Nurse Satisfaction and Experience Using a 30-day Readmission Predictive Analytics Tool in a Military Treatment Facility Patient Centered Medical Home

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Introduction

The KenSci 30-day Readmission Predictive Analytics Tool is an integrated tool for inpatient chronic care management and risk of readmission. It provides a risk of readmission (RoR) score for each patient within a clinic population. The Score is color-coded to indicate a high, medium, or low risk of readmission. The tool, developed by KenSci, Inc., in collaboration with Madigan Army Medical Center (MAMC), will be deployed for chronic care management practices in the Cardiology and Internal Medicine Clinics. The tool has the potential to impact chronic care management and care coordination at the Patient Centered Medical Home level.

Background

In 2017, a team of clinic nurses began using the ML-based RoR tool, which was designed to alert nurses to patients at high risk for readmission within the next 30 days. The goal of the study was to explore and understand the perceptions of nurses who were early adopters of the technology. The study intended to explore, qualitatively, the satisfaction and user experience of the targeted clinic populations. This tool was developed to facilitate proactive care for high-risk patients. The study was conducted at Madigan Army Medical Center, a military treatment facility (MTF) in Tacoma, Washington.

Prior Research

The RoR tool has been previously used in the Cardiology Clinic at MAMC to identify patients at high risk for readmission. The tool alerted nurses to patients with increased risk and facilitated proactive care. The goal of this study was to explore the satisfaction and experience of nurses who were early adopters of the technology. The study was conducted at Madigan Army Medical Center, a military treatment facility (MTF) in Tacoma, Washington. The study intended to explore, qualitatively, the satisfaction and user experience of the targeted clinic populations. The study was conducted at Madigan Army Medical Center, a military treatment facility (MTF) in Tacoma, Washington.

The Risk of Readmission Tool

The 30-day get worse telecommunication tool predicts a patient's likelihood of readmission based on real-time and historical electronic health record data. The tool provides a real-time score for each patient, indicating their risk of readmission within the next 30 days. The score is color-coded to indicate high, medium, or low risk. The tool is integrated into the clinic workflow, allowing nurses to identify patients at high risk and facilitate proactive care.

Qualitative Approach

A qualitative approach was taken to explore the impact of the RoR tool on individual nurses and their patients. The tool was implemented in the Cardiology and Internal Medicine Clinics. The goal was to explore the perceptions and experiences of nurses who were early adopters of the technology. The study was conducted at Madigan Army Medical Center, a military treatment facility (MTF) in Tacoma, Washington.

Qualitative Results

Workflows Developed & Recommended Revisions

In the Internal Medicine Clinic, one specific intervention resulted from the use of the RoR tool. The nurses identified a need for a centralized system to track patients who meet the criteria for high risk. This system allowed nurses to identify patients at high risk and facilitate proactive care. In the Cardiology Clinic, there were several specific interventions developed as a result of the use of the RoR tool. These included facilitating communication among care teams, coordinating discharge planning, and enhancing chronic disease management workflows for at-risk patients.

Interventions Developed & Recommended Revisions

In the Internal Medicine Clinic, one specific intervention resulted from the use of the RoR tool. The nurses identified a need for a centralized system to track patients who meet the criteria for high risk. This system allowed nurses to identify patients at high risk and facilitate proactive care. In the Cardiology Clinic, there were several specific interventions developed as a result of the use of the RoR tool. These included facilitating communication among care teams, coordinating discharge planning, and enhancing chronic disease management workflows for at-risk patients.

Recommendations for Tool Improvements

The RoR tool is an integrated tool for inpatient chronic care management and risk of readmission. It provides a risk of readmission (RoR) score for each patient within a clinic population. The Score is color-coded to indicate a high, medium, or low risk of readmission. The tool was developed by KenSci, Inc., in collaboration with Madigan Army Medical Center (MAMC), and will be deployed for chronic care management practices in the Cardiology and Internal Medicine Clinics. The tool has the potential to impact chronic care management and care coordination at the Patient Centered Medical Home level.

Discussion

According to the internal Medicine Clinic nurses, the use of the RoR tool has positively impacted their workflow and patient care. The tool has facilitated proactive care for high-risk patients and improved chronic disease management. The tool has also contributed to improved care coordination and patient satisfaction.

Conclusion

Reducing 30-day readmission rates can be achieved by the accurate and timely identification of individuals at high risk for readmission. The RoR tool at MAMC demonstrates the feasibility and potential for reduction of 30-day readmissions. The tool has the potential to impact chronic care management and care coordination at the Patient Centered Medical Home level. Further research is needed to evaluate the impact of the tool in other clinic settings.

Contribution to New Knowledge

Population Health Management strategies to improve chronic care among patients at risk for readmission have been implemented through the use of predictive analytics tools. These tools have been shown to improve chronic care management for patients at risk for readmission. Further research is needed to evaluate the impact of these tools in other clinic settings.

References


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