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Reducing Telemetry Overuse in a Non-Intensive Care Unit: A Pilot Study

Cheary Anna Shelim, DNP, RN, PCCN¹
Alycia Bristol, PhD, RN, AGCNS-BC¹
Valerie Kaura, MS, RN, FNP-BC²
(1)School of Nursing, Loma Linda University, Loma Linda, CA, USA
(2)Redlands Community Hospital, Redlands, CA, USA

Objective: To implement a process improvement project to reduce telemetry overuse in a 40-bed, non-intensive care unit of a community hospital.

Background: The hospital’s current policy does not reflect current American Heart Association (AHA) guidelines. Patients admitted to telemetry often stay on telemetry until discharge even though they may be downgraded earlier. There is no process to monitor the patient’s continued need for telemetry regularly. This has led to increased costs and problems with patient flow. With the influx of patients during the influenza season, this problem became a priority for the organization. There was a need for a process improvement and clearer policy guidelines to govern telemetry use.

Methods: Patients who have been on telemetry for more than 48 hours were monitored daily through a paper tool. Nurses initiated a conversation with physicians regarding the need to continue or discontinue telemetry. Data was collected for a period of 4 weeks before and 4 weeks after the intervention. The IOWA Model for Evidence-Based Practice was used to guide the project. Nurses were educated on current AHA guidelines and a post-education quiz was administered with a 100% pass rate.

Results: The pre-intervention group (n=118) had 14 downgrades compared to the post-intervention group (n=111), which had 20 downgrades. Pre-intervention data was influenced by a similar study in another telemetry unit with the same physicians. There was a 59.62% increase in savings and a 900 hour projected reduction in nursing time annually through nurse-physician collaboration. Anecdotally, staff reported an increase in downgrades in comparison to the previous year.

Conclusions: The results of this pilot study suggest that a multidisciplinary, evidence-based approach to reduce telemetry overuse can be beneficial. Further interventions can focus on the revision of policy to match current American Heart Association guidelines and closer monitoring of progress over a longer period of time.

Title:
Reducing Telemetry Overuse in a Non-Intensive Care Unit: A Pilot Study

Keywords:
Non-intensive care unit, Process improvement and Telemetry downgrade

References:


**Abstract Summary:**
In a 40-bed, non-intensive care unit of a community hospital, a multidisciplinary team spearheaded a process improvement project to reduce telemetry overuse by using the IOWA Model for Evidence-Based Practice. This 4-week pilot study resulted in an increase in staff knowledge and financial savings for the organization.

Content Outline:

- **Objective:** To implement an evidence-based, process improvement project to reduce telemetry overuse in a 40-bed, non-intensive care unit of a community hospital.
- **Background:** Patients who are admitted with telemetry orders frequently stay on telemetry until discharge without proper indications. The use of low-value cardiac monitoring can result in errors in patient management, inappropriate use of resources, and increased costs. National guidelines encourage the use of a protocol that governs telemetry use outside of the ICU (Choosing Wisely Campaign, 2013).
- **Methods:** Patients who have been on telemetry for more than 48 hours were monitored daily through a paper tool. Nurses initiated a conversation with physicians regarding the need to continue or discontinue telemetry. Data was collected for a period of 4 weeks before and 4 weeks after the intervention. The IOWA Model for EBP was used to guide the project. Nurses were educated on current AHA guidelines and a post-education quiz was administered with a 100% pass rate.
- **Results:** The pre-intervention group (n=118) had 14 downgrades compared to the post-intervention group (n=111), which had 20 downgrades. Of note, patients who were on telemetry for <48 hours were also downgraded without additional interventions (n=36). The pre-intervention data was influenced by a similar study in another telemetry unit which shared the same physicians. There were several notable findings:
  - 62% increase in financial savings through nurse-physician collaboration during the 4-week period
  - Projected annual reduction of 372 patient days
  - Projected 900 nursing hours saved annually
  - Anecdotal increase in downgrades in comparison to the previous year according to staff.
- **Conclusion:** The results of this pilot study suggest that a multidisciplinary, evidence-based approach to reduce telemetry overuse can be beneficial for patients, nurses, and the organization. As integral members of the healthcare team, nurses can actively participate in national initiatives by using evidence-based practice to continually improve patient care and shine as valuable assets to the organization. Further interventions can focus on the revision of policy to match current American Heart Association guidelines and closer monitoring of progress over a longer period of time.

6. **References**

7. **Acknowledgments:** The authors would like to thank the 2100 staff of Redlands Community Hospital, the members of the multidisciplinary committee, and the faculty advisory committee for their contributions to the project.

First Primary Presenting Author

**Primary Presenting Author**

Cheary Anna Shelim, DNP, RN, PCCN
Loma Linda University
School of Nursing
Graduate student
Loma Linda CA
USA
Professional Experience: 2011-Present: Registered nurse at a medical/surgical/telemetry unit at Redlands Community Hospital 2012-Present: Contract clinical instructor for Fundamentals of Professional Nursing at Loma Linda University June 2018- DNP candidate for graduation (Concentration: Adult/Gerontology Clinical Nurse Specialist)

Author Summary: Cheary Shelim, DNP, RN, PCCN, is a registered nurse at a medical, surgical, and telemetry unit at Redlands Community Hospital. She has worked there for seven years. She is a recent graduate of the Doctorate of Nursing Program (DNP) at Loma Linda University.

Second Author
Alycia Bristol, PhD, RN, AGCNS-BC
Loma Linda University
School of Nursing
Assistant Professor
Loma Linda CA
USA

Professional Experience: 2012-Present - Assistant Professor, Loma Linda University School of Nursing 2015-Present Clinical Nurse Specialist Program Coordinator; Loma Linda University School of Nursing 2016 - Graduated with PhD from the University of Arizona College of Nursing

Author Summary: Dr. Alycia Bristol, PhD, RN, AGCNS-BC, is an assistant professor at the graduate program at Loma Linda University. She is also the Clinical Nurse Specialist Program coordinator. She has served as the chair to this project.

Third Author
Valerie Kaura, MS, RN, FNP-BC
Redlands Community Hospital
Director of Critical Care
Redlands CA
USA

Professional Experience: 2013-Present - Director of Critical Care, Redlands Community Hospital (RCH) 2001-2013 - Nurse Manager, Charge Nurse, Registered Nurse (RCH) Implemented the first Professional Practice Committee in 2009; lead for eDOC (nursing documentation); planned and prepared a new telemetry unit in 2011 Unit-based implementation: Bedside Report 2010, Hourly Rounding, Quiet Time, Fall Prevention Program, Pilot of MDI Program Recipient of multiple awards, including the RCH Employee of the Month, Assemblyman Bill Emerson Notable Nurse Award, Riverside Press-Enterprise Caring Spirit Award Nominee Member of the Association of California Leaders and the American Association of Critical-Care Nurses

Author Summary: Valerie Kaura, MS, RN, FNP-BC is the Director of Critical Care at Redlands Community Hospital. She was the clinical preceptor for this project and provided valuable input throughout the duration of the study.