CPQCC MEMBERSHIP MEMORANDUM

TO: CPQCC PARTICIPANTS

FROM: JEFFREY B. GOULD, HENRY LEE, GRACE VILLARIN DUEÑAS

SUBJECT: UPDATED 2017 CPQCC MANDATED CHANGES

DATE: 12/13/16

CC: BARBARA MURPHY, BEATE DANIELSEN, MIHIKO BENNETT, FULANI IRVING DAVIS, JANELLA PARUCHA, ERIKA GRAY, JESSICA LIU, TIANYAO LU, , CCS, CPETS, CMQCC, CCS/CPQCC HRIF QCI, PQIP

2017 CPQCC MANDATED CHANGES

The California Perinatal Quality Care Collaborative (CPQCC), the Vermont Oxford Network (VON), the California Perinatal Transport Systems (CPeTS),the California Children's Services (CCS), and the High Risk Infant Follow Up Program (HRIF) have made several important mandated changes to the data collection effective in 2017.

The reporting of total, birth weight and gestational age specific NICU activity, morbidity and mortality through CPQCC has been mandated by the CCS, while the systematic review and reporting of neonatal transports in California has been mandated through the CPeTS. This means that one must be a member of CPQCC and report the required elements using the CPQCC/VON, the CPQCC/CPeTS, and the CPQCC/CCS data formats. The compliance with the dataset changes is required for a CCS-approved NICU to meet this mandate.

I. CPQCC Eligibility Criteria

There will be no mandated changes to the CPQCC Eligibility Criteria for the 2017 CPQCC Network Database.

II. New and Revised Items for the CPeTS Transport Form

Starting in 2017 CPeTS has mandated the following changes:

1. Changed **"Referral"** to **"Patient Diagnosis"** this change will be on the paper form and online form.

2. Changed **"Patient Identification/History"** to **"Critical Background Information"** this change will be on the paper form ONLY.

3. ~~**Item C.2 Indication for Transport [T_TRANSCODE]** "Convalescent" added as an answer choice to the online and paper form.~~

   ~~2 = Medical Services~~
   ~~3 = Surgery~~
   ~~4 = Convalescent~~
   ~~6 = Insurance~~
   ~~8 = Bed Availability~~

~~Select **Medical services** if the infant was transported for medical problems that require acute resolution.~~
~~Select **Surgery** if the infant was transported primarily for major invasive surgery (requiring general anesthesia or its equivalent).~~
~~Select **Convalescent** if the infant was transported for convalescent or hospice care.~~
~~Select **Insurance** if the infant was transported for insurance purposes.~~
~~Select **Bed Availability** if the infant was transported due to bed availability issues at the referring facility.~~

4. Moved **Item C3b. Birth Head Circumference [BHEADCIR]** next to **Item C.3a Birth Weight [T_BWGT]** this change will be on the paper form ONLY

5. **Item C.7a Maternal Gravida [T_GRAVIDA]**, will be removed from the paper and online form. **"Prolonged Rupture of Membranes (> 18 hours)"** will replace this item on the paper form ONLY.

   Select **Yes** if the rupture of the membranes is more than 18 hours prior to birth of the infant.
   Select **No** if the rupture of the membranes is not more that 18 hours prior to birth of the infant.
   Select **Unknown** if this information cannot be obtained.

6. **Item C.7b Labor Type** will be replaced by Item **C.7b Delivery Mode [DELMOD]**. This will be added to the paper form ONLY.

   Select **Spontaneous Vaginal** for a Normal Vaginal delivery. This is any vaginal delivery for which instruments were not used. This includes cases where manual rotations or other head or shoulder maneuvers were used, provided instruments were not also used.
   Select **Operative Vaginal** for any vaginal delivery for which any instrumentation (forceps, vacuum) was used. Episiotomies are not considered operative deliveries.
   Select **Cesarean** for any abdominal delivery.
   Select **Unknown** if this information cannot be obtained.

7. **Item C.8b Steroids [ASTER]**, changed to **"Antenatal Steroids"**. This change will be on the paper form ONLY.

   Select **Yes** if corticosteroids were administered IM or IV to the mother during pregnancy at any time prior to delivery. Corticosteroids include betamethasone, dexamethasone, and hydrocortisone.
   Select **No** if antenatal corticosteroids were not administered to the mother during pregnancy at any time prior to delivery or if there is no documentation in the medical record that antenatal steroid therapy was initiated before delivery.
   Select **Unknown** if this information cannot be obtained (e.g. missing records from a referring hospital).

8. **Item C.9 Surfactant Given [T_SURFX]**, removed from the paper form ONLY. This information will be collected in **Item C.13 Surfactant First Dose [T_SURFXDATETIME]** on the paper form.

9. **Item C.11 Last Antenatal Steroid Administration (last dose) [T_ASTERDATETIME]** has been removed from the paper form, this is greyed out on the online form.
10. **Item C.21c Method of Cooling for HIE [T_COOLING1], [T_COOLING2], [T_COOLING3]**, definition changed from **"Selective Body"** to **"Whole Body"** for the paper form ONLY.

    1=Passive
    2=Selective Head
    3=Whole Body
    4=Other
    9=Unknown

    Select **Passive** if cooling was intentionally withholding standard temperature maintenance strategies for the purpose of achieving low temperature. If passive cooling is only used until head or body cooling is started, please select either head or body cooling.

    Select **Selective Head** if active cooling was restricted to the head and brain as an intervention to reduce the temperature by exposing the head to lower than environmental temperature. Specially designed head cooling devices, other cooling devices and ice packs applied to the head would be considered active cooling of the head and brain. Passive exposure to environmental temperature or cooling of the face for the treatment of supraventricular tachycardia is not considered active cooling of the head and brain.

    Select **Whole Body** if active cooling of the body that is not restricted to the head and brain as an intervention to reduce the core body temperature and temperature of the brain by exposing the body to lower than environmental temperature. Whole body cooling may include cooling of the head in addition to the rest of the body. Cooling blankets, other cooling devices and ice packs applied to the body would be considered active cooling of the whole body. Passive exposure to environmental temperature is not considered active cooling of the whole body.

    Select **Other** if cooling is actively administered in some other way that is not provided as an option.

11. **Item C.23 Respiratory Rate [T_RESPRATE1], [T_RESPRATE2], [T_RESPRATE3]**: for clarification High Frequency Oscillatory Ventilation equal to 400 "HFOV = 400" has been added to the definition on the paper form ONLY.

12. **Item C.27 Respiratory Support [T_VENTMODE1], [T_VENTMODE2], [T_VENTMODE3]**, added **"Blowby"** to **"Hood/Nasal Cannula"**. This change will be applied to the online and paper form.

    0 = None
    1 = Hood/Nasal Cannula, Blowby
    2 = Nasal Continous Positive Airway Pressure
    3 = Endotracheal Tube

    Select **None** if none of the methods of respiratory support listed below were used.
    Select **Hood/Nasal Cannula (NC), Blowby** if the infant had spontaneous breathing and was supported using an oxygen hood, nasal cannula, or blowby.

Select **Nasal CPAP (NCPAP)** if the infant was provided with continuous positive airway pressure (CPAP) using nasal CPAP.
Select **Endotracheal Tube (ETT)** if the infant was ventilated using an endotracheal tube (ETT). Do not enter ETT if an endotracheal tube was placed only for suctioning and assisted ventilation was not given through the tube.

13. The following items have been renumbered (for the paper form ONLY):

- **Item C.21a. Temperature [T_TEMP1], [T_TEMP2], [T_TEMP2]**: Too Low to register
- **Item C.21b. Temperature [T_COOLING1], [T_COOLING2], [T_COOLING3]**: Was the infant cooled?
- **Item C.21c. Temperature [T_COOLINGMETHOD1], [T_COOLINGMETHOD2], [T_COOLINGMETHOD3]**: Method of cooling
- **Item C.28a. Blood Pressure [T_BPSYS1], [T_BPSYS2], [T_BPSYS3]**: Too low to register

14. Under **"Referral Process"** the following fields have been added/updated on the paper form only:

- Sending Hospital Nursing Contact Information Name/Telephone
- Transport Information Names/Telephone Numbers
- Extra line for "Comments"

III. New and Revised Items for the CPQCC Admission/Discharge and DRD Form:

15. In 2017, **Item 22 Temperature and Cooling** will include **"for Hypoxic-Ischemic Encephalopathy (HIE)"** so that it is clear that the cooling was for Hypoxic-Ischemic Encephalopathy (HIE).

Item 22 Temperature and Cooling for Hypoxic-Ischemic Encephalopathy (HIE):

(a) Was the Temperature Measured within the First Hour after Admission to Your NICU [ATEMPM]

1=Yes
0=No
7=N/A
9=Unknown

Select **Yes** if the infant's core body temperature was measured and recorded within the first hour after admission to your NICU. Core body temperature may be measured by taking a rectal, esophageal, tympanic or axillary temperature.
Select **No** if the infant's core body temperature was not measured and recorded within the first hour after admission to your NICU.
Select **Not** Applicable if the infant is eligible but was never admitted to your NICU.

Notes:
This item applies to the temperature of the infant during the first hour after admission to your NICU. For out born infants, do not record temperature measurements taken at the transporting center.

If an attempt was made to measure temperature during the first hour after admission to your NICU, and the temperature of the infant was lower than what the thermometer could measure, Select 'Yes' and check 'Too low to register' in item 22b. If the infant's core body temperature was not measured within the first hour after admission to your NICU, item 22b. is not applicable.

For infants not undergoing cooling during the transport process, this item propagates the same variable in the CPeTS on-line form (Item C.21c at NICU admission).

(b) First Temperature at Admission to Your NICU [ATEMP]

0, 20.0 to 45.0, 999.9 = ATEMP
777.7=N/A
888.8=Too Low to Register
999.9=Unknown

If the infant's core body temperature was measured and recorded within the first hour of the initial admission to your NICU, enter the infant's temperature in degrees centigrade to the nearest tenth of a degree. If the infant's temperature is measured multiple times within the first hour after admission to your NICU, enter the value of the first temperature measurement. Use rectal temperature or, if not available, esophageal temperature, tympanic temperature or axillary temperature, in that order. Check the option Too Low to Register for situations in which the infant's temperature is too low to register on the thermometer used. Temperatures may be entered in degrees Celsius or Fahrenheit. Item 22b. applies to the first temperature measured within an hour of the initial admission to your NICU, even if the baby is being readmitted.

(c) Cooling for HIE [ACOOLING]

0=No Cooling for HIE
1=Cooling Started for HIE
2=Cooling Continued for Transfer-In for HIE
7=N/A
9=Unknown

Select **No Cooling for HIE** if no attempt for cooling / administration of hypothermic therapy was done at any time during the first admission to your NICU.
Select **Cooling Started for HIE** if the first attempt for cooling / administration of hypothermic therapy was started during the first admission to your NICU.
Select **Cooling Continued for Transport-in for HIE** if the first attempt for cooling / administration of hypothermic therapy was started at another hospital prior to admission to your NICU, and then continued during the first admission to your NICU. The option Cooling Continued for Transport-in is not applicable for inborn infants and will not be displayed on the on-line form for inborn infants.
Select **Unknown** if this information cannot be obtained.

Notes:
Item 22c applies only to the first admission to your NICU. If the infant is transported out and re-admitted to your NICU, do not update this item.

(d) Cooling Method for HIE [ACOOLINGMETHOD]

1=Passive,
2=Selective Head
3=Whole Body
4=Other
7=N/A
9=Unknown

If an infant was cooled for Hypoxic-Ischemic Encephalopathy (HIE) at any time during the initial admission to your NICU, record the last type of hypothermic therapy administered during the initial NICU admission.

Select **Passive** if cooling was intentionally withholding standard temperature maintenance strategies for the purpose of achieving low temperature. If passive cooling is only used until head or body cooling is started, please select either head or body cooling.

Select **Selective Head** if active cooling was restricted to the head and brain as an intervention to reduce the temperature by exposing the head to lower than environmental temperature. Specially designed head cooling devices, other cooling devices and ice packs applied to the head would be considered active cooling of the head and brain. Passive exposure to environmental temperature or cooling of the face for the treatment of supraventricular tachycardia is not considered active cooling of the head and brain.

Select **Whole Body** if active cooling of the body that is not restricted to the head and brain as an intervention to reduce the core body temperature and temperature of the brain by exposing the body to lower than environmental temperature. Whole body cooling may include cooling of the head in addition to the rest of the body. Cooling blankets, other cooling devices and ice packs applied to the body would be considered active cooling of the whole body. Passive exposure to environmental temperature is not considered active cooling of the whole body.

Select **Other** if cooling is actively administered in some other way that is not provided as an option.

Select **Unknown** if this information cannot be obtained.

Notes:
If an infant is administered several methods of hypothermic therapy during the NICU admission, record the last type of hypothermic therapy administered during the first admission to your NICU. Item 22d applies only to the first admission to your NICU. If the infant is transported out and re-admitted to your NICU, do not update this item. This item is Not Applicable if the infant was not cooled.

16. Starting in 2016, we will add a note to Item 40b. **Necrotizing Enterocolitis [NEC]** to clarify when to select "Yes Here and Elsewhere".

Determine whether an infant has (a) Necrotizing Enterocolitis (NEC) diagnosed at surgery, or (b) NEC diagnosed at postmortem examination, or (c) NEC diagnosed clinically and radiographically using the following criteria:

1) One or more of the following clinical signs present:
    - Bilious gastric aspirate or emesis;
    - Abdominal distension;

- Occult or gross blood in stool with no apparent rectal fissure.

AND

2) One or more of the following radiographic findings present:
   - Pneumatosis intestinalis;
   - Hepato-biliary gas;
   - Pneumoperitoneum.

Select **Yes, Here** if NEC occurred at your hospital prior to initial disposition or following readmission after initial transport.

Select **Yes, Elsewhere** if NEC occurred at another hospital.

Select **Yes, Here and Elsewhere** if NEC occurred BOTH at your hospital AND at another hospital as defined above.

Note:
Only select **"Yes Here and Elsewhere"** if NEC happened elsewhere prior to your hospital and then at your hospital, after a week of full feedings, NEC happened again.

Select **No** if the infant did not satisfy the above definition of NEC.

Select **Unknown** if this information cannot be obtained.

Notes:

- Infants who satisfy the definition of Necrotizing Enterocolitis below but are found at surgery or post-mortem examination for that episode to have a "Focal Gastrointestinal Perforation" should be coded as having "focal gastrointestinal perforation," not as having NEC. There may also be infants who have an isolated perforation unassociated with clinical NEC; these cases should not be classified as having NEC.

- When infants transport to your hospital or are readmitted to your hospital after initial transport, NEC will be considered to have occurred at another hospital in the following situations: 1. NEC was diagnosed at the other hospital prior to admission to your hospital or prior to readmission following initial transport. 2. NEC was diagnosed within 4 hours of admission to your hospital.

- Recurrence or recrudescence of NEC that had previously occurred at another hospital will not be considered to be NEC that occurred at your hospital unless the original case of NEC had resolved and the infant had been on full feedings for 1 week or more.

IV. New and Revised Items for the CCS Supplemental Form and the CCS Report

1) Starting in 2017 the title of Section E will be changed to: Average Daily Census in your NICU, Newborn Antibiotic Exposures (NAE) and Antibiotic Use Rate (AUR).

2) Starting in 2017, a new item **Newborn antibiotic exposures (NAE)** will be added in **Section E: Average Daily Census in your NICU, Newborn Antibiotic Exposures (NAE) and Antibiotic Use Rate (AUR).**

Enter the total number of Newborn Antibiotic Exposures (NAE) in 2017 for all newborns (inborn infants) in the hospital, including those elsewhere than the NICU.

Item Definition: This new measure is the count of all newborns – in any location in your hospital - who have received an antibiotic exposure. Knowing this value enables newborn care teams to know how many newborns they are treating in relation to the number of newborns with proven infection. The newborn antibiotic exposures (NAE) count is operationally defined as follows:

A newborn is considered to have experienced an antibiotic exposure if he/she received one or more doses of an antibacterial or antifungal agent administered intravenously or intramuscularly in any location in the hospital during the inpatient stay associated with maternal delivery. Thus, each newborn will be counted as either a "0" – if there were no such medication exposures, or a "1" – if there were any such medication exposures (number of doses/number of days does not matter).

- **Note:** "Satellite NICUs" are asked to report the total # of live births at the hospital in which they operate because it provides important contextual information. For the same reason, CCS will request the NAE for the hospital in which the "satellite" operates – because such contextual information is necessary to make sense of, and evaluate, pertinent resource use and outcomes in the NICU serving that birth population. For Children's Hospitals with no inborns, all they need to do is enter "0".

Recommended Data Collection Process: Hospitals that plan to run a database query of a their order entry system for the NAE data element, should note that the specifications for generating the NICU antibiotic use rate (AUR, a CCS reporting variable since 2013) numerator are closely related to the specifications for counting newborn antibiotic exposures.

- The modifications entail expanding the specification of hospital location to cover all newborns in the hospital, including those elsewhere than the NICU, and changing from seeking a count of the number of days treated with antibiotics to a categorical a "yes/no" "0/1" response depending on whether an antibiotic was received. The query would then compute the arithmetic sum of all "0" and "1" values.

- In circumstances where a staff member must review each newborn medical record to obtain the NAE count the following process flow should be helpful.

  - Step 1: Generate a list of all newborn admissions in your facility. This includes infants in mother/baby units, the NICU, and newborns

born outside the hospital but brought to the hospital for initial medical evaluation after birth.

- Step 2: Review physician orders or medication administration record to determine if the newborn received an antibacterial or antifungal medication by the intravenous (IV) or intramuscular (IM) route of administration. You will want to obtain a list of the medications in these categories used for newborns by the physicians in your facility. Most commonly, they will include ampicillin and gentamicin, but expect to find other medications on your facility's list too.

- Step 3: If the newborn received no such medication, then assign a 0 as the count for that newborn. If the newborn received one or more doses of such medication – and the actual number of doses does not matter – then assign a 1 as the count for that newborn.

- Step 4: After all newborn medical records have been so reviewed, compute the arithmetic sum of all "0" and "1" values. That sum is the value for your hospital's NAE.

- Step 5: Enter that computed arithmetic sum as your hospital's NAE value.

3) Starting in 2016, the Antibiotic Use Rate item will be moved from Section F. Central line-Associated Bloodstream Infections (CLABSI) of Infants born by Birth Weight to **Section E: Average Daily Census in your NICU, Newborn Antibiotic Exposures (NAE) and Antibiotic Use Rate (AUR)** after the new item **Newborn antibiotic exposures (NAE).**

4) From the CCS perspective, the Unknown option is insufficient. We will make the following changes starting with the AUR metric in the 2016 CCS Supplemental Form and then will continue applying these changes for the NAE and AUR metrics in the 2017 CCS Supplemental Form:

   a) Remove the "Unknown" check box, and comment box. If a center has not filled in a value for antibiotic use by 4/15, the center will be contacted by the data center.

   b) Add a Note after NAE and AUR: " This is a required variable for maintaining CCS approval. A missing response is considered an "**Incomplete Submission – Required Data Element.**" CCS will follow-up with your Center if this data is not provided.

   c) The Data Center will maintain the current programming where the Unknown variable (now labeled **"Incomplete Submission – Required Data Element"**) would trigger Dr. Schulman's contact information if a NICU is challenged with this requirement (instead of the current text box field).

   d) After the April 1st Data Finalization deadline, the CPQCC Data Center will send CCS a list of Centers who do not have an AUR by April 15. CCS will follow-up with the Centers to submit complete and accurate data by June 1st.

e) After the June 1st Data Finalization deadline, Centers who confirm their CCS Report with NAE and/or AUR are "**Incomplete Submission – Required Data Element**" will be followed-up by CCS.

f) Starting with the 2016 CCS Supplemental Form, an alert will be created for the logical range for AUR that will be incorporated in the CPQCC Data Reports: the Detailed Data Submission Summary Report, and the Error and Warnings Report:

WARNING: You have submitted data indicating an extraordinary Antibiotic Use Rate value, either below 5% or above 85%. Please confirm that the Number of NICU Days of IM or IV antibiotic exposure for any purpose in all infants AND the Total Number of Patient Days, which you submitted, are indeed correct.

g) The description for Antibiotic Use Rate (AUR) will be updated to clarify antibacterial or antifungal are accepted antibiotics for AUR. Antiviral is not.

*Antibacterial or antifungal. Antiviral is **not** counted.*
Any exposure on a given day counts as one day.

5) Starting in 2017, the following items will be deleted from Section F. Central Line Associated Bloodstream Infections (CLABSI):

1. Does your NICU use DHCS-approved best practices for Central Lines, i.e. Insertion and Maintenance Bundles?

1a. Were Insertion and Maintenance Bundles used for the entire year 2015?

1b. Were Insertion and Maintenance Bundles used for the entire year 2015?

6) For the 2017 CCS Report, the title for Section M will be revised as follows:

M. Central line-Associated Bloodstream Infections (CLABSI), Rates by Birth Weight and NICU Best Practices

V. New and Revised Items for HRIF

The new CCS HRIF medical eligibility criteria "Congenital heart disease requiring surgery or minimally invasive intervention" will be added to the HRIF-QCI Reporting System Referral/Registration entry screen effective December 1, 2016. The HRIF-QCI Manual of Definitions and the Referral/Registration (RR) Form will be released on December 5, 2016 and available for download at https://www.cpqcc.org/perinatal-programs/ccscpqcc-hrif-qci/resource-corner.

Program Letter (P.L.) 01-1016 updates the medical eligibility criteria for HRIF under Section III, HRIF Eligibility, and reiterates policy and guidance for the HRIF Program's diagnostic services, provider responsibilities, reporting requirements, and procedures for billing authorized services provided to HRIF-eligible neonates, infants, and children. This letter supersedes HRIF P.L. 01-1113, dated November 22, 2013. (Please download and review the updated Program Letter HERE)

We have received questions during the annual data training regarding who will be responsible for identifying and referring these cardiac patients, and was informed that some counties do not consider a "CVICU" the same as a "PICU". If you have any questions or concerns about the new congenital heart disease medical criteria, please submit a help ticket at https://www.cpqccsupport.org/.

VI. 2017 Data Trainings

We would like to thank everyone who attended the 2017 Data Trainings and Programs Update. We had another successful year!

The evaluation forms have been emailed to the membership. Please take a moment to evaluate the 2017 Data Trainings and Program Update. Once you complete the evaluation survey you will receive a follow up email with the CEU certificate.

You can also download the presentation materials for the data trainings below:

2017 CPQCC Data Training Materials

For more information, please visit http://cpqcc.org/data/data_trainings.

We are revising the forms and manuals to reflect these changes. Although these changes may involve work adjustments to fulfill the new requirements, ultimately the addition of these new data items support the best interests of the membership since CPQCC Members have previously requested the addition of several of these data items for quality improvement purposes.

We anticipate that Members who submit data electronically and use their existing internal databases for tracking clinical events and outcomes at the NICU may be impacted by this change. If this is the case for your center, please do not hesitate to submit a ticket to the CPQCC Help Desk at cpqccsupport.org. We welcome the opportunity to assist centers as they meet this requirement.

Thank you for your cooperation.

Sincerely,

CPQCC Data Center