

**Title:**

Missing Nursing Care Data that Represents Disruption to the Neutral Thermal Environment of Premature Neonates

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**Session Title:**

Using Technology to Reduce Sentinel Events

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**Keywords:**

electronic health care record, missed nursing care and neonatal intensive care

**References:**

Association of Women's Health, Obstetric and Neonatal Nurses. (2014). Nursing care quality measurement. *Journal of Obstetric, Gynecologic, & Neonatal Nursing*, 43, 132–133. doi:10.1111/1552-6909.12276 Deguines, C., Degrugilliers, L., Ghyselen, L., Chardon, K., Bach, V., & Tourneux, P. (2013). Impact of nursing care on temperature environment in preterm newborns nursed in closed convective incubators. *ACTA Paediatrica*, 102, e96-e101. doi:10.1111/apa.12109 Lavin, M., Harper, E., & Barr, N., (2015). Health information technology, patient safety, and professional nursing care documentation in acute care settings. *OJIN: The Online Journal of Issues in Nursing*, 20(2). doi:10.3912/OJIN.Vol20No02PPT04

**Abstract Summary:**

Standardized documentation of nursing care is necessary to describe key components of the care process. The EHR provides a vehicle for nurses to record provision of care that mirrors workflow and care patterns for classifying and quantifying procedures that disrupt the NTE of PNs while in the NICU.

**Learning Activity:**

LEARNING OBJECTIVES	EXPANDED CONTENT OUTLINE
Describe how lacking complete documentation of nursing care procedures in the electronic healthcare record limits the ability to conduct meaningful analyses of nurse-sensitive outcomes and other indicators of quality and safety for process improvement.	Missing nursing care data that represents disruption to the NTE of PNs: o electronic health record: workflow and capture of real time care patterns; o itemizing and quantifying these nursing care disruptions to the NTE of PNs in a NICU; o documentation of nursing care provided in the NICU; and o data for the conduct of research to enhance healthcare delivery.
Summarize how a standardized nursing language benefits patient care, data collection to evaluate nursing care outcomes, and standards of care.	Neonatal nursing procedures should be included in efforts to produce a standardized nursing language: o benefits patient care; o data collection to evaluate nursing care outcomes; and o standards of care.

**Abstract Text:**

Problem Statement: Poor growth following premature birth is associated with lifelong neurological, motor, and cognitive deficits (Doyle & Anderson, 2014). Maintenance of a neutral thermal environment (NTE) is

essential for energy balance to promote optimal growth of premature neonates (PN) (Hey, 1969; Mance, 2008). Although the disruptive effect of nursing care and other procedures has been acknowledged (Association of Women's Health, Obstetric and Neonatal Nurses, 2014; Diego, Field, & Hernandez-Reif, 2008; Montes Bueno et al., 2005), researchers have only recently begun to address the importance of itemizing and quantifying these nursing care disruptions to the NTE of PNs in a neonatal intensive care unit (NICU) (Lewis, 2014), so that their impact on growth and other nurse-sensitive outcomes can be determined.

Standardized documentation of nursing care provided in the NICU is necessary to describe key components of the care process and their effect on patient outcomes (Lavin, Harper, & Barr, 2015; Rutherford, 2008). The electronic health record (EHR) provides a vehicle for nurses and other health care team members to record provision of care that mirrors workflow and captures real time care patterns for classifying and quantifying procedures that disrupt the NTE. Nursing documentation in the NICU should be comprehensive of interventions performed (Cartwright-Vanzant, 2010), and thus the EHR is a potential source of data for determining nursing care disruptions to the thermal environment.

**Methods:** This study employed literature review and survey methodology to identify a comprehensive set of nursing care procedures that disrupt the NTE, and to examine their representation in the EHR. The sample consisted of five registered nurses with at least two years' experience at the study site providing direct care in the NICU. All participants were certified in neonatal intensive care nursing.

**Results:** Of 51 discrete nursing procedures identified through review of literature, only 25 were represented as data elements in the Patient Doc File of the Epic™ EHR. The nurses identified one additional data element present in the EHR, emesis, resulting in a final list of 26 procedures that were represented as data elements in the EHR Patient Doc File.

**Conclusion:** The EHR fails to capture more than 50% of recommended nursing care procedures that were identified as disruptive to the NTE of PNs. Lacking complete documentation of such procedures limits the ability to conduct meaningful analyses of nurse-sensitive outcomes and other indicators of quality and safety for process improvement (Madden, Lakoma, Rusinak, Lu, & Soumerai, 2016). Neonatal nursing procedures should be included in efforts to produce a standardized nursing language so that the benefits of this standardization, such as improved patient care, enhanced data collection to evaluate nursing care outcomes, and greater adherence to standards of care, can be realized. Standardization of nursing language in the EHR is essential for making comparisons and predictions to improve care and outcomes.

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