

As numbers of opioid exposed newborns have increased throughout the US, many approaches have been used to improve care of these infants

Eat, sleep and console tool decreases length of stay and post natal use of opiates

BALTIMORE, USA (April 27, 2019) - A new quality improvement tool called Eat, Sleep and Console (ESC) shows consistent signs of improved care of opioid-exposed newborns in neonatal intensive care units (NICUs). Findings from the study will be presented during the Pediatric Academic Societies (PAS) 2019 Meeting, taking place on April 24 - May 1 in Baltimore.

"The opioid epidemic has had an enormous impact on newborn care and our goal in this project was to improve the care of opioid-exposed newborns at our hospital using quality improvement methods to adapt previously demonstrated successful approaches that focused on three things; simplified assessment of newborns experiencing opioid withdrawal, engaging and educating families in best practices to support their babies through drug withdrawal symptoms, and minimizing exposures of babies to medications," said Susan Townsend, MD, one of the authors of the study. "Our philosophy is to 'use hugs, not drugs' in treating newborn opioid withdrawal symptoms. This approach was effective in rapidly reducing hospital stay for this large group of patients."

To conduct this study, a quality improvement (QI) process was initiated using an ESC tool in a NICU. It included all opioid exposed newborns admitted to this NICU. A multidisciplinary team met monthly to direct process change using plan-do-study-act (PDSA) cycles, change from Finnegan Score (FS) to ESC, emphasize non-pharmacologic care, increase family involvement, and use morphine on an as-needed basis instead of tapered methadone for medication treatment when needed. Clinical practice change was supported with education and charting tools, "just in time" teaching moments on bedside rounds and during morning unit huddles. As part of a statewide perinatal QI collaborative, it used a REDCap de-identified patient database to track length of birth hospitalization (LOS) and use of medication.

During the pre-intervention period in 2017, 635 infants were admitted to the NICU. Among these admissions, 71 infants (11.2%) had fetal opioid exposure, and 46 of these 71 infants (64.7%) were treated with methadone for neonatal abstinence (NAS) with an average LOS of 22.7 days. Between January 1 and October 31, 2018, there were 50 NICU

admissions with fetal opioid exposure. Of these, 43 were greater than or equal to 34 weeks gestation and discharged home from the NICU. LOS decreased from a median 21 days in the first quarter (Q1) (n=12), to 5.5 days in the third quarter (Q3) (n=18). Use of medication to treat NAS decreased from 75% in Q1 to 27.8% in Q3, with median length of exposure to medication decreasing from 16 to two days.

Implementing a care path for newborns with fetal opioid exposure that relies on non-pharmacologic interventions and uses the ESC evaluation tool can substantially shorten hospital stays and decrease exposure to pharmacologic treatment for symptoms of NAS.

Dr. Townsend will present findings from "Rapid Decrease in Length of Stay and Postnatal Use of Opiate Medication Using 'Eat, Sleep and Console' in a Single Center" on Monday, April 29 at 1 p.m. EDT. Reporters interested in an interview with Dr. Townsend should contact PAS2019@piercom.com. Please note that only the abstracts are being presented at the meeting. In some cases, the researchers may have additional data to share with media.

Dr. Townsend added, "We are hopeful that this will provide long term benefits to families and babies exposed to opioids; however, it remains to be seen whether there are other unintended consequences of this approach."

The PAS 2019 Meeting brings together thousands of pediatricians and other health care providers to improve the health and well-being of children worldwide. For more information about the PAS 2019 Meeting, please visit <http://www.pas-meeting.org>.

About the Pediatric Academic Societies Meeting

The Pediatric Academic Societies (PAS) Meeting brings together thousands of pediatricians and other health care providers united by a common mission: to improve the health and well-being of children worldwide. This international gathering includes pediatric researchers, leaders in pediatric academics, clinical care providers and community practitioners. Presentations cover issues of interest to generalists as well as topics critical to a wide array of specialty and sub-specialty areas. The PAS Meeting will be the premier North American scholarly child health meeting. The PAS Meeting is produced through a partnership of four pediatric organizations that are leaders in the advancement of pediatric research and child advocacy: American

Pediatric Society, Society for Pediatric Research, Academic Pediatric Association and American Academy of Pediatrics. For more information, please visit <http://www.pas-meeting.org>. Follow us on Twitter @PASMeeting and #PAS2019, and like us on Facebook.

Abstract: Rapid Decrease in Length of Stay and Postnatal Use of Opiate Medication Using "Eat, Sleep and Console" in a Single Center

Background: As numbers of opioid exposed newborns have increased throughout the US, many approaches have been used to improve care of these infants. The "Eat, Sleep, and Console" method (ESC) was proposed in 2017 as an alternative to traditional Finnegan scoring (FS) and medication-based strategies.

Objective: To decrease length of birth hospitalization (LOS) and use of postnatal opiates among opioid exposed newborns born \geq 34 weeks GA by 50% in a high-volume community-based NICU by December 2018.

Design/Methods: In 2018 we initiated a quality improvement (QI) process using the ESC tool in our NICU. We included all opioid exposed newborns admitted to our NICU. A multidisciplinary team met monthly to direct process change using plan-do-study-act (PDSA) cycles, change from FS to ESC, emphasize non-pharmacologic care, increase family involvement, and use morphine on an as needed basis instead of tapered methadone for medication treatment when needed. Clinical practice change was supported with education & charting tools, "just in time" teaching moments on bedside rounds and during morning unit huddles. As part of a statewide perinatal QI collaborative, we used a REDCap de-identified patient database to track LOS and use of medication.

Results: During the pre-intervention period in 2017, 635 infants were admitted to the NICU. Among these admissions, 71 infants (11.2%) had fetal opioid exposure, and 46 of these 71 infants (64.7%) were treated with methadone for neonatal abstinence (NAS) with an average LOS of 22.7 days. Between January 1 and October 31, 2018 there were 50 NICU admissions with fetal opioid exposure. Of these, 43 were greater than or equal 34 wks gestation and discharged home from our NICU. LOS decreased from a median 21 days in the first quarter (Q1) (n=12), to 5.5 days in the third quarter (Q3) (n=18) (Figure 1). Use of medication to treat NAS decreased from 75% in Q1 to 27.8% in Q3 (Figure 2), with median length of exposure to medication decreasing from 16 to 2 days.

Conclusion(s): Implementing a care path for newborns with fetal opioid exposure that relies on non-pharmacologic interventions and uses the "Eat, Sleep, and Console" evaluation tool can substantially shorten hospital stays and decrease exposure to pharmacologic treatment for

symptoms of NAS.

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