IMPROVING CARE OF THE INFANT AT RISK FOR NEONATAL ABSTINENCE SYNDROME THROUGH A STANDARDIZED FAMILY CENTERED PROTOCOL AND NURSING EDUCATION

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Initial Steps in Changing the Site of Care

- Setting Smart Aims
- Developing PDSA cycles for Standardized Care, Site Transition and Competency monitoring
- Standardized Education for Mother/Baby Unit
- Standardized Education for NICU Unit
AIM

- To increase exposure of the 81 Mother-Baby nurses to a standardized Neonatal Abstinence Syndrome (NAS) education program from 0% to 100% by November 2013
- To increase exposure of the 43 NICU nurses to the same program from 0% to 100% by Nov 2014
- To reduce the need for pharmacologic treatment for NAS from 50% to 25% by Jan 2015
- To reduce NICU admissions from 60% of substance-exposed infants to 25% by Jan 2015
- To increase NAS scoring consistency through required competency validation from 0-90% by Jan 2015
METHOD

- Oct 1, 2013: NAS Protocol Trialed
  - Infants at risk for NAS admitted to Mother-Baby unit
  - NAS scoring per NICU RN
- Dec 1, 2013: Protocol Fully Implemented
  - Mother-Baby standardized NAS education completed
  - Infants at risk for NAS scored and cared for by Mother-Baby RN
  - Infants transferred to NICU when pharmacologic treatment needed
- Jan, 2014: Joined the iNICQ Collaborative providing structure and group education to NAS project
- Jan 2014: PDSA quality improvement process utilized for development and evaluation
  - Development/Implementation of a standardized NAS educational program for NICU
  - NAS Scoring competency/reliability for NICU/Mother-Baby
MEASURES

- **Outcome measure**: percentage of infants at risk for NAS who avoid NICU admit and pharmacologic treatment
  - Initial: comparison of 8 months pre versus 11 months post protocol for NICU admission/pharmacologic tx
  - Ongoing: Quarterly review of NICU admission/pharmacologic tx percentage of all infants at risk for NAS

- **Process Measures**: number of nurses attending NAS educational program, and impact on competency and comfort
  - Initial: comfort with NAS was measured using a Likert scale self report before and after educational program
  - Ongoing: measure of reliably will be made with competency evaluations, 2-4x/year for each nurse
Percentage of NICU Nurses Reporting Discomfort with Elements of NAS Scoring Before and After Education

Percentage of Mother-Baby Nurses Reporting Discomfort with Elements of NAS Scoring Before and After Education
Location of NAS Scoring for Infants at Risk

<table>
<thead>
<tr>
<th>Location</th>
<th>Before Protocol</th>
<th>After Protocol</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct Admitt to NICU</td>
<td>60</td>
<td>70</td>
</tr>
<tr>
<td>Well Baby Care for Entire Hospital Stay</td>
<td>20</td>
<td>30</td>
</tr>
<tr>
<td>Transfer To NICU</td>
<td>10</td>
<td>20</td>
</tr>
</tbody>
</table>

Infants Requiring Pharmacological Treatment

<table>
<thead>
<tr>
<th>Treatment</th>
<th>Before Protocol</th>
<th>After Protocol</th>
</tr>
</thead>
<tbody>
<tr>
<td>Before Protocol Implementation</td>
<td>50</td>
<td>40</td>
</tr>
<tr>
<td>After Protocol Implementation</td>
<td>20</td>
<td>30</td>
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Improving the Program

- Parent Education Material Developed
- Prenatal Consults to prepare the family to provide care
  - Obstetrician support and education
  - Data monitored to track pre vs post delivery consults
- Breastfeeding and Substance Use Protocol Developed
  - Encouraged use of breastmilk for opiate exposure infants
Improving the Program

- Continued Standardized Scoring Education for new hires
- Yearly Competencies for all Mother/Baby and NICU staff
- Data monitoring
  - NICU admissions and Pharmacological treatment
  - Scoring validation (90% accuracy on second scorer)
  - Breastfeeding rates of eligible mothers
  - LOS of pharmacologically tx infants and pharmacological tx adherence
  - Consults
Transfers to the NICU

NICU Admission/Pharmacologic Tx

% Transfer to NICU
% Requiring Tx

DISCUSSION

- This project reflects the work of several PDSA cycles.

- Progress: is made through ongoing data monitoring of scoring consistency, ongoing staff education, NICU admission/pharmacological treatment and missed opportunity for prenatal parent education.

- Most Important Goal: Providing consistent care and keeping these infants with their mothers!