Evaluation of a Holistic Standardized Approach to Treatment of Neonatal Abstinence Syndrome (NAS) Compared to Usual Care, on Reducing Length of Stay in the Neonatal Intensive Care Unit.

Tulane-Lakeside Hospital for Women and Children
4700 South I-10 Service Road West, Metairie, LA 70001, USA
Angel Estopinal, MSN, APRN, NNP-BC
Email: aestopinal@charter.net Cell: 504-236-7973

Aim: The objective of this quality improvement project is to standardize NAS pharmacologic treatment, to improve care and reduce average length of stay (LOS) from 35 days to 28 days (20%) for NAS infants in the neonatal intensive care unit (NICU) from January 1, 2015-December 31, 2015. Secondarily, we aim to standardize and improve parent knowledge by 50% after implementation of a parent education initiative.

Setting: Twenty-six bed, Level III, (NICU) in a suburb of New Orleans. Our population of NAS infants are inborn and admitted to the NICU for treatment.

Mechanisms: Historical unit data revealed average LOS of 35 days in 2013 and 2014 with diagnosis of NAS. We identified that we did not have a standardized treatment program for infants with NAS. The treatment methods varied among physicians. Additionally through parent surveys, we found that parents of NAS infants are not adequately educated in seven areas. These surveys are in progress. We plan to obtain a total of ten surveys pre education implementation.

Methods: Participation in VON Internet-based iNICQ webinars and work sessions using Plan-Do-Study-Act (PDSA) cycles to evaluate quality, safety and value of care for infants and families affected by NAS. Factors identified for increased LOS were variability in treatment methods contributing to failure weaning. Lack of education of families and nurses further exacerbated the problem. Therefore, we created a holistic care bundle to increase parental involvement by assignment of a primary nurse on admission to the NICU, a prenatal brochure to be distributed in obstetrician offices and substance abuse clinics, and a parental NAS education booklet and DVD. This bundle will be utilized after we obtain ten parental surveys. Staff will be educated on this standardized parental education program. We standardized evaluation and treatment of NAS by formulating a NAS protocol.

Measures:
- LOS on each NAS admission for the remainder of this year 2014 and 2015. We will compare 2015 LOS to 2013/2014 average.
- Parental pre-education survey compared to post-education survey to assess knowledge of NAS

Data/Results: Data collection from patient records will be used to follow LOS. We are in the process of collecting 10 parental surveys prior to implementation of a NAS standardized protocol by January 1, 2015. Then, we will follow the next 10 parental-infant-dyads in 2015 to compare parental knowledge before and after implementation of parental education. Results will be available in 2015.

Discussion: Our work in the VON iNICQ Intensive Collaborative has suggested a positive mechanism for treatment of infants with NAS. Our lessons learned so far are the importance of parental involvement, standardization of practice in scoring and pharmacologic treatment of the NAS infant, and the need for change in the NICU culture to provide holistic care for the parent infant dyad by utilizing primary nursing. We hope to accomplish improved treatment modalities resulting in shorter LOS and evidence of improved parental knowledge and involvement in the care of their infant.