

NICU Database CHANGES

2020 Birth Year

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INTRODUCTION

We never stop working to improve care for California’s most vulnerable infants and children, and we know you don’t either. Every year, CPQCC staff, members, experts and volunteers review and reconsider the data elements being collected to be sure we’re staying on the cutting edge of neonatal quality improvement care. Elements are sometimes added, removed, or renamed and renumbered.

In addition, other groups often make changes to data elements or definitions that necessitate changes to CPQCC data collection:

- High Risk Infant Follow-up (HRIF)
- California Perinatal Transport Systems (CPeTS)
- California Children’s Services (CCS)
- Vermont Oxford Network (VON)

This document describes the changes that have been made to the 2020 **NICU and transport data sets**.

CCS – No Changes for 2020

We are happy to report that there are no changes for 2020 to:

- CCS Supplemental Form and Report.

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.

BIG BABY ELIGIBILITY

CHANGE: The following changes have been made to the Big Baby eligibility criteria for inclusion the NICU Database:

- Major Surgery requiring anesthesia
- Added Note: “General or spinal anesthesia” qualification only applies to Item 47a. Other Surgery, for surgeries that are not on the Surgical Codes list Appendix C.

Updated 2020 Definition – Major Surgery:

This category includes major invasive surgeries, requiring general anesthesia **or** anesthesia techniques considered by your neonatologist to be equivalent to general anesthesia, during the infant’s current admission to the NICU. It also includes surgeries that have traditionally required anesthesia but may now be performed at the bedside using local anesthesia or no formal anesthesia. For example, gastroschisis repair at the bedside using suture-less techniques would be considered major surgery. The specific procedures listed in Appendix C qualify as major surgery.

The following surgeries do not qualify the infant for NICU Database eligibility:

- pyloromyotomy
- unilateral or bilateral inguinal hernia repair
- central line placement
- circumcision.

Only conditions that require general anesthesia, anesthesia techniques felt by your neonatologist to be equivalent to general anesthesia, or major surgery with alternative methods qualify. Most of these procedures involve an open cavity (head, chest, abdomen, etc.)

Note: “General or spinal anesthesia” qualification only applies to Item 47a. Other Surgery, for surgeries that are not on the Surgical Codes list Appendix C.

TRANSPORT DATA SET (TRS)

Demographics (tab 2, items C.3 - C.9):

C. 5. Infant Sex [SEX]

CHANGE: Added the option to select “**Undetermined**”.

Updated 2020 CPeTs Definition:

C.5 Infant Sex:

- Select **Male** or **Female**
- Select **Undetermined** when sex is not assigned as male or female by the time of discharge because it has been considered to be undetermined (or “ambiguous”) by the clinical team
- Select **Unknown** if the sex cannot be obtained.

Time Sequence (tab 3, items C.10 - C.19):

Item C.12 Maternal/Fetal Transport Consideration [T_MFTRANSCON]

CHANGE:

- Re-numbered Item C.12 Date /Time of Infant Birth to C.11 (replacing previously unused C.11 Date/Time of Antenatal Steroid Administration)
- Replaced Item C.12 with new item: Maternal and Fetal Transport Consideration

2020 Updated CPeTS Definition:

Fill in this item only if the following conditions are met:

- Referring facility is a primary care or intermediate NICU or non-ccs Unit, **and**
- Transport Type (C.1) is *Requested Delivery Room Attendance*, or *Emergent*, or *Urgent*, **and**
- (C.10) Maternal Admission is ≥ 24 hours before (C.11) Infant Birth, and
- (C.1) Transport Type is:
 - Requested Delivery Room Attendance
 - Emergent
 - Urgent

AND one of the following is true:

- Anticipated birthweight < 1,500 grams
- Gestational age < 32 weeks
- Prenatally diagnosed congenital anomalies found

If the above conditions are met, select the reason why maternal/fetal transport did not occur:

- Select **Advanced Dilation/Labor** if the mother was not transported due to advanced cervical dilation or labor.
- Select **Bleeding** if the mother was not transported because of maternal bleeding.
- Select **Mother Medically Unstable** if the mother was not transported because she was medically unstable.
- Select **Non-reassuring Fetal Status** if the mother was not transported because of distress detected in the fetus.
- Select **Not Considered** if maternal/fetal transport was not considered.

- Select **Unknown** if the reason for not transporting the mother is not known or cannot be obtained.
- Select **Not Applicable** if the conditions above are not met.

Infant Conditions/TRIPS (tab 4, items C.20 - C.29):

C.25 Respiratory Status

CHANGE:

- Changed: “1 - **Respirator**” to “1 - **Ventilator**”
- Changed “2 – **apnea, gasping, or intubated but not on respirator**” to “2 – **Severe (apnea, gasping)**”

2020 Updated CPeTS Definition:

In the designated field, select:

- 1 - **Ventilator** if the infant was on the ventilator at the time of referral for transport
- 2 - **Severe (apnea, gasping)** if the infant had severe respiratory complications, including apnea and/or gasping
- 3 - **Other** for all other respiratory statuses (including “none” or “mild respiratory complications”)
- 9 - **Unknown** if this information cannot be obtained.

C.27 Respiratory Support

CHANGE:

- Changed “**Nasal CPAP**” to “**Nasal Continuous Positive Airway Pressure**” and added “without rate” to the definition.
- Added **Nasal Ventilation (NIPPV/NIMV)** if the infant was ventilated using nasal intermittent positive pressure ventilation (NIPPV) or nasal intermittent mandatory ventilation (NIMV).
- Changed “**Endotracheal Tube**” to “**Oral/Nasal ETT**”.

2020 Updated CPeTS Definition:

In the designated field, select:

- 0 - **None** if required no respiratory support
- 1 - **Hood/NC or Blow-by** if the infant had spontaneous breathing and was supported using an oxygen hood or nasal cannula or blow-by
- 2 - **Nasal Continuous Airway Pressure** if the infant was provided with Continuous Positive Airway Pressure (CPAP) using nasal CPAP without rate
- 3 - **Nasal Ventilation (NIPPV/NIMV)** if the infant was ventilated using nasal intermittent positive pressure ventilation (NIPPV) or nasal intermittent mandatory ventilation (NIMV)

- 4 - **Oral/Nasal ETT** if the infant was ventilated using an endotracheal tube. Do not enter **ETT** if an endotracheal tube was placed only for suctioning and assisted ventilation was not given through the tube
- 9 - **Unknown** if this information cannot be obtained.

NICU ADMISSION DISCHARGE (A/D) AND DELIVERY ROOM DEATH (DRD) FORM

Demographics (tab 1, items 1-8):

Item 5. Infant Sex [SEX]

CHANGE: Added the option to select “**Undetermined**”.

Updated 2020 Definition:

- Select **Male** or **Female**
- Select **Undetermined** when sex is not assigned as male or female by the time of discharge because it has been considered to be undetermined (or “ambiguous”) by the clinical team
- Select **Unknown** if the sex cannot be obtained.

Delivery Room and First Hour after Birth (tab 3, items 19-23):

Item 22c. Bag/Mask [DRBM]

CHANGE:

- Update the item description from “**Bag/Mask**” to “**Positive Pressure Ventilation (PPV) via Mask**” or “**Bag/Mask PPV**”.
- Added note to Item 22g **NIPPV (Nasal Intermittent Positive Pressure Ventilation)**. **Note:** This is different from bag/mask PPV.

Updated 2020 Definition:

- **Item 22c. “Positive Pressure Ventilation (PPV) via Mask” or “Bag/Mask PPV”**
 - Select **Yes** if the infant received any positive pressure breaths with a bag and face mask in the delivery room or during the initial resuscitation performed immediately after birth. Positive pressure may be administered using a resuscitation bag, T-piece, or other device that generates intermittent positive pressure.

- Select **No** if the infant did not receive any positive pressure breaths with a bag and face mask in the delivery room or during the initial resuscitation performed immediately after birth.
 - Select **No** if a bag, T-piece or face mask were only used to administer CPAP (continuous positive airway pressure) and no positive pressure breaths were given.
 - Select **Unknown** if this information cannot be obtained.
- **Item 22g. NIPPV (Nasal Intermittent Positive Pressure Ventilation)**
 - Select **Yes** if the infant was given nasal intermittent positive pressure ventilation (NIPPV) in the delivery room or during the initial resuscitation performed immediately after birth. Positive pressure breaths through nasal prongs may be administered using a resuscitation bag, T-piece, or other device that generates intermittent positive pressure breaths.
Note: This is different from bag/mask PPV.
 - Select **No** if NIPPV was not used in the DR. Also, select **No** if nasal prongs were only used to administer continuous positive airway pressure (CPAP) and no positive pressure breaths were given.

Respiratory (tab 4, items 24-39):

Item 25c. Intubated High Frequency Ventilation [HFV]

CHANGE: Update the definition to include “through an endotracheal tube”

Updated 2020 Definition:

- Select **Yes** if the infant received high frequency ventilation (IMV rate \geq 240/minute) through an endotracheal tube at any time after leaving the delivery room/initial resuscitation area.
- Select **No** if the infant never received high frequency ventilation (IMV rate \geq 240/minute) through an endotracheal tube after leaving the delivery room/initial resuscitation area.

Note: Intubated High frequency ventilation via nasal prongs is not considered high frequency ventilation.

Item 38. Respiratory Support at 36 Weeks

CHANGE:

- Treat “Respiratory Support at 36 Weeks” items the same way as ROP items and make them applicable to Small Babies only.

- The NICUs that are participating in the VON expanded data set still have to provide the “Respiratory Support at 36 Weeks” items for both Small and Big Babies.
- Item 38 is not applicable if:
 - The infant’s GA is greater than 36 weeks (for example, 37 weeks)
 - The infant is discharged home/transported from their NICU before 36 weeks and not readmitted
 - The infant’s GA is 32 weeks or greater **and** the infant’s birth weight is greater than 1,500 grams.

HRIF DATA SET

HRIF Referral/ Registration (RR) form (Program Registration Information)

Infant’s Sex (*Required Field)

CHANGE:

- Variable name “**Infant’s Gender**” will change to “Infant’s Sex”
- Added “**Undetermined**” option

Updated 2020 Definition:

Infant’s Sex (*Required Field)

- Select **Male** or **Female**.
- Select **Undetermined** when sex is not assigned as male or female by the time of discharge because it has been considered to be undetermined (or “ambiguous”) by the clinical team
- Select **Unknown** if sex cannot be obtained.