**SECTION F: NEONATAL CARE**

***All questions in this section are directed at the Level IV NICU you designate in question F1.***

* ***DO NOT include patients in sites other than the Level IV NICU including those in affiliated programs or hospitals.***
* ***DO NOT include patients treated in a Level IV NICU at an affiliated or contracted hospital. The exception to this is when you have been approved for a joint reporting relationship that specifically includes a Level IV NICU at another location. If you have any questions about this, please contact us at*** [***PediatricHospSurvey@rti.org***](mailto:PediatricHospSurvey@rti.org)***.***

1. **Do you have a Level IV[[1]](#footnote-2) neonatal intensive care unit (NICU) in your children’s hospital or pediatric program?** (Note that you should answer yes to this question if you have been granted Level IV status or currently meet the American Academy of Pediatrics guidelines for a Level IV NICU.) *Please answer remaining questions about the Level IV unit specified in this question*.

**(NEO\_LEVEL4NICU)**

* Yes
* No – Skip to Section G

**When responding to questions in this section, we recommend that you consult with the medical director of your Level IV NICU program to ensure accurate answers that are consistent with the intent of the survey.**

**As data are reviewed, U.S. News may have questions about responses to individual questions or about an entire submission. To ensure communication with the appropriate clinical leader, please provide the following information about the chief of service (or equivalent) for your Level IV NICU program.**

**Full name:**

|  |
| --- |
| **(NEO\_DIR\_NAME)** |

**Title:**

|  |
| --- |
| **(NEO\_DIR\_TITLE)** |

**Email:**

|  |
| --- |
| **(NEO\_DIR\_EMAIL)** |

**Preferred phone:**

|  |
| --- |
| **(NEO\_DIR\_PHONE)** |

REQUIRED: IF NAME, TITLE, EMAIL, OR PHONE=BLANK, DISPLAY: “A response is required for [Name/Title/Email/Phone] prior to submitting the survey. Click “OK” to continue with the survey and answer this question later. Click “Cancel” to provide a response to this question now.”

**F1.1 Are you submitting jointly with a Level IV neonatal program at another hospital?**

**(NEO\_JOINTSUB)**

* + Yes – Go to Question F1.2
  + No – Skip to Question F2

**F1.2 If yes, what is the name of the neonatal program you are reporting jointly with?** Please note that joint submissions must be reviewed and approved before they are allowed. Before submitting your survey, please contact RTI at [PediatricHospSurvey@rti.org](mailto:PediatricHospSurvey@rti.org) to discuss your joint submission request unless you already have received permission to jointly submit data in this specialty. As noted in the instructions for joint reporting, if you are granted permission, only the primary hospital in the joint reporting relationship will be allowed to report data for this specialty.

|  |
| --- |
| **(NEO\_JOINTSUB\_NAME)** |

1. **Please indicate the current total number of attending/on-staff physicians (excluding fellows)[[2]](#footnote-3) who *are currently members of the medical staff* who provide care at your Level IV NICU.** [If none, please enter 0.]

|  |  |  |
| --- | --- | --- |
|  |  | **Total Physicians** |
| a. | Pediatric neonatologists (include only board certified/board eligible[[3]](#footnote-4) by the American Board of Pediatrics with subspecialty certification in neonatal-perinatal medicine or board certified by the American Osteopathic Board of Pediatrics with a subspecialty certificati­­on in neonatology) | \_\_\_\_\_\_\_\_ |
|  | **(NEO\_PHYSICIANS\_NEO\_** | **TOT)** |
| b. | Other attending/on-staff physicians (include all other attending/on-staff physicians who are *not* subspecialty board certified/board eligible in neonatal-perinatal medicine) who independently care for level IV patients | \_\_\_\_\_\_\_\_ |
|  | **(NEO\_PHYSICIANS\_OTHER\_** | **TOT)** |

NOTES: F2x should be whole number only. Do not allow decimals.

***Note: The preceding questions are used to determine eligibility for Neonatal Care. If you leave any part of these questions blank, your hospital will be considered ineligible for the rankings in Neonatal Care.***

**F2.1 Does your Level IV NICU program have in-house 24x7 coverage provided by board certified/board eligible neonatologists?**

**(NEO\_FULLCOVERAGE)**

* Yes
* No

1. **Does your Level IV NICU program have advanced practice providers (i.e., nurse practitioners, physician assistants, and neonatal hospitalists**[[4]](#footnote-5)**) who work in or directly support patient care? If yes, please indicate the average number of patients per advanced practice provider during a typical day shift.**

**(NEO\_PHYSICIAN\_EXTENDERS)**

* No, we do not have advanced practice providers
* Yes, < 9 patients per advanced practice provider
* Yes, 9-15 patients per advanced practice provider
* Yes, > 15 patients per advanced practice provider

1. **Please indicate how many FTEs**[[5]](#footnote-6) **your program has for each of the following nursing staff that work in your Level IV NICU.** [Due to ongoing nursing shortages, contract nurses should be included in your counts of clinical RNs.]

|  |  |  |
| --- | --- | --- |
|  |  | **FTE** |
| a. | Direct clinical care RNs[[6]](#footnote-7) in the NICU **(NEO\_CCRNSTAFF\_FTE)** | \_\_\_\_\_\_\_\_ |
| b. | Direct clinical care RNs in the NICU with at least two years of specialty experience in providing care within an intensive care environment **(NEO\_CCRNELIG\_FTE)** | \_\_\_\_\_\_\_\_ |
| c. | Direct clinical care RNs in the NICU who currently have at least one of the following formal advanced training certifications: Neonatal intensive care (RNC-NIC, CCRN), Lactation (IBCLC, CLC, CBC)[[7]](#footnote-8), Care of the Extremely Low Birth Weight Neonate (C-ELBW), or Neonatal Neuro-Intensive Care (C-NNIC) **(NEO\_CCRNCERT\_FTE)** | \_\_\_\_\_\_\_\_ |

NOTES: F4x is numeric entry (decimals are allowed).

VALIDATE: IF F4b > F4a, DISPLAY: Please check your responses. The number of RNs with at least two years of specialty experience (F4b) cannot be greater than the total number of RNs in your NICU (F4a).”

IF F4c > F4b, DISPLAY: Please check your responses. The number of certified RNs (F4c) cannot be greater than the total number of RNs with at least two years of specialty experience (F4b).”

VALIDATE: If F4x is not numeric: “F4x: Please enter a numeric value.”

**F4.1 Is lactation support by a IBCLC, CLC, or CBC certified individual available 7 days a week (in person or via telemedicine)?**

**(NEO\_CCRNCERT\_DAILY)**

* Yes
* No

1. **What is the average patient load per neonatologist (include only attending/on-staff physicians[[8]](#footnote-9) board certified/board eligible[[9]](#footnote-10) by the American Board of Pediatrics with subspecialty certification/eligibility in neonatal-perinatal medicine) in your NICU for week-day shifts?**

**(NEO\_PATIENTLOAD)**

* < 18 patients per neonatologist
* 18-25 patients per neonatologist
* >25 patients per neonatologist

**F5.1 What is the average patient load per licensed independent practitioner (defined as in-house attending, fellow, resident, or advanced practice provider) cared for on the night shift?** [Calculate as the average number of patients in unit at night divided by the average total number of licensed independent practitioners.]

**(NEO\_PATIENTLOAD\_LIP)**

* <15 patients per licensed independent practitioner
* 15-20 patients per licensed independent practitioner
* >20 patients per licensed independent practitioner

1. **What was the average daily census[[10]](#footnote-11) for your NICU in the last calendar year?**

\_\_\_\_\_\_\_\_NICU average daily census **(NEO\_DAILYCENSUS)**

NOTES: F6 should be whole number only. Do not allow decimals.

1. **Does your NICU program provide the following NICU-dedicated[[11]](#footnote-12) staff for patient care within the unit?**

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | **Yes** | **No** |
| a. | NICU-dedicated respiratory therapy team | ○ | ○ |
|  | **(NEO\_NICUPROGRAM\_TEAM** | **)** | |
| b. | NICU-dedicated registered dietitians | ○ | ○ |
|  | **(NEO\_NICUPROGRAM\_NUTRITION** | **)** | |
| c. | NICU-dedicated social workers | ○ | ○ |
|  | **(NEO\_NICUPROGRAM\_SOCIAL** | **)** | |
| d. | NICU-dedicated Clinical Nurse Educators (CNE) | ○ | ○ |
|  | **(NEO\_NICUPROGRAM\_RNEDUC** | **)** | |
| e. | NICU-dedicated, certified lactation consultants with IBCLC, CLC, or CBC certification[[12]](#footnote-13) | ○ | ○ |
|  | **(NEO\_NICUPROGRAM\_LACCERT** | **)** | |
| f. | NICU-dedicated Clinical Nurse Specialists (CNS) | ○ | ○ |
|  | **(NEO\_NICUPROGRAM\_RNSPEC** | **)** | |
| g. | NICU Medical Director with hospital-provided partial FTE support | ○ | ○ |
|  | **(NEO\_NICUPROGRAM\_DIRECTOR** | **)** | |

1. **Are the following family services offered[[13]](#footnote-14) to neonatal patients and their families in your NICU?**

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | **Yes** | **No** |
| a. | NICU-specific Family Psychosocial Support Program[[14]](#footnote-15) **(NEO\_FAMILYSVC\_FAMILY)** | ○ | ○ |
| b. | Sibling visitation allowed[[15]](#footnote-16)**(NEO\_FAMILYSVC\_SIBLING)** | ○ | ○ |
| c. | NICU-specific parent-to-parent support group(s) **(NEO\_FAMILYSVC\_GPTP)** | ○ | ○ |
| d. | Dedicated[[16]](#footnote-17) psychologist or psychiatrist available for referrals and consults with parents **(NEO\_FAMILYSVC\_PSYCH)** | ○ | ○ |
| e. | Child Life support team available to the NICU families and staff **(NEO\_FAMILYSVC\_CHILDLIFE)** | ○ | ○ |
| f. | NICU-dedicated multidisciplinary developmental care team[[17]](#footnote-18) **(NEO\_FAMILYSVC\_MULTI)** | ○ | ○ |
| g. | Complex Discharge Coordinator[[18]](#footnote-19) **(NEO\_FAMILYSVC\_COORD)** | ○ | ○ |

**F8.1 Does your Level IV NICU have the following elements of a “Safe Sleep” program?**

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | **Yes** | **No** |
| a. | Mandatory Safe Sleep Education on your unit Safe Sleep Policy for NICU Staff **(NEO\_SLEEP\_EDUC)** | ○ | ○ |
| b. | Policy in place to prohibit use of devices while sleeping (swings,infant seats, etc.) **(NEO\_SLEEP\_DEVICES)** | ○ | ○ |
| c. | Does your written NICU Safe Sleep policy include a minimum length of time prior to discharge to implement safe sleep practices if no contraindications[[19]](#footnote-20) exist? **(NEO\_SLEEP\_MINIMUM)** | ○ | ○ |

**F8.2 This question has been removed from the survey.**

**F8.3 How often do you monitor compliance with your NICU-based Safe Sleep policy?**

**(NEO\_SLEEP\_COMP)**

* At least weekly
* At least bi-weekly (i.e., every other week)
* At least monthly
* Less than monthly

1. **Does your NICU have a NICU-specific parent advisory committee that meets at least quarterly (or a subcommittee from the larger parent advisory committee) with direct impact to NICU leadership and management decisions?**

**(NEO\_PARENT\_ADVISORY)**

* Yes
* No

1. **This question has been removed from the survey.**

**F10.1 In the last calendar year, what percentage of infants[[20]](#footnote-21) who were admitted at < 7 days of age and were discharged from the NICU before 120 days of age on enteral feedings, were on partial or full mother’s own milk feeds at that time of NICU discharge?** [Calculate as follows: (a.) Determine the number of infants who were admitted at < 7days of age and were discharged from the NICU before 120 days of age on partial or full mother’s own milk feeds at the time of NICU discharge in 2024. (b.) Determine the total number of infants who were admitted at < 7days of age and were discharged from the NICU before 120 days of age. (c.) Clicking “Save” will calculate the percentage by dividing the number of infants who were discharged on partial or full mother’s own milk feeds by the total number of infants discharged and multiplying by 100. Responses will be rounded to 2 decimals.]

**\_\_\_\_\_\_** a. Number of infants on partial or full mother’s own milk who were discharged in 2024 **(NEO\_COUNT\_BREASTMILK)**

**\_\_\_\_\_\_** b. Number of infants discharged in 2024 **(NEO\_DISC\_BREASTMILK)**

**\_\_\_\_\_\_** c. % of infants discharged on partial or full mother’s own milk feedings **(NEO\_PCT\_BREASTMILK)**

NOTES: F10.1a and F10.1b should be whole number only. Do not allow decimals.

F10.1c is autocalculated and decimals are allowed.

VALIDATE: IF F10.1a > F10.1b, DISPLAY: Please check your responses. The number of infants on milk at discharge cannot be higher than the number of infants discharged.”

AUTOCALC: F10.1c = [F10.1a / F10.1b]\*100

**F10.2 Does your hospital/NICU offer a dedicated area within the facility but away from the bedside for milk and formula preparation[[21]](#footnote-22)?** [To answer “Yes” this area must meet both of the following criteria: a) Infant feeding preparation room using the aseptic technique (Clean “No-Touch”) technique; b) The room requires restricted access and healthy personnel; with no other activity occurring in the room.]

**(NEO\_MILKPREP)**

* Yes
* No

**F10.3 Does your NICU program offer the following for nutrition and breastfeeding?**

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | **Yes** | **No** |
| a. | NICU specific Breast Milk committee[[22]](#footnote-23) that meets at least monthly **(NEO\_BF\_COMMITTEE)** | ○ | ○ |
| b. | A process to facilitate obtaining a breast pump (within 48 hours of identified need) for home use **(NEO\_BF\_RENTPUMP)** | ○ | ○ |
| c. | Donor breast milk program with written institution-specific criteria for the initiation and discontinuation of donor breast milk **(NEO\_BF\_INSTRUCTION)** | ○ | ○ |
| d. | Formal process for teaching feeding preparation upon discharge (e.g., formula mixing or supplementation of breast milk) **(NEO\_BF\_PROCESS)** | ○ | ○ |

**F10.4 Which of the following elements does your NICU specific risk reduction program include?**

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | **Yes** | **No** |
| a. | Bar coding system, such as bedside scanning, for correct breast milk identification **(NEO\_BARCODE)** | ○ | ○ |
| b. | Dedicated breast milk technician who prepares milk for proper identification and distribution **(NEO\_TECHNICIAN)** | ○ | ○ |

**F10.5. Does your NICU program track the breast milk administration error rate (e.g., wrong breast milk given to patient)?**

**(NEO\_BMERROR\_TRACK)**

* Yes
  + No – Skip to F11.2

**F10.6 If yes to F10.5, please report the number of breast milk administration errors[[23]](#footnote-24), the breast milk feeding patient days, and the breast milk administration error rate for the last calendar year?** [Calculate as follows: (a.) Determine the number of breast milk administration errors in 2024. (b.) Determine the total number of breast-feeding patient days in 2024. (c.) Clicking “Save” will calculate the rate by dividing the number of breast milk administration errors by the number of breast milk feeding patient days and multiplying by 1,000. Responses will be rounded to 2 decimals.]

\_\_\_\_\_\_\_\_ a. Breast milk administration errors **(NEO\_BMERROR\_EVENTS)**

\_\_\_\_\_\_\_\_ b. Breast milk feeding patient days **(NEO\_BMERROR\_DAYS)**

\_\_\_\_\_\_\_\_ c. Breast milk administration error rate **(NEO\_BMERROR\_RATE)**

NOTES: F10.6a and F10.6b should be whole number only. Do not allow decimals.

F10.6c is autocalculated and decimals are allowed.

WARNING: IF F10.5=Yes AND F10.6b = (0 OR BLANK), DISPLAY: “F10.6b (BM feeding patient days): Please provide a value greater than 0 or answer No to F10.5.”

VALIDATE: IF F10.6a > F10.6b, DISPLAY: Please check your responses. The number of administration errors is higher than the number of feeding patient days.”

AUTOCALC: F10.6c = [F10.6a / F10.6b]\*1000

**The following question will not be scored in the rankings this year.**

1. **Does your NICU program track the annual total number of breast milk administrations?**

**(NEO\_BMERROR\_ANNUAL)**

* Yes
  + No

**F11.1 This question has been removed from the survey.**

**F11.2 This question has been removed from the survey.**

1. **Are the following available on-site to patients in your NICU?**

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | **Yes** | **No** |
| a. | Continuous video electroencephalograph (EEG) monitoring[[24]](#footnote-25) and reading[[25]](#footnote-26) with telemetry capability and with interpretation and consult by a pediatric neurologist 24/7 **(NEO\_AVAILABLE\_EEG)** | **○** | **○** |
| b. | Less than 24-hour turnaround time for HSV PCR for cerebrospinal fluid (CSF) **(NEO\_AVAILABLE\_HSVPCR)** | **○** | **○** |
| c. | Formal mechanism to order and send samples for whole genome or whole exome sequencing and then provide interpretation and counseling of the results within 7-days **(NEO\_AVAILABLE\_GENETIC)** | ○ | ○ |
| d. | Less than 24-hour turnaround time for comprehensive respiratory viral molecular testing **(NEO\_AVAILABLE\_VIRAL)** | **○** | **○** |
| e. | Less than 24-hour turnaround time for amino acid analysis available **(NEO\_AVAILABLE\_ACID)** | **○** | **○** |
| f. | Less than 24-hour turnaround time for urine organic acid analysis available **(NEO\_AVAILABLE\_URINE)** | **○** | **○** |
| g. | Rapid (within 6 hours) identification system for positive blood cultures to enable differentiation of key Gram positive bacterial pathogens by genus and major mechanisms of resistance **(NEO\_AVAILABLE\_RAPIDPOS)** | **○** | **○** |
| h. | Rapid (within 6 hours) identification system for positive blood cultures to enable differentiation of key Gram negative bacterial pathogens by genus and major mechanisms of resistance **(NEO\_AVAILABLE\_RAPIDNEG)** | **○** | **○** |
| i. | Fluoroscopic procedures (upper GI, contrast enema, esophagram, and contrast voiding studies) conducted or supervised on-site by Pediatric Radiologists **(NEO\_AVAILABLE\_RAD)** | **○** | **○** |
| j. | Rapid identification system (within 24 hours) for bacterial/viral infection in CSF (Meningitis Encephalitis Panel) **(NEO\_AVAILABLE\_INFECT)** | **○** | **○** |
| k. | Less than 24-hour turnaround time for rapid plasma reagin (RPR) **(NEO\_AVAILABLE\_RPR)** | **○** | **○** |

1. **Does your hospital provide a specific transport[[26]](#footnote-27) team with each of the following members and features?**

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | **Yes** | **No** |
| a. | At least one member with at least 1 year of NICU level III or IV experience on every Neonatal transport **(NEO\_TRANSPORT\_EXPERIENCE)** | **○** | **○** |
| b. | Active servo-controlled cooling on transport for term and near-term infants with hypoxic ischemic encephalopathy[[27]](#footnote-28) **(NEO\_TRANSPORT\_COOLING)** | ○ | ○ |
| c. | Air transport (helicopter or fixed wing airplane) **(NEO\_TRANSPORT\_AIR)** | ○ | ○ |
| d. | High frequency ventilation[[28]](#footnote-29) through an endotracheal tube **(NEO\_TRANSPORT\_ENDOTUBE\_VENT)** | ○ | ○ |

**F13.1 Does your Level IV NICU program track admission temperature for infants cooled during transport[[29]](#footnote-30)** **by your transport team for the management of hypoxic ischemic encephalopathy?**

**(NEO\_TRANSPORT\_TEMP\_TRACK)**

* + - Yes—Go to Question F13.2
    - No—Skip to Question F13.4

**F13.2 What percentage of infants cooled during transport[[30]](#footnote-31) for the management of hypoxic ischemic encephalopathy in the last 3 calendar years had admission temperatures less than 33.0 degrees Celsius?** [Calculate as follows: (a.) Determine the number infants who were managed with cooling on transport who had admission core temperatures < 33.0 **degrees Celsius** in 2022-2024. (b.) Determine the total number of infants who were managed with cooling on transport in 2022-2024. (c.) Clicking “Save” will calculate the rate by dividing the number of infants with admission core temperatures < 33.0 degrees Celsius by the number of infants who were managed with cooling and multiplying by 100. Responses will be rounded to 2 decimals.]

\_\_\_\_\_\_\_\_ a. number of infants who were managed with cooling on transport who had admission core temperatures < 33.0 **degrees Celsius** **(NEO\_TRANSPORT\_TEMP\_NONOPTIMAL)**

\_\_\_\_\_\_\_\_ b. number of infants who were managed with cooling on transport **(NEO\_TRANSPORT\_TEMP\_PATS)**

\_\_\_\_\_\_\_\_ c. rate of infants who had admission temperatures < 33.0 **degrees Celsius** **(NEO\_TRANSPORT\_TEMP\_RATE)**

NOTES: F13.2a and F13.2b should be whole number only. Do not allow decimals.

F13.2c is autocalculated and decimals are allowed.

WARNING: IF F13.1=Yes AND F13.2b = (0 OR BLANK), DISPLAY: “F13.2b (Infants cooled): Please provide a value greater than 0 or answer No to F13.1.”

VALIDATE: IF F13.2a > F13.2b, DISPLAY: “Please check your responses. The number of infants with temperatures < 33.0 degrees Celsius is higher than the total number of infants.”

AUTOCALC: F13.2c = ( F13.2a / F13.2b ) \* 100

**F13.3 Is the data reported above on infants cooled during transport for the management of hypoxic ischemic encephalopathy systematically collected and reported to a benchmarking registry (e.g., CHNC) or for internal process improvement work?**

**(NEO\_TRANSPORT\_TEMP\_SYSTEMATIC)**

* + - Yes
    - No

**F13.4 Does your NICU have the capability of providing inhaled nitric oxide therapy during transport with high-risk pre-ECMO patients whenever indicated?**

**(NEO\_NITRIC)**

* + - Yes
    - No

**F13.5 Does your NICU track time to vehicular dispatch[[31]](#footnote-32) for neonatal transport?**

**(NEO\_TRANSPORT\_TIME\_TRACK)**

* + - Yes – Go to F13.6
    - No – Skip to F14

**F13.6 What percentage of emergent neonatal transports[[32]](#footnote-33), in the last calendar year, were dispatched within 30 minutes of the call being logged as received?** [Calculate as follows: (a.) Determine the number of emergent neonatal transports dispatched within 30 minutes of the call being logged in as receivedin 2024. (b.) Determine the total number of neonatal emergent transports in 2024. (c.) Clicking “Save” will calculate the rate by dividing the number of emergent neonatal transports dispatched within 30 minutes by the total number of neonatal emergent transports and multiplying by 100. Responses will be rounded to 2 decimals.]

\_\_\_\_\_\_\_\_a. number of emergent neonatal transports dispatched within 30 minutes of the call being logged in as received **(NEO\_TRANSPORT\_TIME\_OPTIMAL)**

\_\_\_\_\_\_\_\_b. number of neonatal emergent transports **(NEO\_TRANSPORT\_TIME\_PATS)**

\_\_\_\_\_\_\_\_c. optimally timed transport rate **(NEO\_TRANSPORT\_TIME\_RATE)**

NOTES: F13.6a and F13.6b should be whole number only. Do not allow decimals.

F13.6c is autocalculated and decimals are allowed.

WARNING: IF F13.5=Yes AND F13.6b = (0 OR BLANK), DISPLAY: “F13.6b (neonatal emergent transports): Please provide a value greater than 0 or answer No to F13.5.”

VALIDATE: IF F13.6a > F13.6b, DISPLAY: “Please check your responses. The number of emergent neonatal transports dispatched within 30 minutes of the call being logged in as received cannot be larger than the total number of emergent neonatal transports.”

AUTOCALC: F13.6c = ( F13.6a / F13.6b ) \* 100

**F13.7 This question has been removed from the survey.**

**F13.8 During the last calendar year, how many infants[[33]](#footnote-34) treated in your NICU were inborn (patients delivered within the hospital where the Level IV NICU is located, OR at a hospital physically connected to it, during the current NICU admission) and outborn (born at another facility and requiring vehicle transfer to your hospital or previously at home prior to the current NICU admission) by each of the weight categories listed? Of those infants reported in F13.8a and F13.8b, how many had a first recorded NICU temperature of < 36.0 degrees Celsius?**

**Patients treated**

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | **Number of *inborn* infants** | **Number of *outborn* infants** |
| a. | Infants admitted with a weight <1500 grams | **\_\_\_\_\_\_\_** | **\_\_\_\_\_\_\_** |
|  | **(NEO\_le1500\_** | **\_INBORN\_PATS)** | **\_OUTBORN\_PATS)** |
| b. | Infants admitted with a weight >1500 grams | **\_\_\_\_\_\_\_** | **\_\_\_\_\_\_\_** |
|  | **(NEO\_gt1500\_\_** | **\_INBORN\_PATS)** | **\_OUTBORN\_PATS)** |

**Patients with NICU temperatures < 36.0 degrees Celsius**

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | **Number of *inborn* infants** | **Number of *outborn* infants** |
| c. | Of the infants reported in F13.8a (<1500 grams) how many had a first recorded NICU temperature of < 36.0 degrees Celsius | **\_\_\_\_\_\_\_** | **\_\_\_\_\_\_\_** |
|  | **(NEO\_le1500** | **\_INBORN\_OPTIMAL)** | **\_OUTBORN\_OPTIMAL)** |
| d. | Of the infants reported in F13.8b (>1500 grams) how many had a first recorded NICU temperature of < 36.0 degrees Celsius | **\_\_\_\_\_\_\_** | **\_\_\_\_\_\_\_** |
|  | **(NEO\_gt1500** | **\_INBORN\_OPTIMAL)** | **\_OUTBORN\_OPTIMAL)** |

NOTES: F13.8x1 and F13.8x2 should be whole number only. Do not allow decimals.

1. **Are the following specialized, multidisciplinary treatment teams/programs available to patients in your NICU?**

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | **Yes** | **No** |
| a. | Spina bifida team[[34]](#footnote-35) (and follow-up clinic/program) **(NEO\_SPECIALTEAMS\_SPINA)** | **○** | **○** |
| b. | Comprehensive retinopathy of prematurity (ROP) program[[35]](#footnote-36) **(NEO\_SPECIALTEAMS\_ROP)** | **○** | **○** |
| c. | Extracorporeal membrane oxygenation (ECMO) team with neonatologists managing or co-managing the patient [[36]](#footnote-37) **(NEO\_SPECIALTEAMS\_ECMO)** | **○** | **○** |
| d. | Neonatal-neuro intensive care program[[37]](#footnote-38) **(NEO\_SPECIALTEAMS\_NEO)** | **○** | **○** |
| e. | Palliative care program[[38]](#footnote-39) that includes some NICU-specific members **(NEO\_SPECIALTEAMS\_NICU)** | **○** | **○** |
| f. | Micrognathia team[[39]](#footnote-40) **(NEO\_SPECIALTEAMS\_MICRO)** | ○ | ○ |
| g. | Multidisciplinary team[[40]](#footnote-41) for the in-hospital care of the chronic lung disease (CLD) patient **(NEO\_SPECIALTEAMS\_CLD)** | **○** | **○** |
| h. | Multidisciplinary team[[41]](#footnote-42) for the review of fetal cases with the diagnosis of congenital diaphragmatic hernia (CDH) who develop delivery and post-delivery care plans **(NEO\_SPECIALTEAMS\_CDH)** | **○** | **○** |
| i. | Multidisciplinary team[[42]](#footnote-43) for the in-hospital and post-discharge care of infants with chronic pulmonary hypertension **(NEO\_SPECIALTEAMS\_CPH)** | **○** | **○** |
| j. | Neonatal dialysis team[[43]](#footnote-44) with the ability to conduct peritoneal and hemodialysis, continuous renal replacement therapy **(NEO\_SPECIALTEAMS\_PH)** | ○ | ○ |
| k. | Multidisciplinary team[[44]](#footnote-45) for follow-up with congenital diaphragmatic hernia (CDH) patients after discharge **(NEO\_SPECIALTEAMS\_CONGEN)** | ○ | ○ |
| l. | Intestinal rehabilitation team[[45]](#footnote-46) regularly rounds with clinical team. **(NEO\_SPECIALTEAMS\_REHAB)** | ○ | ○ |
| m. | Neonatal Point of Care Ultrasound program[[46]](#footnote-47) **(NEO\_SPECIALTEAMS\_POCU)** | ○ | ○ |

1. **Are the following organized care teams offered by your hospital to transition patients from your NICU to home?**

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | **Yes** | **No** |
| a. | Metabolic team[[47]](#footnote-48) **(NEO\_CARETEAMS\_META)** | **○** | **○** |
| b. | Bowel rehabilitation team[[48]](#footnote-49) consisting of home TPN management and home enteral feeding management **(NEO\_CARETEAMS\_BOWEL)** | **○** | **○** |
| c. | Home ventilator management team[[49]](#footnote-50) **(NEO\_CARETEAMS\_HOMO)** | **○** | **○** |
| d. | Neuro-developmental clinic[[50]](#footnote-51) for high-risk neonatal patients discharged from the NICU (including congenital heart patients) **(NEO\_CARETEAMS\_CONGEN)** | **○** | **○** |

1. **How many unique patients—referred or inborn—received care in your level IV NICU for the following conditions or therapies during the last 3 years?** [If none, please enter 0.]

|  |  |  |
| --- | --- | --- |
|  |  | **Unique patients** |
| a. | Congenital diaphragmatic hernia (See code list) **(NEO\_REFERRAL\_HERNIA)** | \_\_\_\_\_\_\_\_ |
| b. | Hirschsprung’s disease (See code list) **(NEO\_REFERRAL\_HIRSCHSPRUNG)** | \_\_\_\_\_\_\_\_ |
| c. | Therapeutic hypothermia treatment for hypoxic ischemic encephalopathy (See code list for procedure codes) **(NEO\_REFERRAL\_HYPO)** | \_\_\_\_\_\_\_\_ |
| d. | Open Neural Tube defect[[51]](#footnote-52) (See code list) **(NEO\_REFERRAL\_OPENNEURAL)** | \_\_\_\_\_\_\_\_ |
| e. | Gastroschisis (See code list) **(NEO\_REFERRAL\_GASTRO)** | \_\_\_\_\_\_\_\_ |
| f. | Tracheoesophageal fistula (TEF) or esophageal atresia (See code list) **(NEO\_REFERRAL\_TEF)** | \_\_\_\_\_\_\_\_ |
| g. | Omphalocele (See code list) **(NEO\_REFERRAL\_OMPHA)** | \_\_\_\_\_\_\_\_ |
| h. | Duodenal, jejunal, or ileal atresia (See code list) **(NEO\_REFERRAL\_ALLATRESIA)** | \_\_\_\_\_\_\_\_ |
| i. | Anorectal malformation (See code list) **(NEO\_REFERRAL\_ANO)** | \_\_\_\_\_\_\_\_ |
| j. | Extracorporeal life support therapy[[52]](#footnote-53) (See code list) **(NEO\_REFERRAL\_ECMO)** | \_\_\_\_\_\_\_\_ |
| k. | Transcatheter PDA closure (See code list) **(NEO\_REFERRAL\_TPDA)** | \_\_\_\_\_\_\_\_ |
| l. | Hemodialysis, non-ECMO CRRT, Peritoneal Dialysis in your NICU (See code list) **(NEO\_REFERRAL\_HEMO)** | \_\_\_\_\_\_\_\_ |

NOTES: F16x should be whole number only. Do not allow decimals.

**F16.1. This question has been removed from the survey.**

**F16.2 What percentage of anesthesiologists who provide care for your NICU patients, have board-certification or are board-eligible in pediatric anesthesia?**

**\_\_\_\_\_\_\_ % (NEO\_PED\_BOARD)**

NOTES: F16.2 is numeric entry (decimals are allowed).

VALIDATE: 0 ≤ F16.2 ≤ 100. ELSE DISPLAY: “F16.2: Please enter a numeric value between 0 and 100.”

1. **This question has been removed from the survey.**
2. **This question has been removed from the survey.**
3. **This question has been removed from the survey.**
4. **Does your hospital provide a percutaneous intravenous central catheter (PICC) team with specialized training in placing and maintaining PICC lines in NICU patients?**

**(NEO\_PICC)**

* + - Yes—Go to Question F20.1
    - No—Go to Question F21

**F20.1 If yes, what coverage model does the PICC team provide?**

**(NEO\_PICC\_247)**

* 24/7 PICC line placement services
* Day shift PICC line placement services only
* Other coverage model

1. **This question has been removed from the survey.**
2. **This question has been removed from the survey.**

**F22.1. This question has been removed from the survey.**

1. **For your fellows and/or your advanced practice providers (i.e., neonatal nurse practitioners and physician assistants), does your Neonatology Division track NICU procedure/protocol proficiency for chest tube placement, intubation, and neonatal resuscitation at least every 2 years by use of procedure count or simulation training?**

**(NEO\_TRACK\_CHESTTUBE)**

* Yes – Go to F23.1
* No – Skip to F23.2

**F23.1. For each of the following NICU procedures/protocols, what percentage of neonatal fellows and advanced practice providers (i.e., neonatal nurse practitioners and physician assistants) completed their proficiency requirement (performance of procedure, simulation, or other training) in the last 2 calendar years?** [If these staff are not present in your program, please leave blank.]

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | **Neonatal Fellows** | **Advanced Practice Providers[[53]](#footnote-54)** |
| a. | Chest tube placement **(NEO\_NICUPCT\_CHEST\_** | \_\_\_\_\_\_\_\_%  **FELLOWS)** | \_\_\_\_\_\_\_\_%  **APS)** |
| b. | Intubation **(NEO\_NICUPCT\_INTUBE\_** | \_\_\_\_\_\_\_\_%  **FELLOWS)** | \_\_\_\_\_\_\_\_% **APS)** |

NOTES: F23.1x is numeric entry (decimals are allowed).

VALIDATE: 0 ≤ F23.1x ≤ 100. ELSE DISPLAY: “F23.1x: Please enter a numeric value between 0 and 100.”

**F23.2 Does your hospital track the percentage of current attending physicians in the Level IV NICU that have completed simulation training to refresh their skills within the last 24 months documenting competency in the following procedures? If yes, what percentage of attending physicians completed training in each of the following procedures within the last 36 months?** [If none, please enter 0.]

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | **Yes** | **No** | **Attending physicians** |
| a. | Chest tube placement | **○** | **○** | \_\_\_\_\_\_\_\_% |
|  | **(NEO\_TRAINING\_** | **CHEST)** |  | **PHYSPCT)** |
| b. | Pericardiocentesis | **○** | **○** | \_\_\_\_\_\_\_\_% |
|  | **(NEO\_TRAINING\_** | **PERI)** |  | **PHYSPCT)** |
| c. | Abdominal paracentesis | **○** | **○** | \_\_\_\_\_\_\_\_% |
|  | **(NEO\_TRAINING\_** | **ABDOM)** |  | **PHYSPCT)** |
| d. | Double volume exchange transfusion | **○** | **○** | \_\_\_\_\_\_\_\_% |
|  | **(NEO\_TRAINING\_** | **TRANS)** |  | **PHYSPCT)** |
| e. | Cardioversion | **○** | **○** | \_\_\_\_\_\_\_\_% |
|  | **(NEO\_TRAINING\_** | **CARDIO)** |  | **PHYSPCT)** |
| f. | Intraosseous line placement | **○** | **○** | \_\_\_\_\_\_\_\_% |
|  | **(NEO\_TRAINING\_** | **INTRA)** |  | **PHYSPCT)** |

NOTES: F23.2x2 is numeric entry (decimals are allowed).

VALIDATE: If F23.2x2 is not numeric: “F23.2x2: Please enter a numeric value.”

1. **Does your NICU program participate in any of the following clinical research or data exchange programs?**

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | **Yes** | **No** |
| a. | Vermont Oxford Network[[54]](#footnote-55) Expanded Database for infants > 1,500 grams or the Children’s Hospitals Neonatal Database (CHND)[[55]](#footnote-56) **(NEO\_RESEARCH\_VON)** | **○** | **○** |
| b. | Extracorporeal Life Support Organization (ELSO)[[56]](#footnote-57) data exchange network/registry **(NEO\_RESEARCH\_ELSO)** | **○** | **○** |
| c. | Other clinical research or data exchange program[[57]](#footnote-58) **(NEO\_RESEARCH\_OT)** | **○** | **○** |

**F24.1. If “yes” to F24c, please specify what other programs you participate in:**

|  |
| --- |
| **(NEO\_RESEARCH\_TEXT)** |

1. **Does your NICU program participate in any clinical research studies registered on clinicaltrials.gov that allow your patients access to novel or experimental treatment options?**

**(NEO\_CLINRESEARCH)**

* Yes
* No

**F26. This question has been removed from the survey.**

**F26.1 Does your** **hospital’s 2024 NHSN report include a** **standardized infection ratio (SIR) for CLABSI in your Level IV NICU?** [Note that these data should include your Level IV NICU only and should not be combined with any other NICU operated by your children’s hospital.]

**(NEO\_SIR\_REPORT)**

* + Yes – Go to Question F26.2
  + No – Skip to Question F26.3

**F26.2 Please report your NHSN-generated CLABSI standardized infection ratio (SIR), SIR p-value, and 95% confidence intervals (CI) in the last calendar year 2024 for your Level IV NICU.** This information is readily available for facilities reporting CLABSI data to NHSN. Regenerate datasets in NHSN before running the report in NHSN Analysis. Note that if your organization has Level IV NICU units in different geographic location under different NHSN identification numbers, please report on the location with the largest number of Level 4 NICU beds only. [Please note that all hospitals wishing to receive credit for this question will be required to upload a screenshot of their NHSN report with the SIR information when submitting their survey.]

\_\_\_\_\_\_\_\_ a. Predicted CLABSI events(numPred) **(NEO\_SIR\_EXPECTED)**

\_\_\_\_\_\_\_\_ b. CLABSI standardized infection ratio (SIR) **(NEO\_SIR\_RATE)**

\_\_\_\_\_\_\_\_ c. SIR p-value(SIR\_pval) **(NEO\_SIR\_PVALUE)**

\_\_\_\_\_\_\_\_ d. Lower 95% confidence interval (sir95ci) **(NEO\_SIR\_LOWER)**

\_\_\_\_\_\_\_\_ e. Upper 95% confidence interval (sir95ci) **(NEO\_SIR\_UPPER)**

NOTES: F26.2x is numeric entry (decimals are allowed).

VALIDATE: IF F26.2e < F26.2d OR DISPLAY: “F26.2d & F26.2e: Please check your confidence interval bounds as the upper interval limit should be greater than the lower interval limit.”

IF F26.2b > F26.2e OR F26.2b < F26.2d DISPLAY, “F26.2b: The CLABSI SIR estimate should be between the two confidence interval bounds. Please double check your responses.”

If 26.2x is not numeric: “F26.2x: Please enter a numeric value.”

**F26.3** **If you do not have an SIR CLABSI rate, please report the number of CLABSI events, central line days, and CLABSI rate per 1,000 central line days for your NICU in the last calendar year.** [Calculate as follows: (a.) Determine the number of CLABSI events according to NHSN guidelines. (b.) Determine the total number of central line/umbilical line days[[58]](#footnote-59) in 2024. (c.) Clicking “Save” will calculate the rate by dividing CLABSI events by central line days and multiplying by 1,000. Responses will be rounded to 2 decimals.]

\_\_\_\_\_\_\_\_ a. CLABSI events **(NEO\_NONSTRAT\_CLABSIEVENTS)**

\_\_\_\_\_\_\_\_ b. Central line days **(NEO\_NONSTRAT\_CLABSIDAYS)**

\_\_\_\_\_\_\_\_ c. CLABSI rate **(NEO\_NONSTRAT\_CLABSIRATE)**

NOTES: F26.3a and F26.3b should be whole number only. Do not allow decimals.

F26.3c is autocalculated and decimals are allowed.

VALIDATE: IF F26.3a > F26.3b, DISPLAY: F26.3: Please check your responses. The number of CLABSI events is higher than the number of central line days.”

AUTOCALC: F26.3c = [F26.3a / F26.3b]\*1000

**F26.4 This question has been removed from the survey.**

1. **This question has been removed from the survey.**

**F27.1. This question has been removed from the survey.**

1. **Does your NICU program have a specified Quality Improvement (QI)/safety leader(s) with formal training in QI? If yes, what is the total FTE dedicated to QI and safety in the NICU?**

**(NEO\_QISAFETY)**

* Yes, > 0.75 FTE
* Yes, 0.50-0.74 FTE
* Yes, 0.26-0.49 FTE
* Yes, < 0.25 FTE
* No

**F28.1 In the last calendar year, did you have a parent/family member of a former NICU patient involved in one or more initiatives as an integral member of the QI/safety team?**

**(NEO\_QI\_FAMILY)**

* Yes
* No

1. **Do you offer a structured program for ongoing quality improvement and/or clinical pathway development at referring hospitals within your region?**

**(NEO\_QI\_REFER)**

* Yes
* No

1. **This question has been removed from the survey.**
2. **Does your NICU program track patients’ first postoperative temperatures[[59]](#footnote-60), within 30 minutes, and use it as a quality metric?**

**(NEO\_POSTOP\_TEMP\_TRACK)**

* Yes
* No – Skip to F32

**F31.1 If “Yes” to F31, please report the percentage[[60]](#footnote-61) of patient first postoperative[[61]](#footnote-62) temperatures (done within 30 minutes of return to the NICU after surgery) that were < 36°C (<96.8°F) in the last year?** [Calculate as follows: (a.) Determine the number of patients with postoperative temperatures documented within 30 minutes of return to the NICU after surgery were < 36°C (<96.8°F) in 2024. (b.) Determine the number of patients with postoperative temperatures documented within 30 minutes of return to the NICU after surgery in 2024. (c.) Clicking “Save” will calculate the rate by dividing the number of patients with postoperative temperatures < 36°C (<96.8°F) by the number of patients with postoperative temperatures documented and multiplying by 100. Responses will be rounded to 2 decimals.]

\_\_\_\_\_\_\_\_ a. Patients with postoperative temperatures documented within 30 minutes of return to the NICU after surgery were < 36°C (<96.8°F) **(NEO\_POSTOP\_TEMP\_OPTIMAL)**

\_\_\_\_\_\_\_\_ b. Patients with postoperative temperatures documented within 30 minutes of return to the NICU after surgery **(NEO\_POSTOP\_TEMP\_PATS)**

\_\_\_\_\_\_\_\_ c. Rate of patients with postoperative temperature < 36°C (<96.8°F) **(NEO\_POSTOP\_TEMP\_RATE)**

NOTES: F31.1a and F31.1b should be whole number only. Do not allow decimals.

F31.1c is autocalculated and decimals are allowed.

WARNING: IF F31=Yes AND F31.1 = BLANK, DISPLAY: “F31.1: Please enter a value or answer No to F31.”

VALIDATE: IF F31.1b < F31.1a, DISPLAY: “F31.1: Please check your responses. The number of total patients with postoperative temperatures documented is higher than the number of patients with postoperative temperature < 36°C (<96.8°F).”

AUTOCALC: F31.1c = [ F31.1a / F31.1b ] \* 100

1. **Do you track unintended extubation (invasive airway loss in infants without a tracheostomy) in patients who are being treated in the NICU?**

**(NEO\_EXTUBATION\_TRACK)**

* Yes
* No – Skip to F32.2

**F32.1 If Yes to F32, please report the number of unintended extubations[[62]](#footnote-63), patient ventilator days, and the rate of unintended extubations?** [Calculate as follows: (a.) Determine the number of unintended extubations in 2024 – excluding infants with a tracheostomy. (b.) Determine the total number of patient ventilator days in 2024 – again, excluding infants with tracheostomies. (3) Clicking “Save” will calculate the rate by dividing the number of unintended extubations by the patient ventilator days and multiplying by 100. Responses will be rounded to 2 decimals.]

\_\_\_\_\_\_\_\_ a. Unintended extubations **(NEO\_EXTUBATION\_EVENTS)**

\_\_\_\_\_\_\_\_ b. Ventilator days **(NEO\_EXTUBATION\_DAYS)**

\_\_\_\_\_\_\_\_ c. Unintended extubation rate **(NEO\_EXTUBATION\_RATE)**

NOTES: F32.1a and F32.1b should be whole number only. Do not allow decimals.

F32.1c is autocalculated and decimals are allowed.

WARNING: IF F32=YES AND F32.1b = (0 OR BLANK), DISPLAY: “F32.1b (Ventilator days): Please provide a value greater than 0 or answer No to F32.”

VALIDATE: IF F32.1a > F32.1b, DISPLAY: “Please check your responses. The number of unintended extubations is higher than the number of ventilator days.”

AUTOCALC: F32.1c = [F32.1a / F32.1b]\*100

**F32.2 What is your quality review process for cases of unintended extubation?** (Check all that apply)

* We do not have a quality review process **(NEO\_EXTUBATION\_NA)**
* Standardized Mini-RCA[[63]](#footnote-64) review within 12 hours of the event **(NEO\_EXTUBATION\_MINIRCA)**
* Multidisciplinary team retrospective review within one week of incident **(NEO\_EXTUBATION\_WEEKLY)**
* Multidisciplinary team retrospective review, but after more than one week of the incident **(NEO\_EXTUBATION\_MONTHLY)**

1. **Do you have a multidisciplinary review of all unplanned readmissions within 7 days of discharge to determine if they were preventable?**

**(NEO\_UNPLANNED\_REVIEW)**

* Yes
* No - Skip to F33.2

**F33.1 This question has been removed from the survey.**

**F33.2 Do you have a formal program for reviewing neonatal transfer cases received from other hospitals that includes a formal feedback mechanism (e.g., an after-action report or conference) to the referring facility?**

**(NEO\_REFERRAL\_REVIEW)**

* Yes
* No – Skip to F34

**F33.3 This question has been removed from the survey.**

1. **Do have the following available for very-low-birth-weight (VLBW, <1,500 grams) and low gestational age (GA, <29 weeks) infants admitted to your NICU within 30 days of birth?**

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | **Yes** | **No** |
| a. | Dedicated team of bedside RNs with additional training in the care of preterm[[64]](#footnote-65) infants that care for VLBW infants in your NICU? **(NEO\_VLBW\_DEDICATED)** | **○** | **○** |
| b. | Respiratory support weaning protocol (mechanical ventilation and/or non-invasive ventilation)? **(NEO\_VLBW\_RESPIRATORY)** | **○** | **○** |

**F34.1 Does your NICU program have or is it associated with a fetal diagnosis and counselling program**[[65]](#footnote-66)**?**

**(NEO\_FETAL)**

* Yes, either onsite or at another facility—Go to F34.2
* No—Skip to F35

**F34.2 This question has been removed from the survey.**

**F34.3 Does your Level IV NICU hold multidisciplinary patient management conferences to discuss plans for the delivery and early NICU management of fetuses with congenital abnormalities?**

**(NEO\_FETAL\_CONF)**

* Yes, at least weekly
* Yes, at least monthly
* Yes, less frequently than monthly
* No

**F34.4 This question has been removed from the survey.**

**F34.5 Does your hospital offer fetal MRI for assessment of fetal anomalies?**

**(NEO\_FETAL\_MRI)**

* Yes
* No

1. **Does your NICU have a formalized system for categorizing and identifying (tracking) increases or decreases in medication errors?**

**(NEO\_ERROR\_SYSTEM)**

* Yes – Go to F35.1
* No – Skip to F37

**F35.1. If yes, does your NICU offer each of the following to evaluate and reduce medication errors?**

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | **Yes** | **No** |
| a. | NICU-specific multidisciplinary committee, including a residency trained NICU-dedicated clinical pharmacist available for consultation 24 hours a day/7 days a week (who reviews medications errors, provides feedback, generates process improvements, and implements changes in response to errors) **(NEO\_ERROR\_COMMITTEE)** | ○ | ○ |
|  |  |  |  |
| b. | Access to an up-to-date electronic version of a neonatal-specific drug information reference which includes the ability to check IV compatibility **(NEO\_ERROR\_ELECTRONIC)** | ○ | ○ |
| c. | Utilize medication administration technology including barcode administration and smart pumps with a dedicated neonatal drug library or pump integration (interoperability between epic and the CareFusion pumps) **(NEO\_ERROR\_BARCODE)** | ○ | ○ |

1. **This question has been removed from the survey.**
2. **This question has been removed from the survey.**

**F37.1. What were the numbers for the total hand hygiene compliance opportunities completed for your NICU in the last calendar year?**

|  |  |  |
| --- | --- | --- |
|  |  | **Values** |
| a. | Number of **compliant** hand hygiene opportunities observed in the NICU **(NEO\_HYGIENE\_COMPLIANT)** | \_\_\_\_\_\_\_\_ |
| b. | Total number of hand hygiene opportunities observed in the NICU **(NEO\_HYGIENE\_OBSERVED)** | \_\_\_\_\_\_\_\_ |
| c. | Hand hygiene compliance rate for the NICU **(NEO\_HYGIENE\_RATE)** | \_\_\_\_\_\_\_\_% |

NOTES: F37.1a and F37.1b should be whole number only. Do not allow decimals.

F37.1c is autocalculated and decimals are allowed.

VALIDATE: IF F37.1a > F37.1b, DISPLAY: “F37.1: Please check your responses. The number of compliant opportunities cannot be greater than the number of opportunities observed.”

AUTOCALC: F37.1c = [F37.1a / F37.1b]\*100

1. **Does your NICU have written standardized clinical decision support tools (such as guidelines, order sets, treatment algorithm, etc.) for appropriate antibiotic selection and duration of therapy, co-authored or approved by your antibiotic stewardship program (ASP), for management of the following situations? For each of these clinical decision support tools, does your NICU have a process to monitor compliance and provide feedback to the NICU clinical team?** [If you answer “yes” for any of the clinical decision support tools included below, you must provide documentation (via Upload Documents link on survey navigation menu) of your hospital’s documents detailing these policies.]

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  |  | **Written standardized clinical decision support tools available** | | | **Monitor compliance with clinical decision support tools** | | |
|  |  | **Yes** | **No** | | **Yes** | | **No** |
| a. | Surgical NEC repair or drain placement | **○** | **○** | | **○** | | **○** |
|  | **(NEO\_STANDARD\_** | **NEC)** | | | **NEC\_CHECK)** | | |
| b. | Gastroschisis abdominal closure | ○ | ○ | | ○ | | ○ |
|  | **(NEO\_STANDARD\_** | **GASTRO)** | | | **GASTRO\_CHECK)** | | |
| c. | Medical necrotizing enterocolitis | ○ | ○ | | ○ | | ○ |
|  | **(NEO\_STANDARD\_** | **MEDNEC**) | | | **MEDNEC\_CHECK**) | | |
| d. | Early-onset sepsis | **○** | **○** | **○** | | **○** | |
|  | **(NEO\_STANDARD\_** | **EARLYSEP)** | | | **EARLYSEP\_CHECK)** | | |
| e. | Late-onset sepsis | ○ | ○ | ○ | | ○ | |
|  | **(NEO\_STANDARD\_** | **LATESEP)** | | | **LATESEP\_CHECK)** | | |

1. **How many unique infant patients were discharged or transferred to another unit or facility in the past 12 months from your NICU Level IV?**

\_\_\_\_\_\_\_Number of infants discharged or transferred in the past 12 months **(NEO\_TOTDISCHARGE)**

NOTES: F39 should be whole number only. Do not allow decimals.

1. **Of those infants discharged or transferred to another unit or facility in the past 12 months from your NICU Level IV (F39), how many infants had the following growth metrics recorded within 7 days prior to (before) of discharge or transfer?**

|  |  |  |
| --- | --- | --- |
|  |  | **Number of Infants** |
| a. | Weight **(NEO\_GROWTH\_WEIGHT)** | \_\_\_\_\_\_\_\_ |
| b. | Length **(NEO\_GROWTH\_LENGTH)** | \_\_\_\_\_\_\_\_ |
| c. | Head circumference **(NEO\_GROWTH\_HEAD)** | \_\_\_\_\_\_\_\_ |

NOTES: F40x should be whole number only. Do not allow decimals.

VALIDATE: IF F40a > F39, DISPLAY: “F40a (Weight): Please check your responses. The number of infants who had their weight recorded within 7 days prior to discharge or transfer cannot be greater than the total number of infants discharged or transferred.”

IF F40b > F39, DISPLAY: “F40b (Length): Please check your responses. The number of infants who had their length recorded within 7 days prior to discharge or transfer cannot be greater than the total number of infants discharged or transferred.”

IF F40c > F39, DISPLAY: “F40c (Head circumference): Please check your responses. The number of infants who had their head circumference recorded within 7 days prior to discharge or transfer cannot be greater than the total number of infants discharged or transferred.”

1. **This question has been removed from the survey.**
2. **What is the median hospital length of stay over the last 5 calendar years (infants discharged to home or foster care) for infants in the NICU with Ileal or Jejunal atresia (see code list)?** [Include only infants born ≥ 35 0/7 weeks gestation and admitted within first 72 hours of life and discharged to home or foster care. Exclude infants who also have gastroschisis (Q79.3).]

\_\_\_\_\_\_\_ Median hospital length of stay for Ileal or Jejunal atresia **(NEO\_LOS\_ILEAL)**

NOTES: F42 is numeric entry (decimals are allowed).

VALIDATE: If F42 is not numeric: “F42: Please enter a numeric value.”

1. **What is the median number of days to full enteral feeds of 100 kcal/kg/day (from date of birth) for infants admitted to your NICU at <3 days of age and did achieve full enteral feedings prior to discharge home over the last 3 calendar years with Gastroschisis (see code list)?** [Include only infants born ≥ 35 0/7 weeks gestation and admitted within first 72 hours of life and discharged to home or foster care. Exclude infants who did not achieve full enteral feedings prior to discharge.]

\_\_\_\_\_\_\_ Median days to full enteral feeds **(NEO\_MEDFULLFEEDS)**

NOTES: F43 is numeric entry (decimals are allowed).

VALIDATE: If F43 is not numeric: “F43: Please enter a numeric value.”

1. **How many unique patients received fetal surgical repair for open neural tube defects (see code list) at your hospital in the last 3 years?** [Include all infants receiving fetal surgical repair at your hospital, even if delivery or postnatal care occurred at another hospital.]

\_\_\_\_\_\_\_ Unique patients **(NEO\_FETALSURG)**

NOTES: F44 should be whole number only. Do not allow decimals.

1. **Does your NICU provide support for each of the following?**

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | **Yes** | **No** |
| a. | Dedicated space for breastmilk pumping for lactating staff members **(NEO\_STAFFSUPPORT\_BMSPACE)** | ○ | ○ |
| b. | Standardized process for team psychological debriefing after critical events (to answer “Yes” this process must be separate from any medical or clinical debrief processes which focuses on operations and instead focus on the personal and interpersonal impact of these events) **(NEO\_STAFFSUPPORT\_PSYCHDEBRIEF)** | ○ | ○ |

**The following are being collected for information purposes only. They will not be factored into the rankings this year.**

1. **What is the median hospital length of stay (in days) for infants who received therapeutic hypothermia treatment (see code list) in your NICU in the past calendar year? [**Exclude non-survivors and infants with hospital stays shorter than 5 days and longer than 60 days.]

\_\_\_\_\_\_\_ Median hospital length of stay (in days) **(NEO\_MEDHOSPSTAY)**

NOTES: F46 should be whole number only. Do not allow decimals.

VALIDATE: If F46 is < 5 AND NOT BLANK, DISPLAY: “F46: Please check your responses. Exclude non-survivors AND infants with hospital stays shorter than 5 days.”

If F46 is > 60 AND NOT BLANK, DISPLAY: “F46: Please check your responses. Exclude non-survivors AND infants with hospital stays longer than 60 days.”

1. **Does your hospital monitor the percentage of infants (≤ 72 hours of age) evaluated for early onset sepsis (EOS) who received antibiotics longer than 48 hours in the last calendar year?** Exclude infants with culture/serology/PCR positive blood or CSF infection.

**(NEO\_EOS\_ABX)**

* Yes
  + No

1. **Does your hospital monitor the percentage of infants (> 72 hours of age) evaluated for late onset sepsis who received antibiotics longer than 48 hours in the last calendar year?** Exclude infants with culture/serology/PCR positive blood or CSF infection.

**(NEO\_EOS\_LATE)**

* Yes
  + No

1. **Does your ASP track antibiotic days for infants in the NICU and discuss trends at least annually with the NICU to improve practice?**

**(NEO\_ABX)**

* Yes
  + No

1. **This question has been removed from the survey.**

**F51. This question has been moved to F38 in the survey.**

**CHIEF OF SERVICE APPROVAL**

To have this section of the survey accepted for scoring, the Service Chief for your neonatology program must acknowledge that they have reviewed all responses and approve of the submission. To do this you will need to download, complete, and upload the approval form by the date of the final survey submission. Has the approval form for your neonatology program been completed and uploaded to the Pediatric Hospital Survey website?

**(NEO\_DIR\_APPROVE)**

* Yes, the form as been submitted
* No, the form has not been submitted. Please complete and upload the form before proceeding.

**COMMENTS FOR SECTION F:**

If needed, you may provide clarifications to the responses you provided to the questions asked in this section only. All other comments, suggestions or questions should be sent to **PediatricHospSurvey@rti.org**.

|  |
| --- |
| **(NEO\_COMMENTS)** |

1. https://publications.aap.org/pediatrics/article/130/3/587/30212/Levels-of-Neonatal-Care [↑](#footnote-ref-2)
2. Attending/on-staff physicians include those who have completed their training in their particular medical specialty, are actively providing clinical care to patients, and are currently considered a member of the “medical staff” at the hospital. This may include physicians employed by the hospital, an affiliated university, or some other entity as long as the physician is considered part of the medical staff at the hospital. [↑](#footnote-ref-3)
3. Note that Board Eligible as defined by the American Board of Pediatrics is a care provider out of training <6 years; beyond this window, all included neonatologists being counted in this question must be board certified. If a provider does not meet the board eligible or board certified criteria, then they may only be counted in F2b. [↑](#footnote-ref-4)
4. Physicians trained in pediatrics, but not board-certified in neonatal-perinatal medicine, who care for patients in the Level IV NICU under the supervision of a neonatologist. Do not include physicians counted in F2. [↑](#footnote-ref-5)
5. Calculate clinical nurse (RN) FTEs based on total paid hours for the period of review divided by 2080. Note that to answer this question correctly you must use the 2080 standard even if your hospital typically tracks FTEs using a different standard. The number of FTEs should include NICU RNs, float RNs and contract RNs providing care in the NICU. [↑](#footnote-ref-6)
6. Please only include bedside RNs, charge RNs, and resource RNs. Do not include NNPs or other advanced practice providers unless they are performing solely in the role of a bedside RN. [↑](#footnote-ref-7)
7. Note that IBCLC stands for the International Board-Certified Lactation Consultant (link: [https://iblce.org/step-1-prepare-for-ibclc-certification/#](https://iblce.org/step-1-prepare-for-ibclc-certification/)), CLC stand for Certified Lactation Consultant (<https://www.alpp.org/certifications/certifications-clc>), and CBC stands for the Breastfeeding Counselor Certification (link: https://childbirtheducation.org/breastfeeding-counselor-certification-examination/). [↑](#footnote-ref-8)
8. Attending/on-staff physicians include those who have completed their training in their particular medical specialty, are actively providing clinical care to patients, and are currently employed by the hospital as a member of the medical staff. [↑](#footnote-ref-9)
9. Note that Board Eligible is now defined by the American Board of Pediatrics as a care provider out of training <6 years; beyond this window, all neonatologists being counted in this question must be board certified to be included. [↑](#footnote-ref-10)
10. Inpatient days in the NICU divided by 365 or by the number of days that the hospital was open if less than 365. [↑](#footnote-ref-11)
11. Dedicated means that the individual or team is focused on the care of NICU patients. [↑](#footnote-ref-12)
12. Note that IBCLC stands for the International Board-Certified Lactation Consultant (link: [https://iblce.org/step-1-prepare-for-ibclc-certification/#](https://iblce.org/step-1-prepare-for-ibclc-certification/)), CLC stand for Certified Lactation Consultant (<https://www.alpp.org/certifications/certifications-clc>), and CBC stands for the Breastfeeding Counselor Certification (link: https://childbirtheducation.org/breastfeeding-counselor-certification-examination/). [↑](#footnote-ref-13)
13. You may include both in-person (onsite) and virtual services offered to patients. [↑](#footnote-ref-14)
14. To answer “yes” to a NICU-specific Family Psychosocial Support Program the unit must have a NICU-specific Family Psychosocial Support Program that is run by a NICU-dedicated specialist with financial support from the NICU/hospital and which is designed to address family needs distinct from those needs managed by the NICU social workers. [↑](#footnote-ref-15)
15. You may answer Yes if this is normally allowed, but limitations are made during influenza/RSV season. [↑](#footnote-ref-16)
16. Dedicated means that the individual is focused on the care of NICU patients and their parents. [↑](#footnote-ref-17)
17. To answer “yes” to this question the NICU must have dedicated occupational therapy, physical therapy and feeding/speech specialists providing care in the unit, not just consultative service. [↑](#footnote-ref-18)
18. To answer “yes” the complex discharge coordinator must be a dedicated role and should not fall under the role of the social worker or case manager. [↑](#footnote-ref-19)
19. See the AAP safe sleep guidelines, including documentation of the contraindications, at: <https://pediatrics.aappublications.org/content/138/5/e20162938> [↑](#footnote-ref-20)
20. Hospitals should include all surviving NICU patients. Include only the first discharge from your unit for those readmitted. Note that the number of patients for (a.) would only include patients who were receiving breast milk at the time of discharge (i.e., within 24 hours of discharge). Include all patients leaving your NICU: discharged home, to foster care, or intra-/inter-facility transfer. [↑](#footnote-ref-21)
21. This would be an area in NICU, pharmacy or a dedicated formula or milk lab that meets the ADA guidelines found in the publication: Steele C., Best practices for handling and administration of expressed human milk and donor human milk for hospitalized preterm infants. Front. Nutr., 2018; 5: 76. <https://doi.org/10.3389/fnut.2018.00076> [↑](#footnote-ref-22)
22. A Breast Milk committee should include at least one of each of the following: dietician, lactation consultant, nurse (RN or NP), physician, and NICU parent representative. [↑](#footnote-ref-23)
23. Breast milk administration error is any human milk that was administered/fed to a patient for whom it was not intended. [↑](#footnote-ref-24)
24. EEG is a technology for measuring electrical activity produced by the brain, as recorded from electrodes placed on the scalp. EEG monitoring provides the ability to collect the brain’s electrical activity continuously to help detect and diagnose neurological problems. [↑](#footnote-ref-25)
25. EEG reading is done by a board-certified physician or psychologist trained in diagnosing disorders related to brain activity. [↑](#footnote-ref-26)
26. Transport is defined as any movement of patients that requires the use of a vehicle (ambulance, helicopter, fixed wing airplane, or other equivalent) to move patients between hospitals. If patient movement within a healthcare system is accomplished without some type of vehicular transport, then it can be excluded. [↑](#footnote-ref-27)
27. To answer yes to this question, the infant must be actively cooled using equipment that includes continuous monitoring of infant temperature, with feedback of infant temperature to the cooling device; the device must auto-regulate to achieve the desired target infant temperature. [↑](#footnote-ref-28)
28. High frequency ventilation is provided by a specialized ventilator. Patients receiving high mechanical ventilation rates via a conventional ventilator or by hand-ventilation should be excluded. Patients receiving high ventilation rates via non-invasive methods should be excluded. [↑](#footnote-ref-29)
29. When responding to this question, please consider active cooling with a servo-controlled device, active cooling with use of ice packs, and passive cooling. [↑](#footnote-ref-30)
30. Include all infants cooled using active cooling with servo-controlled device, active cooling with use of ice packs, and passive cooling. [↑](#footnote-ref-31)
31. “Vehicular dispatch” is defined as the time the transport team physically leaves the Level IV or transport team facility to initiate a transport. [↑](#footnote-ref-32)
32. Emergent transports include (1) infants transferred for escalation of care (to higher level of care) and (2) referring physician requests immediate transport. Do not include transports for non-urgent procedures. Transports delayed as a result of FAA-mandated grounding (for example for severe weather) may be excluded. The 30-minute time window begins at the time of the initial call from a referring facility requesting dispatch of a transport team. [↑](#footnote-ref-33)
33. Please note that infants undergoing therapeutic hypothermia should be excluded from your response (see code list for exclusion codes). [↑](#footnote-ref-34)
34. To answer “Yes,” the team must include a pediatric neurosurgeon, pediatric urologist, pediatric orthopedist, pediatric physical therapist (or physiatrist), and nurse coordinator. [↑](#footnote-ref-35)
35. To answer “Yes,” the team must include a coordinator as well as a pediatric ophthalmologist and retinal specialist with experience treating ROP, with capability of providing both bevacizumab (Avastin) therapy and laser therapy. [↑](#footnote-ref-36)
36. To answer “Yes,” the team must include a medical director, clinical manager, neonatal respiratory team, pediatric respiratory team, and a neonatal/pediatric cardiac team. [↑](#footnote-ref-37)
37. To answer “yes,” the team should include a pediatric neurologist, pediatric neuro-radiologist and a neonatologist with experience in neonatal-neuro intensive care who conduct multi-disciplinary reviews and perform consultations. [↑](#footnote-ref-38)
38. To answer “Yes,” the program should have individuals trained in palliative care who organize clinical protocols, educate staff, work with hospital palliative care team, etc.; at least one or more members of the team must have NICU-specific training in the support of NICU patients and families. The program may be part of a larger institutional palliative care team as long as it meets the above requirements. [↑](#footnote-ref-39)
39. To answer “Yes,” the team must include a pediatric ENT specialist or pediatric plastic surgeon and a nurse coordinator who has expertise in conducting surgical care and follow-up for mandibular distraction, tongue-lip adhesion, and tracheostomy procedures. [↑](#footnote-ref-40)
40. Team must consist of a dedicated pulmonary medicine physician, neonatologist, and nutritionist. [↑](#footnote-ref-41)
41. Team must consist of a dedicated pediatric surgeon, dedicated neonatologist, maternal-fetal medicine specialists, and a radiologist with the capability to interpret fetal MRI, and a fetal echo cardiologist. [↑](#footnote-ref-42)
42. Team must consist of a pediatric cardiologist specializing in care of the chronic PH patient, neonatologist, and nutritionist. [↑](#footnote-ref-43)
43. Team must consist of a pediatric nephrologist, pediatric surgeon, and neonatologist. [↑](#footnote-ref-44)
44. To answer “Yes” to this question the follow-up program for infants with CDH must routinely include surgery, nutrition, neurodevelopmental specialists and pulmonology and routinely follow infants for at least the first 3 years after discharge. [↑](#footnote-ref-45)
45. Team must consist of a dedicated gastroenterologist, nutritionist, neonatologist, and surgeon. [↑](#footnote-ref-46)
46. Training/certification can occur at another institution, but only trained neonatologists and advanced practice providers perform point of care ultrasound (POCUS). To be considered a Neonatal POCUS Program, NICUs must have a formal collaborative quality assurance process with radiologists and/or cardiologists and a mechanism to generate, store and interpret POCUS images. [↑](#footnote-ref-47)
47. To answer “Yes,” the team must include a geneticist, metabolic specialist, developmental specialist, and nutritionist. [↑](#footnote-ref-48)
48. To answer “Yes,” the team must include a pediatric gastroenterologist (or other metabolic specialist), social worker, and nutritionist [↑](#footnote-ref-49)
49. To answer “Yes,” the team must include a pediatric pulmonologist, social worker, and case manager. [↑](#footnote-ref-50)
50. A program focused on high risk NICU patients led by a neuro-developmental specialist (a neonatologist with training in neurological care, a pediatric neurologist specializing in neonatal care, or a neurodevelopmental psychologist) providing neurodevelopmental evaluation, a cardiologist, and integrated occupational therapy, physical therapy, speech evaluations, as needed along with social work support for families. [↑](#footnote-ref-51)
51. Hospitals should only include neural tube defect (with and without fetal repair) patients in their response when admitted to your NICU. [↑](#footnote-ref-52)
52. Only patients primarily managed by the Neonatology team should be included. Include patients for whom the Neonatologist was the physician billing for daily ECMO professional fees, despite physical location. [↑](#footnote-ref-53)
53. This includes Neonatal Nurse Practitioners, Physician Assistants, and Neonatal Hospitalists. [↑](#footnote-ref-54)
54. See <http://www.vtoxford.org>. [↑](#footnote-ref-55)
55. See http://thechnc.org/. Note that participating in the CHA administrative dataset PHIS cannot be used to answer yes to this question. The PHIS is not a dataset designed for quality improvement and does not have QI collaborative activities associated with the dataset participation; if PHIS is included in the write in section it should not be valued as is participation in VON and /or CHND. [↑](#footnote-ref-56)
56. See <http://www.elso.org/> [↑](#footnote-ref-57)
57. Do not include the American College of Surgeons (ACS) National Surgical Quality Improvement Program (NSQIP) or the Children’s Hospitals’ Solutions for Patient Safety network (SPS) as these are already included in the General section (Section A). [↑](#footnote-ref-58)
58. According to NHSN guidelines, a patient with one or more central lines on a given day equals 1 central line day. Provide the composite CLABSI rate for all umbilical and central venous catheters for your pediatric service. [↑](#footnote-ref-59)
59. The first postoperative temperature is the first temperature (done within 30 minute) on return to the NICU after a patient has received an operating room (OR) procedure or the first temperature following an in-NICU operative procedure after handoff from anesthesiology. Do not include (in numerator or denominator) if first temperature is measured beyond 30 minutes. [↑](#footnote-ref-60)
60. Note that patients who have recently undergone open heart cardiac surgery and are on intentional body cooling therapy should be excluded from numerator and denominator. [↑](#footnote-ref-61)
61. Include all operative procedures that occur inside the NICU and those that occur outside the NICU, including Operating Room, Cardiac Catheterization Suite, and Interventional Radiology. [↑](#footnote-ref-62)
62. An unplanned extubation is any dislodgement of an endotracheal tube from the trachea that is not intentional. [↑](#footnote-ref-63)
63. A mini root cause analysis (RCA) is a standardized focused review documented by the bedside caretakers following an event to determine the causes of the problem and possible solutions. This typically involves a treating nurse, physician, and others involved in the incident. The results of the review are reported to a NICU specific quality improvement team for review and development of action plan. [↑](#footnote-ref-64)
64. "Additional training" must include a formal in-house curriculum with competencies or a formal certification such as NCC C-ELBW or Neonatal Neuro Intensive Care. [↑](#footnote-ref-65)
65. To answer yes to this question, the program must include at minimum maternal-fetal medicine physicians, pediatric surgeons, geneticists, genetic counselors, neonatologists, palliative care specialists, pediatric radiologists, psychosocial support services for parents and a dedicated program coordinator. [↑](#footnote-ref-66)