Wisconsin Perinatal Quality Collaborative (WisPQC)

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NICU Safety-It's no accident

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Introduction: Patient safety is critical to providing effective and efficient care in the NICU. Medical errors occur in 57% of infants born 24 to 27 weeks, compared to 3% of hospitalized term infants. Adverse events include nosocomial infections, intravenous catheter infiltrates, unintended extubations, intracranial hemorrhages, acute renal failure, respiratory arrest and hypotension. 10% of adverse events result in death and 23% result in permanent harm.

Objectives, purpose, goals: The objective of the NICU safety plan is to provide effective and safe care for all of our neonates by promoting a culture of safety based on open communication and teamwork and instituting principles of highly reliable organizations to ultimately decrease the incidence of adverse events. In the next twelve months, specific goals include the following: 1. Decrease adverse events in infants < 29 weeks at birth by 20%, from 2.31 to 1.85 per patient. 2. Increase the percent of survey participants selecting "Excellent" Overall Safety Grade in the NICU from 46.8% to 56.8%. Measurement: Performed baseline assessments focused on teamwork, communication and safety climate in the NICU because these are directly correlated with the incidence of adverse events using the Overall Patient Safety Grade Survey and a NICU Focused Trigger Tool to identify adverse events.

Intervention/practice: 1. Implement Random safety audits (RSA) to systematically audit a subset of error prone points to monitor at any given moment, thereby permitting coverage of complex systems over time. RSAs consist of a checklist of questions or review topics to assure a systematic approach. Feedback is immediate and reinforces "Culture of Safety" principles. These will be done three times weekly during and after rounds. Data will be based on staff responses and chart review. 2. Utilization of the Line of Operations Safety Audit (LOSA) which is an observational methodology to record errors, threats to safety and behaviors used to prevent and manage errors. These will be done during mock code simulations and feedback immediately shared with providers. 3. Implementation of brief multidisciplinary huddles each shift to discuss safety concerns, anticipated admissions and discharges.

Results: Adverse events in infants < 29 weeks in 2019 occurred at a rate of 2.31 per patient. 46.8% of participants in the Overall Patient Safety Grade Survey gave the NICU an "Excellent" rating. The first LOSA will done 2/25-2/27/2020. RSAs will start 2/15/2020. (This data will be presented on the poster).

Conclusions/implications: Repeat safety assessments will be administered to all NICU staff after a twelve-month intervention. RSAs and LOSAs are ongoing tools utilized to track and provide real time feedback. This multi-faceted safety plan will improve the safety and quality of healthcare delivered to each neonate.