THE CALIFORNIA PERINATAL TRANSPORT SYSTEM

CPeTS

Neonatal Transport Data System California Perinatal Transport System (CPeTS) Network Database Managed by California Perinatal Quality Care Collaborative (CPQCC)

> Manual of Definitions For Infants Born in Calendar Year 2023

> > January 2023

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CPeTS STAFF

NORTHERN CALIFORNIA

SOUTHERN CALIFORNIA

Ronald S. Cohen, MD Medical Director Email: rscohen@stanford.edu Kevin Van Otterloo, MPA Director Email: kevin@perinatalnetwork.org

Rebecca Robinson Administrative Director Email: rrobinso@cpqcc.org

THE PERINATAL TRANSPORT SYSTEM

The California Perinatal Transport System, or CPeTS, is the neonatal transport database for the State of California. The database tracks bed availability for neonatal transports throughout the State in order to increase quality improvement and system efficacy.

Neonatal transports are regulated by the California Children's Services Program, California Department of Health Care Services (<u>http://www.dhcs.ca.gov/services/ccs/Pages/default.aspx</u>), Title 22 of California Code of Regulations (<u>http://www.nurseallianceca.org/files/2012/06/Title-22-Chapter-5.pdf</u>), and the recommended guidelines found in "Perinatal Services Guideline for Care," developed by the Regional Perinatal Programs of California (<u>http://mchlibrary.jhmi.edu/downloads/file-5412-1</u>).

The neonatal transport data provides regions and hospitals with performance information to facilitate quality improvement (QI).

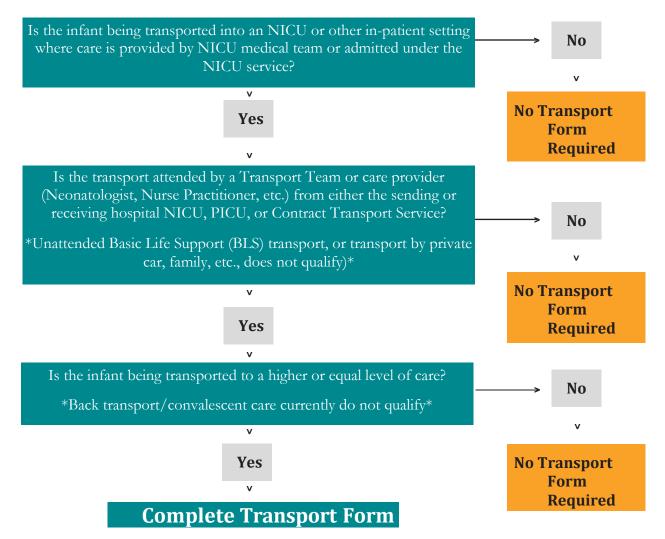
- A Patient characteristics and outcomes are reported for (1) the entire state; (2) each perinatal region;
 (3) every facility that refers (request) neonatal transports to a higher level of care; and (4) all of those facilities that participate in the California Perinatal Quality Care Collaborative (CPQCC) that accept neonatal transports. Accepting facilities include all California Children's Services-designated Neonatal Intensive Care Units (NICUs) in the State.
- B. Information is presented to provide comparative measures within the entire CPQCC Network of facilities, as well as by levels of care, as designated by California Children's Services (**CCS**).
- C The Neonatal Transport Database was designed to inform quality improvement efforts in the following issue areas:
 - 1) Discernable underutilization of maternal transport;
 - 2) Discernable delays in the decision to transport infant;
 - 3) Difficulty in obtaining transport placement/acceptance;
 - 4) Delays in effecting transport following the decision *to* transport the infant; and
 - Consistent referring facility competency regarding infant stabilization prior to the Transport Team's arrival, as well as Transport Team proficiency.
- D. Neonatal Transport Data Collection and Reporting
 - 1) Data collection is the joint responsibility of the sending (referring) facility staff, as well as the Transport Team.
 - 2) Data reporting into the CPQCC system is the responsibility of the receiving NICU.
 - 3) Data is collected at the time of transport on all infants meeting the CPQCC inclusion criteria, who are acutely transported by a Transport Team, into a CPQCC-participating facility.
 - 4) Go to <u>www.cpqccreports.org</u> for facility-specific transport reports. (See Appendix F for a sample report.)

- 5) Infants included in the neonatal transport data set must meet inclusion criteria for CPQCC, as well as CPeTS. The following decision tree is intended to provide the primary criteria, and assist you with identifying those infants requiring data submission. As unique situations arise, please do not hesitate to contact the Southern or Northern CPeTS offices for determination of CPeTS eligibility.
- 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.

ACUTE TRANSPORT DECISION TREE

If an infant is being transported to a CPQCC facility, and meets CPQCC inclusion criteria, answer the following preliminary questions to determine if a CPeTS Transport form is required:



DO NOT INCLUDE INFANTS WITH THE FOLLOWING CONDITIONS:

- Transported solely for feeding and growing (convalescent) or hospice care.
- Transferred WITHIN a facility, such as ER or clinic to NICU in same building, or embedded NICU's (a facility that is owned and managed by one organization located within a delivery facility that is owned and managed by another hospital)
- Readmitted to the NICU directly from home or MD's office/clinic.
- Transport initiated solely at the request of the parents for reasons of convenience.
- Transported solely for insurance, bed availability, or staffing/census reasons.
- Not attended by a Transport Team
- Transported to a lower level of care
- Not admitted to the NICU service
- Transported after 28 days of life

* For other unique situations, please contact the Southern or Northern CPeTS office.

EXPLANATION OF THE NEONATAL TRANSPORT FORM - 2023

I. PATIENT DIAGNOSIS

Special Situations (Situational Overrides)

Unique situations can complicate the data collection process required for **Acute Inter-Facility Neonatal Transports**. Several situations have been identified that will alter which data element to be collected (see below).

- **Requested Delivery Attendance**: When the sending hospital requests that the identified receiving NICU Transport Team attend the delivery of a suspected high-risk infant then the sending hospital evaluation (TRIPS Score, Sections C.20a-30a) are not applicable. When this special situation is selected, this area of the form will gray-out so that not data may be entered.
- Transport by Sending Facility (Self-Transport): When the sending hospital's Transport Team will be used to transport the infant, several sections are grayed-out, as they are not applicable. These include: C.16 Transport Team Departure from Transport Team Office/NICU for Sending Hospital, C.17 Date/Time of Transport Team Arrival at Sending Hospital/Patient Bedside, C.18 Initial Transport Team Evaluation, and C.20.b-29 Initial Transport Team Evaluation (TRIPS Score).
- Transport from Emergency Department (ER) or other non-perinatal setting: When infants are transported from non-perinatal settings, some data may be not applicable or not available. In this case the following items will gray out: C.6 Prenatally Diagnosed Congenital Anomalies, C.8 Antenatal Steroids, C.10 Date/Time of Mother's admission to L&D, C.12 Date/Time of Birth. Use the current weight for item C.3.
- Safe Surrender Infants: Infants left at designated Safe Surrender sites frequently have little to no known information about their mother or delivery. In this case, the following areas are grayed- out and no data can be entered: C.10 Date/Time of Mother's admission to L&D, C.6 Prenatally diagnosed congenital anomalies, C.8 Antenatal Steroids, C.9 Surfactant Administration, C.10 Maternal Admission to Perinatal Unit or Labor and Delivery, C.33 Birth Hospital. Other information may need to be estimated such as: C.3 Birth weight (use current weight if unknown), C.4 Gestational Age, C.12 Infant birth date and time.

C.1 Transport Type

A CPeTS Acute Inter-facility Transport is defined as any infant that requires medical, diagnostic, or surgical interventions that are not provided at the sending hospital. A CPeTS Acute Inter-facility Transport **does not** include infants:

- Transported solely for feeding and growing (convalescent) or hospice care.
- Transferred WITHIN a facility, such as ER or clinic to NICU in same building, or embedded NICU's (Note: Infants admitted to embedded NICUs (e.g. an NICU owned and managed by one organization located within a delivery facility owned and managed by another hospital) are not considered an acute inter-facility transport for the purpose of the Transport Data System. No TRS form is required).
- Readmitted to the NICU directly from home or MD's office/clinic.

- Transports initiated solely at the request of the parents for reasons of convenience. See Decision Tree above for basic inclusion criteria.
- Transports initiated solely for care that cannot be provided **due to temporary staffing/census issues**, or **due to insurance restrictions**. This is a change to the definition of an acute transport in 2019.

*For other unique situations, please contact the Southern or Northern CPeTS office.

Check type of transport requested.

Requested Delivery Attendance. Check if Neonatal Transport Team was initially requested to attend the delivery, regardless of whether the team arrived prior to the birth.

Emergent. Check if the infant was an emergent transport. Immediate response is requested.

Urgent. Check if response within 6 hours was needed.

Scheduled Neonatal. Check if the infant transport was planned or scheduled. A scheduled transport is selected for an infant whose initial medical/surgical needs have been met, whose condition has been stabilized and who is transferred to a facility in order to obtain planned diagnostic or surgical intervention. The medical needs may be extensive and extremely complex care (e.g., an infant with lethal anomalies).

C.2 Indication (for Transport)

Medical/Dx/Rx Services. Check if the infant was transported for medical problems that require acute resolution or diagnostic evaluation.

Surgery. Check if the infant was transported primarily for major invasive surgery (requiring general anesthesia, or its equivalent).

Bed Availability/Insurance. Check if the infant was transported primarily due to bed availability or insurance issues at the sending facility. This alone does not make the infant eligible for the CPeTS or CPQCC NICU database.

II. CRITICAL BACKGROUND INFORMATION/DEMOGRAPHICS

C.3 Birth Weight

Record the birth weight in grams. Since many weights may be obtained for an infant shortly after birth, enter the weight from the Labor and Delivery record, if available and judged to be accurate. If unavailable, or judged to be inaccurate, use the weight on admission to the neonatal unit, or, lastly, the weight obtained at autopsy (if the infant expired within 24 hours of birth).

C.4 Gestational Age

Record the best available estimate of gestational age in weeks and days. Where sources disagree, use the following hierarchy:

• Obstetric measures, based on last menstrual period, obstetrical parameters, or prenatal ultrasound as recorded in the maternal chart.

• Neonatologist's estimate, based on physical or neurologic examination, combined physical and gestational age exam (Ballard/Dubowitz), or examination of the lens.

In cases when the best estimate of gestational age is an exact number of weeks, enter the number of weeks in the space provided for weeks and enter 0 in the space provided for days.

C.5 Infant Sex

Check Male or Female.

Check **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. Check **Unk** if sex cannot be obtained.

C.6 Prenatally-Diagnosed Congenital Anomalies

Check **Yes** if the infant had one or more clinically-significant birth defects that was diagnosed during the prenatal period. Do not check **Yes** if infant was identified to have congenital anomalies following delivery that were not diagnosed prenatally.

Check No if an infant was not prenatally-diagnosed as having one or more birth defects.

Check **Unk** if this information cannot be obtained.

Describe: Enter up to five Birth Defect Codes that were all diagnosed, prenatally.

In the spaces provided, you may enter as many as five 3-digit code numbers of birth defects from the list in **APPENDIX B**. Do not use general descriptions such as "multiple congenital anomalies" or "complex congenital heart disease."

The following Birth Defect Codes require a detailed description in the space provided:

- Code 150 Other Central Nervous System Defects
- Code 200 Other Cardiac Defects
- Code 300 Other Gastro-Intestinal Defects
- Code 400 Other Genito-Urinary Defects
- Code 504 Other Chromosomal Anomaly
- Code 601 Skeletal Dysplasia
- Code 605 Inborn Error of Metabolism
- Code 800 Other Pulmonary Defects
- Code 900 Other Vascular or Lymphatic Defects

The following conditions should **NOT** be coded as Major Birth Defects:

- Extreme Prematurity
- Intrauterine Growth Retardation
- Small Size for Gestational Age
- Fetal Alcohol Syndrome
- Hypothyroidism
- Intrauterine Infection
- Cleft Lip without Cleft Palate
- Club Feet
- Congenital Dislocation of the Hips

C.7 Maternal Date of Birth

Enter maternal date of birth from maternal interview or admission forms. Age will auto-populate in the online form.

Enter **Unknown** if birthdate is unavailable.

C.8a Antenatal Steroids

Note: Corticosteroids include betamethasone, dexamethasone, and hydrocortisone.

Check **Yes** if corticosteroids were administered to the mother during pregnancy at any time prior to delivery.

Check **No** if corticosteroids were not administered to the mother during pregnancy at any time prior to delivery.

Check **Unk** if this information cannot be obtained.

C.8b Antenatal Magnesium Sulfate

Check **Yes** if magnesium sulfate was administered to the mother during the pregnancy at any time prior to delivery.

Check **No** if no magnesium sulfate was not administered to the mother during the pregnancy at any time prior to delivery.

Check **Unk** if this information cannot be obtained.

III. TIME SEQUENCE

C.10 Date and Time of Maternal Admission to Perinatal Unit or Labor and Delivery

Enter the date, using MM/DD/YYYY; and time, using a 24-hour clock (Ex. 11:30 PM = 2330) of mother's admission to hospital of delivery. If mother was admitted directly to the Labor and Delivery Unit, state this date and time. If mother was initially admitted to the Emergency Department, received care there, and either delivered in the Emergency Room, or was subsequently transferred to the Labor and Delivery Unit, state this date and time.

C.11 Infant Birth Date and Time

Enter the date of birth using MM/DD/YYYY. Enter the time of birth using a 24-hour clock (Ex. 11:30 PM = 2330). Enter **UNK** if unknown.

C.12 Maternal/Fetal Transport Consideration

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

- Referring Facility is a primary care, intermediate, or non-CCS NICU AND
- (C.10) Maternal Admission is > 24 hours before (C.12) Infant Birth

AND

- (C.1) Transport Type is:
 - o Requested Delivery Room Attendance
 - o Emergent
 - o Urgent

AND one of the following is true:

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

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

- Advanced Labor if the mother was not transported due to advanced cervical dilation or labor.
- **Bleeding** if the mother was not transported because of maternal bleeding.
- Mother Medically Unstable if the mother was not transported because she was medically unstable.
- Non-Reassuring Fetal Status if the mother was not transported because of distress detected in the fetus.
- Not Considered if maternal/fetal transport was not considered.
- Unk (unknown) if the reason for not transporting the mother is not known or cannot be obtained.

C.9/13 Date and Time of First Dose SurfactantAdministration

Enter date/time at First Dose. Enter the date using MM/DDYY. Enter the time using a 24-hour clock (Ex. 11:30 PM = 2330).

Note: The first dose may have occurred prior to, or after NICU admission, and may have occurred before transfer, during transport, or at your hospital.

Check **Delivery Room** if the first dose was administered in the Delivery Room (or any other area where infant was located immediately after birth, and where resuscitative measures took place).

Check Nursery if the first dose was administered in the Nursery.

Check **N/A** if the infant never received surfactant.

Check **Unk** if this information cannot be obtained.

C.14 Referral (and Sending Hospital Evaluation Time)

Enter the date and time of the initial referral communication between sending and receiving providers/facilities. Time should be reported using MM/DD/YYYY and the 24-hour clock (Ex. 11:30 PM = 2330). The same time is used for the referral evaluation. Enter **UNK** if unknown.

C.15 Acceptance Date and Time

Enter the date and time of the transport acceptance using MM/DD/YYYY and 24-hour clock (Ex. 11:30 PM = 2330). Enter **UNK** if unknown.

C.16 Date/Time Transport Team Departure from Transport Team Office/NICU forSending Hospital

Enter the date using MM/DD/YYYY and time using a 24-hour clock (Ex. 11:30 PM = 2330) Enter **UNK** if unknown.

C.17 Date/Time of Arrival of Team at Sending Hospital/Patient Bedside

Enter the date using MM/DD/YYYY and time using a 24-hour clock (Ex. 11:30 PM = 2330) Enter **UNK** if unknown.

C.18 Initial Transport TeamEvaluation

Enter the date and time of the Transport Team's evaluation of the infant. Evaluation should be completed within 15 minutes of arrival at the Sending Hospital. Time should be reported on the 24-hour clock (Ex. 11:30 PM = 2330). Enter **UNK** if unknown.

C.19 Date and Time of Arrival at RECEIVING NICU

Enter the date and time of the infant's NICU admission. Transport Risk Index of Physiologic Stability (TRIPS) evaluation should be completed within 15 minutes of arrival at Receiving Hospital. Time should be reported on the 24-hour clock. (Ex. 11:30 PM = 2330). Enter **UNK** if unknown.

IV. INFANT CONDITION

This section of the Transport Form provides consistent information at three specific times for evaluation of overall stability of the infant. Specific times should be recorded, (1) at referral; (2) within 15 minutes of arrival of the Transport Team at the Sending Hospital; and (3) within 15 minutes of arrival into the receiving NICU, if possible.

Note: Date/Times at which infant condition was evaluated (C.14, C.18. C.19 will auto-populate).

C.20 Responsiveness

In the designated space, write,

0 (Zero) if the infant died prior to evaluation,

1 (One) demonstrated no responsiveness, • • seizures • • or received muscle relaxants at the time of referral for transport.

• • Seizures include compelling clinical evidence of seizures, or of focal, multifocal, clonic or tonic seizures, as well as EEG evidence of seizures, regardless of clinical status.••

2 (Two) if the infant appeared lethargic or had no cry at the time of referral for transport.

3 (Three) if the infant vigorously withdraws or cries. This also refers to normal ageappropriate behavior.

9 (Nine) if unknown.

C.21 Temperature (20.0° to 45.0° C, or 68° to 113° F)

If the infant's core body temperature was measured and recorded at the time of referral for transport, enter the infant's temperature in degrees centigrade to the nearest tenth of a degree. Use rectal temperature or, if not available, esophageal temperature, tympanic temperature or axillary temperature, in that order. If the infant's core body temperature is too low to register please check the box in **C.21.a**.

C.21.a Check if the infant's temperature was too low to register, or not.

C.21.b Was the Infant Cooled for Hypoxic Ischemic Encephalopathy (HIE)? If the infant was undergoing intentional cooling for therapeutic purposes, indicate **Yes** or **No**.

C.22.c Method of Cooling

Select type of cooling, if applicable:

- Passive
- Whole Body
- Other
- Unknown.

C.22 Heart Rate (0 to 400)

Indicate infant's heart rate.

C.23 Respiratory Rate (0 to 400)

Indicate infant's respiratory rate. If infant is on High Frequency or Oscillatory Ventilation, enter 400. Note: This rate may be spontaneous or assisted by ventilator. Enter **UNK** if unknown.

C.24 Oxygen Saturation (SaO2) (0 to 100)

Indicate average oxygen saturation as a percentage. If unknown, indicate UNK.

C.25 Respiratory Status

In the designated field, write:

- 1 (One) if the infant was on the ventilator at the time of referral for transport.
- 2 (Two) if the infant had severe respiratory complications, including apnea and/or gasping.
- 3 (Three) for all other respiratory statuses (including "none" or "mild respiratory complications").
- 9 (Nine) if unknown.

C.26 Inspired Oxygen Concentration

Inspired Oxygen Concentration (FiO2) (21-100). Indicate inspired oxygen concentration (21-100%). If the infant was given supplemental oxygen, write the FIO2 (percentage of oxygen) in the designated space. If the infant was not given supplemental oxygen, leave the designated space blank. Enter **UNK** if unknown.

C.27 Respiratory Support

In the designated field, write:

- None (0) if required no respiratory support.
- 1 (One) 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 (Two) Nasal CPAP** if the infant was provided with Continuous Positive Airway Pressure (CPAP) using nasal CPAP (without rate).

- **3 (Three) Noninvasive Ventilation (NIPPV/NIMV)** if the infant was ventilated using nasal intermittent positive pressure ventilation (NIPPV) or nasal intermittent mandatory ventilation (NIMV). This includes nasal prongs and masks.
- **4 (Four) 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 (Nine) if unknown.

C.28 Blood Pressure

- Indicate infant's systolic blood pressure
- Indicate infant's diastolic blood pressure
- Indicate infant's mean blood pressure.

C28.a Check "T" if infant's blood pressure is too low to register. Check "N" if infant's blood pressure was not measured.

C.29 Use of Pressors

Indicate Y (Yes), or N (No) if vasopressors were administered.

IV. INFANT CONDITION

C.30 Sending Hospital Name

Write the name of the Sending Hospital in the designated space. Write the previous NICU Record ID number in the designated space.

Sending Hospital Nursing Contact Information

Write name and telephone number of nursing contact at the Sending Hospital.

C.31.a Was the infant Previously Transported?

Check **Yes** if the infant was transported previously from another hospital to the current Sending Hospital. Check **No** if the infant was not transported previously from another hospital to the current Sending Hospital.

C.31.b From

If C.31a is answered **Yes**, write the name of the original hospital in the designated spaces (**Paper Form only**). If the original hospital is not a CPQCC-member hospital, this item is not applicable and may be left blank.

C.32 Location of Birth

Write/choose the name of the birth hospital in the designated space. If the birth hospital is not a CPQCC-member hospital, this item is not applicable and may be left blank.

C.33 Transport Team On-Site Leader

Choose only one of the following responses:

- Check Sub-specialist MD for Neonatologist
- Check **Peds** for Pediatrician.
- Check **Other MD/Resident** as applicable
- Check **NNP** for Neonatal Nurse Practitioner.
- Check **Transport Specialist** for Registered Nurse or Respiratory Therapist specializing in Neonatal/ Pediatric Transport Services, practicing under standardized procedures.
- Check Nurse for Neonatal Registered Nurse.

C.34a Transport Team "From."

Choose one of the following responses:

- **Receiving Hospital** if the Transport Team is part of the receiving hospital's staff (including those used for both Neonatal and Pediatric Transports and based in NICU, Pediatrics, PICU, Emergency Department, etc.)
- Referring/Sending Hospital if the Transport Team is part of the sending hospital's staff.
- Contract Service if the Transport Team is not on staff at the receiving hospital. This may include contracted Transport Teams from another facility inside or outside of the hospital system of the receiving facility. Please provide this information in the section "Transport Team Informant Names/Telephone Numbers" below.

C.34b List of Contract Services

The list includes fixed-wing ambulance services in California from the Association of Air Medical Services (www.aams.org). The additional codes are as follows:

800000 = Other Contract Service

800001 = Aeromedevac, Inc.

800002 = Air Rescue - AirRescue International

800003 = CALSTAR - California Shock Trauma Air Rescue

800004 = PHI Air Medical

800005 = Life Flight - Stanford Life Flight Transport Program

800006 = REACH - REACH Air Medical Services, Mediplane, Inc.

800007 = Sierra LifeFlight

800008 = Pro Transport

C.35 Mode of Transport

Select type of transport used. **Select only one**. Primary type of transport used (e.g., patient was transported by ambulance to airfield or heliport for helicopter transport, would be coded as helicopter).

- **Ground** for ambulance transport or ambulatory transport (e.g. crossing from one hospital to another immediately adjacent facility IF ACCOMPANIED BY TRANSPORT TEAM).
- Helicopter for rotor-wing transport.
- **Fixed-Wing** for airplane transport.

VI. ADDITIONAL INFORMATION FOR CPQCC A/D FORM

Birth Head Circumference

Enter the head circumference to the nearest tenth of a centimeter.

Labor Type

- Check **Spontaneous** if if the mother went into labor on her own (spontaneous labor) prior to delivery. Cases where the mother begins labor spontaneously, but the labor is subsequently augmented (e.g. administration of Pitocin) are still considered spontaneous.
- Check **Induced** if labor was induced (e.g. administration of Pitocin or cervical ripening agent), but no labor was evident prior to induction.
- Check **Unknown** if this information cannot be obtained.

Rupture of Membranes > 18 hours

- Check Yes if membranes were ruptured more than 18 hours before birth of the infant.
- Check **No** if membranes were not ruptured more than 18 hours before the birth of the infant.
- Check **Unknown** if this information cannot be obtained.

Delivery Mode

- Check **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.
- Check **Operative Vaginal** for any vaginal delivery for which any instrumentation (forceps, vacuum) was used. Episiotomies are not considered operative deliveries.
- Check **Cesarean** for any abdominal delivery.
- Check **Unknown** if this information cannot be obtained.

Delayed Cord Clamping

• Check Yes if delayed umbilical cord clamping was performed.

Time Delayed

- Check **30 60** sec if delayed umbilical cord clamping was performed for 30 to 60 seconds.
- Check **61 120** sec if delayed umbilical cord clamping was performed for greater than 60 seconds to 120 seconds.
- Check >120 sec if delayed umbilical cord clamping was performed for greater than 120 seconds.
- Check **No** if delayed umbilical cord clamping was not performed.
- Check **Maternal Bleeding** if delayed umbilical cord clamping was not performed due to abruption, placental separation, uterine rupture, cord avulsion.
- Check **Neonatal Causes** if delayed umbilical cord clamping was not performed due to neonatal complications i.e. very depressed apneic baby requiring resuscitation, hydropic.
- Check **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.
- Check **Unknown** if this information cannot be obtained.

Breathing Before Clamped

- Check **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.
- Check No if breathing did not begin before umbilical cord clamping was performed.
- Check **Unknown** if this information cannot be obtained.

Cord Milking Performed

- Check Yes if cord milking was performed.
- Check No if cord milking was not performed.
- Check Unknown if this information cannot be obtained.

Death

- Check **No** if the infant arrives alive at the receiving institution.
- Check Yes if the infant for whom transport was requested has died. If Yes:
 - Check Prior to Team Arrival if the infant died before the transport team arrived at the sending hospital.
 - Check Prior to Departure from Sending Hospital if the infant was alive when the transport team arrived at the sending hospital, but died before the team and the infant departed for transport.
 - Check Prior to Arrival at Receiving NICU if the infant was alive upon departure from the sending hospital, but died during transport prior to arriving at the receiving NICU.

VII. ADDITIONAL DATA

Transport Team Informant Names/Telephone Numbers (Paper Form only)

Write the name and telephone number of the Transport Team Informant in the designated space.

Comments

Please use this space to for additional comments, or description of incidents involving the Transport Team relevant to this transport.

Death

If the infant died, please check the correct box for when the infant died in the transport sequence (prior to transport team's arrival; prior to transport team's departure from sending hospital; or prior to the transport team's arrival at the receiving hospital).

Appendix A Core CPeTS Acute Inter-Facility Neonatal Transport Form - 2023

CORE CPETS ACUTE INTER-FACILITY NEONATAL TRANSPORT FORM – 2023

PATIENT DIAGNOSIS Special Situ		one 🗌 Delive	ery Attendanc	e 🗌 Transport by Sending	Facility 🗌 Transport f	rom ER 🗌 Safe Surr.	
C.1 Transport type Delivery Eme	ergent 🗌 Urg	ent 🗌 Sche	eduled C	C.2. Indication 🗌 Medical [Surgical Bed Av	ailability/Insurance	
CRITICAL BACKGROUND INFORMA	TION						
C.3 Birth weight grams	C.4 Gestationa	al Age v	veeks day	s C.5 Male	Female 🗍 Undeterm	ined 🗌 Unknown	
C.6 Prenatally Diagnosed Congenital A		Yes 🗌 No 🔽] Unknown D		7 Maternal Date of Birth		
C.8a. Antenatal Steroids Yes No			C.8b . Ante	enatal Magnesium Sulfate		nknown	
TIME SEQUENCE					Date	Time	
C.10 Maternal Admission to Perinatal U	Init or Labor 8	& Deliverv			240		
C.11 Infant Birth		a Delivery					
	duotor∏ Adv	anaad Labor		Mathar Madiaally Linata	hla 🗔 Nan Dagagurin.	n Fatal Statua	
C.12 Maternal/fetal transport not done of Not Considered Unknown		anceo Labor			able 🔄 Non-Reassunn	g Felai Status	
C.9/13 Surfactant (first dose)] Delivery Roo	om 🗌 Nurse	ery 🗌 N/A 🛛	Unknown			
C.14 Referral							
C.15 Acceptance							
C.16 Transport Team Departure from T	ransport Tear	n Office/NIC	U for Sending	Hospital			
C.17 Arrival of Team at Sending Hospit	•			•			
C.18 Initial Transport Team Evaluation							
C.19 Arrival at Receiving NICU							
INFANT C					REFERRAL PROCESS		
Modified TRIPS Score: to be recorded		thin 15 minut	tes of arrival	C.30 Sending Hospital N			
at sending hospital and admit to NICU.	,			Previous CPQCC ID#			
	Referral	Initial	NICU	Sending Hospital Nursi	ing Contact Information	on Name/Telephone	
		Transport	Admit	U .	•	•	
C.20 Responsiveness				C.31a Previously Transp C.31b From:	orted? □Yes □No		
C.21 Temperature C°				C.32 Birth Hospital Name	9		
C. 21.a. Too low to register	∏Yes	Yes	∏Yes	C.33Transport Team On	n-Site Leader (check on	lv one)	
C.21.b. Was the infant cooled?				Sub-specialist Physici	an 🔤 Pediatrician 📃	Other MD/Resident	
C.21.c. Method of cooling +		YN		Neonatal Nurse Practi	tioner Transport Spe	ecialist Nurse	
C.22 Heart Rate				C.34a Team From		anding Hospital	
C.23 Respiratory Rate				Contract Service		chang noopital	
· · ·				C.34b Describe (name of	f Contract Service):		
C.24 Oxygen Saturation							
C.25 Respiratory Status *				C.35 Mode Ground			
C.26 Inspired Oxygen Concentration				Transport Team Inform	nant Names/Telephon	e Numbers	
C.27 Respiratory Support & C.28 Blood Pressure Systolic /							
Diastolic				Comments			
Mean				Comments			
N=Not Done, T=Too low to register							
C.29 Pressors		<u> </u>					
Additional Information for CPQCC Adm		0					
Birth Head Circumference cm Lab		ontaneous [Unknown Rupture of Mer	mbranes>18 hours	Yes 🗌 No 🗌 Unknown	
Delivery Mode Spontaneous Vag		perative Vagi		arean Unknown			
Delayed Cord Clamping Yes 30-6 Breathing before Clamped Yes		-120 sec 🗌	-	No Maternal Bleedir		s Other Dunknown	
			•			CU	
Death No Yes Prior to Team Arrival Prior to Departure from Sending Hospital Prior to Arrival at Receiving NICU ©Responsiveness: 0=Death 1=None, Seizure, Muscle Relaxant 2=Lethargic, no cry 3=Vigorously withdraws, cry Image: Comparison of the series of t							
 Method of cooling: Passive, Whole Body, Other, Unknown Respiratory Status: 1=Ventilator 2= Severe (apnea, gasping) 3=Other 9= Unknown 							
Respiratory Rate: High Frequency Ventilation	on = 400	,					
Respiratory Support: 0 = None, 1 = Hood 3 = Non-Invasive Ventilation (NIPPV / NI							
4 = Oral/Nasal Endotracheal Tube 9= Unknown							

This data is mandatory for all infants transported in the State of California per California Perinatal Transport System.

APPENDIX B Birth Defects for Item C.6. (For Infants Born in 2023)

The following Birth Defect Codes require a detailed description in the space provided for Item C6 on the Transport Form, or Item 49 on the Admission/Discharge Form.

Code 150 - Other Central Nervous System Defects

Code 200 - Other Cardiac Defects

Code 300 - Other Gastro-Intestinal Defects

Code 400 - Other Genito-Urinary Defects

Code 504 - Other Chromosomal Anomaly

Code 601 - Skeletal Dysplasia

Code 605 - Inborn Error of Metabolism

Code 800 - Other Pulmonary Defects

Code 900 - Other Vascular or Lymphatic Defects

The following conditions should **NOT** be coded as Major Birth Defects:

- 1) Cleft Lip without Cleft Palate
- 2) Club Feet
- 3) Congenital Dislocation of the Hips
- 4) Extreme Prematurity
- 5) Fetal Alcohol Syndrome
- 6) Hypospadias
- 7) Hypothyroidism
- 8) Intrauterine Growth Retardation
- 9) Intrauterine Infection
- 10) Limb Abnormalities
- 11) Patent Ductus Arteriosus
- 12) Persistent Pulmonary Hypertension (PPHN)
- 13) Polydactyly
- 14) Pulmonary Hypoplasia (use code 401 for bilateral renal agenesis or 604 for oligohydramnios sequence, if applicable)
- 15) Small Size for Gestational Age
- 16) Syndactyly

Other Lethal or Life Threatening Birth Defects

100 Other lethal or life threatening birth defects, which are not listed below (for instructions, see definition of Item 49 in CPQCC's 2023 NICU Manual of Definitions).

Central Nervous System Defects

- 101 Anencephaly
- 102 Meningomyelocele
- 103 Hydranencephaly
- 104 Congenital Hydrocephalus
- 105 Holoprosencephaly
- 106 Microcephaly
- 107 Hypopituitary
- 108 Septic Optic Dyplasia
- 109 Encephalocele
- 150 Other lethal or life threatening CNS Defect not listed above (Description required)

Congenital Heart Defects

- 200 Other lethal or life threatening Congenital Heart Defects not listed below (Description required)
- 201 Truncus Arteriosus
- 202 Transposition of the Great Vessels
- 203 Tetralogy of Fallot
- 204 Single Ventricle
- 205 Double Outlet Right Ventricle
- 206 Complete Atrio-Ventricular Canal
- 207 Pulmonary Atresia
- 208 Tricuspid Atresia
- 209 Hypoplastic Left Heart Syndrome
- 210 Interrupted Aortic Arch
- 211 Total Anomalous Pulmonary Venous Return
- 212 Coarctation of the Aorta
- 213 Atrial septal defect (ASD)
- 214 Ventricular septal defect (VSD)
- 215 Arrythmias
- 216 Ebsteins Anomaly
- 217 Pericardial Effusion
- 218 Pulmonary Stenosis
- 219 Hypertrophic Cardiomyopathy
- 220 Penatalogy of Cantrell (Thoraco-Abdominal Ectopia Cordis)

Gastro-Intestinal Defects

- 300 Other lethal or life-threatening GI Defects not listed below (Description required)
- 301 Cleft Palate
- 302 Tracheo-Esophageal Fistula
- 303 Esophageal Atresia
- 304 Duodenal Atresia
- 305 Jejunal Atresia
- 306 Ileal Atresia
- 307 Atresia of Large Bowel or Rectum
- 308 Imperforate Anus
- 309 Omphalocele
- 310 Gastroschisis
- 311 Pyloric Stenosis
- 312 Annular Pancreas
- 313 Biliary Atresia
- 314 Meconium Ilius
- 315 Malrotation Volvulu
- 316 Hirschsprung's Disease

Genito-Urinary Defects

- 400 Other lethal or life-threatening Genito-Urinary Defects not listed below (Description required)
- 401 Bilateral Renal Agenesis
- 402 Bilateral Polycystic, Multicystic, or Dysplastic Kidneys
- 403 Obstructive Uropathy with Congenital Hydronephrosis
- 404 Exstrophy of the Urinary Bladder

Chromosomal Abnormalities

- 501 Trisomy 13
- 502 Trisomy 18
- 503 Trisomy 21
- 504 Other Chromosomal Anomaly (Description required)
- 505 Triploidy

Other Birth Defects

- 601 Skeletal Dysplasia (Description required)
- 602 Congenital Diaphragmatic Hernia
- 603 Hydrops Fetalis with anasarca and one or more of the following: ascites, pleural effusion, pericardial effusion
- 604 Oligohydramnios sequence including all three of the following:
 - (1) Oligohydramnios documented by antenatal ultrasound 5 or more days prior to delivery
 - (2) Evidence of fetal constraint on postnatal physical exam (such as Potter's facies, contractures, or positional deformities of limbs) &
 - (3) Postnatal respiratory failure requiring endotracheal intubation and assisted ventilation.
- 605 Inborn Error of Metabolism (Description Required)
- 606 Myotonic Dystrophy requiring endotracheal intubation and assisted ventilation
- 607 Conjoined Twins
- 608 Tracheal Agenesis or Atresia
- 609 Thanatophoric Dysplasia Types 1 and 2
- 610 Hemoglobin Barts

Pulmonary Abnormalities

- 800 Other lethal or life-threatening Pulmonary Defects not listed below (Description required)
- 801 Congenital Lobar Emphysema
- 802 Congenital Cystic Adenomatoid Malformation of the Lung
- 803 Sequestered Lung
- 804 Aveolar Capillary Dysplasia

Vascular and Lymphatic Defects

- 900 Other Vascular or Lymphatic not listed below (Description required)
- 901 Cystic Hygroma
- 902 Hemangioma
- 903 Sacrococcygeal Teratoma
- 904 Cerebral AV Malformation

Other Diagnoses

- 121 Hematologic
- 122 Hemolytic Disease of the Newborn (Not ABO)

APPENDIX C

CPeTS/CPQCC Neonatal Transport Data Report Request 2023

Name of Person Requesting Data	
Hospital Affiliation	
Full Hospital Address	
E-mail Address to send report to	
Date Needed (allow 2 weeks)	

Please be as specific as possible when requesting reports. Please check all applicable and complete one set of information for each report requested. Send completed request to Kevin@perinatalnetwork.org

Sele	ct One From Below	Select One Transport Type
	CPQCC Member Facility Number	All Transports
	Non-CPQCC Facility OSHPD Number	Delivery Room Requested
	Perinatal Region (specify)	Emergent
Sele	ct One	Urgent
	Transport In	Scheduled
	Transport Out	Select One Transport Provider Type
Sele	ct One Data Year	Receiving Facility
	2022	Referring Facility
	2021	Contract Service
	2020	

APPENDIX D

Modified Transport Risk Index of Physiologic Stability (TRIPS) Score

It is important to quickly assess the condition of an infant, as it can dictate the composition of the Transport Team and the type of transport requested. Being able to assess the infant's condition at different times, and then predict mortality, or even death, is an important measurement for the California Perinatal Transport System.

The assessment of the infant's condition at referral, initial transport and NICU admission using the Modified TRIPS Score can be used to calculate the risk of death of the infant within seven days of transport. The TRIPS methodology utilized in California is a physiology-based assessment comprised of temperature, blood pressure, response to noxious stimuli, respiratory status, use of pressors to support blood pressure and use of a ventilator. It is used to explicate the infant's condition, and to assess the quality of care at the referral center, by evaluating changes in the infant condition between Referral and Initial Modified TRIPS Score. It is also used to judge the quality of the neonatal transport by through the calculated changes in the Modified TRIPS Score during the actual transport. Finally, reviewing the Modified TRIPS Score helps identify quality improvement initiatives.

An online trips score/risk of mortality calculator suitable for smart phones is available at: <u>http://www.health-info-solutions.com/CPQCC-</u> <u>CPeTS/tripsmobile/tripsmobile.html</u> (Google TRIPS SCORE CALCULATOR).

APPENDIX E

CALIFORNIA PERINATAL TRANSPORT SYSTEM NEONATAL **TRIPS SCORE CALCULATIONS FORM**

To calculate a TRIPS Score for a neonate being transported in California:

- Obtain TRIPS score information from the CORE Neonatal Transport form (may be entered on Table A or B)
- Use point scores from Table C to calculate total score
- Identify Risk of Mortality in first 7 days following transport using Table D.

To use an electronic application to identify California TRIPS Score and associated risk please visit: http://www.health-info-solutions.com/CPQCC-CPeTS/tripsmobile/tripsmobile.html

	Referral	Initial Transport	NICU Admit
Time (24 hour)	C.14	C.18	C.19
C.20 Responsiveness ★	2	2	2
C.21 Temperature C°	37.6	37.7	37.8
Too low to register	Yes	Yes	Yes
Was the infant cooled?	Y XX N	Y XX N	Y XX N
Method of cooling			
C.22 Heart Rate	165	172	170
C.23 Respiratory Rate	80	60	60
C.24 Oxygen Saturation	84	89	90
C.25 Respiratory Status *	2	1	1
C.26 Inspired Oxygen Concentration	100	95	90
C.27 Respiratory Support �	3	3	3
C.28 Blood Pressure, Systolic/Diastolic, Mean	28/17	32/22	34/23
Too low to register	Yes	Yes	Yes
C.29 Pressors	XX Y N	XX Y N	XXY N

★ Responsiveness: 0=Death 1=None, Seizure, Muscle Relaxant 2=Lethargic, no pry 3=Vigorously withdraws, pry Ø

Method of cooling: Passive, Whole Body, Other, Unknown

* Respiratory Status: 1=Respirator 2=Severe (apnea, gasping, intubated not on respirator) 3=Other

Respiratory Support: 0=None 1=Hood/Nasal Cannula 2=Nasal Continuous Positive Airway Pressure 3=Endotracheal Tube

*Shaded areas not used for TRIPS Score calculations

Table B: TRIPS Score Components Used for Identifying Risk of Mortality within 7 Days After Transport Value Points C.20 Responsiveness 2 10 **C.21** Temperature C° 37.7 6 **C.25** Respiratory Status □ 1 20 C.26 Inspired Oxygen Concentration 95 C.28 Blood Pressure Systolic/ Diastolic, 32/22 8 Mean C.29 Pressors YES 5 49 **TOTAL SCORE**

Table C: Model Used for Calculating California TRIPS							
Risk Factor		TRIPS Points					
Responsiveness	None, seizure, muscle relaxant (1)	14					
Responsiveness	Lethargic, no cry (2)	10					
	Vigorously Withdraws, Cry (3)	0					
Temperature (°C)	36.1 to 37.6	0					
Temperature (C)	<36.1 or >37.6	6					
	None or mild respiratory symptoms (3)	0					
	Moderate (apnea, gasping, not on respirator) (2)	21					
Respiratory Status	Severe (on respirator) (1)						
	with FiO2 < 50	15					
	with FiO2 50 to <75	18					
	with FiO2 75-100	20					
	under 20	24					
Systolic Blood Pressure	20-30	19					
(mmHg)w	30-40	8					
	>40	0					
	Not Used	0					
Pressors	Used	5					

Table D: California TRIPS Score Risk							
Points	Risk of Death within 7 Days of Transport						
0 to 8	0.4 to 0.9%						
9 to 16	0.9 to 1.9%						
17 to 24	2.1 to 4.0%						
25 to 34	4.4 to 10.2%						
35 to 44	11.1 to 23.4%						
45 to 70	25.2 to 80.1%						

APPENDIX F-A: Sample Transport IN Report Modified Transport

Neonatal Transports IN Report

Infants born between 01/01/2020 and 06/07/2020 All Transport Types and All Transport Providers

This report is preliminary as the data collection is on-going.

California Perinatal Quality Care Collaborative (CPQCC) and California Perinatal Transport System (CPeTS)

RECEIVING LOCATION: DEMO CENTER

Contents:

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Table 15: Mean California TRIPS at NICU Admission, by Birth Weight
Table 16: Mean Change in California TRIPS from Referral to Initial Evaluation, by Birth Weight

Table 17: Mean Change in California TRIPS from Initial Evaluation to NICU Admission, by Birth Weight

Birth Weight	Cen	ter	CPQCC	Network	Regional NICUs		
(grams)	Ν	%	Ν	%	Ν	%	
All Birth Weights	15	100	2,119	100	1,450	100	
500 or less	0	0.0	6	0.3	5	0.3	
501 to 750	0	0.0	49	2.3	43	3.0	
751 to 1,000	2	13.3	49	2.3	34	2.3	
1,001 to 1,500	0	0.0	143	6.7	98	6.8	
1,501 to 2,500	3	20.0	515	24.3	323	22.3	
over 2,500	10	66.7	1,357	64.0	947	65.3	

Table 1: Acute Transports IN Activity, by Birth Weight

Birth Weight	Center						CPQCC Network				Regional NICUs			
(grams)	N	DR	Emer - gent	Urgen t	Sche- duled	D R	Eme r- gen t	Urgen t	Sche - dule d	DR	Emer - gent	Urgen t	Sche- duled	
All Birth Weights	14	0.0	50.0	35.7	14.3	6.9	39. 6	41.0	12.4	7.4	44.0	39.9	8.7	
500 or less	0	NA	NA	NA	NA	0.0	83. 3	0.0	16.7	0.0	80.0	0.0	20.0	
501 to 750	0	NA	NA	NA	NA	14. 6	52. 1	20.8	12.5	14.0	53.5	18.6	14.0	
751 to 1,000	2	0.0	50.0	50.0	0.0	26. 7	40. 0	24.4	8.9	27.3	42.4	24.2	6.1	
1,001 to 1,500	0	NA	NA	NA	NA	19. 0	39. 7	23.0	18.3	20.0	42.1	23.2	14.7	
1,501 to 2,500	3	0.0	66.7	0.0	33.3	13. 4	36. 5	34.4	15.7	13.4	43.3	34.4	8.9	
over 2,500	9	0.0	44.4	44.4	11.1	2.3	40. 2	46.9	10.6	3.0	43.9	45.3	7.7	

Table 2: Acute Transports IN Activity by Transport Type and by Birth Weight

Notes: Transport Type Other is not shown in the table.

Table 3: Acute Transport IN Activity by Transfer Provider and by Birth Weight

		C	enter		CPO	QCC Net	work	Regional NICUs			
Birth Weight (grams)	N	Receivin g Hospita l	Contrac t Servic e	Referring Hospital	Receivi ng Hospit al	Contrac t Servic e	Referrin g Hospital	Receivin g Hospita l	Contrac t Servic e	Referrin g Hospital	
All Birth	14	78.6	21.4	0.0	88.6	5.9	5.5	92.2	1.2	6.6	
Weights											
500 or less	0	NA	NA	NA	100	0.0	0.0	100	0.0	0.0	
501 to 750	0	NA	NA	NA	95.8	2.1	2.1	97.7	0.0	2.3	
751 to 1,000	2	100	0.0	0.0	91.1	0.0	8.9	90.9	0.0	9.1	
1,001 to 1,500	0	NA	NA	NA	90.5	4.8	4.8	94.7	0.0	5.3	
1,501 to 2,500	3	66.7	33.3	0.0	89.5	7.1	3.4	95.9	0.3	3.8	
over 2,500	9	77.8	22.2	0.0	87.7	5.9	6.4	90.4	1.7	7.8	

Table 4: Acute Transport IN Activity by Transport Mode and by Birth Weight

Birth Weight	Center			CPQCC Network			Regional NICUs			
	N	Groun d	Helicopte r	Fixed Wing	Grou nd	Helicopte r	Fixe d Win g	Groun d	Helicopte r	Fixe d Win g
All Birth Weights	14	85.7	14.3	0.0	87.9	9.5	2.6	84.3	12.0	3.7
500 or less	0	NA	NA	NA	66.7	33.3	0.0	60.0	40.0	0.0
501 to 750	0	NA	NA	NA	72.9	25.0	2.1	72.1	25.6	2.3
751 to 1,000	2	50.0	50.0	0.0	84.4	13.3	2.2	78.8	18.2	3.0
1,001 to 1,500	0	NA	NA	NA	87.3	7.1	5.6	85.3	7.4	7.4
1,501 to 2,500	3	100	0.0	0.0	88.7	9.1	2.2	84.6	11.9	3.5
over 2,500	9	88.9	11.1	0.0	88.4	9.0	2.6	85.0	11.4	3.6

Time Difference	Cen	iter	CPQCC	Regional
Time Difference	Ν	%	Network %	NICUs %
All Infants Transferred In	7	100	100	100
Up to 30 minutes	0	0.0	6.0	7.1
31 - 60 minutes	0	0.0	12.2	12.9
61 - 90 minutes	2	28.6	23.5	23.8
91 - 120 minutes	2	28.6	27.4	26.0
>2 - 4 hours	2	28.6	25.7	24.7
>4 - 8 hours	1	14.3	4.0	3.9
>8 hours	0	0.0	1.3	1.5
Mean	2H	9M	2H 26M	2H 33M
Median	1H 5	62M	1H 40M	1H 38M

Table 5: Time from Referral to Initial Evaluation at Referring Hospital, Emergent Transports Only

Table 6: Time from Acceptance to Team Departure for Referring Hospital, Emergent Transports

Time Difference	Cen	iter	CPQCC	Regional	
This Difference	N %		Network %	NICUs %	
All Infants Transferred	6	100	100	100	
In					
Up to 30 minutes	3	50.0	39.2	42.5	
31 - 60 minutes	3	50.0	41.1	41.5	
1 - 2 hours	0	0.0	15.1	11.7	
2 - 4 hours	0	0.0	2.4	1.9	
4 - 8 hours	0	0.0	1.7	1.9	
> 8 hours	0	0.0	0.5	0.7	
Mean	23M		56M	56M	
Median	21	М	36M	36M	

Table 7: Time from Departure for Referring Hospital to Initial Evaluation at Referring Hospital

Time Difference	(Center	CPQCC	Regional
Time Difference	Ν	%	Network %	NICUs %
All Infants Transferred In	1 3	100	100	100
Up to 30 minutes	1	7.7	26.0	25.0
31 - 60 minutes	2	15.4	40.2	37.4
1 - 2 hours	9	69.2	27.7	30.3
2 - 4 hours	1	7.7	5.4	6.6
4 - 8 hours	0	0.0	0.5	0.6
> 8 hours	0	0.0	0.2	0.1
Mean	1	H 18M	57M	59M
Median	1	H 15M	46M	49M

Time Difference	Cente r		CPQCC Network %	Regional NICUs %
	Ν	%	,0	
All Infants Transferred In	13	100	100	100
Up to 30 minutes	1	7.7	4.3	6.0
31 - 60 minutes	0	0.0	5.7	7.2
1 - 2 hours	0	0.0	28.1	23.9
2 - 4 hours	10	76.9	47.9	45.8
4 - 8 hours	2	15.4	13.1	15.9
> 8 hours	0	0.0	1.0	1.1
Mean	3H 20M		2H 48M	2H 56M
Median	3H 1	4M	2H 20M	2H 30M

Table 8: Time from Departure for Referring Hospital to NICU Admission at Receiving Hospital

Table 9: Missing TRIPS by TRIPS Time and Birth Weight

Birth Weight		Referr al		Initial Evaluation			NICU Admission		
(grams)	Ν	N Missing	%	N	N Missing	%	N	N Missing	%
All Birth Weights	15	6	40.0	15	2	13.3	15	1	6.7
500 or less	0	0	NA	0	0	NA	0	0	NA
501 to 750	0	0	NA	0	0	NA	0	0	NA
751 to 1,000	2	0	0.0	2	0	0.0	2	0	0.0
1,001 to 1,500	0	0	NA	0	0	NA	0	0	NA
1,501 to 2,500	3	1	33.3	3	1	33.3	3	0	0.0
over 2,500	10	5	50.0	10	1	10.0	10	1	10.0

Notes: The TRIPS at Referral is not applicable for DR attendance transports, therefore DR attendance transports are not included in the TRIPS at referral column.

The TRIPS at Initial Evaluation is not applicable for self transports, therefore self transports are not included in the TRIPS at initial evaluation column.

Table 10: California TRIPS at Referral

TRIPS at Referral	Cente r N %		CPQCC Network %	Regional NICUs %
All Scores	9	100	100	100
14 or less / Prob. < 1%	6	66.7	80.1	76.7
15 to 31 / Prob. < 5%	1	11.1	13.0	14.8
32 to 38 / Prob. < 10%	2	22.2	4.4	5.3
39 to 49 / Prob. < 25%	0	0.0	2.3	3.1
>=50 / Prob. >= 25%	0	0.0	0.1	0.2
Mean Score	12.2		6.9	8.1
Median Score	0	.0	0.0	3.0

Notes: For each TRIPS score range, the associated estimated risk of death within 7 days of transfer is displayed in the first table column.

Dirth Woight	Cen	iter	CPQCC	Regional
Birth Weight (grams)	N	Mean	Network Mean	NICUs Mean
All Birth Weights	9	12.2	6.9	8.1
500 or less	0	NA	22.3	21.2
501 to 750	0	NA	27.6	26.9
751 to 1,000	2	37.0	22.8	23.5
1,001 to 1,500	0	NA	10.0	10.3
1,501 to 2,500	2	0.0	5.9	7.0
over 2,500	5	7.2	5.7	6.7

Table 11: Mean California TRIPS at Referral, by Birth Weight

Table 12: California TRIPS at Initial Evaluation

TRIPS at Initial	Center		CPQCC	Regional
Evaluation	n	%	Network %	NICUs %
All Scores	13	100	100	100
14 or less / Prob. < 1%	8	61.5	80.0	76.7
15 to 31 / Prob. < 5%	3	23.1	12.8	14.4
32 to 38 / Prob. < 10%	1	7.7	3.9	4.6
39 to 49 / Prob. < 25%	1	7.7	2.9	3.7
>=50 / Prob. >= 25%	0	0.0	0.5	0.5
Mean Score	11.2		7.3	8.4
Median Score	4.	.0	3.0	3.0

Notes: For each TRIPS score range, the associated estimated risk of death within 7 days of transfer is displayed in the first table column.

Dirth Woight	Cen	iter	CPQCC	Regional
Birth Weight (grams)	N	Mean	Network Mean	NICUs Mean
All Birth Weights	13	11.2	7.3	8.4
500 or less	0	NA	25.3	24.8
501 to 750	0	NA	28.3	27.8
751 to 1,000	2	39.0	26.8	27.7
1,001 to 1,500	0	NA	13.7	13.9
1,501 to 2,500	2	1.5	6.5	7.1
over 2,500	9	7.2	5.4	6.5

Table 13: Mean California TRIPS at Initial Evaluation, by Birth Weight

Table 14: California TRIPS at NICUAdmission

TRIPS at Initial	Center		CPQCC	Regional
Evaluation	n	%	Network %	NICUs %
All Scores	14	100	100	100
14 or less / Prob. < 1%	10	71.4	80.0	76.7
15 to 31 / Prob. < 5%	2	14.3	12.3	13.6
32 to 38 / Prob. < 10%	1	7.1	4.1	5.1
39 to 49 / Prob. < 25%	1	7.1	2.9	3.7
>=50 / Prob. >= 25%	0	0.0	0.8	0.9
Mean Score	11.0		7.1	8.2
Median Score	3.	0	3.0	3.0

Notes: For each TRIPS score range, the associated estimated risk of death within 7 days of transfer is displayed in the first table column.

Table 15: Mean California TRIPS at NICU Admission, by Birth Weight

Dirth Woight	Cen	iter	CPQCC	Regional
Birth Weight (grams)	Ν	Mean	Network Mean	NICUs Mean
All Birth Weights	14	11.0	7.1	8.2
500 or less	0	NA	28.8	26.6
501 to 750	0	NA	30.7	29.9
751 to 1,000	2	42.5	24.0	25.5
1,001 to 1,500	0	NA	14.2	14.2
1,501 to 2,500	3	1.0	6.1	6.9
over 2,500	9	7.3	5.0	6.1

Table 16: Mean change in TRIPS from Referral to Initial Evaluation, by Birth Weight

			Cer	nter			
Birth Weight (grams)	QCP	N Infants	N Infants Exceedi ng QCP	% Infants Exceedi ng QCP	Mean Change	CPQCC Network Mean Change	Regional NICUs Mean Change
All Birth	-	9	0	0.0	1.7	0.6	0.5
Weights							
500 or less	9	0	NA	NA	NA	3.0	3.6
501 to 750	9	0	NA	NA	NA	1.6	1.2
751 to 1,000	4	2	0	0.0	2.0	2.1	1.1
1,001 to 1,500	4	0	NA	NA	NA	1.4	1.0
1,501 to 2,500	4	2	0	0.0	1.5	0.8	0.5
over 2,500	4	5	0	0.0	1.6	0.3	0.4

Notes: The TRIPS at Referral is not applicable for DR attendance transports, therefore DR attendance transports are not included in this table.

Self-Transports are not included in the table as the TRIPS variables are not applicable at initial evaluation. Positive entries indicate that the TRIPS increased from referral to initial evaluation. Negative entries indicate that the TRIPS decreased from referral to initial evaluation.

QCP: The Quality Change Point is defined as the 90th percentile of the mean change in TRIPS based on the Transport Teams that perform at least 20 transports and account for roughly 25% of all transports with the lowest mean TRIPS change. The calculations are based on all CPeTS transports in 2012 to 2014.

				nte r		CPQCC	Regional
Birth Weight (grams)	QCP	N Infants	N Infants Exceedi ng QCP	% Infants Exceedi ng QCP	Mean Chang e	Network Mean Change	NICUs Mean Change
All Birth Weights	-	13	1	7.7	0.6	-0.1	0.1
500 or less	11	0	NA	NA	NA	3.5	1.8
501 to 750	11	0	NA	NA	NA	1.2	0.5
751 to 1,000	9	2	0	0.0	3.5	-1.5	-0.9
1,001 to 1,500	7	0	NA	NA	NA	1.0	0.9
1,501 to 2,500	4	2	0	0.0	0.0	-0.1	0.1
over 2,500	4	9	1	11.1	0.1	-0.2	-0.1

Table 17: Mean change in TRIPS from Initial Evaluation to NICU Admission, by Birth Weight

Notes: Self-Transports are not included in the table as the TRIPS variables are not applicable at initial evaluation. Positive entries indicate that the TRIPS increased from initial evaluation to NICU admission. Negative entries indicate that the TRIPS decreased from initial evaluation to NICU admission.

QCP: The Quality Change Point is defined as the 90th percentile of the mean change in TRIPS based on the Transport Teams that perform at least 20 transports and account for roughly 25% of all transports with the lowest mean TRIPS change. The calculations are based on all CPeTS transports in 2012 to 2014.

APPENDIX F-B: Sample Transport OUT Report

Neonatal Transports OUT Report

Infants born between 01/01/2020 and 06/07/2020 All Transport Types and All Transport Providers

This report is preliminary as the data collection is on-going.

California Perinatal Quality Care Collaborative (CPQCC) and California Perinatal Transport System (CPeTS)

RECEIVING LOCATION: DEMO CENTER

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Table 14: Mean Change in California TRIPS from Referral to Initial Evaluation, by Birth Weight

Table 15: Mean Change in California TRIPS from Initial Evaluation to NICU Admission, by Birth Weight

Table 1: Acute Transport OUT Activity, by Birth Weight

Birth Weight		Cente r		Regional NICUs		
(grams) _B	Birth s N	Transport s N	%	Birth s N	Transport s N	%
All	NA	22	NA	15,097	32	0.2
500 or less	NA	0	NA	23	0	0.0
501 to 750	NA	0	NA	48	0	0.0
751 to 1,000	NA	1	NA	67	2	3.0
1,001 to 1,500	NA	0	NA	188	2	1.1
1,501 to 2,500	NA	11	NA	1,158	8	0.7
over 2,500	NA	10	NA	13,613	20	0.1

The Births columns are based on birth records captured in real-time through AVSS. Births submitted to AVSS and with birth dates through 04-30-2020 are included in the table.

Pirth Woight	Birth Weight Center						Regional NICUs				
(grams)	n	DR	Emergen t	Urgen t	Scheduled	DR	Emerge nt	Urgent	Schedule d		
All	23	8.7	39.1	43.5	8.7	0.0	13.2	50.0	36.8		
500 or less	0	NA	NA	NA	NA	NA	NA	NA	NA		
501 to 750	0	NA	NA	NA	NA	NA	NA	NA	NA		
751 to 1,000	1	0.0	100	0.0	0.0	0.0	0.0	0.0	100		
1,001 to 1,500	0	NA	NA	NA	NA	0.0	0.0	33.3	66.7		
1,501 to 2,500	11	18.2	27.3	36.4	18.2	0.0	0.0	25.0	75.0		
over 2,500	11	0.0	45.5	54.5	0.0	0.0	20.0	64.0	16.0		

Table 2: Acute Transport OUT Activity by Transport Type and by Birth Weight

Transport Type Other is not shown in the table.

Table 3: Acute Transport OUT Activity by Transport Provider and by Birth Weight

Birth Weight			Center		Regional NICUs			
(grams)	N	Receivin g Hospita l	Contrac t Servic e	Referring Hospital	Receivi ng Hospit al	Contrac t Servic e	Referri ng Hospita l	
All	23	87.0	13.0	0.0	73.7	2.6	23.7	
500 or less	0	NA	NA	NA	NA	NA	NA	
501 to 750	0	NA	NA	NA	NA	NA	NA	
751 to 1,000	1	100	0.0	0.0	50.0	0.0	50.0	
1,001 to 1,500	0	NA	NA	NA	100	0.0	0.0	
1,501 to 2,500	11	90.9	9.1	0.0	62.5	0.0	37.5	
over 2,500	11	81.8	18.2	0.0	76.0	4.0	20.0	

Table 4: Time from Maternal Admission to Infant Birth

Time Difference	Cen	ter	CPQCC	Regional
Thile Difference	Ν	%	Network %	NICUs %
All Infants Transferred	18	100	100	100
Out				
Post Birth Admission	0	0.0	8.7	1.8
0 - 2 hours	3	16.7	4.3	18.4
>2 - 4 hours	1	5.6	13.0	16.7
>4 - 6 hours	4	22.2	13.0	11.2
>6 - 12 hours	2	11.1	4.3	16.0
>12 - 36 hours	7	38.9	34.8	23.9
>36 hours	1	5.6	21.7	12.0
Mean	15H 3	36M	2D 14H 31M	21H 58M
Median	7H 1	7M	16H 56M	6H 32M

Birth Weight	Се	enter	Regional	All CPeTS
(grams)	Ν	Mean	NICUs Mean	Transports Mean
All	18	15H 36M	2D 14H 31M	21H 58M
500 or less	0	NA	NA	1D 13H 40M
501 to 750	0	NA	NA	3D 1H 50M
751 to 1,000	1	18H 29M	6D 23H 40M	1D 9H 60M
1,001 to 1,500	0	NA	3D 14H 4M	2D 6H 1M
1,501 to 2,500	10	14H 6M	4D 4H 3M	1D 1H 40M
over 2,500	7	17H 21M	1D 1H 24M	14H 13M

Table 5: Mean Time from Maternal Admission to Infant Birth, by Birth Weight

Table 6: Median Time from Maternal Admission to Infant Birth, by Birth Weight

Birth Weight	Се	enter	Regional	All CPeTS
(grams)	N	Mean	NICUs Mean	Transports Mean
All	18	7H 17M	16H 56M	6H 32M
500 or less	0	NA	NA	1D 7H 53M
501 to 750	0	NA	NA	5H 0M
751 to 1,000	1	18H 29M	6D 23H 40M	3H 53M
1,001 to 1,500	0	NA	3D 14H 4M	4H 39M
1,501 to 2,500	10	4H 35M	8H 14M	5H 29M
over 2,500	7	17H 4M	16H 56M	7H 47M

Table 7: Time from Birth to Referral

Time Difference	Cen	ter	Regional	All CPeTS
Time Difference	Ν	%	NICUs %	Transports %
All Infants Transferred Out	23	100	100	100
Referral before Birth	3	13.0	0.0	11.9
0 - 2 hours	7	30.4	9.1	23.5
>2 - 4 hours	1	4.3	9.1	9.8
>4 - 6 hours	0	0.0	6.1	5.5
>6 - 12 hours	2	8.7	12.1	6.8
>12 - 36 hours	5	21.7	18.2	16.6
>36 hours	5	21.7	45.5	25.9
Mean	2D 7H	33M	4D 20H 37M	1D 23H 46M
Median	8H 1	7M	1D 9H 30M	5H 48M

TRIPS at Referral	Cen	ter	Regional	All CPeTS
I KIFS at Kelei I ai	Ν	%	NICUs %	Transports %
All Scores	16	100	100	100
14 or less / Prob. < 1%	11	68.8	90.9	80.4
15 to 31 / Prob. < 5%	4	25.0	6.1	13.1
32 to 38 / Prob. < 10%	1	6.3	0.0	4.0
39 to 49 / Prob. < 25%	0	0.0	3.0	2.2
>=50 / Prob. >= 25%	0	0.0	0.0	0.1
Mean Score	9.2		4.7	6.8
Median Score	3.0		3.0	0.0

Table 8: California TRIPS at Referral

Notes: For each TRIPS score range, the associated estimated risk of death within 7 days of transfer is displayed in the first table column.

Birth Weight	Ce	ente r	Regional NICUs Mean	All CPeTS Transports
(grams)	Ν	Mean		Mean
All	16	9.2	4.7	6.8
500 or less	0	NA	NA	22.3
501 to 750	0	NA	NA	28.4
751 to 1,000	1	38.0	8.5	23.6
1,001 to 1,500	0	NA	1.0	10.2
1,501 to 2,500	8	10.9	5.1	5.9
over 2,500	7	3.1	4.8	5.5

Table 9: Mean California TRIPS at Referral, by Birth Weight

Table 10: Time from Referral to Acceptance

Time Difference	Cente r		Regional NICUs %	All CPeTS Transports %
	Ν	%		
All Infants Transferred Out	23	100	100	100
0 - 30 minutes	22	95.7	84.8	91.5
31 - 60 minutes	1	4.3	9.1	3.3
61 - 90 minutes	0	0.0	0.0	0.9
91 - 120 minutes	0	0.0	0.0	0.9
>2 hours	0	0.0	6.1	3.3
Mean	8M		20M	5H 31M
Median	51	M	3M	0M

Time Difference	Cente r		Regional NICUs %	All CPeTS Transports %	
	N %			•	
All Infants Transferred Out	22	100	100	100	
0 - 30 minutes	7 31.8		45.8	33.8	
31 - 60 minutes	14 63.6		20.8	37.3	
61 - 90 minutes	1 4.5		4.2	11.3	
91 - 120 minutes	0.0		0.0	5.0	
>2 hours	0 0.0		29.2	12.6	
Mean	36M		5H 29M	1H 36M	
Median	42M		36M	42M	

Table 11: Time from Acceptance to Transport Team Departure for Referring Hospital

Table 12: Time from Acceptance to Transport Team Arrival at Referring Hospital

Time Difference	Cente r		Regional NICUs %	All CPeTS Transports %	
	N %			•	
All Infants Transferred Out	23	100	100	100	
0 - 30 minutes	1 4.3		0.0	9.5	
31 - 60 minutes	3 13.0		40.0	14.4	
61 - 90 minutes	5 21.7		24.0	25.8	
91 - 120 minutes	12 52.2		4.0	20.5	
>2 hours	2 8.7		32.0	29.8	
Mean	1H 36M		6H 1M	2H 25M	
Median	1H 34M		1H 13M	1H 31M	

Table 13: Time from Referral to Transport Team Arrival at Referring Hospital

Time Difference	Cer	nter	Regional	All CPeTS	
This Difference	N %		NICUs %	Transports %	
All Infants Transferred	23	100	100	100	
Out					
0 - 30 minutes	1	4.3	0.0	8.8	
31 - 60 minutes	2 8.7		32.0	11.2	
61 - 90 minutes	4 17.4		20.0	22.9	
91 - 120 minutes	13	56.5	16.0	21.9	
>2 hours	3 13.0		32.0	35.2	
Mean	1H 44M		6H 9M	3H 24M	
Median	1H 44M		1H 20M	1H 39M	

				nte r	Regional NICUs Mean Change	All CPeTS Transports Mean Change	
Birth Weight (grams)	N Infants	N Infants Exceedi ng QCP	% Infants Exceedi ng QCP	Mean Chang e			
All	-	15	0	0.0	-1.0	1.6	0.6
500 or less	9	0	NA	NA	NA	NA	3.0
501 to 750	9	0	NA	NA	NA	NA	1.5
751 to 1,000	4	1	0	0.0	0.0	0.0	2.9
1,001 to 1,500	4	0	NA	NA	NA	0.0	1.5
1,501 to 2,500	4	7	0	0.0	-0.7	3.8	0.8
over 2,500	4	7	0	0.0	-1.4	1.3	0.3

Table 14: Mean change in TRIPS from Referral to Initial Evaluation, by Birth Weight

Notes: The TRIPS at Referral is not applicable for DR attendance transports, therefore DR attendance transports are not included in this table.

Self Transports are not included in the table as the TRIPS variables are not applicable at initial evaluation.

Positive entries indicate that the TRIPS increased from referral to initial evaluation. Negative entries indicate that the TRIPS decreased from referral to initial evaluation.

QCP: The Quality Change Point is defined as the 90th percentile of the mean change in TRIPS based on the Transport Teams that perform at least 20 transports and account for roughly 25% of all transports with the lowest mean TRIPS change. The calculations are based on all CPeTS transports in 2012 to 2014.

	Birth Weight (grams)			nte r	Regional	All CPeTS	
0		N Infants	N Infants Exceedi ng QCP	% Infants Exceedi ng QCP	Mean Chang e	NICUs Mean Change	Transports Mean Change
All	-	20	1	5.0	1.1	-1.3	-0.1
500 or less	11	0	NA	NA	NA	NA	3.5
501 to 750	11	0	NA	NA	NA	NA	1.3
751 to 1,000	9	1	0	0.0	0.0	-4.0	-1.5
1,001 to 1,500	7	0	NA	NA	NA	-1.0	1.0
1,501 to 2,500	4	9	1	11.1	1.9	-2.2	-0.1
over 2,500	4	10	0	0.0	0.4	-0.9	-0.3

Table 15: Mean change in TRIPS from Initial Evaluation to NICU Admission, by Birth Weight

Notes: Self Transports are not included in the table as the TRIPS variables are not applicable at initial evaluation. Positive entries indicate that the TRIPS increased from referral to initial evaluation. Negative entries indicate that the TRIPS decreased from referral to initial evaluation.

QCP: The Quality Change Point is defined as the 90th percentile of the mean change in TRIPS based on the Transport Teams that perform at least 20 transports and account for roughly 25% of all transports with the lowest mean TRIPS change. The calculations are based on all CPeTS transports in 2012-2014.