interprofessional collaboration

Medication Appropriateness
- Outcomes of the QI project will be compiled from the data entered on the medication appropriateness tool developed for this project, as well as patient re-admission rates for medication non-adherence
- Short-term outcomes include:
  - Percentage completeness of the intervention tool
  - Percentage of patients rating their understanding of their home medication regimen as high
- Long-term outcomes include:
  - Reductions in patient readmission rates for medication non-adherence
  - Calculated savings can analysis (to be included as part of this phase project)

Transferability
The pilot program was designed with UMC Breakthrough specifically in mind. While facility-specific in design, the pilot could be implemented at other facilities with minor modifications. Additionally, the concepts used to develop the program could be utilized to design similar programs in areas other than Quality Improvement.