

Clinical Research Proposal
To the
Jersey City Medical Center Institutional Review Board

Principle Investigators: Erin Salmond BSN RN and Joanie Knuth RN BSN RN

Date of Submission:

Type of Proposal: Descriptive Exploratory Design using a Mixed Method Approach

Title: **The impact of Interdisciplinary Virtual Rounds in A Medical Intensive Care Unit**

Background

Interdisciplinary rounds are known to improve patient outcomes and satisfaction, as well as increase communication between all members of the healthcare team (Vazirani S., et al. 2005). Using a standardize checklist, during rounds, can improve the process by ensuring that all components in the management of patient care are addressed in a systematic fashion (Weiss, C. H., et al. 2011). In the Medical Intensive Care Unit at Jersey City Medical Center, interdisciplinary rounds are conducted during the morning shift. Evening Nurse to nurse Handoff occurs at 7pm and physician to physician handoff occurs at 8pm. With a new team of nurses and physicians caring for the patients during the evening hours, the implementation of interdisciplinary rounds in the evening is necessary to ensure that the appropriate plan of care is maintained. Due to the limited availability of the Medical Attending during the evening shift, a new approach must be designed to facilitate this process. Currently there are no studies identified on virtual rounding during the evening shift. This provides a great opportunity to investigate this innovative strategy.

Purpose

The purpose of this study is to implement evening virtual rounding in a 16 bed Medical Intensive care unit and to discover the perspective of the critical care healthcare team before and after implementation of interdisciplinary virtual rounds using the “Daily Goal Checklist”. Critical Care quality indicators will be evaluated to determine the correlation between evening virtual rounds and patient outcomes.

Specific research objectives include:

- 1) Evaluate the significance of virtual rounding through the perspective of the healthcare team working in the Medical Intensive Care Unit

- 2) Evaluate the impact of virtual rounding on patient outcomes

Methodology

A Qualitative descriptive exploratory design will be employed using a mixed method approach. A Brief survey with open ended questions was developed by the researchers specifically for this study. The staff nurses and physician evaluated the tool to increase the validity and relevance of the questionnaire. The questions were developed to illicit information rich data from healthcare providers working the evening shift in the medical intensive care unit. Surveys will be distributed to the healthcare provider's pre-implementation and six months post-implementation of virtual rounds.

Virtual rounding will occur at 8pm on Monday through Friday. The interdisciplinary team will consist of the primary RN, Charge RN, Medical Residents on call in the ICU, Respiratory Therapist, and Medical Intensivist from a remote location via Ipad. The "bedside rounding checklist" will be used to facilitate standardization (appendix B).

Quality Indicators will be evaluated on a monthly basis. These indicators are already monitored throughout the Medical Intensive Care Unit.

Using a qualitative approach will assist in capturing the perspective of informants who are information rich regarding the phenomenon of interest. The informants will be critical care healthcare providers who are working in the critical care unit and develop plan of care for their patients. These informants can provide valuable information.

Sample (inclusion and exclusion criteria/ number of subjects)

All healthcare providers involved in direct patient care in the intensive care unit will participate during evening virtual rounds. A convenience sample of volunteer participants consisting of RN, Medical Residents, Respiratory Therapists, and Critical Care Intensivist will participate in the survey. Those eligible to participate in the survey

include all part time and full time healthcare providers who work during the evening shift. Those excluded are healthcare providers working only the day shift, and per-diem employees. A 40% or greater response rate will be targeted.

Data Collection

A pre and post-implementation survey will be distributed to all healthcare providers before and six months after implementation of virtual rounds. Survey will be analyzed for recurrent themes until saturation of data is achieved. Quality outcomes will be measured retrospectively for three months prior to implementation and six months after intervention and trended monthly. Quality outcomes measured will include:

- Extubation data / Self Extubation
- LOS
- VAP/BSI
- Critical Care Mortality

Ethical Considerations

There are no risks associated with participating in this study. Participation in the survey is voluntary. There will be no negative outcomes such as termination, disciplinary action, or negative employee evaluation will if the employee declines to participate in the survey. The participant's identity will remain confidential and no identifiers will be requested on the survey. Survey will be placed in an unmarked folder in the critical care unit or Medical Chief Resident's office. Published data will be presented as combined themes and descriptors will be used to support the themes. All research data will be kept for 2 years after completion of the study. Electronic files will be secured in a password protected computer. There will be no direct benefit to any healthcare provider who participates in this study. Although there are no direct benefits of participation apart from contribution to science, the results will provide valuable information relevant to understanding the perspective of healthcare providers and the possible benefits to patient outcomes after the implementation of evening virtual rounds. Due to the nature of this study participation in the survey will indicate implied consent (see Appendix A).

Expected Findings:

The implementation of evening virtual rounds will facilitate the communication between the interdisciplinary medical intensive care team and improve medical intensive care patient outcomes. Evening virtual rounds will contribute to a continued, comprehensive and effective plan of care.

Compliance with Regulations

The researchers have a thorough understanding and are compliant with applicable State, Federal, and local laws, including HIPPA regulations. They have completed their training in Human Participant Education for Research Teams, provided by the US Department of Health and Human Services: National Institute of Health. A certificate of completion is attached. They have also read and understand Jersey City Medical Center rules, regulation and requirements when conducting research.

Research Costs

There are no additional costs for this research study that will require funding.

IRB Reports

A report will be submitted to the IRB annually, or more often if required by applicable State, Federal, and local laws and/or applicable Jersey City Medical Center rules regulations, and requirements.

Investigators

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No conflict of interest reported

Appendix B

Checklist

References

- Vazirani S, et al. (2005). Effect of a multidisciplinary intervention on communication and collaboration among physicians and nurses. *American Journal of Critical Care (1)*:71-77.
- Weiss, C. H. et al. (2011). Prompting Physicians to address a daily checklist and process of care and clinical outcomes: A single-site study. *American Journal of Respiratory Critical Care Medicine (184)*680-686 DOI: 10.1164/rccm.201101-0037OC