Title: Title:

Innovative Use of Video Telerounding to Improve Patient Satisfaction and to Expedite Discharge

Ginger S. Pierson

Joseph F. Burkard, DNSc, MSNA, BSN Hahn School of Nursing, University of San Diego, San Diego, CA, USA

Session Title:

Research Poster Session 1 **Slot (superslotted):**

RSC PST 1: Friday, 28 July 2017: 10:00 AM-10:45 AM

Slot (superslotted):

RSC PST 1: Friday, 28 July 2017: 12:00 PM-1:30 PM

Keywords:

Discharge Efficiency, Improving Patient Satisfaction and Video Teleconferencing/ Telerounding

References:

Becevic, M., Clarke, M., Alnijoumi, M., Sohal, H., Boren, S., Kim, M., & Mutrux, R.

(2015). Robotic telepresence in a medical intensive care unit- Clinicians' perceptions.

Perspectives in Health Information Management (Summer): 1-7.

http://bok.ahima.org/doc?oid=301170#.V55KifkrLIU

Bettinelli, M., Lei, Y., Beane, M., Mackey, C., & Liesching, T. (2015). Does robotic telerounding enhance nurse-physician collaboration satisfaction about care decisions? *Telemedicine Journal E-Health*, August (8): 637-643. doi: 10.1089/tmj.2014.0162.

Boquiren, V., Hack, T., Beaver, K., & Williamson, S. (2015). What do measures of patient satisfaction with the doctor tell us? *Patient Education and Counseling*, http://dx.doi.org/10.1016/j.pec.2015.05.020.

Brewster, L., Mountain, G., Wessels, B., Kelly, C., & Hawley, M. (2013). Factors affecting frontline staff acceptance of telehealth technologies: A mixed-methods systematic review. *Journal of Advanced Nursing*, 21-33. Davis, M., Freeman, M., Kaye, J., Vuckovic, N., & Buckley, D. (2014). A systematic review of clinician and staff views on the acceptability of incorporating remote monitoring technology into primary care. *Telemedicine and e-Health*, 20(5): 428-438.

Masterson Creber, R., Hickey, K., & Maurer, M. (2016). Gerontechnologies for older patients with heart failure: What is the role of smartphones, tablets, and remote monitoring devices in improving symptom monitoring and self-care management? *Current Cardiovascular Risk Reports*, 10(30); doi: 10.1007/s12170-016-0511-8.

Abstract Summary:

This study emphasizes the innovative use of existing technology- videoconferencing, applied in a new way- telerounding, to improve processes impacting patient satisfaction and to expedite delays for hospital discharge.

Learning Activity:

LEARNING OBJECTIVES	EXPANDED CONTENT OUTLINE
Compare the differences of patient satisfaction in discharge processes between groups that received telerounding and those who received traditional, bedside EP cardiologist discharge rounds.	Background information highlighting the significance of the problem will be presented. Patient eligibility criteria and methodology will be visually displayed/ described in an algorithm format. Key data collection instrument for patient satisfaction regarding discharge will be displayed with interpretive results.
Evaluate significance of time measures affecting discharge between control and intervention groups.	Key discharge time measures between groups, will be displayed on charts and tables as appropriate for data results and summarized regarding statistical significance.

Abstract Text:

Purpose:

The purpose of this study, is to evaluate the intervention of remote presence, video telerounding as the real-time, virtual physician discharge visit, on patient satisfaction and acceptance of this technology, to expedite the time to hospital discharge.

Methods:

This prospective, quasi-experimental study will enroll 36 eligible post-procedure cardiac patients who consent to this study, to serve as the intervention group for telerounding. The control group, who had a traditional face-to-face hospital discharge visit, will be created from patients who meet study criteria in the three months prior to the telerounding intervention, from two Electrophysiologist (EP) cardiologist partners. The telerounding intervention group will plan a pre-established, morning timeframe for the patient to receive a virtual, remote discharge visit from their EP/cardiologist on the anticipated day of discharge. Telerounds will be collaboratively facilitated with the telemetry unit charge nurse at the patient's bedside, with the EP cardiologist on the remote presence, video conferencing robot- for realtime, interactive, discharge evaluation rounds. The nurse researcher will collect observational data and time measures during each telerounding interaction, but will not actively participate in the discharge process. Patient satisfaction data targeting hospital and discharge experiences will be completed for the intervention group, after the telerounding intervention, prior to discharge, utilizing the 20-item Patient Judgment of Hospital Quality, a psychometrically sound questionnaire- which includes 11 items specific to telerounding (Ellison, Pinto, Kim, Ong, Patriciu, Stojanovici, Rubin, Jarrett & Kavoussi, 2004). The control group will retrospectively complete nine items of this same patient satisfaction questionnaire, excluding the telerounding questions, and will mail their consent and study surveys back to the researcher in a preaddressed, stamped envelope. A short, five-item phone survey regarding the two-week post-discharge time period, conducted by the nurse researcher for both groups, will aim to capture any stated, unplanned need for medical evaluation, emergency services, or hospitalization due to any concern for a postdischarge complication. Both groups will have been admitted, cared for, and discharged from the same cardiac telemetry unit. One EP/cardiologist will perform all intervention group telerounding discharges. Patient satisfaction and time measures related to the hospital stay and discharge, including demographic data obtained from the Electronic Health Record (EHR), will be compared to the pre-intervention control group, who received the traditional, face-to-face physician discharge visit.

Results:

Study in progress; results pending. The data analysis plan will include the use of current SPSS statistical software. Descriptive statistics will be used to analyze frequencies of categorical outcome variables, including patient satisfaction scores for each group. Independent *t*-tests will be used to compare patient demographic characteristics and satisfaction scores between the two groups. Chi-square testing will be analyzed for significant associations of categorical variables between groups as appropriate. Logistic regression analysis will be performed for continuous outcome variables of satisfaction. Confounding variables, for patients who may differ in co-morbidities or need for additional discharge consultations, will be evaluated for correlation with specific identified delays in discharge.

Conclusion:

Study in progress; results pending. Telerounding allows for real-time, two-way audio/visual, and physical assessment telecommunication between the patient, nurse and physician. There is a gap in the literature regarding the use of telerounding as a strategy to expedite the hospital discharge process. This innovative approach may improve patient satisfaction, acceptance of this technology for future use, and improve discharge efficiency.