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Title

Implementing a safer and more reliable system to monitor test results at a teaching primary care facility

Priority 1 (Research Category)

Practice management and organization

Presenters

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Abstract

INTRODUCTION: Prescribers have the medico-legal responsibility to ensure a sufficiently reliable system is in place to securely monitor the process of efficiently communicating laboratory results. With added complexity of technologies such as electronic medical record (EMR) systems, few studies address the monitoring, verification, and improvement of test results follow-up especially within a teaching facility including resident prescribers.

METHOD: The main goal of this QI project was to ensure safety of care through reliable test results follow-up and adapting processes to available technology by 1) implementing an improved, more reliable, and efficient system for tracking test results in the setting; 2) increasing perceived reliability of test results monitoring system of prescribers in the clinical setting. Through 3 PDSA cycles, changes were implemented: 1) family medicine residents recognized as prescribers; 2) connection of prescribers to regional techno-center; 3) computer protocol eliminating duplicates. Patients and clinical staff completed surveys (satisfaction, perceived safety, and reliability).

ANALYSIS: Quantitative and qualitative data were collected, reported incidents, requested prescriptions, received results and time spent communicating normal results. Immediate feedback from prescribers and staff members was considered to improve the process. Microsoft Excel software was used to calculate mean and standard deviation of error rate. Shewhart chart rules were used to determine special cause of change and sustainability.

RESULTS: Implemented changes led to decrease of mean error rate (6.1 % to 1.9 %), variation of range (2.7%-12.1% to 0%-4.8%) and standard deviation (2.1% to 1.2%). The improvement is sustained over 24 months post the last cycle. 100% of the 30 patients surveyed were satisfied with the changes implemented. Prescribers (75% response rate) including residents (15.8% response rate) perceived the improved system to be safer, more reliable, and efficient.

CONCLUSION: Implemented changes improved reliability, efficiency and perceived safety of the test results monitoring system while ensuring patients' satisfaction.