Prescribing Improvement for the Prescription Refill Process

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BACKGROUND

Managing prescription refills in ambulatory care can be a complex and time-consuming process.

This process was highly variable and inefficient due to paper-based workflows, requiring extensive communication between physicians, medical office assistants (MOA) and community pharmacies.

The purpose of this study was to determine the impact of the Connect Care electronic medical record (CC-EMR) workflow for the prescription refill process in the ambulatory care setting.

This study was approved by the Health Research Ethics Board (Pro00141145).

AIMS

Automate the prescription refill process utilizing the CC-EMR workflow to:

1. Make the prescription refill process easier and more efficient for physicians and MOAs by reducing the number of steps, time, paper, printing, and potential for errors.
2. Develop a direct Electronic Fax feature in CC-EMR improve utilization of the CC prescription refill workflow.
3. Fully utilize the prescription refill capabilities of CC-EMR, the requirement for a 'wet signature' from the College of Alberta Pharmacists needed to be changed.
4. Improve physician and MOA satisfaction with the prescription refill process.

METHODS

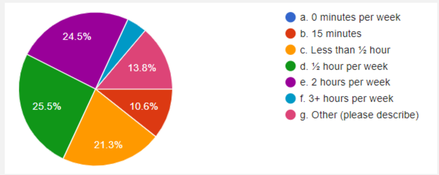
- Pre-post research design guided by the Model of Improvement[1].
- Two Plan-Do-Study-Act (PDSA) cycles cycles were completed and evaluated.
- Interventions: direct electronic faxing of prescriptions in CC, educational tools, and implementation coaches using a 1:1 training approach.
- Pre-and post-intervention surveys were disseminated to physicians and MOAs in the Department of Medicine (DoM).
- Data was analyzed using descriptive statistics.

RESULTS

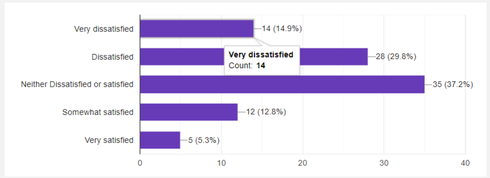
PRE-INTERVENTION

Physician Survey:
N=100/569, 18% response rate across the DoM

Time spent on average completing prescription refills:
- 30 minutes or less/week: 57.4%
- 2 hours/week: 24.5%
- 3+ hours/week: 4.3%



Physician satisfaction with existing prescription refill process:
- 44.7% dissatisfied
- 18.1% satisfied
- 37.2% neither satisfied/dissatisfied



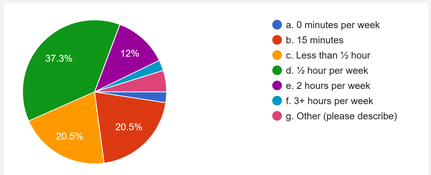
MOA Survey:
N=63/66, 95% response rate across the DoM

- Some respondents were not familiar with CC workflow or did not recall receiving training
- Some physicians may be reluctant to do something new, therefore past paper processes continued.
- Each division had their own process.
- Processed prescription refills outside of the CC workflow therefore the patient's medical record was not updated.

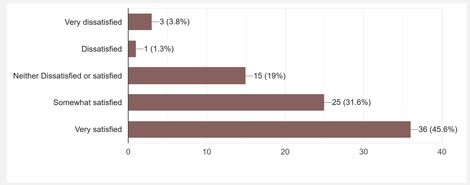
POST-INTERVENTION

Physician Survey:
N=84/569, 15% response rate across the DoM

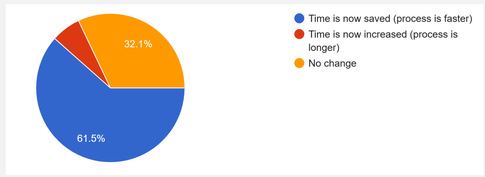
Time spent on average completing prescription refills:
- 30 minutes or less/week: 80.7%
- 2 hours/week: 12.0%
- 3+ hours/week: 2.4%



Physician satisfaction with updated electronic prescription refill process:
- 5.0% dissatisfied
- 76.3% satisfied
- 18.8% neither satisfied/dissatisfied



Impact of the updated electronic fax workflow to complete the prescription refill task:
- 61.5% thought the process was faster
- 6.4% thought the process was longer
- 32.1% thought no change



CHANGE

Prescription refill process required less physician time:
- 30 minutes or less/week - 23.3% ↑
- 2 hours/week - 12.5% ↓
- 3+ hours/week - 1.9% ↓

Physicians are more satisfied with the prescription refill process:
- Physician satisfaction – 58.2% ↑
- Physician dissatisfaction – 39.7% ↓

Process Impacts:
1. Reduced the need for a printer to sign prescriptions (77.0%)
2. Lowered risk of delayed prescriptions (62.2%)
3. Reduced telephone calls to pharmacies (58.1%)
4. Ability to review, approve, and immediately refill prescriptions from any location and at any time (52.7%)
5. Reduced need to physically come into work to complete prescription refill (51.4%)

CONCLUSIONS

- Understanding physician and MOA perspectives and challenges in a prescription refill process led to a CC-EMR workflow standardization.
- Streamlining this process improved satisfaction among physicians and MOAs while reducing workload, inefficiencies, and the risk of errors.
- This workflow innovation has led to inpatient and provincial use, which spread beyond the initial scope of the study, indicating the benefit of this project on provider usage.

REFERENCE

1. Berwick DM. A primer on leading the improvement of systems. Bmj. 1996 Mar 9;312(7031):619-22.