

2016

Improving Bedside ECG Monitoring in Telemetry

Teresa Jahn

CentraCare Health, teresa.jahn@centracare.com

Jennifer Lang

CentraCare Health, langj@centracare.com

Jaclyn Hoppe

CentraCare Health, hoppejac@centracare.com

Follow this and additional works at: http://digitalcommons.centracare.com/nursing_posters



Part of the [Other Nursing Commons](#)

Recommended Citation

Jahn, Teresa; Lang, Jennifer; and Hoppe, Jaclyn, "Improving Bedside ECG Monitoring in Telemetry" (2016). *Nursing Posters*. 62.
http://digitalcommons.centracare.com/nursing_posters/62

This Book is brought to you for free and open access by the Posters and Scholarly Works at DigitalCommons@CentraCare Health. It has been accepted for inclusion in Nursing Posters by an authorized administrator of DigitalCommons@CentraCare Health. For more information, please contact schlepers@centracare.com.



Improving Bedside ECG Monitoring in Telemetry

Teresa Jahn MSN, APRN, CCRN, CCNS, Jennifer Lang BSN, RN, Jaclyn Hoppe BSN, RN
St. Cloud Hospital St. Cloud, Minnesota

Plan

To improve accuracy of bedside ECG (EASI lead) monitoring through accurate placement of electrodes and proper skin preparation

Do

- Obtain staff's baseline knowledge of accurate lead placement and skin preparation, based on AACNs "Best Practice Alert for Bedside ECG Monitoring"
- Educate staff on proper lead placement and skin preparation
- Audit process using AACN's electrode placement audit tool

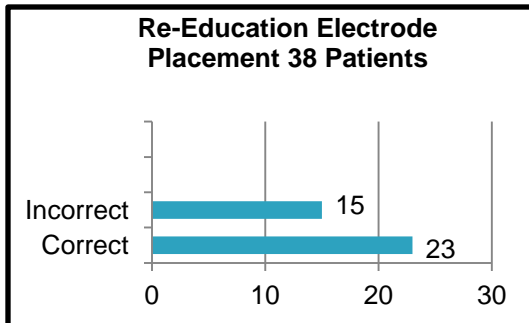
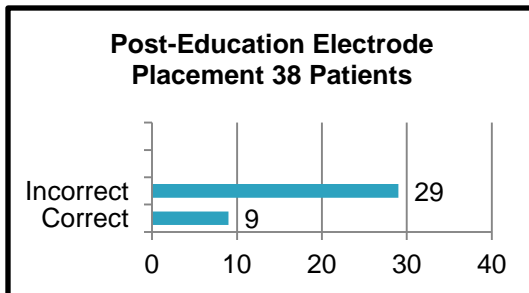
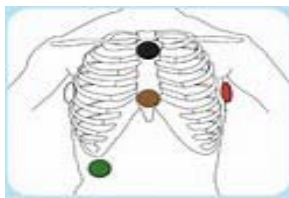
Team Members

Teresa Jahn MSN APRN CCRN CCNS
Jennifer Lang BSN RN
Jaclyn Hoppe BSN RN
Telemetry RNs and PCAs

Check

Pre Education Survey: N = 47 RNs

1. Able to correctly draw electrode placement on a chest diagram: Correct: **15** Incorrect: **32**
2. Able to correctly describe steps for proper skin preparation: Correct: **12** Incorrect : **35**



Act

October and November 2015

- Staff were surveyed to assess knowledge of proper electrode placement and skin preparation during annual "Ed Days"
- Education was provided to RNs and PCAs and laminated pocket cards were created and given to staff to illustrate proper electrode placement
- Electrode placement champions recruited
- Skin prep pads were placed in every patient room

December 2015: First audits completed

January 2016: Re-education of all RNs and PCAs during unit meetings

March and April 2016: Second round of audits completed

References

Crawford, C. & Halm, M. (2015). Telemetry monitoring: Are admission criteria based on evidence?. *American Journal of Critical Care*, 24(4), 360-364. doi: 10.4037/ajcc.2015.270

Drew, B., Caffrè, R., Funk, M., Kaufman, E., Kucoff, M., Laks, M., . . . Hare, G. (2004). AHA Scientific Statement. *The Journal of Cardiovascular Nursing*, 11(10), 2721-2746. doi: 10.1151/01.CCR.0000145144.58673.59

Hughes, R. (2008). Nurses at the "Sharp End" of Patient Care. *Patient Safety and Quality* Retrieved from <https://pubstate.lms.mpsicu.edu/2010/content/2853097/viewContent/24204011/view>

Jahradoefer, M., Giuliano, K., Stephens, D. (2005). Clinical usefulness of the EASI 12-lead continuous electrocardiographic monitoring system. *Critical Care Nurse*, 23(5), 28-37.

Jonasson, L. (2007). A prospective study on the relevance of skin preparation for noise, impedance and ECG intervals among healthy males. Retrieved from <http://www.diva-portal.org/smash/get/diva2:236338/FULLTEXT01.pdf>

Lee, T.T. (2008). Adopting a personal digital assistant system: Application of Lewin's change theory. *Journal of Advanced Nursing*, 55(4), 487-496. doi: 10.1111/j.1365-2648.2006.03935.x

Lancia, L., Pisegna Cerone, M., Vittorini, P., Romano, S., & Penzo, M. (2008). A comparison between EASI system 12-lead ECGs and standard 12-lead ECGs for improved clinical nursing practice. *Journal of Clinical Nursing*, 17(3), 370-377. doi: 10.1111/j.1365-2702.2007.01935.x

Oleksy, W., Tkacz, E., & Budzianowski, Z. (2012). Improving EASI ECG Method Using Various Machine Learning and Regression Techniques to Obtain New EASI ECG Model. *International Journal of Computer and Communication Engineering*, 1(3).

Openstax. (n.d.). Anatomy and Physiology. Retrieved from <https://courses.lumenlearning.com/anatomyandphysiology2/chapter/19-2-cardiac-muscle-and-electrical-activity/>

Phillips. (2015). ECG. Retrieved from http://www.healthcare.phillips.com/main/products/patient_monitoring/products/ecg/

Sherwood, G., & Zomorodi, M. (2014). A new mindset for quality and safety: The QSEN competencies redefine nurses' roles in practice. *Nephrology Nursing Journal*, 41(1), 15-22, 72. Retrieved from