Eat, Sleep, Console Neonatal Opioid Withdrawal Syndrome Implementation Evaluation

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GUNDERSEN HEALTH SYSTEM®

BACKGROUND

Substance Abuse during pregnancy [1,2,3]

Opioid Crisis has led to rise in neonatal abstinence syndrome (NAS)

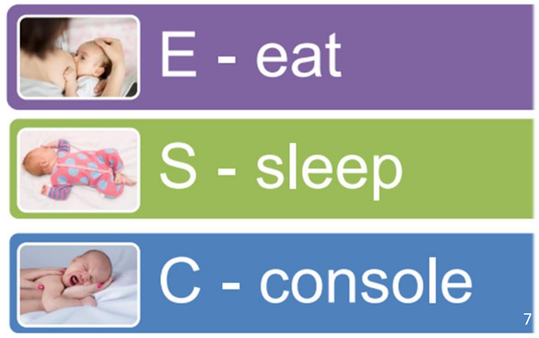
- Newborn experiences withdrawal symptoms after birth

The Finnegan Neonatal Abstinence Scoring System (FNASS) scale [4]

- Widely used scale for assessment and guidance of treatment created in the 1970s
- Limited by the subjective nature of assessment
- Focus on counting symptoms

Eat, Sleep, Console (ESC) scale [5]

- Growing evidence and support
- Attention on the infant's ability to function during withdrawal
- Uses nonpharmacological interventions first to minimize symptoms
- Standardized medication dosing and weaning
- Increases the parent-infant bonding experience by minimizing separation
- Prepares families for success at home by increasing awareness of infant needs



STUDY AIM

FNASS versus ESC Scale

- Descriptive demographics
- Length of stay (LOS)
- Medication utilization
- Transfers to a higher level of care
- Readmission within 30 days of discharge
- First visit completed within 4 weeks
- Weight loss (>10% loss from birth)

METHODOLOGY

Retrospective Institutional Review Board-approved study

- Electronic health record (EHR) review

January 1, 2018, through August 1, 2022

- Hospitalized pediatric patients
- Born to mothers ≥ 18 yeas of Age at time of delivery
- known prenatal opioid exposure
- At least assessment for NAS

Implementation April 2022

- For the pre-implementation timeframe, the Finnegan scores were collected and the EHR was reviewed for each score
- ESC order set was used to determine if medication would have been indicated

Statistical Analysis SAS 9.4

- Descriptive demographic analysis
- Post-implementation data collection is in progress

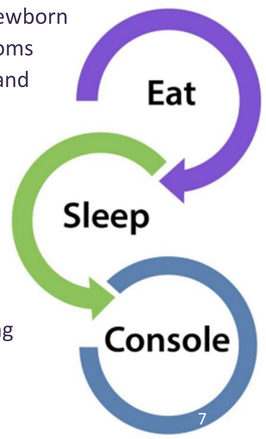
PURPOSE

Change of Focus:

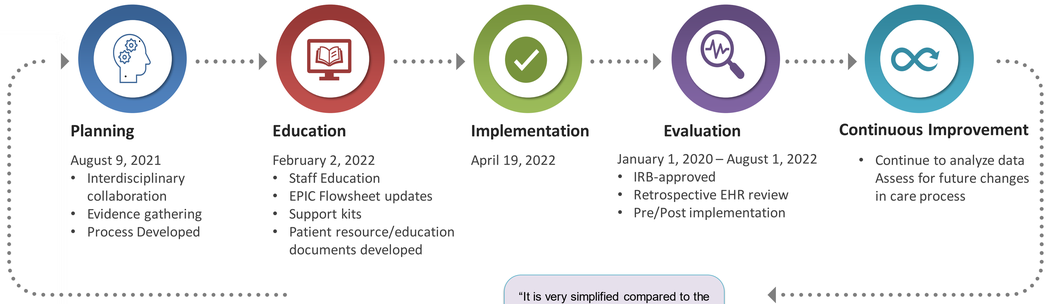
- Focus on the "normal" functions of the newborn
- Emphasis on preventing increased symptoms
- Including families as the main caregivers and partner with them

Goals: [5]

- Reduce Pharmacologic Treatment
- Reduce Length of Stay
- Reduce Cost of Care
- Family Centered Care
- Better Care for Babies
- Simplify and Decrease Variability in Scoring
- Ease of Charting



IMPLEMENTATION



What are staff saying?

RESULTS

Overall Population

The overall study population included mother (59) /baby (60) dyads (1 twin delivery)

Mom Demographics

At delivery

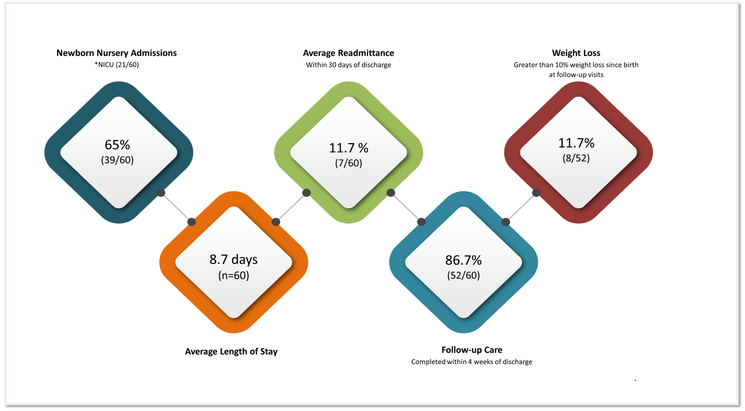
- Age 30.8 years
- White (91.7%)
- Non-Hispanic (96.7%)
- Gravida 3.8
- Parity 2.9

History of

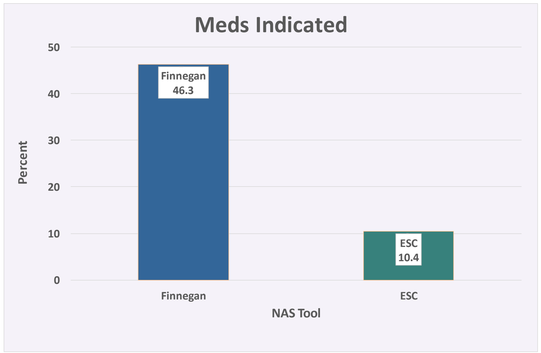
- Alcohol use 63.3%
- Drug use 53.3%
- E-cig use 25%
- Street drug use 60%

Baby Demographics

- n=60 babies
- Female (51.7%)
- Average Gestational Age 37.8 weeks
- White (85%)
- Non-Hispanic (93.3%)
- ESC Group (n=4)
- Finnegan Group (n=56)



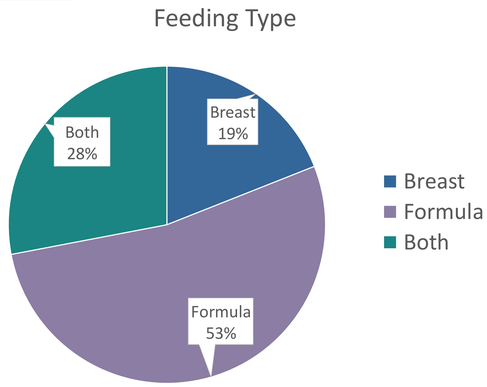
Data



- Data indicated (2942) FNASS scores
  - An ESC score was calculated for each FNASS score
- Researcher applied scores according to ESC criteria
- Need for medication intervention was noted and compared to documented FNASS data
  - FNASS (46%) and ESC (10%)

*Medication Indicated variable is a constant for pre/post implementation

- Unable to determine if medication would have truly been given with each tool due to other contributing variables



*If babies were listed in as "Both" they were not listed in the "Breast" or "Formula" categories

NURSING IMPLICATIONS

Limitations

- Preliminary retrospective EHR data analysis
- Small homogeneous sample at a single institution
- Considerations
  - Infants already receiving Morphine may score lower in comparison group
  - Manual scoring by the researcher

Implications

- Preliminary analysis indicated trends
- Less medication treatment needed
- Shortened length of stay
- The timeframe for data collection has been updated to include new patients and this process is now in progress
- Continued evaluation of the staff care process is recommended to identify areas for improvement and to remain current with evidence-based practice standards

Next Steps

- Continue to collect data on future patients for analysis
- Continue to Identify areas for improvement
- Consider looking at follow up care and breastfeeding rates for these families
- Explore reasons for readmissions

RESOURCES & MORE INFORMATION