### Introduction

Medication reconciliation (MR) is the process of determining the most accurate account of medication the patient is taking. Although MR seems simple, research has shown that 23% of medical errors are related to lack of medication reconciliation. In the community clinic setting, the task of medication reconciliation falls on the Medical Assistants (MAs). A preliminary study of MR accuracy in an outpatient clinic found an average of 5.8 discrepancies in the chart medication list. The most notable were incomplete directions, wrong directions, or wrong chart medication list.

Unoptimal medication use is estimated to result in 275,869 deaths per year in the United States. These are potentially avoidable deaths. A factor contributing to these poor outcomes is the 15-minute office visit and insufficient time to assess how patients are using their medications.

### Objective

The objective of this study: Identify interventions to improve MR without using much more than using existing resources.

- Study the current processes of MR in ambulatory care clinics.
- Identify the components, resources, and gaps to address for improvement.
- Identify interventions for potential improvement.

### Methods

- Outpatient clinics were observed in the MR process to determine current processes in terms of responsibilities, tasks, documentation, and communication.
- We identified gaps in current processes regarding skills, physical space, time, documentation, and communication.
- A list of potential interventions was developed.
- Using a “cost (efficiency) and value (effectiveness)” analysis, we prioritized interventions.

### Results

#### Observations in Clinic

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<th>Case 1: Patient experiencing decreased kidney function due to immunotherapy.</th>
<th>Case 2: 55 year old woman keeps getting blood clots. Instructed to stop taking Xarelto (blood thinner med) and start taking Coumadin (different blood thinner). However Coumadin takes 5-7 days to work, so in the meantime she was instructed to take Eliquis INR levels were fluctuating. Cause unknown. Later discovered that she was still taking Xarelto. This is a fatal combination. Staff interviewed believed proper MR would have caught this.</th>
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#### Prioritization of Potential Quality Improvement Interventions

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<th>A. Empowering and involving patients in the MR process was determined to be the least costly intervention with high value.</th>
<th>B. Focus on Medical Assistant’s skills, standardization of process and support for MR</th>
<th>C. Engage Health System to Support Quality Improvement in MR</th>
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### Conclusions

- Despite limited resources and complex systems of care, a logistics approach to care improvement may identify solutions by leveraging existing stake holders and structures.
- Complex health care delivery can be approached through trans disciplinary collaboration for novel care innovation.
- Identification of gaps in last mile delivery help determine potential interventions.
- In the case of medication reconciliation, the responsibility falls on a very busy care team member with lack of standardized training, barriers to communication with the team, and system constraints to improved MR.
- The patient is nearly entirely uninvolved in their own MR. Those who are assist the care team for improvement of MR.
- Engagement of the patient in the MR process has been identified as the most accessible intervention.
- Improvement of the MA’s process and skills as well as standardization of MA’s processes and skills requires more investment but has strong potential for investment return.
- Interventions that require health system level change are not a priority because of difficulty in implementation.

### Future Study

- This study will serve as a pilot study for a primary care clinic based interventional research project.
- The intervention will start with patients and MAs MR processes.
- The study team includes health administration scholars, clinicians, as well as payers (Medicaid).
- In collaboration with insurance payers, we will be able to track the overall impact on improved MR, including potential for less hospitalization, and improved quality measures (blood pressure, diabetes control and others).