

Public Use Dataset
Annotated eCRF

**Pediatric Intensive Care Quality of CPR
(PICqCPR)**

CPCCRN Protocol Number 041

Collaborative Pediatric Critical Care Research Network
Eunice Kennedy Shriver National Institute for Child
Health and Human Development (NICHD)

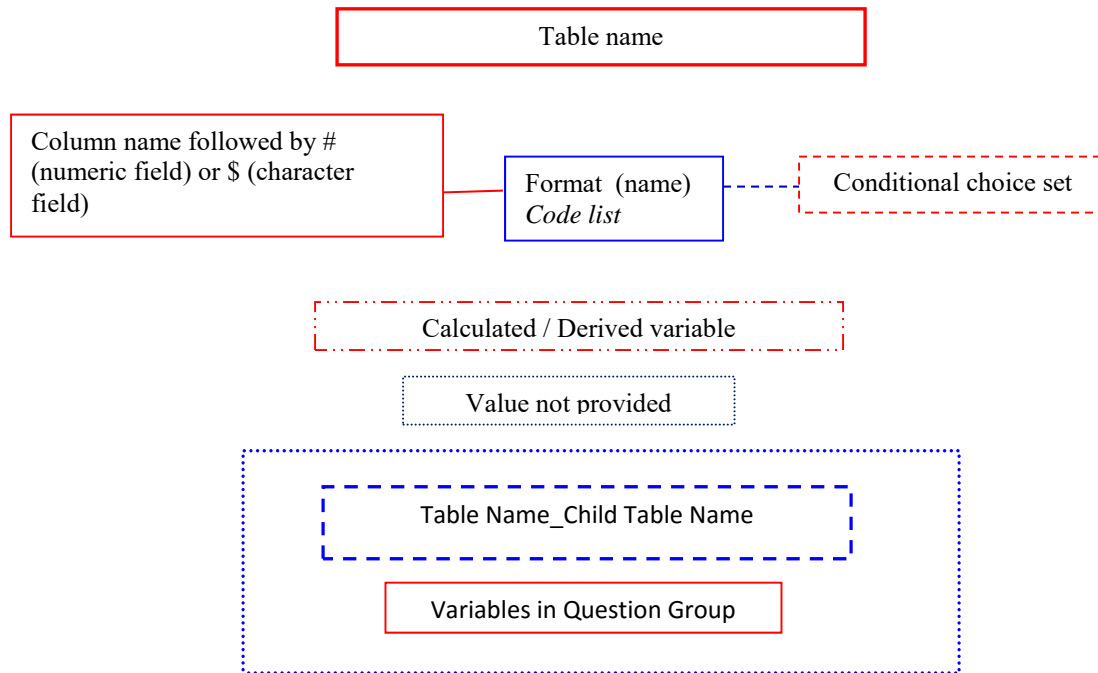
PUD Annotated eCRF Version 1

Version Date: May 22, 2018

Table of Contents

Annotations key	3
Notes	3
PICqCPR Eligibility:	4
PICqCPR PRE-CPR Event Hemodynamic Variables:	5
PICqCPR CPR Event Characteristics:	6
PICqCPR POST CPR Event Hemodynamic Variables:	10
PICqCPR Waveform Upload Information :	11
PICqCPR Demographics:	12
PICqCPR Baseline Functional Status Assessment:	13
PICqCPR Hospitalization Dates and Death Information:	14
PICqCPR ICU Dates and Other Information:	15
PICqCPR Arterial Line Waveform Extraction Data:	16
PICqCPR ETCO2 Extraction Data:	17

Annotations key



Notes

StudySubjectID was replaced by PudID which uniquely identifies a CPR event across datasets.

Occurrence and ItemGroupRepatKey are also unique CPR event identifiers and appear where applicable.

All date variables are recoded to be number of days since hospital admission. Variable names and labels are changed as well. For example, the variable ICUDischargeDate will be called ICUDischargeDay and the label will change from "Date of ICU Discharge" to "Day of ICU Discharge (relative to Hospital Admission)". No actual dates will be included.

Eligibility (1 of 1)

PICqCPR Eligibility:

PudID #

Occurrence #

Inclusi...(0/4) Excludi...(0/4) -- Select to Jump --

Title: Inclusion Criteria

Date of CPR Event: CPREventDay, # (DD-MMM-YYYY)

Location of CPR Event: (select one) * LocationCPR, #

LocCPR
1 = PICU
2 = CICU

Inclusion

1. Did the patient receive chest compressions for \geq 1 minute in the PICU or the CICU?

Yes No * Inclusion1, #

YNr
1 = Yes
0 = No

2. Is the patient \geq 37 weeks gestational age and < 19 years of age?

Yes No * Inclusion2, #

If the CPR event does not meet inclusion criteria, do not save this information to the database.

Inclusi...(0/4) Excludi...(0/4) -- Select to Jump --

Title: Exclusion Criteria

Instructions: The CPR event will be **ineligible for enrollment** if the answer to any of the exclusion questions is **NO**.

Exclusion

1. Did the patient have either an arterial line or ETCO2 monitor in place at the time of chest compressions?

Yes No * Exclusion1, #

2. Was there useable waveform data available from either the arterial line or the ETCO2 monitor?

Yes No * Exclusion2, #

YNr
1 = Yes
0 = No

3. At the time the CPR event began, was the patient free from ECMO therapy?

Yes No * Exclusion3, #

Is this CPR event eligible?

Note: All four inclusion/exclusion questions must be answered **YES** for the CPR event to be eligible for this study.

Yes No * EventEligible, #

If "No", save this page and do not continue. You have completed data entry for this CPR event.

VitalsPre (1 of 1)

PICqCPR PRE-CPR Event Hemodynamic Variables:

PudID #

Occurrence #

ItemGroupRepeatKey #

Vitals (0/8)

Title: Vital Measurements

Instructions: The following variables will be collected, as available, once every minute for a maximum of ten minutes prior to the beginning of chest compressions

Minute(s) Prior to Chest Compressions	Heart Rate (bpm)	Systolic Arterial BP (mmHg)	Diastolic Arterial BP (mmHg)	Mean Arterial BP (mmHg)	ETCO2 (mmHg)	Central Venous Pressure/ Right Atrial Pressure (mmHg)	SpO2 (%)
VitalsMinutePrior, #	HeartRate, #	SBP, #	DBP, #	MeanBP, #	ETCO2, #	CVP, #	SPO2, #
(select one) ▼							
(select one) ▼							
(select one) ▼							
(select one) ▼							
(select one) ▼							
(select one) ▼							
(select one) ▼							
(select one) ▼							
(select one) ▼							
(select one) ▼							

Add

- MinPrior
- 10 = -10
- 9 = -9
- 8 = -8
- 7 = -7
- 6 = -6
- 5 = -5
- 4 = -4
- 3 = -3
- 2 = -2
- 1 = -1

CPREvent (1 of 4)

PudID #

Occurrence #

PICqCPR CPR Event Characteristics:

PreChest (0/28) DuringC... (0/20) PostChe... (0/3) -- Select to Jump --

Title: Prior to Chest Compressions

Instructions: The duration of the CPR Event is the time from start of chest compressions until chest compressions end.

Date and time of start of CPR event (i.e. start of chest compressions)

Date: StartCPRDay, # (DD-MMM-YYYY) Time: StartCPRTime, \$ (HHMM)

Weight: Weight, # (kg) Length / Height: Height, # (cm)

Indicate interventions in place at time of CPR event

- Vascular Access: VascularAccess, #
- Arterial Catheter: ArtCath, #
- Central Venous Catheter: CVC, #
- Vasoactive Infusion: Vasolnfusion, #
- Invasive Mechanical Ventilation: InvMechVent, #
- ETCO2 Monitoring: ETCO2Monitor, #
- Non-invasive Ventilation: NonInvVent, #

Indicate which of the following conditions were present at time of CPR event

- Respiratory Insufficiency: RespInsufficiency, #
- Hypotension: Hypotension, #
- Congestive Heart Failure: CHF, #
- Pneumonia: Pneumonia, #
- Sepsis: Sepsis, #
- Trauma: Trauma, #
- Renal Insufficiency: RenalInsufficiency, #
- Malignancy: Malignancy, #

YN
1 = Yes
0 = No

VentAnat
 1 = Preoperative
 2 = Norwood with modified BT shunt
 3 = Norwood with Sano modification
 6 = Hybrid procedure
 4 = Bi-directional Glenn (Hemi-Fontan)
 5 = Fontan

Congenital Heart Disease: CHD, # Hypoplastic Left Heart Syndrome? HLHS, # Specify anatomy at time of CPR event: HLHSAnatomy, #

PICqCPR CPR Event Characteristics:

PudID #

Occurrence #

What was/were the immediate cause(s) of the CPR event?

(select all that apply)

- Hypotension
- Arrhythmia (VF,VT,SVT)
- Respiratory decompensation
- Cyanosis without respiratory decompensation

ImmediateCauseCPR, #

CPRCause

1 = Hypotension

2 = Arrhythmia (VF, VT, SVT)

3 = Respiratory decompensation

4 = Cyanosis without respiratory decompensation

Was this a witnessed cardiac arrest?

WitnessCPR, #

Was the sternum closed at the onset of the CPR event?

SternumClosed, #

YN

1 = Yes

0 = No

Was the sternum opened during the CPR event?

SternumOpen, #

Provide the date and time the sternum was opened during the CPR event

Date:

Time: SternumOpenTime, \$

SternumOpenDay, #

PICqCPR CPR Event Characteristics:

PudID #

Occurrence #

PreChest (0/28) | DuringC... (0/20) | PostChe... (0/3) | -- Select to Jump --

Title: During Chest Compressions

What was the first documented rhythm at the time CPR was initiated?

FirstRhythmCPR, #

Date and time first shockable rhythm was determined

Date: FirstShockDay, # (DD-MMM-YYYY) | Time: FirstShockTime, \$ (HHMM)

Date and time of first attempted defibrillation for shockable rhythm

Date: AttemptDefibDay, # (DD-MMM-YYYY) | Time: AttemptDefibTime, \$ (HHMM)

Date and time of first bolus administration of a vasopressor medication (i.e., epinephrine or vasopressin)

Date: FirstVasoDay, # (DD-MMM-YYYY) | Time: FirstVasoTime, \$ (HHMM)

Indicate all pharmacologic interventions given during the CPR event

epinephrine: Epinephrine, # | How many doses of epinephrine were given? EpiDoses, #

atropine: Atropine, #

calcium: Calcium, #

sodium bicarbonate: SodiumBicarb, #

vasopressin: Vasopressin, #

amiodarone: Amiodarone, #

lidocaine: Lidocaine, #

fluid bolus: FluidBolus, #

At any time during the CPR event, did the patient sustain ROSC for less than 20 minutes, and re-arrest?

ROSCDuringEvent, #

NotApp
96 = Not applicable

FirstRhy
1 = VF
2 = VT
3 = Pulseless electrical activity (PEA)
4 = Asystole
5 = Bradycardia with pulses

FirstShockNA, # Not applicable

DefibNA, # Not applicable

VasoMedNA, # Not applicable

YN
1 = Yes
0 = No

PICqCPR CPR Event Characteristics:

PudID #

Occurrence #

◀ PreChest (0/28) DuringC...(0/20) PostChe...(0/3) ▶ -- Select to Jump -- ▼

Title: Post Chest Compressions

Outcome

Date and time of end of CPR event (i.e. end of chest compressions)

Date: Time:

What was the outcome of the CPR event?

(select one) ▼

OutCPR
1 = ROSC greater than or equal to 20 minutes
2 = Transition to ECMO with ROSC less than 20 minutes
3 = Transition to ECMO without ROSC
4 = Died

VitalsPost (1 of 1)

PICqCPR POST CPR Event Hemodynamic Variables:

PudID #

Occurrence #

ItemGroupRepeatKey #

Vitals (0/8)

Title: Vital Measurements

Instructions: The following variables will be collected, as available, once every five minutes for the first 20 minutes **after chest compressions have ended**. If values are not available at the exact time points listed (+5, +10, +15, +20), obtain the nearest values thereafter, within 2 minutes (e.g., +6, +12, etc). If the variable is not available, leave the data field blank.

Minute(s) After End of Chest Compressions	Heart Rate (bpm)	Systolic Arterial BP (mmHg)	Diastolic Arterial BP (mmHg)	Mean Arterial BP (mmHg)	ETCO2 (mmHg)	Central Venous Pressure/ Right Atrial Pressure (mmHg)	SpO2 (%)
VitalsMinutePost, #	HeartRate, #	SBP, #	DBP, #	MeanBP, #	ETCO2, #	CVP, #	SPO2, #
(select one) ▼							
(select one) ▼							
(select one) ▼							

Add

MinPost
 5 = +5
 10 = +10
 15 = +15
 20 = +20

PICqCPR Waveform Upload Information :

PudID #

Occurrence #

WaveRC (0/4)

Title: Waveform Upload Information

Were useable waveform data available from the arterial line?

ArtLineWaveAvail, # Were these data uploaded? ArtLineWaveUpload, #

Were useable waveform data available from the ETCO2 monitor?

ETCO2WaveAvail, # Were these data uploaded? ETCO2WaveUpload, #

YN
1 = Yes
0 = No

Demog (1 of 1)

PudID #

PICqCPR Demographics:

Demog (0/4)

Title: Patient Demographics

Date of birth: (DD-MMM-YYYY) Sex: Male Female

Ethnicity: Hispanic or Latino Not Hispanic or Latino Unknown or Not Reported

Ethnic
1 = Hispanic or Latino
2 = Not Hispanic or Latino
92 = Unknown or Not Reported

Race: American Indian or Alaska Native Asian Black or African American Native Hawaiian or Other Pacific Islander White Unknown or Not Reported

(select all that apply)

Race
1 = American Indian or Alaska Native
2 = Asian
3 = Black or African American
4 = Native Hawaiian or Other Pacific Islander
5 = White
92 = Unknown or Not Reported
95 = Other

PICqCPR Baseline Functional Status Assessment:

PudID #

FSA (0/7)

Title: Functional Status Assessments

Instructions: Complete the following assessments based on the patient's level of function **prior** to the event that brought him/her to the hospital.

Pediatric Cerebral Performance Category (PCPC)

PCPC: ()

Functional Status Scale

Mental Status Classification: ()

Sensory Classification: ()

Communication Classification: ()

Motor Function Classification: ()

Feeding Classification: ()

Respiratory Classification: ()

PCPC
1 = 1 – Normal
2 = 2 – Mild disability
3 = 3 – Moderate disability
4 = 4 – Severe disability
5 = 5 – Coma/vegetative state
6 = 6 – Brain death

FSS
1 = Normal
2 = Mild dysfunction
3 = Moderate dysfunction
4 = Severe dysfunction
5 = Very severe dysfunction

PICqCPR Hospitalization Dates and Death Information:

PudID #

Dates (0/17)

Title: Study Dates

Previous Study Enrollment

Was this patient enrolled in the PICqCPR study during a previous hospitalization?

YN
 1 = Yes
 0 = No

PrevEnrollHosp, #

Enter the OpenClinica Subject ID from the **Original** enrollment:

PudID #

Hospital Admission Information

Date: HospAdmitDay, # (DD-MMM-YYYY) Time: HospAdmitTime, \$ (HHMM)

Was there an out of hospital cardiac arrest associated with this hospital admission?

OutHospCA, #

YN
 1 = Yes
 0 = No

Hospital Discharge Information

Date: HospDischargeDay, # (DD-MMM-YYYY) Time: (HHMM)

Vital Status at Hospital Discharge: HospVitalStatus, #

VitStat
 1 = Alive
 0 = Dead

HospDischargeTime, \$

Death Information

Date: DeathDay, # (DD-MMM-YYYY) Time: DeathTime, \$ (HHMM)

Pediatric Cerebral Performance Category (PCPC)

PCPC: PCPCScoreHosp, #

PCPC
 1 = 1 – Normal
 2 = 2 – Mild disability
 3 = 3 – Moderate disability
 4 = 4 – Severe disability
 5 = 5 – Coma/vegetative state
 6 = 6 – Brain death

Functional Status Scale

Mental Status Classification: FSSMentalHosp, #

Sensory Classification: FSSSensoryHosp, #

Communication Classification: FSSCommunHosp, #

Motor Function Classification: FSSMotorHosp, #

Feeding Classification: FSSFeedingHosp, #

Respiratory Classification: FSSRespHosp, #

FSS
 1 = Normal
 2 = Mild dysfunction
 3 = Moderate dysfunction
 4 = Severe dysfunction
 5 = Very severe dysfunction

ICUDates (1 of 1)

PICqCPR ICU Dates and Other Information:

PudID #

Occurrence #

IllCat
 1 = Medial cardiac
 2 = Medical non-cardiac
 3 = Surgical cardiac
 4 = Surgical non-cardiac

ICUInfo (0/13)

Title: ICU Dates and Other Information	
ICU Admission Information	
Date: ICUAdmitDay, # <small>(DD-MMM-YYYY)</small>	Time: ICUAdmitTime, \$ <small>(HHMM)</small>
Illness Category: IllnessCat, #	
ICU Discharge Information	
Date: ICUDischargeDay, # <small>(DD-MMM-YYYY)</small>	Time: ICUDischargeTime, \$ <small>(HHMM)</small>
Vital Status at ICU Discharge: ICUVitalStatus, #	VitStat 1 = Alive 0 = Dead
Pediatric Cerebral Performance Category (PCPC)	
PCPC: PCPCScorePICU, #	
PCPC 1 = 1 – Normal 2 = 2 – Mild disability 3 = 3 – Moderate disability 4 = 4 – Severe disability 5 = 5 – Coma/vegetative state 6 = 6 – Brain death	
Functional Status Scale	
Mental Status Classification: FSSMentalPICU, #	FSS 1 = Normal 2 = Mild dysfunction 3 = Moderate dysfunction 4 = Severe dysfunction 5 = Very severe dysfunction
Sensory Classification: FSSSensoryPICU, #	
Communication Classification: FSSCommunPICU, #	
Motor Function Classification: FSSMotorPICU, #	
Feeding Classification: FSSFeedingPICU, #	
Respiratory Classification: FSSRespPICU, #	

PICqCPR Arterial Line Waveform Extraction Data:

PudID #

Occurrence #

ItemGroupRepeatKey #

WaveExt...(0/9)

Title: Arterial Line Waveform Extraction Data

Instructions: Record all available data points for each one-minute epoch during the first ten minutes of chest compressions. The last minute prior to end of chest compressions should also be recorded if the event was longer than 10 minutes.

Page: Mark CRF Complete

Date: (DD-MMM-YYYY) CPREventDay, #

Minute of CPR Event (minute)	Average SaBP (mmHg)	Average DaBP (mmHg)	Average CVP/RAP (mmHg)	Average Chest Compression Rate (/minute)	Time of "no data" (seconds)	Time of "no flow" (seconds)	
MinuteCPR, #		AvgDBP, #		Value not provided		NoFlowData, #	X
(select one)	AvgSBP, #		Value not provided		NoCPRData, #		X
(select one)							X
MinCPR							X
1 = 1							X
2 = 2							X
3 = 3							X
4 = 4							X
5 = 5							X
6 = 6							X
7 = 7							X
8 = 8							X
9 = 9							X
10 = 10							X
11 = Final							X
<input type="button" value="Add"/>							

WavePI_Extract

Comments:

[Return to top](#)

Mark CRF Complete

ETCO2Analysis (1 of 1)

PICqCPR ETCO2 Extraction Data:

PudID #

Occurrence #

ItemGroupRepeatKey #

EtCO2Ex...(0/6)

Title: EtCO2 Extraction Data

Instructions: Record all available data points for each one-minute epoch during the first ten minutes of chest compressions. The last minute prior to end of chest compressions should also be recorded if the event was longer than 10 minutes.

Page: Mark CRF Complete

Date: (DD-MMM-YYYY)

Minute of CPR Event (minute)	Average ETCO2 (mmHg)	Average RR (breaths/minute)	Time of "no data" (seconds)	
<input type="text" value="ETCO2MinuteCPR, #"/>	<input type="text"/>	<input type="text" value="AvgRespRate, #"/>	<input type="text"/>	<input type="button" value="X"/>
(select one) ▼	<input type="text" value="AvgETCO2 #"/>	<input type="text"/>	<input type="text" value="ETCO2NoCPRData, #"/>	<input type="button" value="X"/>
(select one) ▼	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="button" value="X"/>
(select one) ▼	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="button" value="X"/>
(select one) ▼	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="button" value="X"/>
(select one) ▼	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="button" value="X"/>
(select one) ▼	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="button" value="X"/>
(select one) ▼	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="button" value="X"/>
(select one) ▼	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="button" value="X"/>
(select one) ▼	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="button" value="X"/>
<input type="button" value="Add"/>				

ETCO2Analysis_EtCO2ExtractLog

Comments: