CPQCC MEMBERSHIP MEMORANDUM

TO: CPQCC PARTICIPANTS

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

SUBJECT: UPDATED 2018 CPQCC/HRIF-QCI MANDATED CHANGES

DATE: 12/18/17

CC: CPQCC, CCS, CPETS, CMQCC, CCS/CPQCC HRIF QCI

2018 CPQCC MANDATED CHANGES

The California Perinatal Quality Care Collaborative (CPQCC), the Vermont Oxford Network (VON), the California Perinatal Transport Systems (CPeTS), High Risk Infant Follow-up Quality of Care Initiative (HRIF-QCI) and the California Children's Services (CCS) have made several important mandated changes to the data collection effective in 2018.

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. It is also the responsibility of the discharging to home CCS NICU/Hospital or the last CCS NICU/Hospital providing care to make referrals to the HRIF Program. This means that one must be a member of CPQCC and report the required elements using the CPQCC/VON, the CPQCC/CPeTS, CPQCC/HRIF, 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

2018 VON Revised Eligibility:
Eligibility criteria for the Very Low Birth Weight (VLBW)and Expanded Databases have been revised to include infants who have been previously discharged home and who were never previously admitted to the reporting NICU.

Very Low Birth Weight (VLBW) Eligibility:
Any live born infant whose birth weight ranges from 401 to 1500 grams OR whose gestational age ranges from 22 weeks 0 days to 29 weeks 6 days who is admitted to or dies in any location in your center within 28 days of birth.

VON Expanded Eligibility:

- Any infant who meets the VLBW eligibility, plus:

- Any live born infant whose birth weight is greater than 1500 grams and who:
    - Is admitted to a NICU in your center within 28 days of birth; OR
    - Dies in any location in your center within 28 days of birth.

There are no changes to the 2018 CPQCC Eligibility criteria as we already collect data for Small Baby infants who are previously discharged home and readmitted by DOL 28. Starting in 2018, CPQCC will submit to VON the Small Baby infants who were previously discharged home and readmitted by DOL 28 to the reporting NICU and who never previously stayed at the reporting NICU .

[ ] I acknowledge/understand
[ ] I have additional feedback

Please include any comments/concerns you have for the 2018 CPQCC Eligibility.

II. Electronic Data Submission (EDS)

Starting in 2018, CPQCC will discontinue the support of the Microsoft Access files for EDS submission. EDS submission will only be accepted as comma-delimited ASCII text files (csv).

[ ] I understand/acknowledge
[ ] I have additional feedback

Please include any comments/concerns you have for the discontiued support of Microsoft Access files for EDS submission.

III. New and Revised Items for the CPeTS Transport Form

Starting in 2018, CPeTs will add the following definition:

E. Transport Form Use During a Declared Disaster

When the Governor of the State of California has declared a region a "Designated Disaster Area," infants being transported from or to a facility, in order to comply with evacuation orders, do not need a completed CPeTS Neonatal Transport Form.

Starting in 2018, CPeTs will include the Delayed Cord Clamping variables (19a-e) on the hard copy 2018 CPeTs form.

Was delayed umbilical cord clamping performed? [DCCDONE]

How long was umbilical cord clamping delayed [DCCTIME]
If DCC was not done, reason why (OPTIONAL)?[DCCNOTWHY]
[DCCNOTWHYDESC]

Was umbilical cord milking performed? [DCCCORDMILK]
Did breathing begin before umbilical cord clamping? [DCCBREATH]

[ ] I acknowledge/understand
[ ] I have additional feedback

Please include any comments/concerns you have with adding the definition for "Transport Form Use During A Declared Disaster to the 2018 CPeTS electronic form, and adding the Delayed Cord Clamping variables (19a-e) to hard copy CPeTs form.

IV. New and Revised Items for the CPQCC Admission/Discharge (AD) and Delivery Room Death (DRD) Form:

Starting in 2018, items following delayed cord clamping, beginning with Item 20. Apgar Scores, will be numbered per the Items Number Cross Walk located in the 2018 EDS Specifications.

1. Demographics:

Item 3. Best Estimate of Gestational Age [GAWEEKS, GADAYS]

CPQCC will change the definition for gestational age to align with the current Joint Commission definition:

"Gestational age is defined as the best obstetrical estimate (OE) of the newborn's gestation in completed weeks based on the birth attendant's final estimate of gestation, irrespective of whether the gestation results in a live birth or a fetal death. This estimate of gestation should be determined by all perinatal factors and assessments such as ultrasound, but not the newborn exam. Ultrasound taken early in pregnancy is preferred (source: American College of Obstetricians and Gynecologists reVITALize Initiative)."

https://manual.jointcommission.org/releases/TJC2017A/DataElem0265.html

Starting in 2018, the following note will be added to the definition:

Note: (This is a note added by CPQCC, which is separate from the Joint Commission definition)

In the cases where there is no prenatal care or there are significant discrepancies between the obstetrical gestational age and neonatal gestational age (i.e. over two weeks), please determine the gestational age from the neonatologist exam.

[ ] I acknowledge/understand
[ ] I have additional feedback

Please include any comments/concerns you have for the definitition change for gestational age to align with the current Joint Commision definition.

2. <u>Maternal History and Delivery:</u>

Starting in 2018 and for reporting purposes, CPQCC, will expand the current CPQCC gestational age definition of Antenatal Steroids (for infants 24/0 to 31/6) to Joint Commision Antenatal Steroids (for infants 24/0 to 33/6 weeks of gestation). The definition change will affect **Item 13b. Antenatal Steroids Documentation [ASTERDOCUMENT]**, and **Item 13c. Antenatal Steroids Reason [ASTERREASON]**. Starting from 2018, these items will be applicable to infants less 34 weeks of completed gestation. The revision is based on the Joint Commission (JC) Measure PC-03 (Version 2016A) (link below):

<u>https://manual.jointcommission.org/releases/TJC2016A/MIF0168.html</u>

<u>Performance Measure Name: Antenatal Steroids</u>

<u>Description: Patients at risk of preterm delivery at >=24 and <34 weeks gestation receiving antenatal steroids prior to delivering preterm newborns.</u>

Rationale: The National Institutes of Health 1994 recommendation is to give a full course of corticosteroids to all pregnant women between 24 weeks and 34 weeks of gestation who are at risk of preterm delivery. Repeated corticosteroid courses should not be used routinely, because clinical trials show decreased brain size, decreased birth weight, and adrenal insufficiency in newborns exposed to repeated doses. Treatment should consist of two doses of 12 mg of betamethasone given intramuscularly 24 hours apart or four doses of 6 mg dexamethasone given intramuscularly every 12 hours.

Item 13b. Antenatal Steroids Documentation [ASTERDOCUMENT]

Is there documentation in the medical record for reasons for NOT initiating antenatal steroid therapy before delivery? (Note: Starting from 2018, this item is only applicable and OPTIONAL for inborn infants who are <34 weeks gestational age.)

Select **Yes** if there is documentation by a physician/Advanced Practice Nurse/Physician's Assistant/Certified Nurse Midwife that the patient has one or more reasons for not initiating antenatal steroid therapy before delivery.

Select **No** if there is no documentation by physician/Advanced Practice Nurse/Physician's Assistant/Certified Nurse Midwife of a reason for not initiating antenatal steroid therapy before delivery or unable to determine from medical record documentation.

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

Note:

1. The Joint Commission (JC) will exclude all cases marked as YES from the numerator/denominator so there is advantage to find this documentation if present.

2. When determining whether there is a reason documented by a physician/ Advanced Practice Nurse/Physician's Assistant/Certified Nurse Midwife for not initiating antenatal steroid therapy, reasons must be explicitly documented (e.g., "patient had an adverse reaction to the medication - unable to initiate antenatal steroid therapy") or clearly implied (i.e., there is documentation the delivery occurred before antenatal steroid therapy could be initiated, or there is documentation the fetus has anomalies which are not compatible with life, or there is documentation that the patient has chorioamnionitis). If reasons are not mentioned in the context of antenatal steroid administration, do not make inferences.

3. This item is Not Applicable (NA) if the infant was ≥ 34 weeks gestational age at birth or if the mother did receive antenatal steroids.

Item 13c. Antenatal Steroids Reason [ASTERREASON]

Select **Chorioamnionitis** if it includes infections of the amniotic sac and fluid (amnionitis) and those of the uterine wall (endometritis**).**

Select **Other active infection** if sepsis, pyelonephritis, active herpes or similar infection was given as the reason.

Select **Immediate delivery** if the mother is admitted with advanced cervical dilation or fetal/maternal condition requiring immediate delivery.

Select **Fetus** has anomalies incompatible with life if only comfort measures are to be provided.

Select **History of adverse reaction to corticosteroids** if the mother has a history of adverse reaction to corticosteroids.

Select **Comfort care** if infant is pre-viable and planning for non-resuscitation due to immaturity or birth defects.

Select **Other** if there is another documented reason that does not fall into a category above.

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

Note: This is an optional field and would only be used if your hospital has a high rate of excluded cases to understand why. The reason should be found in the same spot as Item 13b.

[ ] I acknowledge/understand

[ ] I have additional feedback

Please include any comments/concerns you have for the definition change for gestational age to match the Joint Commission 2016A definition for **Item 13b. Antenatal Steroids Documentation [ASTERDOCUMENT],** and **Item 13c. Antenatal Steroids Reason [ASTERREASON].**

3. Starting in 2018, CPQCC will adhere to the ACOG Standards by changing **Items 17b. Fetal Antenatal Conditions: Fetal Distress [ANCFDIS]** AND **Item 18. Indications for Cesarean Section: Fetal Distress [INDCESFD]** to: "**Non-reassuring Fetal Status** (formerly known as Fetal Distress)".

Item 17b. Fetal Antenatal Conditions
Non-reassuring Fetal Status [ANCFDIS]

Non-reassuring Fetal Status [ANCFDIS]. The medical record should state the diagnosis of fetal distress, poor biophysical profile, or non-reassuring (abnormal) stress test or fetal monitoring or fetal status. The following situations are also often associated with non-reassuring fetal status (but do not in themselves constitute non-reassuring fetal status, unless accompanied by documentation as noted above): decrease in amniotic fluid (low AFL, oligohydramnios), decreased blood flow or oxygenation to the infant, cord entaglement; cord prolapse, decreased fetal movement, fetal arrhythmia or fetal bradycardia.

Item 18. Indications for Cesarean Section

Non-reassuring Fetal Status [INDCESFD]

Select Yes for **Non-reassuring Fetal Status [INDCESFD]** if non-reassuring fetal status was a reason why a cesarean section was performed.

[ ] I acknowledge/understand
[ ] I have additional feedback

Please include any comments/concerns you have for changing item **17b. "Fetal Distress"** to **"Non-reassuring Fetal Status".**

4. <u>Delivery Room and First Hour after Birth:</u>

Starting in 2018, CPQCC mandates the Delayed Cord Clamping (DCC) data collection.

"The 2015 ILCOR systematic review confirms that delayed cord clamping (DCC) is associated with less IVH of any grade, higher blood pressure and blood volume, less need for transfusion after birth, and less necrotizing enterocolitis…"

"The only negative consequence appears to be a slightly increased level of bilirubin…"

NRP Guidelines Update: Initial Steps of Newborn Care:
Current evidence suggests that cord clamping should be delayed for at least 30 to 60 seconds for most vigorous term and preterm newborns. If placental circulation is not intact, such as after a placental abruption, bleeding placenta previa, bleeding vasa previa, or cord avulsion, the cord should be clamped immediately after birth. There is insufficient evidence to recommend an approach to cord clamping for newborns who require resuscitation at birth.

As delayed cord clamping is being recommended now by international and national guidelines, quality improvement to implement delayed cord clamping may be warranted. Hence an assessment of the variation in DCC practice is helpful. The different impacts of delayed cord clamping (or milking) – whether beneficial (or harmful) is not fully established.

The DCC variables will be collected on both, the Admission/Discharge and Delivery Room Death Forms. **The delayed cord clamping (DCC) variables will numbered as Items 19 a-e.**

Item 19a. Was delayed umbilical cord clamping performed? [DCCDONE]

Select **Yes** if delayed umbilical cord clamping was performed.
Select **No** if delayed umbilical cord clamping was not performed.

For the purposes of this definition, clamping performed less than 30 seconds after delivery would not be considered delayed cord clamping even if there was intention to perform delayed cord clamping.

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

Item 19b. How long was umbilical cord clamping delayed [DCCTIME]

Select **30 to 60 seconds** if delayed umbilical cord clamping was performed for 30 to 60 seconds.

Select **>60 seconds** if delayed umbilical cord clamping was performed for greater than 60 seconds.

If 19a. is **No**, then **Not Applicable** will be automatically selected and this item will be grayed out.

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

Item 19c. If DCC was not done, reason why (OPTIONAL)? [DCCNOTWHY] [DCCNOTWHYDESC]

Select **Maternal Bleeding** if delayed umbilical cord clamping was not performed due to abruption, placental separation, uterine rupture, cord avulsion.

Select **Neonatal Causes** if delayed umbilical cord clamping was not performed due to neonatal complications i.e very depressed apneic baby requiring resuscitation, hydropic.

Select **Other** if delayed umbilical cord clamping was not performed for reasons other than maternal bleeding and neonatal causes. Please enter a description if Other is selected in the space provided. **[DCCNOTWHYDESC]**

If 19a. is **Yes**, then **Not Applicable** will be automatically selected and this item will be grayed out.

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

Item 19d. Was umbilical cord milking performed? [DCCCORDMILK]

Select **Yes** if cord milking was performed.
Select **No** if cord milking was not performed.
Select **Unknown** if this information cannot be obtained.

Note: Umbilical cord milking - The 2015 ILCOR review on umbilical cord milking states:

"In light of the limited information regard- ing the safety of rapid changes in blood volume for extremely pre- term infants, we suggest against the routine use of cord milking for infants born at less than 29 weeks of gestation outside of a research setting. Further study is warranted because cord milking may improve initial mean blood pressure and hematologic indices and reduce intracranial hemorrhage, but thus far there is no evidence for improvement in long-term outcomes."

Although this practice is not currently recommended, we recognize that some centers / clinicians are performing this related therapy. Therefore, we will also collect data on this practice.

Item 19e. Did breathing begin before umbilical cord clamping? [DCCBREATH]

Select **Yes** if breathing began before umbilical cord clamping was performed. If the infant has signs of breathing, such as crying, chest wall movement, and/or grunting, select Yes.

Select **No** if breathing did not begin before umbilical cord clamping was performed.

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

Starting in 2018, items following delayed cord clamping, beginning with Item 20 Apgar Scores, will be numbered per the Items Number Cross Walk located in the 2018 EDS Specifications.

[ ] I acknowledge/understand
[ ] I have additional feedback

Please include any comments/concerns you have regarding adding the delayed cord clamping (DCC) items 19 a-e.

5. Starting in 2018, the definition for **Item 21e. Base deficit in umbilical cord blood / baby blood gas within first hour of life** will be updated to include "Too low to register."

Check **Too Low to Register** box if the equipment indicates the base deficit as too low to register or incalculable.

2018 CPQCC Definition:

Base Deficit within 1 Hour of Life

This item only applies to infants >1,500 grams who also meet at least one of the following criteria:

- admitted with suspected encephalopathy (Yes to Item 21a)
- admitted with suspected perinatal asphyxia (Yes to Item 21a)
- 5-minute Apgar less than or equal to 3 or 10-minute Apgar less than or equal to 4 (per Item 20)
- received active hypothermia (Selective or Whole Body Cooling to Item 24d), or
- diagnosis of HIE (Mild/Moderate/Severe to Item 51).
- and for whom an umbilical cord blood gas or baby blood gas during the first hour of life has been obtained (Yes to 21b).

Record the base deficit to 1 decimal place from the source listed in Item 21b.
If this item is not applicable, the data entry box is grayed.

Check **Too Low to Register** box if the equipment indicates the base deficit as too low to register or incalculable.

Check the **Unknown** box if this information cannot be obtained.

Notes:
"Base deficit" is defined in reference to a negative integer, but written as a positive integer. However, some places use the equivalent term "base excess" which is written as a negative integer. Thus, a base excess of "-17.7" is equivalent to a base deficit of "17.7."

[ ]I acknowledge/understand
[ ] I have additional feedback

Please include any comments/concerns you have with updating the definition for **Item 21e. Base deficit in umbilical cord blood / baby blood gas within first hour of life** to include "Too low to register."

6. **Item 22. Delivery Room Resuscitation**

   Item 22a. Oxygen [DROX] will be renamed to **"Supplemental Oxygen."** This will make it a consistent label throughout the form and definition.

   [ ]I acknowledge/understand

[ ] I have additional feedback

Please include any comments/concerns you have with renaming Item 22a. Oxygen [DROX] to "Supplemental Oxygen."

7. Starting in 2018, a new item **Laryngeal Mask Airway during Initial Resuscitation [DRLMA]** will be added to match VON. This item will be added to **Item 22. Delivery Room Resuscitation** as:

   Item 22h. Laryngeal Mask Airway during Initial Resuscitation [DRLMA]

   Select **Yes** if the infant received any intermittent positive pressure breaths via a laryngeal mask airway in the delivery room or during the initial resuscitation performed immediately after birth. Intermittent positive pressure breaths may be administered using an anesthesia bag, self-inflating bag, or other device that generates intermittent positive pressure.

   Select **No** if the infant did not receive any intermittent positive pressure breaths via a laryngeal mask airway device in the delivery room or during the initial resuscitation performed immediately after birth.

   Select **No** if a laryngeal mask airway device was only used to administer continuous positive airway pressure and no intermittent positive pressure breaths were given.

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

   [ ] I acknowledge/understand
   [ ] I have additional feedback

   Please include any comments/concerns you have regarding adding **Item 22h. Laryngeal Mask Airway [DRLMA].**

8. **Item 25. Respiratory Support After Initial Resuscitation**

   Item 25a. Oxygen [OXY] will be renamed "Supplemental Oxygen"

   [ ] I acknowledge/understand
   [ ] I have additional feedback

   Please include any comments/concerns you have with renaming Item 25a. Oxygen [OXY] to "Supplemental Oxygen."

9. Starting in 2018, two new items, **Item 32. Caffeine for Any Reason [CAFFEINE]** and **Item 33. Intramuscular Vitamin A for Any Reason [VITAMINA]** will be added to match VON.

Item 32. Caffeine for Any Reason [CAFFEINE]

Select **Yes** if caffeine was administered at any time after birth for any reason.

Select **No** if caffeine was not administered at any time after birth for any reason.

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

Item 33. Intramuscular Vitamin A for Any Reason [VITAMINA]

Select **Yes** if intramuscular vitamin A was administered at any time after birth for any reason.

Select **No** if intramuscular vitamin A was not administered at any time after birth for any reason.

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

Note: Do not Select "Yes" if Vitamin A was only given as a component of parenteral nutrition or an oral multivitamin.

[ ] I acknowledge/understand
[ ] I have additional feedback

Please include any comments/concerns you have regarding adding **Caffeine for Any Reason [CAFFEINE]** and **Intravascular Vitamin A for Any Reason [VITAMINA].**

10. Starting in 2018, the definition and field description for **Item 34. Inhaled Nitric Oxide [NITRICO]** has been revised to match "HRIF Eligibility Criteria – f) Infants who received inhaled nitric oxide greater than four hours, and/or treatment during hospitalization with pulmonary vasodilators for pulmonary hypertension."

Updated definition:

Item 34. Inhaled Nitric Oxide > 4 hours [NITRICO]

Select **Yes Here** if infant received Inhaled Nitric Oxide (iNO) > 4 hours at your hospital prior to initial disposition or following readmission after initial transport.

Select **Yes Elsewhere** if infant received Inhaled Nitric Oxide (iNO) > 4 hours at another hospital.

Select **Yes Here and Elsewhere** if infant received Inhaled Nitric Oxide (iNO) > 4 hours both at your hospital and another hospital as defined above.

Select **No** if infant did not receive Inhaled Nitric Oxide (iNO) > 4 hours during this admission or during transport from a referring hospital.

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

[ ] I acknowledge/understand
[ ] I have additional feedback

Please include any comments/concerns you have regarding the definition change and field description change for **Item 34. Inhaled Nitric Oxide [NITRICO]**.

11. Starting in 2018, **Item 35b. Intubated Mechanical Ventilation [SUCFINAL]** will be removed and replaced with **Item 39b. Intubated Conventional Ventilation at Discharge [VENTFINAL]** and **Item 39c. Intubated High Frequency Ventilation at Discharge [HFVFINAL]**.

[ ] I acknowledge/understand
[ ] I have additional feedback

Please include any comments/concerns you have with replacing **Item 35b. Intubated Mechanical Ventilation [SUCFINAL]** with **Item 38b. Intubated Conventional Ventilation at Discharge [VENTFINAL]** and **Item 38c. Intubated High Frequency Ventilation at Discharge [HFVFINAL]**.

12. Starting in 2018, "**Item 39. Respiratory Support at Discharge"** will be renamed "**Item 39. Respiratory Monitoring and Support Devices at Discharge"**, and five new respiratory items will be added to **Item 39. Respiratory Monitoring and Support Devices at Discharge** to match with VON:

Item 39c. Intubated Conventional Ventilation at Discharge [VENTFINAL]

Select **Yes** if the infant went home or was transferred on intermittent positive pressure ventilation through an endotracheal tube with a conventional ventilator (IMV rate <240/minute).

Select **No** if the infant was not discharged on intermittent positive pressure ventilation through an endotracheal tube with a conventional ventilator (IMV rate <240/minute).

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

For an infant who died prior to discharge, select "Yes" if the infant received conventional ventilation at any time on the day of death. Select "No" if the infant did not receive conventional ventilation at any time on the day of death.

Notes:

- Intermittent positive pressure ventilation (Nasal IMV) via nasal prongs is not considered conventional ventilation.
- Synchronized intermittent positive pressure ventilation (SIMV) via nasal prongs is not considered conventional ventilation.

Item 39d. Intubated High Frequency Ventilation at Discharge [HVFINAL]

Select **Yes** if the infant went home or was transferred on high frequency ventilation (IMV rate ≥ 240/minute).

Select **No** if infant was not discharged on high frequency ventilation (IMV rate ≥ 240/minute).

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

For an infant who died prior to discharge, select "Yes" if the infant received high frequency ventilation at any time on the day of death. Select "No" if the infant did not receive high frequency ventilation at any time on the day of death.

Item 39e. High Flow Nasal Cannula at Discharge [HFNCFINAL]

Select **Yes** if the infant went home or was transferred on air or oxygen (any FiO2) at a flow rate of one liter per minute or more via nasal cannula.

Select **No** if the infant was not discharged on air or oxygen (any FiO2) at a flow rate of one liter per minute or more via nasal cannula.

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

For an infant who died prior to discharge, select "Yes" if the infant received air or oxygen (any FiO2) at a flow rate of one liter per minute or more via nasal cannula at any time on the day of death. Select "No" if the infant did not receive air or oxygen (any FiO2) at a flow rate of one liter per minute or more via nasal cannula at any time on the day of death.

Item 39f. Nasal IMV or SIMV at Discharge [NIMVFINAL]

Select **Yes** if the infant went home or was transferred on noninvasive positive pressure ventilation via nasal prongs or other nasal device.

Select **No** if the infant was not discharged on noninvasive positive pressure ventilation via nasal prongs or other nasal device.

For an infant who died prior to discharge, select "Yes" if the infant received noninvasive positive pressure ventilation via nasal prongs or other nasal device at any time on the day of death. Select "No" if the infant did not receive noninvasive positive pressure ventilation via nasal prongs or other nasal device at any time on the day of death.

Item 39g. Nasal CPAP at Discharge [CPAPFINAL]

Select **Yes** if the infant went home or was transferred on continuous positive airway pressure applied through the nose.

Select **No** if the infant was not discharged on continuous positive airway pressure applied through the nose.

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

For an infant who died prior to discharge, select "Yes" if the infant received continuous positive airway pressure applied through the nose at any time on the day of death. Select "No" if the infant did not receive continuous positive airway pressure applied through the nose at any time on the day of death.

Notes:
CPAP administered through a face mask covering the nose without the administration of intermittent breaths is considered nasal CPAP for the purpose of this definition.

High flow nasal cannula oxygen is not considered nasal CPAP for the purpose of this definition.

[ ] I acknowledge/understand
[ ] I have additional feedback

Please include any comments/concerns you have with renaming "**Item 39. Respiratory Support at Discharge"** to **Item 39. Respiratory Monitoring and Support Devices at Discharge** adding five new respiratory items to **Item 39. Respiratory Monitoring and Support Devices at Discharge** to match with VON.

13. Item 35d. Other Device at Discharge [OTHFINAL]

Starting in 2018, **Item 35d. Other Device at Discharge [OTHFINAL]** and **Other Device at Discharge Description [OTHFINALDESC]** will be deleted from the data set.

[ ] I acknowledge/understand
[ ] I have additional feedback

Please include any comments/concerns you have about deleting **Item 35d.Other Device at Discharge [OTHFINAL] [OTHFINALDESC]** from the data set.

14. Post-Delivery Diagnoses and Interventions – Infections

Item 40. Early Bacterial Sepsis and/or Meningitis On or Before Day 3 [EBSEPS] [EBSEPSCD1-3]

Starting in 2018, CPQCC will update the coding rules for **Item 40. Early Bacterial Sepsis and/or Meningitis On or Before Day 3 [EBSEPS] [EBSEPSCD1-3].**
For the on-line form, CPQCC will add a drop-down list with pathogen choices. Members can select up to three Early Bacterial Sepsis pathogen codes **[EBSEPSCD1**, **EBSEPSCD2, EBSEPSCD3]** from Appendix C. Bacterial Pathogens List. The "Other" choice and "Other Description" **[EBSEPSDESC]** will be deleted from the database. The answer choices for this item will be updated to the following:

Select **Yes** if a bacterial pathogen from the Bacterial Pathogens List was recovered from a blood and/or cerebrospinal fluid culture obtained on day 1, 2, or 3 of life.

Select **No** if a bacterial pathogen from the Bacterial Pathogens List was not recovered from a blood culture or cerebrospinal fluid culture obtained on day 1, 2, or 3 of life, or if no blood or cerebrospinal fluid cultures were obtained on day 1, 2, or 3 of life.

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

If Bacterial Sepsis and/or Meningitis on or before Day 3 is answered "Yes", then the drop-down list will be activated. Select up to three pathogen codes from the Bacterial Pathogens List that were recovered from a blood and/or cerebrospinal fluid culture. This item is not applicable if Bacterial Sepsis and/or Meningitis on or before Day 3 is answered "No".

Item 41. Late infection after Day 3 [LBPATH]

Item 41a. Late Bacterial Sepsis and/or Meningitis [LBPATH] [LBPATHCD1-3]

Starting in 2018, CPQCC will update the coding rules for **Item 41a. Late Bacterial Sepsis and/or Meningitis [LBPATH] [LBPATHCD1-3]**. For the on-line form, CPQCC will add 2 drop-down lists for this item. Starting in 2018, the "Other" choice and "Other Description" **[LBPATHDESC]** will be deleted from the database.

1. **Late Bacterial Sepsis and/or Meningitis [LBPATH].** In the first drop-down list, users will select from the following answer choices:

   Select **Yes Here** if a bacterial pathogen from the list of Bacterial Pathogens was recovered from a blood and/or cerebrospinal fluid culture after Day 3 of life at YOUR hospital prior to initial disposition or following readmission after initial transport.

   Select **Yes Elsewhere** if a bacterial pathogen from the list of Bacterial Pathogens was recovered from a blood and/or cerebrospinal fluid culture obtained after Day 3 of life at ANOTHER hospital prior to initial disposition or following readmission after initial transport.

   Select **Yes Here, and Elsewhere** if a bacteria pathogen from the list of Bacterial Pathogens was recovered from a blood and/or cerebrospinal fluid culture obtained after Day 3 of life BOTH at your hospital AND another hospital prior to initial disposition or following readmission after initial transport.

   Select **No** if a bacterial pathogen from the list of Bacterial Pathogens was not recovered from a blood and/or cerebrospinal fluid culture, or if no blood or cerebrospinal fluid cultures were obtained after Day 3.

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

   Select **Not Applicable** if any of the following applies:
   The infant is discharged home or dies on or before Day 3; OR
   The infant is transported from your center to another hospital on or before day 3 and either is not readmitted to your center before discharge home, death or first birthday or, is transported a second time on or before the Day 3.

2. **Late Bacterial Sepsis Code [LBPATHCD1-3].** In the second drop-down, if late Bacterial Sepsis and/or Meningitis after Day 3 is answered "Yes", then select up to 3 pathogens **[LBPATHCD1, LBPATHCD2, LBPATHCD3]** from the Appendix C. Bacterial Pathogens List. This item is not applicable if late bacterial sepsis and/or meningitis did not occur.

Starting in 2018, CPQCC will add 6 new pathogens to Appendix C: Bacterial Pathogens List to match with VON. All 35 Bacterial Pathogens have been assigned codes, which will be listed in Appendix C.

2018 VON 6 New Pathogens
1302 Morganella morganii
1601 Pantoea
1901 Salmonella species including drug-resistant Salmonella serotype Typhi
1903 Staphylococcus coagulase positive [aureus] including Methicillin resistant Staphylococcus aureus and Vancomycin-resistant Staphylococcus aureus
1905 Group B Streptococcus or GBS [also known as Streptococcus agalactiae]
1908 Streptococcus pyogenes [Group A Streptococcus]

[ ] I acknowledge/understand
[ ] I have additional feedback

Please include any comments/concerns you have regarding the coding rules for **Item 40. Early Bacterial Sepsis and/or Meningitis On or Before Day 3 [EBSEPS]** and **Item 41. Late Infection after Day 3 [LBPATH]** including revisions to Appendix C. Bacterial Pathogens.

15. Item 42. Congenital Infection [VIRAL, VIRALCD 1-3]

Starting in 2018, CPQCC will change the field description from "Congenital Viral Infection" to "Congenital Infection" to match with VON. CPQCC will add Appendix F: Congenital Infection Pathogens, which includes a list of Congenital Infection Pathogen codes. CPQCC will add a drop-down list with Congenital Infection Pathogen codes. Members can select up to three Congenital Infection Pathogen codes **[VIRALCD1] [VIRALCD2] [VIRALCD3]** from the Appendix F. Congenital Infections list. If Congenital Infection is answered "Yes", select up to three pathogen codes from the Congenital Infection Pathogens List. This Item is not applicable if Congenital Infection is answered "No".

In addition, CPQCC will add a note that includes the definition for STORCH: "STORCH (stōrch) Acronym for disease group comprising syphilis, toxoplasmosis, other infections, rubella, cytomegalovirus infection, and herpes simplex; fetal infections that can cause congenital malformations."

Select **Yes** if the infant was diagnosed with an infection on the Congenital Infection Pathogens list acquired in utero or during birth.

Select **No** if the infant was not diagnosed with an infection on the Congenital

Infection Pathogens list acquired in utero or during birth.

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

CPQCC APPENDIX F: CONGENITAL INFECTIONS

Code Description
101 Toxoplasmosis (Toxoplasma gondii)
102 Rubella virus
103 Syphilis (Treponema pallidum)
104 Cytomegalovirus
105 Herpes simplex
106 Parvovirus B19
107 Zika virus
108 Varicella zoster virus

[ ] I acknowledge/understand
[ ] I have additional feedback

Please include any comments/concerns you have regarding the field description change and coding rules change to **Item 42. "Congenital Viral Infection"** to **"Congenital Infection"** to match with VON.

16. <u>Post-Delivery Diagnoses and Interventions - Other diagnoses, surgeries</u>

Starting in 2018, CPQCC will change the field description for **Item 43c. Ibuprofen for PDA [IBUPROFEN]** to **Item 43c. Ibuprofen for prevention or treatment of PDA [IBUPROFEN]** in order with match VON**.**

Item 43c. Ibuprofen for Prevention or Treatment of PDA [IBUPROFEN]

Select **Yes** if Ibuprofen was administered at any time after birth for the prevention or treatment of PDA.

Select **No** if Ibuprofen was not administered for the prevention or treatment of PDA.

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

<u>Notes:</u>
Ibuprofen used for reasons other than the prevention or treatment of PDA should NOT be coded as Yes for this item.

[ ] I acknowledge/understand
[ ] I have additional feedback

Please include any comments/concerns you have with changing the field description of **Item 43c. Ibuprofen for PDA** to **Item 43c. Ibuprofen for prevention or treatment of PDA [IBUPROFEN].**

17. Starting in 2018, CPQCC/VON mandates the addition of **Item 43d. Acetaminophen (Paracetamol) for prevention and treatment of PDA [ACETAMIN].**

Item 43d. Acetaminophen (Paracetamol) for prevention and treatment of PDA [ACETAMIN].

Select **Yes** if acetaminophen (paracetamol) was administered at any time after birth for the prevention or treatment of PDA.

Select **No** if acetaminophen (paracetamol) was not administered at any time after birth for the prevention or treatment of PDA.

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

[ ] I acknowledge/understand
[ ] I have additional feedback

Please include any comments/concerns you have regarding **Item 43d. Acetaminophen (Paracetamol) for PDA [ACETAMIN].**

18. Starting in 2018, CPQCC will delete the fields **Item 39d. PDA Ligation [SRGLIG]** and **Item 39e. PDA Closure by Catheterization [PDACLOSE].** CPQCC will exclude these data items from the daily VON submission file. These fields will be combined into **43e. PDA Ligation or PDA Closure by Catheterization [SRGPDA].**

Starting in 2018, CPQCC/VON has mandated the addition of a new **item 43e. PDA Ligation or PDA Closure by Catheterization [SRGPDA].**

Item 43e. PDA Ligation or PDA Closure by Catheterization [SRGPDA]

Select **Yes, here** if closure of the ductus arteriosus by ligation or catheterization was attempted either in the operating room or NICU at YOUR hospital prior to initial disposition or following readmission after initial transport,

Select **Yes, elsewhere** if closure of the ductus arteriosus by ligation or catheterization was attempted either in the operating room or NICU at ANOTHER hospital.

Select **Yes, here and elsewhere** if closure of the ductus arteriosus by ligation or catheterization was attempted either in the operating room or NICU BOTH at your hospital and another hospital.

If item 43e is coded Yes (Here, Elsewhere or Here and Elsewhere), at least one of the following three surgery codes should be listed as Other Surgery code:

S515 Open thoracotomy for patent ductus arteriosus closure
S516 Thoracoscopic surgery for patent ductus arteriosus closure
S605 Interventional catheterization for patent ductus arteriosus closure

Select **No** if closure of the ductus arteriosus was not attempted with surgery or by interventional catheterization.

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

[ ] I acknowledge/understand
[ ] I have additional feedback

Please include any comments/concerns you have regarding the discontinuation of **Item 39d. PDA Ligation [SRGLIG]** and **Item 39e. PDA Closure by Catheterization [PDACLOSE]**, and the addition of **Item 43e. PDA Ligation or PDA closure by Catheterization [SRGPDA].**

19. Starting in 2018, CPQCC will match VON's Discontinued Data Items and Surgery Code Items.

The following Surgery Code Items have been discontinued for infants born in 2018 and later.

Discontinued Surgery Items:
S316 Gastroschisis repair (primary or staged)
S317 Omphalocele repair (primary or staged)

The following Surgery Code Items have been added for infants born in 2018 and later.

New Surgery Items:
S338 Primary closure for gastroschisis
S339 Staged closure for gastroschisis
S340 Primary closure for omphalocele
S341 Staged closure for omphalocele
S507 Norwood procedure with Sano modification
S508 Norwood procedure with aortopulmonary shunt

S509 Hybrid surgery (ductal stenting and bilateral branch pulmonary artery banding)
S510 Truncus arteriosus repair
S511 Arterial switch
S512 Repair of total anomalous pulmonary venous return
S513 Aorta pulmonary shunt
S514 Pulmonary artery banding
S515 Open thoracotomy for patent ductus arteriosus closure
S516 Thoracoscopic surgery for patent ductus arteriosus closure
S605 Interventional catheterization for patent ductus arteriosus closure

Item 47b. Surgery Codes and Surgical Site Infections at Your Hospital [SRGCD1-10] [SRGSSI 1-10]

Starting in 2018, CPQCC will add a check box to each surgery code. The checkbox will be active only if the surgery was done **Here**, and it will indicate whether this surgery had a surgical site infection associated with it at your hospital. **Surgical Site Infection [SRGSSI 1-10]**

Check the box if, at any time prior to discharge, the infant had a surgical site infection associated with this surgical procedure at Your Hospital.

Do not check the box if, at any time prior to discharge, the infant did not have a surgical site infection associated with this surgical procedure at Your Hospital.

NOTES:
Surgical site infections include superficial, deep incisional, or organ space. Please refer to the Centers for Disease Control website for descriptions of these infections: http://www.cdc.gov/nhsn/acute-carehospital/ssi/.

If the infant had multiple surgical procedures at the same episode of surgery, code only one surgical code that resulted in the surgical site infection.

In the on-line form, if there are multiple surgeries that occurred at the NICU, then the user can only check one of these boxes. The check boxes will be added for each surgery code that occurred at Your Hospital; they will be disabled if one surgery is associated with a surgical site infection or if the surgery was performed elsewhere.

[ ] I acknowledge/understand
[ ] I have additional feedback

Please include any comments/concerns you have regarding the addition of a check box to each surgery code that was done **Here** that indicates whether this surgery had a surgical site infection associated with it.

20. Post-Delivery Diagnoses and Interventions -Congenital Malformations:

Item 52. Congenital anomaly

Starting 2018, the field description for "Birth Defect" will be changed to "Congenital Anomaly". CPQCC will match this change in this item's code descriptions and in Appendix E: Congenital Anomaly.

[CMAL] – Major Congenital Anomaly
[BDCD1]- Congenital Anomaly Code 1
[BDCD2] - Congenital Anomaly Code 2
[BDCD3]- Congenital Anomaly Code 3
[BDCD4] - Congenital Anomaly Code 4
[BDCD5] – Congenital Anomaly Code 5
[BDEFECT] – Congenital Anomaly Description

[ ] I acknowledge/understand
[ ] I have additional feedback

Please include any comments/concerns you have with changing the field description **Appendix E: Congenital Anomaly codes.**

21. Close-Out Checklist

Starting in 2017, CPQCC will add **Item 11. Minimized use of Confirmed Unknown to ≤ 3% for key risk factors and outcomes.** to the 2017 Close-Out Checklist.

The variables included in this requirement are currently listed in the Confirmed Unknown Report in the first row, at least one **Risk Factor Unknown [RFMISS]**

Variable Name	Description
rfmiss	At Least 1 Risk Factor Unknown (Birth Weight, Gestational Age, Prenatal Care, Sex, Congenital Anomaly (including specific anomalies if applicable), Multiple, 5-Minute Apgar, Maternal Age)

and third row, at least one **CCS Report Outcome/Process Measure Unknown [OUTMISS]**

outmiss	At Least 1 CCS Report Outcome/Process Measure Unknown (Enteral Feeding at Home Discharge, Any Disposition Item, Initial LOS, Total LOS, Oxygen @ 36 weeks, Oxygen @ Age 28 days, Antenatal Steroids, Temperature at NICU Admission, Cooling Status, Late Bacterial Infection, CNegStaph Infection, Fungal Infection, Eye Exam, Grade of ROP, Cranial Image by Age 28 Days, Grade of Hemorrhage, Shunt Placed, Pneumothorax, NEC, PVL, Postnatal Steroids Given, Postnatal Steroids for CLD, PDA Ligation, NEC Surgery, ROP Surgery, Discharged on Oxygen)

If confirmed unknown percentages for key risk factor and outcomes are >3%. The member can note the reason in the comment section of the Close-Out Checklist.

The Close-Out Checklist items following Item 11. will be renumbered:
Item 12. Addressed and resolved all inconsistencies listed in the DCR for birth year 2017.

Item 13. HRIF registration is 100% of 2017 VLBW infants, infants < 32 completed weeks gestation, infants with HIE/Cooling, infants with ECMO, Congenital Heart Disease, Inhaled Nitric Oxide > 4hrs, and seizures born in 2017 and discharged home from reporting NICU.

Item 14. Confirmation of CCS report for birth year 2017. The CCS reports will be available for review continuously starting from April 1, 2018.

[ ] I acknowledge/understand
[ ] I have additional feedback

Please include any comments/concerns you may have regarding the new requirement for **Item 11. Minimized use of Confirmed Unknown to ≤ 3% for key risk factors and outcomes.**

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

1. Starting in 2017, a warning will be added to Section F. Central line-Associated Bloodstream Infections (CLABSI) of Infants born in 2017 by Birth Weight, if a CLABSI rate is > 2X the highest rate from the previous year based on all NICUs and all birth weight groups.

   [ ] I acknowledge/understand
   [ ] I have additional feedback

Please include any comments/concerns you may have regarding adding a Section F. Central line-Associated Bloodstream Infections (CLABSI) of Infants born in 2017 by Birth Weight, , if CLABSI rate was > 2X the highest rate from the previous year based on all NICUs and all birth weight groups.

2. **CPQCC All NICU Admissions Database. (OPTIONAL).** The CPQCC All NICU Admissions Database is a superset of the CPQCC data collection consisting of all admissions to a NICU participating in CPQCC.

   Starting in 2018, participation in the CPQCC All NICU Admissions Database is optional. The CPQCC All NICU Admissions Database can be browsed and ultimately edited through the CPQCC website. Note that this feature will initially be developed primarily as an EDS submission feature.

   The layout of the CPQCC All NICU Admissions Database is based on a tracking mechanism that CPQCC NICUs have in place in one way or the other. This mechanism tracks for all NICU admissions whether or not an infant is CPQCC eligible.

   Delivery room deaths should not be entered in the CPQCC All NICU Admissions Database.

   What are the advantages of participating in the CPQCC All NICU Admissions Database?

- Provide an optional tool that allows tracking of all NICU admissions for NICUs. The goal is to have a tool that is flexible enough to work for different data collection strategies.
- Update NICU admissions volume on cpqccreport.org dashboards
- Update volume and other control charts on cpqccreport.org for those items that are required to be entered for all infants (e.g., infants deaths completely reported for the first year of life among all NICU admissions)
- Use NICU admissions as denominator for big baby metrics
- Use NICU admissions as denominator for big baby metrics
- CCS form Section A row 4 (NICU deaths after day 28) can be populated
- CCS form Section B can be populated
- CCS form Section C can be populated
- CCS form Section D row 2 (inborn NICU admits by GA) can be populated
- Better verification of row 1 of CCS form Section E (should be >= cumulate initial LOS)

   What are the disadvantages of participating in the CPQCC All NICU Admissions Database?

- Additional EDS data preparation
- Additional data entry (should an editing tool be offered)

Please review detailed instuctions for the CPQCC All NICU Admissions Database (optional) for detailed information (including the Layout, examples of EDS files, and FAQs) on this optional data collection.

VI. New and Revised Items for HRIF

1. CCS Congential Heart Disease (CHD)

Program Letter: 01-0917
September 27, 2017

The HRIF Numbered Letter 05-1016 and HRIF Program Letter 01-1016, both dated October 12, 2016, updated the Medical Eligibility criteria for HRIF to include Congenital Heart Disease (CHD) requiring surgery or minimally invasive intervention. This letter is written to address several requests from HRIF local programs to further clarify the CHD Medical Eligibility criteria and provide some case examples.

HRIF Medical Eligibility in these cases requires admission to a Neonatal Intensive Care Unit (NICU) or directly to a Pediatric Intensive Care Unit or Cardiovascular Intensive Care Unit (CVICU) within the neonatal period, and surgery or minimally invasive therapeutic intervention (such as catheter-based balloon angioplasty) for CHD during that hospitalization.

Given these clarifications, an example of a patient who would **not meet HRIF eligibility**: an infant who was diagnosed prenatally with Tetralogy of Fallot, admitted briefly to a NICU for monitoring and evaluation, discharged to home without intervention and without meeting other HRIF eligibility criteria, and subsequently admitted to a CVICU at four months of age for surgical intervention.

These clarifications are consistent with the CCS Program mandate for HRIF and with the goal of assuring identification and referral of those who are most vulnerable and at highest risk.

[ ] I acknowledge/understand
[ ] I have additional feedback

Please include any comments/concerns you have regarding the **CCS HRIF CHD Clarification.**

2. <u>2018 New/Revised items added to Referral/Registration (RR) Form</u>

1. Program Registration (section) - **"Infant enrolled in a CCS clinic (service) other than the HRIF Program"**
- Check "**No**" if the infant/child is not enrolled in a CCS clinic.
- Check "**Yes**" if the infant/child is enrolled in a CCS clinic other than the HRIF Program.
    - Other CCS clinics include:
        - Medical Therapy Program (http://www.dhcs.ca.gov/services/ccs/Pages/MTP.aspx)
        - Special Care Centers (other than HRIF) (http://www.dhcs.ca.gov/services/ccs/scc/Pages/SCCType.aspx)
- Check "**Unknown**" if the information can not be obtained.

2. Medical Eligibility Profile (section) - "**Was the Norwood / Single Ventricle Palliation procedure performed.** If the patient met the HRIF Medical Criteria for "CHD Requiring Surgery / Interventions" indicate if the Norwood procedure or a single ventricle palliation for hypoplastic left ventricle or hypoplastic right ventricle was performed.
    - Check "**No**" if the Norwood or a single ventricle palliation procedure was not performed.
    - Check "**Yes**" if the Norwood or a single ventricle palliation procedure was performed.
    - Check "**Unknown**" if this information could not be obtained.

    [ ] I acknowledge/understand
    [ ] I have additional feedback

    Please include any comments/concerns you have regarding 2018 RR Form new and revised items.

3. <u>2018 New/Revised Items added to Standard Visit (SV) Form:</u>

1) New Item = **"Infant enrolled in a CCS clinic other than the HRIF Program"**

- Check **"No"** if the infant/child is not enrolled in any CCS clinic.

- Check **"Yes"** if the infant/child is being seen by a CCS-paneled provider or enrolled in a CCS clinic (services) other than the HRIF Program.
- Other CCS services include:
    - Medical Therapy Program (http://www.dhcs.ca.gov/services/ccs/Pages/MTP.asp)
    - Special Care Centers (other than HRIF) (http://www.dhcs.ca.gov/services/ccs/scc/Pages/SCCType.aspx)
-
- Check **"Unknown"** if the information can not be obtained.

2) Section Update = **"Early Start Program"** and **"Medical Therapy Program"**

    - Adding **"Currently"** to the ES and MTP questions. (Is the child currently receiving early intervention services through….?)
    - Changed asnwer to a single choice selection
    - Created two new selection choices:
        - **No, Re-Referred** = not receiving services
        - **No, Pending Services** = referred, but pending an appointment

3) New section = **"Other Medical Conditions" - Were there Additional Medical Conditions Identified that may impact the Child's Outcome?**

    By including categories and text field for specificity, we hope to identify other diagnoses and disorders that may impact outcomes and resource utilization above and beyond the initial HRIF eligibility criteria-related diagnoses.

    Categories: Cardiovascular and Circulatory; Endocrine and Metabolic; Eye, Ear, Nose; Gastrointestinal and Hepatobiliary; Genetic; Hematologic, Immunology, or Oncologic/Neoplasm; Infectious Diseases; Injuries, Accident, Poisoning; Renal and Genitourinary Tract; Respiratory System; Nervous System; and Other.

    [ ] I acknowledge/understand
    [ ] I have additional feedback

    Please include any comments or concerns you have regarding the 2018 SV Form new and revised items.

Starting in 2017, the CPQCC/HRIF Linked Match Summary Reports will be updated to include infants who receive inhaled nitric oxide, infants who experience seizures, and infants who receive surgery for Congenital Heart Disease. **Bold** highlighted font indicate the changes to the definition of the groups of infants who are eligible for both, CPQCC and HRIF:

1. Extremely Low Birth Weight Infants (ELBW) or infants with a birth weight of ≤ 1,000 grams who are admitted to the reporting NICU at age 28 days or earlier.
2. Very Low Birth Weight Infants (VLBW) or infants with a birth weight of ≤ 1,500 grams who are admitted to the reporting NICU at age 28 days or earlier.
3. Infants born at less than 28 weeks completed gestation who are admitted to the reporting NICU at age 28 days or earlier.
4. Infants born at 29 to less than 32 weeks completed gestation who are admitted to the reporting NICU at age 28 days or earlier.
5. Infants who received a diagnosis of moderate or severe HIE (AD Form Item #48 (2017) / Item # 51 (2018) - Moderate or Severe) during their NICU stay who were admitted to the reporting NICU at age 28 days or earlier.
6. Infants who experienced active cooling (AD Form Item #22c (2017) / Item # 24c (2018)) during their NICU stay and who were admitted to the reporting NICU at age 28 days or earlier.
7. Infants with ECMO (AD Form Item #31 (2017) / Item # 35 (2018)) during their NICU stay and who were admitted to the reporting NICU at age 28 days or earlier.
8. Infants who receive surgery for Congenital Heart Disease (**AD Form Item #43 (2017) / Item # 48 (2018), Surgery Codes: S500, S502, S503, S504, S505, S600, S602, S603 and S604**) during their NICU stay and who were admitted to the reporting NICU at age 28 days or earlier.
9. Infants who received Inhaled Nitric Oxide >4 hours (**AD Form Item #30 (2017) / Item # 34 (2018)**) during their NICU stay and who were admitted to the reporting NICU at age 28 days or earlier.
10. Infants who experience seizures (**AD Form Item #47 (2017) / Item # 50 (2018)**) during their NICU stay and who were admitted to the reporting NICU at age 28 days or earlier.

[ ] I acknowledge/understand
[ ] I have additional feedback

Please include any comments or concerns you have regarding the **CPQCC/HRIF Linked Match Summary Report**