Accepting the Challenge to Improve Medication-Reconciliation in Ambulatory Settings

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INTRODUCTION/BACKGROUND:
- CMS defines Medication Reconciliation as the process of identifying the most accurate list of all medications that the patient is taking by comparing the medical record to an external list of medications obtained from a patient, hospital or other provider (e.g., pharmacies).
- Accuracy of patients’ medication list presents a major challenge to all health care providers:
  - Studies report that < 25% of medical records have accurate documentation
  - Literature typically focuses on in-patient settings, with limited emphasis on medication list accuracy in primary care clinics
- Accuracy of medication reconciliation and documentation has been attributed to multiple human and system factors including:
  - Patient health literacy and social determinants of health
  - Lack of 2-way communication between pharmacy and physician
  - Provider knowledge of EHR
  - Primary care clinic workflows

HYPOTHESIS
Accuracy of family physician providers’ medication records is limited by their lack of knowledge regarding EHR med-rec features and a clear, logical med-rec clinic workflow

METHODS: TRAINING TOOLS

METHODS: SITES, PARTICIPANTS & TRAINING

PROJECT SITES & PARTICIPANTS
- 2 family medicine residency clinics served as primary sites for this project
  - Urban underserved
  - All Providers expected to participate: MAs, RNs, Physicians, Pharmacists

BASELINE
- Through an informal provider quiz, EPIC informatics support specialist’s feedback, and work group providers’ self-assessment it was determined that all providers lacked knowledge of EPIC & Workflow

TRAINING:
- Training interventions were provided by project team members: EPIC Informatics Support Specialist, Chief Residents, Faculty, Pharmacists
- Training occurred at each clinic site using common materials/approach

TRAINING INTERVENTION #1: EPIC EMR
  - MA/RNs: 30 min session by EPIC specialist
  - Residents: 45 min interactive session during core curriculum
  - Faculty: 15 min during standing faculty meeting

TRAINING INTERVENTION #2: MedRec Workflow
  - At required all clinic meetings

METHODS: POST TRAINING ASSESSMENT

All providers completed a 2-part knowledge assessment adapted to their “role” and corresponding EPIC view and individual perception survey

KNOWLEDGE ASSESSMENT:
1. EPIC medication related icons including checked box, red push pin, and hospital bed, etc. (6 Items)
2. MedRec Ambulatory Workflow for MA/RN and physician provider (8 Items)

PERCEPTION SURVEY: Providers asked (6 Items)
1. Estimate “percentage of our clinic’s patients (on which) you perceive that proper medication reconciliations are being performed”
2. “MedRec training has positively changed how I reconcile medications with our patients”

RESULTS: EPIC, WORK FLOW & PERCEPTION

<table>
<thead>
<tr>
<th>EPIC KNOWLEDGE ASSESSMENT (N correct)</th>
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<tbody>
<tr>
<td>Physicians (MA&quot;, RN&quot;)</td>
</tr>
<tr>
<td>51%</td>
</tr>
<tr>
<td>100%</td>
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<table>
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<tr>
<th>EPIC WORKFLOW (N correct)</th>
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<tbody>
<tr>
<td>Physicians (MA&quot;, RN&quot;)</td>
</tr>
<tr>
<td>80%</td>
</tr>
<tr>
<td>88%</td>
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| Questions linked to key steps in workflow: Overall % correct by group  |
| Perceived Survey                                    |
| 60%                                                  |
| 55%                                                  |

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<thead>
<tr>
<th>On what percentage of our clinic’s patients do you perceive that proper medication reconciliations are being performed?</th>
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<td>20%</td>
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<th>Medication reconciliation training has positively changed how you use/monitor medication reconciliation?</th>
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<tr>
<td>14%</td>
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DISCUSSION & NEXT STEPS:
- Improving the accuracy of patient medication records is complex
- 1st rapid cycle QI project was to assure that all providers are knowledgeable about EHR documentation and established clinical workflows
  - A brief training Intervention improved knowledge re: EPIC MedRec Workflow processes are more difficult to impact
- Next Steps – Initiate PDSA cycles to:
  - Reinforce workflow
  - Training for new hires/new resident class for EPIC & Workflow
  - Identify next phase via fishbone analysis to improve med-rec accuracy

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