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Title:

Eat, Sleep, Console to Reduce Opiate Exposure and Cost of Care in Neonates

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ACCEPTED

Session Title:

Maternal-Child Health Nurse Leadership Academy (MCHNLA)

Slot:

MCH: Sunday, 17 November 2019: 11:45 AM-12:15 PM

Applicable Category:

Clinical

Keywords:

Eat, Sleep, Console, Maternal Child Health and Neonatal Abstinence Syndrome-NAS

References:

Bagley, S.M., Wachman, E.M., Holland, E., & Brogly, S.B. (2014). Review of the assessment and management of neonatal abstinence syndrome. *Addiction Science & Clinical Practice, 9*(1), 19. doi:10.1186/1940-0640-9-19

Grossman, M.R., Berkwitt, A.K., Osborn, R.R., Xu, Y., Esserman, D.A., Shapiro, E.D., & Bizzarro, M.J. (2017). An initiative to improve quality of care of infants with neonatal abstinence syndrome. *Pediatrics 139*(6), e1-e8. doi:10.1542/peds.2016-3360

Holmes, A.V., Atwood, E.C., Whalen, B., Beliveau, J., Jarvis, J.D., Matulis, J.C., & Ralston, S.L. (2016). Rooming-in to treat neonatal abstinence syndrome:Improved family-centered care at a lower cost. *Pediatrics, 136*(6), e1-e9. doi:10.1542/peds.2015-2929

Abstract Summary:

In-utero opioid exposures continue to rise nationally. Infants at risk for Neonatal Abstinence Syndrome (NAS) often times experience extended, length of stay in critical care units, and increased costs of care. New research suggests that functional based assessment of NAS could reduce opioid medication exposure rates and improve outcomes.

Content Outline:

Introduction/Background:

1. In-utero opioid exposures continue to rise nationally.
2. Infants at risk for Neonatal Abstinence Syndrome (NAS) often times experience extended , length of stay in critical care units, and increased costs of care. New research suggests that functional based assessment of NAS could reduce opioid medication exposure rates and improve outcomes.

Aim/Goal/Purpose: The purpose of this IRB exempt quality improvement project was to use functional based nursing interventions to support the neonate in an effort to:

1. Reduce the number of infants treated pharmacologically for NAS and thus infant exposure to opiates
2. Reduce Length Of Stay
3. Reduce cost/case

Methods: On October 1, 2018, Franciscan Health Indianapolis replaced its current assessment tool (Finnegan Neonatal Abstinence Scoring Tool-FNAST) with the Eat Sleep Console (ESC) functional based scoring tool for determination of treatment planning.

1. This program also used educational programs to try to reduce the stigma around neonatal exposure and withdrawal in order to provide family centered care and outcomes supportive to the family unit.
2. A Multi-Disciplinary team was formed to understand the goals of ESC and provide staff resources and education.
3. 4 hours of ESC education was provided to nursing caregivers, including a pre-post test to determine learning outcomes.
4. Support resources were created for infant consoling including developmental aids, and caregivers /“cuddlers”.
5. All infants with known opiate exposure were observed for 5-7 days before discharge was considered.
6. Upon maternal discharge, all infants with extended stay were transferred to the Pediatrics Unit to continue bonding and supportive care.

7. Routine transfer to NICU and administration of opiates such as morphine are avoided unless needed for withdrawal symptom management.

Results/Outcomes: The project resulted in improvement of both staff knowledge and care of infants with NAS. Post intervention data (4th quarter 2018) was compared to baseline data (1st through 3rd quarter 2018).

1. **Knowledge:** Significant improvements in the caregiver's knowledge about withdrawal symptoms, ways to console, and adequate comfort measures were noted on post-test results. Knowledge about when it is appropriate to assess a sleeping infant increased from 68.7% to 91.6% after education. In addition, staff better understood the timeframe to assess for consolation as evidenced by an increase in correct responses from 45.7% to 83.2%.

2. **Care:** After implementation of the ESC assessment scoring tool the average number of morphine doses administered to treat NAS decreased from 36.2 to 0.7. This decrease has significant implications due to both cost avoidance and exposure to opiates in the neonate. Length of stay for those infants with NAS related diagnosis declined from 10.48 days to 8.8 days. The overall direct cost of care declined from $12,003/case to $7,693/case.

Conclusions:

1. The outcomes of this project appear to suggest that the ESC model allows the caregiver to accurately address withdrawal symptoms while still providing supportive care to infants with NAS.

2. Using the ESC tools appears to lead to decreased lengths of stay, decreased cost of care, and overall reductions in exposure to morphine. The supportive care provided by nursing during NAS care is a foundational piece of the ESC work and should be developed fully in any organization wishing to provide supportive care to infants with NAS.

Topic Selection:

Maternal-Child Health Nurse Leadership Academy (MCHNLA) (25199)

Abstract Text:

Introduction/Background: In-utero opioid exposures continue to rise nationally. Infants at risk for Neonatal Abstinence Syndrome (NAS) often times experience extended, length of stay in critical care units, and increased costs of care. New research suggests that functional based assessment of NAS could reduce opioid medication exposure rates and improve outcomes. **This project was completed as part of the Maternal-Child Health Nurse Leadership Academy (MCHNLA) with support from SIGMA and program sponsor Johnson & Johnson.**

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This program also used educational programs to try to reduce the stigma around neonatal exposure and withdrawal in order to provide family centered care and outcomes supportive to the family unit.

- A Multi-Disciplinary team was formed to understand the goals of ESC and provide staff resources and education.
- 4 hours of ESC education was provided to nursing caregivers, including a pre-post test to determine learning outcomes.
- Support resources were created for infant consoling including developmental aids, and caregivers /"cuddlers".
- All infants with known opiate exposure were observed for 5-7 days before discharge was considered.
- Upon maternal discharge, all infants with extended stay were transferred to the Pediatrics Unit to continue bonding and supportive care.
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