Optimizing Appropriate Utilization of Cardiac Telemetry on an Adult General Medicine Unit
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Introduction
In collaboration with the University of Minnesota Medical School, a quality improvement initiative was launched to reduce the cost of healthcare spending based on the “Choosing Wisely” campaign, an initiative of the American Board of Internal Medicine (ABIM) Foundation. Within the medical center, the project aimed to address and improve appropriate use of cardiac telemetry. The primary hypothesis was that the implementation of new, evidence-based guidelines would result in a significant decrease of non-indicated continuous telemetry monitoring in non-ICU patients without using a protocol that governs continuation. Optimizing appropriate utilization of cardiac telemetry was based on revising current guidelines to incorporate the indications put forth by the American Heart Association and American College of Cardiology. These modifications were made in an effort to reduce the appropriate coding and discontinuation of telemetry. The project’s aim was to reduce the non-indicated use of telemetry on an adult unit and by February 1, 2017.

Method
A literature search was done using key principles to perform the procedure for a telemetry patient from admission to discharge. To avoid issuer tone, three areas of expertise were identified and used for the literature search. These areas included regulations and guidelines for telemetry discontinuation, expert opinion, and peer-reviewed articles. Next, we revisited all interventions that were performed, including the pre- and post-intervention periods. We utilized the principles of Lean Six Sigma methodology in improving the flow of care and discontinuation of telemetry. We also implemented changes in an adult general medicine unit at the University of Minnesota Medical Center. The project’s scope included the utilization of cardiac telemetry, the impact of the interventions on patient outcomes and costs, and the effect of the interventions on provider and nurse perceptions regarding telemetry usage.

Results
We found there was an increase in RN awareness of the telemetry criteria and increased collaborative communication. Additionally, there was a significant decrease of 2.9% (p = 0.025) in the average number of patients/day on telemetry. Finally, we found that the utilization of cardiac telemetry was based on revising current guidelines to incorporate the indications put forth by the American Heart Association and American College of Cardiology. These modifications were made in an effort to reduce the appropriate coding and discontinuation of telemetry. The project’s aim was to reduce the non-indicated use of telemetry on an adult unit and by February 1, 2017.

Conclusion
What went well?
• Collaboration with Epic Team
• Scope of project was defined tightly
• Collaboration with Medical School
• Broad alignment of care team

What would you do differently next time?
• More SME team members
• Improved shared understanding of report heading definitions

Next Steps
• Spread to the five other Medical-Surgical units at M Health
• Consider spreading system-wide.
• Develop standard work for RN telemetry process flow
• Further refine EPIC telemetry order to reduce clickable indications defined by the criteria.
• Consider RN-driven protocol to discontinue telemetry

Citations