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People Support What They Help to Create: Improving Clinical Outcomes With Neonatal Abstinence Syndrome

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Neonatal Abstinence Syndrome (NAS) is reaching an epidemic level due to the national increase in opioid use in pregnancy. It was recognized by frontline staff caring for infants with NAS that there was an increase in incidence of this population and that there was association with a long length of stay. It was agreed that there was a need to improve current processes in the NICU specific to the NAS population, and the NAS Task Force was started in 2014.
The goal of the NAS taskforce was to look at current care practices, compare them with the latest evidence based practices, and standardizing new patient care practices that reflected the current evidence. It was anticipated that this review of literature and standardization would ultimately improve outcomes, specifically decrease length of stay (LOS) for infants with NAS in the NICU. The NAS task force is an interdisciplinary team composed of Registered nurses (RN) from NICU, Labor/Delivery (L/D) & Mother/Baby (M/B) units, NICU physical therapist (PT), NICU providers, and Women and Children's (W/C) leadership.
Our journey began with evaluating our first line pharmacologic intervention for infants with NAS admitted to the NICU. We did a literature review and developed a standardized pharmacologic treatment protocol with Morphine instead of what was currently being used which was Methadone. The other important thing that was implemented with the pharmacologic treatment protocol was a standardized weaning protocol that was adopted by all NICU providers. This drastically reduced the variations in treatment and weaning schedules that partly accounted for our extended LOS. After reviewing LOS 15 months (September 2014-January 2017) following the implementation of the standardized Morphine treatment protocol and weaning protocol, there was a decrease our length of stay from about 37 days to 22 days.
After the initial improvement seen following the standardization of the treatment and weaning protocol there was a lul in the decrease of LOS for NAS infants in the NICU. With all the work focused on NAS, our neonatal providers took a personal investment to provide NICU employees education through the Vermont Oxford Network (VON) NAS Curriculum Bundle. In 2015 our organization was designated a VON Center of Excellence in Education and Training for Infant and Families Impacted by NAS. From the VON training, education was developed on standardizing the practice of Finnegan scoring. This education reached beyond the NICU staff, and was also provided to the M/B and Pediatric RN's. Following that standardized training, it became the standard of care on the unit to always have 2 trained RN's simultaneously complete the Finnegan's scoring on infants with NAS in the NICU. We did not stop there.
The members of the NAS taskforce were excited about the improvements in LOS that resulted from the standardized pharmacologic treatment protocol, but decided to focus attention on the non-pharmacologic interventions for NAS. More literature reviews were done and there were many non-pharmacologic interventions that were identified that could be implemented including designating minimally stimulating rooms to NAS infants, swaddling, lower staff/infant ratio, and breastfeeding, when not contraindicated. There were members of the NAS task force that became certified in neonatal touch and massage; which is now an intervention used with NAS infants.

These NICU staff members also created a skills station in NICU unit skills to share a few basics that could be done by all staff when caring for NAS infants that has had a positive impact on infant behavior during withdrawal.
In late 2017, it became apparent that our efforts have been solely infant based and very little focus on the caretakers. Based on that recognition, the NAS task force continued to expand its membership by bringing more interdisciplinary members to the table. In 2018 we have had members from the county drug court, Department of Family and Children's Services, AVITA treatment center, and the Director of the Georgia Council on Substance Abuse. More accomplishments that came in the last year was a patient agreement that focused on helping mom/parents know how important it was that they were at the bedside with their NAS baby. Throughout this journey it has been evident that people support what the help to create. NICU staff took the initiative to change current practices and are fully vested in this long term project.

Title:
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References:

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Abstract Summary:
Our NICU started a journey of interdisciplinary collaboration, employee education standardization, patient care standardization, and peer coaching for the patient families. Throughout our journey we have been able to decrease our length of stay from 37.6 days in 2014 to about 16 days in 2018.

Content Outline:

Initiation and Evolution of NAS Taskforce

1. State of Awareness
1. Statistics
2. Multidisciplinary team involvement identified
1. RN
1. Initially from NICU, then included nurses from all areas of Women and Childrens
2. PT
3. NICU providers
1. MD
2. NNP
3. PA
4. Pastoral Care
5. NICU leadership
1. Manager
2. Educator
3. Hospital/Unit Focus
1. Length of stay
2. Length of treatment
1. Standardized order set
3. Shorten Length of Treatment/Stay
4. Evidence Based Practice: Methadone vs Morphine
1. Methadone half-life versus morphine half-life
2. Standardization of treatment and weaning guidelines
5. State Initiative
1. Mandatory Reporting
6. Staff Education
1. Vermont Oxford Network: Universal NAS Training
2. Non-pharmacologic treatment
3. Minimal Stimulation rooms
4. Touch Massage
7. Evolution of Taskforce
1. Department of Family and Child Services
2. Family Treatment Court
3. Partners for a Drug Free Hall
4. Georgia Council on Substance Abuse
5. Community resources
8. Evolution of Data Collection
1. State data collection changes
2. Hospital data collection changes

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Author Summary: Amy graduated with Bachelors of Science in Nursing in 1997 from Emory University. She has 21 years of experience working in a Level III Neonatal Intensive Care Unit. She obtained her certification in High Risk Neonatal Intensive Care from the NCC in 2014. She obtained her certification in Neonatal Touch and Massage from Creative Therapy Consultants in 2017. She is an Expert Level Nurse and serves as the NAs Task Force Co-Chair.