

# **iNICQ 2019 VON DAY AUDIT: IMPROVING CRITICAL TRANSITIONS AND CLINICAL OUTCOMES FOR EVERY NEWBORN**

## **UNIT BASED QUESTIONS**

### **1. General unit policies and procedures:**

- a. Does your center have written policies or guidelines regarding which patients are eligible for admission to your Neonatal Intensive Care Unit or other special care units? [Metric: Standardization]
- b. In shift to shift handoffs, does your staff routinely use structured communication tools [such as **SBAR** (Situation, Background, Assessment, Recommendation) or **I-PASS** (Illness severity, Patient summary, Action list, Situation awareness or contingency planning, Synthesis by receiver)]? [Metric: Communication]
- c. Does your hospital or NICU provide teamwork training (such as the AHRQ TeamSteps) that is available to all staff? [Metric: Teamwork]
- d. Does the NICU team routinely conduct a formal evaluation or debriefing when transitions do not go as planned? [Metric: Standardization]
- e. Does the NICU team formally screen families for critical social determinates of health (including food insecurity, transportation needs, living situation) on admission and throughout the NICU stay? [Metric: Standardization]
- f. Are parents involved when creating policies or practices related to transitions of care? [Metric: Family Integrated]

### **Physical transitions**

### **2. Transport from outside hospital:**

- a. Does your center accept infants transferred from outside hospitals?
- b. Does your center have a dedicated team for neonatal transport that has expertise in the care of critically ill newborns? [Metric: Teamwork]
- c. Does your transport service have a system in place to ensure immediate availability of medical advice for caregivers at the referring hospital? [Metric: Communication]
- d. Does your transport service have a system in place to ensure rapid dispatch of a transport team for critically ill neonates at referring hospital? [Metric: Communication]

- e. Does your transport team use telemedicine to communicate with referring caregivers? [Metric: Communication]
- f. Does your transport team use telemedicine to communicate with the families of infants referred to your center for care? [Metric: Communication]
- g. Does the team (or specific members of the team) have specific training regarding critical procedural skills including:

- g1. Specific training regarding airway management including endotracheal intubation

- g2. Specific training regarding vascular access

- g3. Specific training regarding thoracostomy

[Metric: Standardization]

- h. Does your center hold refresher skill courses and perform ongoing clinical assessment to help to ensure maintenance of competency? [Metric: Standardization]
- i. Is there a transport database which can be used for benchmarking, quality improvement and research? [Metric: Standardization]
- j. Does your center have policies and procedures in place to assure communication with families regarding the status of the infant at transfer? [Metric: Family Integrated]
- k. Does your center have policies and procedures in place to assure communication with families regarding the status of the infant on admission to the receiving center? [Metric: Family Integrated]
- l. Does your center have policies and procedures in place to inform the referring physicians and caregiving team regarding the status of the infant on admission? [Metric: Family Integrated]
- m. Does your transport team routinely perform a formal debriefing of each *transport*? [Metric: Communication]

### **3. Delivery room care:**

- a. Does your center have a delivery service?
- b. Does your center have written policies or guidelines regarding which deliveries require attendance by a designated resuscitation team? [Metric: Standardization]

- c. Does your center have written policies or guidelines regarding what personnel should be present at the deliveries of newborn infants? [Metric: Standardization]
- d. Does your center have written policies or guidelines regarding the training required for personnel before they can attend deliveries of newborn infants? [Metric: Standardization]
- e. Does your center have a program in place for simulation-based neonatal resuscitation training? [Metric: Teamwork, Standardization]
- f. Does your center have written policies or guidelines regarding the performance of briefings by the resuscitation team prior to deliveries? [Metric: Teamwork, Standardization]
- g. Does your delivery room team routinely use structured communication tools such as **SBAR** (**S**ituation, **B**ackground, **A**ssessment, **R**ecommendation) for briefing prior to deliveries? [Metric: Communication]
- h. Does your delivery room team routinely use an equipment checklist to ensure the quality and safety of deliveries? [Metric: Teamwork]
- i. Does your center have written policies and procedures in place for communication with caregivers immediately after each delivery? [Metric: Communication]
- j. Does your center have written policies or guidelines regarding communication with families immediately after the delivery? [Metric: Family Integrated]
- k. Does your delivery room team routinely perform a formal debriefing of each delivery? [Metric: Communication]

**4. In hospital transfer for MRI:**

- a. Does your center have facilities to perform MRI on infants?
- b. Does your center have written policies or guidelines regarding what personnel should participate in the transport of infants to the MRI facility? [Metric: Standardization]
- c. Does your center have written policies or guidelines regarding the training required for personnel before they can participate in the transport of infants to the MRI facility? [Metric: Teamwork]
- d. Does your center use a checklist to ensure that all necessary preparations for the transfer to the MRI facility are carried out? [Metric: Standardization]
- e. Does your center have written policies or guidelines requiring a time-out procedure to ensure the preparation for transport to the MRI facility is carried out correctly? [Metric: Communication]

- f. Does your center have written policies or guidelines regarding adequate monitoring of infants transported to the MRI facility? [Metric: Standardization]
- g. Does your center have written policies or guidelines regarding communication with families immediately after transport to the MRI facility? [Metric: Family Integrated]

**5. In hospital transfer for surgical procedures:**

- a. Does your center have facilities to perform surgery on infants?
- b. Does your center have written policies or guidelines regarding what personnel should participate in the transport of infants to the operating room? [Metric: Standardization]
- c. Does your center have written policies or guidelines regarding the training required for personnel before they can participate in the transport of infants to the operating room? [Metric: Teamwork]
- d. Does your center use a checklist to ensure that all necessary preparations for the transfer to the operating room are carried out? [Metric: Standardization]
- e. Does your center have written policies or guidelines requiring a time-out procedure to ensure the preparation for transport to the operating room is carried out correctly? [Metric: Communication]
- f. Does your center have written policies or guidelines regarding adequate monitoring of infants transported to the operating room? [Metric: Standardization]
- g. Does your center have written policies or guidelines regarding communication with families immediately after transport to the operating room? [Metric: Family Integrated]
- h. Does your center have mechanisms to provide ongoing status updates while the infant is in the operating room? [Metric: Family Integrated]

**6. Planning transition to home**

- a. Does your center have a formal process to engage families in planning transition to home? [Family Integrated]
- b. Does the center have formal guidelines regarding medical stability and clinical status of newborn infants regarding:
  - b1. Adequacy of weight gain

b2. Adequacy of thermal control

b3. Adequacy of respiratory control

b4. Adequacy of feeding prior to discharge

[Metric: Standardization]

- c. Prior to discharge, does your NICU team have a formal process to determine follow-up care needs, including identifying appropriate providers and exchanging appropriate information, identification of a primary care physician, referral for surgical specialty or pediatric medical specialty care as needed and neurodevelopmental follow-up? [Metric: Communication]
- d. Prior to discharge, does your center perform a formal or informal psychosocial assessment of parenting strengths and risks? [Family Integrated]
- e. Does your center review the adequacy of financial resources of the family and refer qualified families for financial support including WIC, SSI and Medicaid? [Metric: Family Integrated]
- f. Prior to discharge of medically complex infants, does your center assess the adequacy and safety of the home environment? [Family Integrated]
- g. Prior to discharge of medically complex infants, does your center create an emergency intervention plan and identify and notify emergency medical service providers? [Metric: Communication]
- h. Prior to discharge of medically complex infants, does your center arrange home nursing visits for assessment and parent support? [Metric: Communication]
- i. Prior to discharge of medically complex infants, does your center communicate the discharge plan to the home health agency? [Metric: Family Integrated]
- j. In preparation for homecare for the technology dependent infant, does your center assess the availability of 24-hour telephone access, electricity, safe in-house water supply and adequate heating? [Metric: Family Integrated]
- k. For breastfeeding mothers, does your center provide information on breastfeeding support and availability of lactation counselors? [Metric: Family Integrated]

## **Clinical transitions**

### **7. Antibiotic utilization**

- a. Does your NICU have a policy that requires prescribers to document in the medical record or during order entry the dose, duration, and indication for all antibiotic prescriptions? [Metric: Communication]
- b. Is there a formal procedure or process prompting the NICU care team to review the appropriateness of all antibiotics prescribed for infants in the NICU 48 hours after the initial order (e.g. "antibiotic time out")? [Metric: Standardization]
- c. Does your center have written policies or guidelines regarding communication with families regarding initiation or discontinuation of antibiotic therapy? [Metric: Family Integrated]

## **8. Respiratory management/extubation**

- a. Does your center have written policies or guidelines outlining the indications for intubation? [Metric: Standardization]
- b. Does your center have written policies or guidelines outlining the indications for extubation of ventilated infants? [Metric: Standardization]
- c. Does your NICU team make daily assessments to help determine eligibility for extubation? [Metric: Communication]
- d. Does your center have written policies or guidelines regarding communication with families regarding major changes in respiratory status including need for intubation and planned extubation? [Metric: Family Integrated]

## **9. Initiation of pharmacological therapy for infants with neonatal abstinence syndrome (NAS)**

- a. Does your center have written policies or guidelines outlining the indications for initiating pharmacological treatment for neonatal abstinence syndrome (NAS)? [Metric: Standardization]
- b. Does your center have written policies or guidelines outlining the agent and dose for pharmacological treatment for neonatal abstinence syndrome (NAS)? [Metric: Standardization]
- c. Does your center have written policies or guidelines regarding how to wean infants from pharmacological treatment for neonatal abstinence syndrome (NAS)? [Metric: Standardization]
- d. Does your center have written policies or guidelines regarding communication with families regarding initiation of pharmacological treatment for neonatal abstinence syndrome (NAS)? [Metric: Family Integrated]

## Individual Audit Metrics

### Infant Characteristics

1. Case Number: \_\_\_\_\_
2. Level of care: \_\_\_\_\_ NICU / Special care or stepdown
3. *Gestational age in weeks and days*: Weeks: \_\_\_\_\_ Days: \_\_\_\_\_
4. Infant's birth weight in grams: \_\_\_\_\_ (grams)
5. Infant's chronological age (day of life)\*: \_\_\_\_\_ (day of life)

\* Date of birth counts as calendar day 1.

6. Current respiratory support infant is receiving (select one only):
  - Assisted ventilation via endotracheal tube or tracheostomy (HFV or CMV)
  - Continuous Positive Airway Pressure or Noninvasive Ventilation
  - High Flow Nasal Cannula
  - Oxygen only
  - No support

### Physical and Clinical Transitions

7. **Included Transitions [check all that apply. Only the appropriate transitions will appear in your audit]**
  - a. For infants  $\leq$  7 days of age at time of the audit
    - a1. Transfer from outside hospital: Yes / No
    - a2. Born at your facility: Yes / No
  - b. For infants  $>$  7 days of age at time of the audit: Yes / No
  - c. For infants of any age requiring diagnostic tests or procedures outside of the NICU within 7 days prior to the audit: Yes / No
  - d. For infants of any age requiring surgery outside of the NICU within 7 days prior to the audit: Yes / No

- e. For infants of any age started on antibiotics within 7 days prior to the audit:  
Yes / No
- f. For infants of any age extubated within 7 days prior to the audit: Yes / No
- g. For infants of any age started on pharmacological therapy for neonatal abstinence syndrome within 7 days prior to the audit: Yes / No
- h. For infants requiring discharge planning within 7 days prior to the audit: Yes / No
- i. For any infant cared for in your NICU. *Select “Yes” for all infants included in the audit.*

**If “Yes” refer to the specific patient category and answer the following questions:**

[Communication] [Teamwork] [Standardization] [Family Integrated]

**8. For infants  $\leq$  7 days of age at time of the audit**

a. Transfer from outside hospital:

- ai. Is there a separate detailed note in the medical record regarding the transfer of the infant from the outside hospital? [Communication]
- aii. Is there specific mention in the medical record, either in the transfer note or in a separate note, of direct communication with the physicians/caregivers within six hours of admission? [Communication]
- aiii. Is there specific mention in the medical record, either in the transfer note or in a separate note, of direct communication with the family within six hours of admission? [Family Integrated]
- aiv. Is there specific mention of the time between receiving the transport call, the transport team leaving the hospital and the total time of transfer reflected in the medical record? [Standardization]

b. Delivery room care:

- bi. Is there a separate delivery room note from the delivery room team? [Communication]
- bii. Is there a specific mention in the admission note or other relevant note of post-admission discussions with the mother’s caregivers? [Communication]



biii. Is there a specific mention in the admission note or other relevant note of post-admission discussions with the family regarding the status of the infant? [Family Integrated]

**9. For ALL infants > 7 days of age at time of the audit**

- a. Is an estimated date or week of discharge noted in the medical record? [Communication]
- b. Does the chart reflect the specific screening needs required prior to discharge? These may include the need for retinopathy screening, metabolic screening, congenital heart disease screening, screening for congenital hip dysplasia, or immunizations. [Communication] [Standardization]
- c. Is there a note addressing the social needs of the family, specifically relating to:
  - c1. transportation needs?
  - c2. food insecurity?
  - c3. home environment?

[Family Integrated]

**10. For infants of any age requiring diagnostic tests or procedures outside of the NICU or Special care/stepdown unit within 7 days prior to the audit**

- a. Is there a specific procedure note in the medical record regarding the status of the infant's transfer to and from the diagnostic facility?  
**[if no, proceed to next transition]**
- b. Were there any safety concerns noted in the note, including miscommunication with staff, physiological instability during transfer?
- c. Is there specific mention in the medical record of direct communication with the family regarding successful infant transfer to and from the diagnostic facility? [Family Integrated]

**11. For infants of any age requiring surgery outside of the NICU or Special care/stepdown unit within 7 days prior to the audit**

- a. Is there a specific procedure note in the medical record regarding the status of the infant's transfer to and from the operating room?

**[if no, proceed to next transition]**

- b. Were there any safety concerns noted in the note, including miscommunication with staff, physiological instability during transfer?
- c. Is there specific mention in the medical record of direct communication with the family regarding successful infant transfer to and from the operating room? [Family Integrated]

**12. For infants of any age started on antibiotics within 7 days prior to the audit**

- a. Is there an order in the paper record or in the electronic medical record detailing when the antibiotics will be discontinued?
- b. Has the infant received greater than 48 hours of systemic antibiotics?

**[If yes, answer 12Bi]**

**[if no, proceed to next transition]**

- bi. If yes, is there a note in the medical record specifically indicating the rationale for this decision?
- c. Are the parents aware (by interview at the bedside, from chart notes, or from staff reports) that their infant is on antibiotics? [Family Integrated]

**13. For infants of any age extubated within 7 days prior to the audit**

- a. Was this a planned extubation?
- b. If the infant is very low birth weight, was caffeine started peri-extubation (immediately before or after extubation)?
- c. Is there specific mention in the medical record of direct communication with the family regarding the change in the infant's respiratory support? [Family Integrated]

**14. For infants of any age started on therapy for neonatal abstinence syndrome within 7 days prior to the audit**

- a. Is there specific mention in the medical record of direct communication with the family regarding initiation of treatment for neonatal abstinence syndrome? [Family Integrated]

**15. For infants requiring discharge planning within 7 days prior to the audit**

- a. Does the chart reflect an assessment of parent readiness for transition to home?  
[Family Integrated]
- b. Has a formal evaluation of home safety been made? [Family Integrated]

**16. For any infant cared for in your NICU or Special care/stepdown unit on the day of the audit.**

- a. Did the bedside nurse attending to the infant receive handoff using a structured communication tools [such as **SBAR** (**S**ituation, **B**ackground, **A**ssessment, **R**ecommendation) or **I-PASS** (**I**llness severity, **P**atient summary, **A**ction list, **S**ituation awareness or contingency planning, **S**ynthesis by receiver)]?  
[Communication] [Teamwork] [Standardization]
- b. Since assuming care of the infant, were there critical issues uncovered that the nurse would have wanted to have been addressed in the handoff?  
[Communication]