

## Perinatal Quality Collaborative of North Carolina



**Overall Aim:** Create a multidisciplinary hospital based community focused on providing a standardized approach to the identification, evaluation, treatment and discharge of the NAS infant and family by 30 September 2014.

Outcome	Key Metrics	Secondary Metrics
Provide a standardized approach to the <b>identification</b> of the at risk infant and family	1) Each nursery has a protocol that defines indications and procedures for screening for infants at risk for withdrawal	Each nursery that cares for infants with neonatal withdrawal develops/reviews guidelines/policies that defines: <ul style="list-style-type: none"> <li>• Identification of eligible infants for toxicology testing</li> <li>• Type of toxicology testing to include but not limited to urine and meconium</li> <li>• Process for obtaining urine and meconium for testing</li> <li>• Process for communicating results to mother or caregiver</li> <li>• Referral to CPS</li> <li>• Criteria for Social Work consult</li> </ul>
Provide a standardized approach to the <b>identification</b> of the at risk infant and family	2) Each nursery ensures proper toxicology testing	Develop order sets to include but not limited to: <ul style="list-style-type: none"> <li>• Urine and Meconium toxicology testing as the primary toxicology testing methods</li> <li>• Reason for testing: known history of drug use, meets testing criteria</li> </ul>
Provide a standardized approach to the <b>identification</b> of the at risk infant and family	3) Each nursery develops criteria for toxicology testing	Toxicology testing should be completed on all the following infants: <ul style="list-style-type: none"> <li>• Known maternal history for drug use</li> <li>• Positive Maternal drug screen at any point in pregnancy</li> <li>• Mother meets following criteria but not limited to include infant for testing:                             <ul style="list-style-type: none"> <li>○ No/late prenatal care (&lt;6 visits)</li> <li>○ Symptomatic infants</li> </ul> </li> </ul>



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Provide a standardized approach to the <b>identification</b> of the at risk infant and family	4) Each nursery educates staff and families	Each nursery develops appropriate education to ensure staff competency and family understanding
Provide a standardized approach to the <b>identification</b> of the at risk infant and family	5) Each nursery identifies barriers to discharge	Each nursery identifies: <ul style="list-style-type: none"> <li>• If CPS referral is needed</li> <li>• Identification of PCP</li> <li>• Center specific barriers</li> </ul>
Provide a standardized approach to the <b>evaluation</b> of the at risk infant and family	6) Each nursery adheres to a standardized plan for the evaluation of infants at risk for or showing signs of withdrawal	Each nursery adopts either the Finnegan or Modified Finnegan assessment-scoring tool Each nursery develops evidenced based protocols for scoring to include but not limited to: <ul style="list-style-type: none"> <li>• When to score</li> <li>• How to score</li> <li>• Non-pharmacologic treatments</li> <li>• When to begin pharmacologic treatment</li> </ul>
Provide a standardized approach to the <b>evaluation</b> of the at risk infant and family	7) Each nursery develops a standardized plan to provide consistency in scoring of the infant at risk for or showing signs of withdrawal	Each nursery adopts an inter-observer reliability program <ul style="list-style-type: none"> <li>• Inter-observer reliability testing for staff using the Finnegan/Modified Finnegan scoring tool (Neoadvances Inter-Observer Reliability Program)</li> <li>• Testing for staff should be done on employment to the unit and annually</li> </ul>

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Provide a standardized approach to the <b>evaluation</b> of the at risk infant and family	8) Each nursery recognizes the importance of consistency with caregivers	Each nursery identifies a core of local champions that are the primary caregivers
Provide a standardized approach to the <b>evaluation</b> of the at risk infant and family	9) Each nursery educates staff and family	Each nursery develops education appropriate to ensure staff competency and family understanding
Provide a standardized approach to the <b>treatment</b> of the at risk infant and family	10) Each nursery employs non-pharmacologic treatment techniques prior to initiation of pharmacologic treatment	<p>Non-pharmacologic supportive measures will be started immediately after identification and include:</p> <ul style="list-style-type: none"> <li>• Minimizing environmental stimuli</li> <li>• Promoting adequate rest and sleep</li> <li>• Providing sufficient caloric intake to establish weight gain</li> <li>• Swaddling</li> <li>• Skin to Skin</li> <li>• Holding</li> </ul> <p>Breastfeeding and the provision of expressed human milk should be encouraged if not contraindicated for other reasons</p>
Provide a standardized approach to the <b>treatment</b> of the at risk infant and family	11) Each nursery develops and adheres to a standardized plan for the pharmacologic treatment of the infants at risk for or showing signs of withdrawal	<p>Each nursery develops center defined treatment protocols to include but not limited to:</p> <p>(continued next page)</p>



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<p>Provide a standardized approach to the <b>treatment</b> of the at risk infant and family</p>	<p>12) Each nursery develops and adheres to a standardized plan for the pharmacologic treatment of the infants at risk for or showing signs of withdrawal</p>	<ul style="list-style-type: none"> <li>• Initiation of first line medication: <ul style="list-style-type: none"> <li>○ Nurseries should choose between Morphine, Methadone or Clonidine as first line medications.</li> <li>○ Medications will be initiated based on the following process in scoring: Average of any 3 consecutive scores is <math>\geq 8</math> or average of any 2 consecutive scores is <math>\geq 12</math></li> <li>○ Dosing</li> </ul> </li> <li>• Initiation of second line medication <ul style="list-style-type: none"> <li>○ Center defined initiation parameters</li> <li>○ Nurseries should choose between Morphine, Clonidine or Phenobarbital</li> <li>○ Dosing</li> </ul> </li> <li>• Weaning <ul style="list-style-type: none"> <li>○ Center defined weaning parameters</li> <li>○ Which medication to wean first</li> <li>○ Dosing</li> </ul> </li> <li>• Escalation <ul style="list-style-type: none"> <li>○ Center defined escalation parameters</li> <li>○ Which medication to escalate first</li> <li>○ Dosing</li> </ul> </li> </ul>
<p>Provide a standardized approach to the <b>treatment</b> of the at risk infant and family</p>	<p>13) Each nursery educates staff and parents</p>	<p>Each nursery develops appropriate education to ensure staff competency and family understanding</p>

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Provide a standardized approach to the <b>discharge</b> of the at risk infant and family	14) Each nursery has a standardized minimum length of stay for all at risk infants	Adhere to AAP length of stay standard of 3-7 days for all at risk infants
Provide a standardized approach to the <b>discharge</b> of the at risk infant and family	15a) Each nursery adheres to a standardized plan for the discharge of infants and family/caregiver	<p>Each nursery develops stability triggers for notification of proper organizations, family and PCP of pending discharge.</p> <p>Each nursery should develop Infant and family/caregiver criteria for discharge to include but not limited to:</p> <p>All infants:</p> <ul style="list-style-type: none"> <li>• Identified caregiver</li> <li>• Medically stable with adequate weight nutrition</li> <li>• Clearance from all hospital or outside agencies (social work, CPS etc.)</li> <li>• PCP identified</li> <li>• Follow-up appointments made or caregiver notified of needed follow-up appointments</li> <li>• Outpatient resources identified</li> <li>• Caretaker demonstrates normal infant care</li> <li>• Caretaker demonstrates ability to adequately feed infant</li> <li>• Caregiver demonstrates non-pharmacologic treatments</li> <li>• CC4C referral</li> </ul>



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<p>Provide a standardized approach to the <b>discharge</b> of the at risk infant and family</p>	<p>15b) Each nursery adheres to a standardized plan for the discharge of infants and family/caregiver</p>	<p>In addition to above criteria infant discharge on medications:</p> <ul style="list-style-type: none"> <li>• Assess home situation</li> <li>• Need two successful weans before discharge</li> <li>• PCP agreement to accept infant</li> <li>• Withdrawal symptoms controlled</li> <li>• Successful feeding with weight gain</li> <li>• Caregiver provides return demonstration of medication administration</li> <li>• Caregiver recognizes symptoms of withdrawal</li> <li>• Caregiver is educated as to when to notify PCP if concerned</li> </ul>
<p>Provide a standardized approach to the <b>discharge</b> of the at risk infant and family</p>	<p>16) Each nursery educates staff and family</p>	<p>Each nursery develops appropriate education to ensure staff competency and family understanding</p>

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