

**University of Utah  
Central Data Management Coordinating Center**

**ANNOTATED CRF FOR PUBLIC USE DATASETS**

**CPCCRN  
Critical Asthma Mortality and Morbidity  
Planning Study  
(The CAMMP Study)**

**Collaborative Pediatric Critical Care Research Network (CPCCRN)**

**CPCCRN Protocol Number 019**

**Primary Investigator:  
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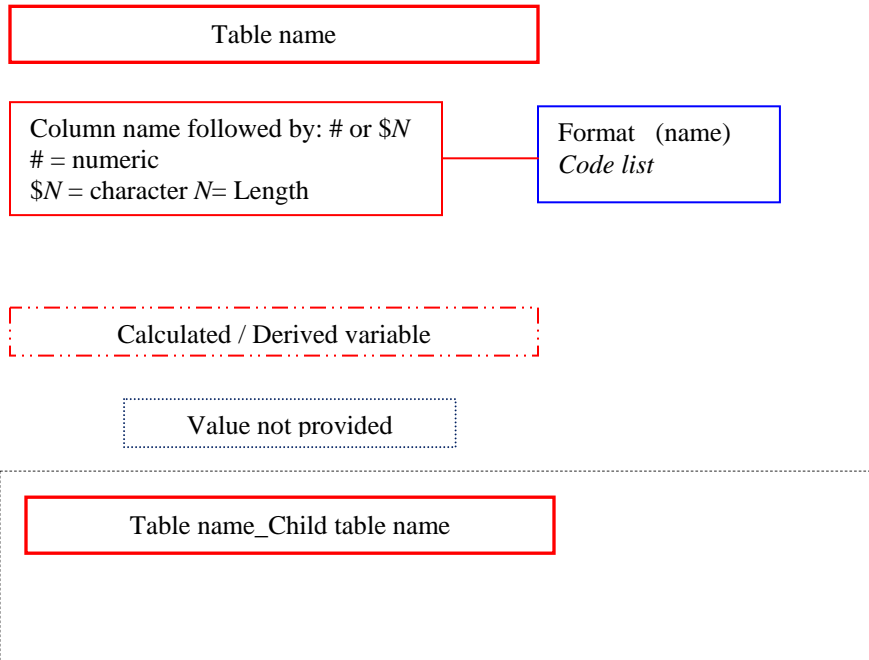
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**Annotations key:**



**Notes:**

subjectID is a randomly generated ID number that uniquely identifies a patient across datasets, it does not contain information about original site or medical record number. subjectID and RepeatID are unique identifiers in all datasets.

All out of range and other questionable data has been included in the public use datasets. Sensitive and/or identifying information entered in free text fields have been removed from the public use datasets.

PICU Admission date will be coded as 0 (Day 0) and all other dates will be recoded as number of days after Day 0 (if any dates occur before the PICU admission date, these dates will have a negative value).

A new variable (DaysToRepeat) will be added that gives days between admissions (applicable only to the 5 patients with repeat visits, left blank/null for all other records). This new variable will be included in all datasets.

DEMOG (1 of 1)

CAMMPS Demographics v1.0

subjectID #

RepeatID \$5

DaysToRepeat #

**Title: Demographics**

**Patient Demographics**

Date of birth: Value not provided  \* DD-MMM-YYYY

Gender: Gender #  \*

Admission weight: Weight #  (kg) If admission weight not found, enter the weight recorded closest to admission

Admission height: Height #  (cm) If admission height not found, enter the height recorded closest to admission

Race: \*race #  \* If "other" race, please specify: Value not provided

Ethnicity: Ethnicity #  \*

Primary payer type: \*\*payer #  \*

**GENDER**  
1 = Male  
2 = Female

**RACE**  
2 = Asian  
3 = Black or African American  
5 = White  
95 = Other  
97 = Unknown

**ETHNICITY**  
1 = Hispanic or Latino  
2 = Not Hispanic or Latino  
97 = Unknown

**PAYERTYP**  
1 = Commercial Insurance  
2 = Medicaid  
5 = Self Pay  
95 = Other  
97 = Unknown

\* recode values 1 (American Indian or Alaskan Native) and 4 (Native Hawaiian or Other Pacific Islander) as 95 (Other)

\*\* recode values 3 (Medicare), 4 (Other Government Insurance), and 6 (Worker's Compensation) as 95 (Other)

**Additional / derived variables included in the DEMOG dataset:**

| Variable | Format | Type | Label                         | Algorithm / Notes |
|----------|--------|------|-------------------------------|-------------------|
| AgeYears |        | #    | Age at PICU admission (years) |                   |

CAMMP Annotated PUD eCRF

HISTORY (1 of 4)

CAMMPS History v1.0

subjectID #      RepeatID \$5      DaysToRepeat #

**Title: History**

Instructions: **If there is more than one qualifying PICU admission in a hospital stay, enter patient history per the 1st qualifying PICU admission in a hospital stay.**

**Hospital and PICU Admission**

How many hospital admissions for acute asthma did patient have in the year prior to this admission?

(select admit number) \* HospitalAdmissions #

How many PICU admissions for acute asthma did patient have in the year prior to this admission?

(select admit number) \* PICUAdmissions #

Is this admission for a new diagnosis of asthma or exacerbation of chronic asthma?

(select admission type) \* NewDxAsthma #

**Medical History**

Does patient have any known history of allergies (non-food)?

(select yes or no) \* NonFoodAllergyHist #

Does patient have a known history of food allergies?

(select yes or no) \* FoodAllergyHist #

If yes to either of previous questions, was there a known allergic exposure precipitating this admission?

(select yes or no) \* PrecipitatingExposure #

ADMITNUM

0 = 0

1 = 1

2 = 2

3 = 3

4 = >3

97 = Unknown

PICUADMITNUM

0 = 0

1 = 1

2 = >1

97 = Unknown

NEWEXIST

1 = New diagnosis of asthma

2 = Exacerbation of chronic asthma

97 = Unknown

YESNO

0 = No

1 = Yes

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HISTORY (2 of 4)

Does patient have a known history of eczema?  
(select yes or no) \* EczemaHist #

Does patient have a known history of any psychiatric or behavioral disorders?  
(select yes or no) \* PsychiatricHist #

Does patient have a known history of any drug or alcohol abuse?  
(select yes or no) \* Value not provided

Does patient have a known history of non-compliance with asthma therapy?  
(select yes or no) \* NonComplianceHist #

Does patient have a family history of asthma?  
(select yes,no,or unknown) \* FamilyHistAsthma #

YESNO  
0 = No  
1 = Yes

YESNOUNK  
0 = No  
1 = Yes  
97 = Unknown

```
graph LR; EczemaHist[EczemaHist #] --- YESNO[YESNO  
0 = No  
1 = Yes]; PsychiatricHist[PsychiatricHist #] --- YESNO; NonComplianceHist[NonComplianceHist #] --- YESNO; FamilyHistAsthma[FamilyHistAsthma #] --- YESNOUNK[YESNOUNK  
0 = No  
1 = Yes  
97 = Unknown]; ValueNotProvided[Value not provided];
```

HISTORY (3 of 4)

| Title: Chronic Asthma Medications   |                          |
|---|--------------------------|
| <b>Chronic Asthma Medications Prior to Admission</b>  |                          |
| Did patient use any of the following medications or therapies in the 30 days prior to this admission? |                          |
| Short-acting inhaled beta-agonists: (select yes,no,or unknown) *                                      | ShortBetaAgonists #      |
| Long-acting inhaled beta-agonists: (select yes,no,or unknown) *                                       | LongBetaAgonists #       |
| Inhaled antihistamines: (select yes,no,or unknown) *  | Antihistamines #         |
| Inhaled corticosteroids: (select yes,no,or unknown) *   | InhaledCorticosteroids # |
| Oral corticosteroids: (select yes,no,or unknown) *  | OralCorticosteroids #    |
| Inhaled anticholinergics: (select yes,no,or unknown) *  | Anticholinergics #       |
| Leukotriene-receptor antagonists: (select yes,no,or unknown) *  | LeukotrieneAntagonists # |
| Monoclonal anti-IgE antibodies: (select yes,no,or unknown) *  | MonoclonalAntibodies #   |
| Methylxanthines: (select yes,no,or unknown) *   | Methylxanthines #        |
| Home oxygen: (select yes,no,or unknown) *   | HomeOxygen #             |

YESNUNK  
 0 = No  
 1 = Yes  
 97 = Unknown

HISTORY (4 of 4)

Did patient use any other known asthma medications or therapies in the 30 days prior to PICU admission?

(select yes or no) ▼ \*

OtherAsthmaMedications #

YESNO  
0 = No  
1 = Yes

If "Yes", specify other asthma medication(s) or therapy(ies) not listed above.

| Other asthma medication or therapy |   |
|------------------------------------|---|
| OtherAsthmaMedList \$20            | X |
| ADD                                |   |

HISTORYOTHERASTHMA

subjectID #

RepeatID \$5

DaysToRepeat #

Does patient have any other known ACTIVE medical conditions?

(select yes or no) ▼ \*

OtherMedicalConditions #

YESNO  
0 = No  
1 = Yes

If "Yes", specify other medical condition(s) and medication(s) or therapy(ies) used, if any.

| Other medical condition | Medication(s) used        |   |
|-------------------------|---------------------------|---|
| MedicalCondition \$76   | MedicalConditionMeds \$85 | X |
| ADD                     |                           |   |

HISTORYOTHERCONDMEDS

RepeatID \$5

subjectID #

DaysToRepeat #



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CLINICALCOURSE (1 of 10)

CAMMPS Clinical Course v1.0

subjectID #

RepeatID \$5

DaysToRepeat #

**Title: Hospital and PICU Admission**

**Hospital Admission/Discharge**

Hospital Admission Date:  \* DD-MMM-YYYY

Hospital Discharge Date:  \* DD-MMM-YYYY

**PICU Admission/Discharge**

PICU Admission Date:  \* DD-MMM-YYYY      PICU Admission Time:  HHMM

If patient died in PICU, enter Death Date and Time in PICU Discharge Date and Time fields.

PICU Discharge Date:  \* DD-MMM-YYYY      PICU Discharge Time:  HHMM

From where was patient admitted to PICU?

(select PICU admission source) \*

**PICU Admission Clinical Information**

What was patient's mental status on admission to PICU?

(select mental status) \*

Did patient have a known cardiac arrest, associated with this hospitalization, prior to arrival in PICU?

(select yes or no) \*

**ADMITSRC**  
 1 = Direct Admit to PICU  
 2 = Transfer from outside ED  
 3 = Admitted through study ED  
 4 = Transfer from floor  
 5 = Transfer from another ICU  
 97 = Unknown

**MENTSTAT**  
 1 = Alert  
 2 = Obtunded  
 3 = Sedated  
 97 = Unknown

**YESNO**  
 0 = No  
 1 = Yes

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CLINICALCOURSE (2 of 10)

**PICU Admission Radiographic or Clinical Evidence of Barotrauma**

Did patient have radiographic or clinical evidence of barotrauma (air leak) prior to PICU admission?

(select yes,no or unknown) \* BarotraumaEvidence #

If Yes, please indicate which one(s) found:

|  |                     |                            |
|--|---------------------|----------------------------|
| Pneumothorax: (select yes or no) ▾           | Pneumothorax #      | YESNO<br>0 = No<br>1 = Yes |
| Pneumomediastinum: (select yes or no) ▾      | Pneumomediastinum # |                            |
| Pneumoperitoneum: (select yes or no) ▾       | Pneumoperitoneum #  |                            |
| Pneumopericardium: (select yes or no) ▾      | Pneumopericardium # |                            |
| Subcutaneous Emphysema: (select yes or no) ▾ | Emphysema #         |                            |

YESNOUNK  
0 = No  
1 = Yes  
97 = Unknown

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CLINICALCOURSE (3 of 10)

**PICU Admission Pulse Oximetry, Vital Signs, GCS**

Answer these questions as they relate to FIRST SET of assessments at presentation to the PICU.

SpO2:  \* (%)

AdmitSpO2 #

Temperature:  \* (degrees C)

AdmitTemp #

Heart Rate:  \* (beats/minute)

AdmitHR #

Respiratory Rate:  \* (breaths/minute)

AdmitRR #

Systolic Blood Pressure (SBP):  \* (mm Hg)

AdmitSBP #

Diastolic Blood Pressure (DBP):  \* (mm Hg)

AdmitDBP #

Glascow Coma Scale score (non-intubated):

AdmitGCS #

**Life-threatening Cardiac Complications During Hospitalization**

Were any life-threatening arrhythmias, elevation of troponins, ECG evidence of ischemia, or other cardiac complications documented during the patient's hospitalization (PICU or floor)?

(select yes or no) \*

CardiacComplications#

If Yes, please describe:

CardiacComplicationsDescribe \$254

YESNO  
0 = No  
1 = Yes

# CAMMP Annotated PUD eCRF

## CLINICALCOURSE (4 of 10)

**Title: Mechanical Ventilation**

Instructions: If patient died before intubation, answer all questions up until Intubation Date and Time and then skip to the next section tab. Since this is a extremely rare (if ever) scenerio and most questions on the form are Required (noted by \*), upon saving the form a Discrepancy Note will be required for each blank question. If patient died after intubation but before extubation (more likely scenerio), all remaining Required questions should be answered or a Discrepancy Note will be required.

**Non-invasive Ventilation PRIOR TO INTUBATION**

Did patient receive non-invasive ventilation prior to intubation? If patient died prior to intubation, answer if non-invasive ventilation was received prior to death.

(select yes,no or unknown) \* **NoninvasiveVentIntub #**

**Blood Gas PRIOR TO INTUBATION**

Answer these questions as they relate to the last blood gas prior to intubation. If patient died prior to intubation, enter last blood gas prior to death.

Blood Gas Date: **BloodGasDayIntub #** \* DD-MMM-YYYY      Blood Gas Time: \* HHMM **BloodGasTimeIntub \$5**

pH: \* #.## **BloodGaspHIntub #**

PCO2: \* (mm Hg) **BloodGasPCO2Intub #**

PO2: \* (mm Hg) **BloodGasPO2Intub #**

Draw method: (select draw method) \* **BloodGasDrawnIntub #**

**INTUBATION**

Answer these questions as they relate to initiation of intubation.

Where was intubation initiated? **IntubationLocation #** \* If Not Intubated Prior to Death, skip the remaining questions on this tab and go to next section tab: Anesthesia.

Intubation Date: **IntubationDay #** \* DD-MMM-YYYY      Intubation Time: \* HHMM **IntubationTime \$5**

**INTUBLOC**  
 1 = Referring Hospital  
 2 = Transport Team  
 3 = ED  
 4 = Floor  
 5 = Operating Room  
 6 = PICU  
 7 = Not Intubated Prior to Death  
 97 = Unknown

**YESNOUNK**  
 0 = No  
 1 = Yes  
 97 = Unknown

**DRAWMETH**  
 1 = Arterial  
 2 = Venous  
 3 = Capillary

CAMMP Annotated PUD eCRF

CLINICALCOURSE (5 of 10)

**INITIAL Vent Settings**

Answer these questions as they relate to the initial ventilator settings in the PICU.

Mode: (S)  \* If "other" ventilator mode, please specify:

PIP:  \* (cm H20)

VT:  \* (mL/Kg)

PEEP:  \* (cm H20)

Rate:  \* (breaths/minute)

FiO2:  \* (%)

Ti:  \* (seconds)

**VENTMODE**  
 1 = Pressure control  
 2 = Pressure-regulated volume control  
 3 = Volume control  
 4 = Pressure support/PEEP  
 95 = Other

**FINAL Vent Settings**

Answer these questions as they relate to the final ventilator settings prior to extubation. If patient died prior to extubation, enter last ventilator settings prior to death.

Mode:  \* If "other" ventilator mode, please specify:

PEEP:  \* (cm H20)

FiO2:  \* (%)

**VENTMODE**  
 1 = Pressure control  
 2 = Pressure-regulated volume control  
 3 = Volume control  
 4 = Pressure support/PEEP  
 95 = Other

CAMMP Annotated PUD eCRF

CLINICALCOURSE (6 of 10)

**Blood Gas PRIOR TO EXTUBATION**

Answer these questions as they relate to the last blood gas prior to extubation. If patient died prior to extubation, enter last blood gas prior to death.

Blood Gas Date:  \* DD-MMM-YYYY      Blood Gas Time:  \* HHMM     

pH:  \* #.##     

PCO2:  \* (mm Hg)     

PO2:  \* (mm Hg)     

FiO2:  \* (%)     

Bicarbonate:  \* (mEq/L)     

SpO2:  \* (%)     

Draw method: (select draw method) \*      

DRAWMETH  
1 = Arterial  
2 = Venous  
3 = Capillary

**EXTUBATION**

Answer these questions as they relate to discontinuation of mechanical ventilation (extubation).

Did patient die before extubation? (select yes or no) \* If Yes (patient died before extubation), skip to next section tab: Anesthesia.      

YESNO  
0 = No  
1 = Yes

If No, what was:

Extubation Date:  \* DD-MMM-YYYY      Extubation Time:  HHMM

CAMMP Annotated PUD eCRF

CLINICALCOURSE (7 of 10)

**Non-invasive Ventilation AFTER EXTUBATION**

Answer these questions as they relate to non-invasive ventilation received after extubation (if applicable).

YESNUNK  
0 = No  
1 = Yes  
97 = Unknown

Did patient receive non-invasive ventilation after extubation? (select yes,no or unknown) ▼

NoninvasiveVentAfterExtub #

If Yes, what was:

Non-invasive ventilation START date: DD-MMM-YYYY  
NoninvasiveVentStartDay #

Non-invasive ventilation START time: HHMM

NoninvasiveVentStartTime \$5

If non-invasive ventilation end date/time is unknown or patient is discharged with non-invasive ventilation, enter the PICU discharge date and time.

Non-invasive ventilation END date: DD-MMM-YYYY  
NoninvasiveVentEndDay #

Non-invasive ventilation END time: HHMM

NoninvasiveVentEndTime \$5

CAMMP Annotated PUD eCRF

CLINICALCOURSE (8 of 10)

**Title: Inhalational Anesthesia**

**Inhalational Anesthesia**

Answer these questions as they relate to inhalational anesthesia received during PICU stay (if applicable).

Did patient receive inhalational anesthesia during PICU stay? (select yes,no or unknown) \* If No (patient did not receive inhalational anesthesia), skip to next section tab: ECMO.

InhalAnesthesia #

YESNOUNK  
0 = No  
1 = Yes  
97 = Unknown

If Yes, were the following used:

Isoflurane: (select yes or no) InhalAnesthesiaIsoflurane #

Sevoflurane: (select yes or no) InhalAnesthesiaSevoflurane #

Halothane: (select yes or no) InhalAnesthesiaHalothane #

Other not listed here: (select yes or no) Please specify: Value not provided

InhalAnesthesiaOther #

YESNO  
0 = No  
1 = Yes

If Yes, what was:

Inhalational Anesthesia START date: DD-MMM-YYYY  
InhalAnesthesiaStartDay #

Inhalational Anesthesia START time: HHMM  
InhalAnesthesiaStartTime \$5

Inhalational Anesthesia END date: DD-MMM-YYYY  
InhalAnesthesiaStopDay #

Inhalational Anesthesia END time: HHMM  
InhalAnesthesiaStopTime \$5



CAMMP Annotated PUD eCRF

CLINICALCOURSE (9 of 10)

**Extracorporeal Membrane Oxygenation (ECMO)**  
 Answer these questions as they relate to ECMO (if applicable).

Was patient treated with ECMO during the PICU stay (includes ECCO2R)?  \* If No (patient was not treated with ECMO), skip to next section tab: Final Status.

ECMO #

If Yes, what was:

ECMO Mode:  ECMOMode #

ECMO START date:  DD-MMM-YYYY ECMO START time:  HHMM

ECMO END date:  DD-MMM-YYYY ECMO END time:  HHMM

**Complications Related to ECMO**  
 Were there any complications related to ECMO?

ECMOComplication #

If Yes, please specify which complications occurred:

Hemorrhage:  ECMOHemorrhage #

Thrombosis:  ECMOThrombosis #

Infection:  ECMOInfection #

Stroke:  ECMOStroke #

Other complication not listed here:  Please describe:  ECMOOther #

YESNOUNK  
 0 = No  
 1 = Yes  
 97 = Unknown

ECMOMODE  
 1 = Veno-Arterial (VA)  
 2 = Veno-Venous (VV)  
 3 = ECCO2R Catheter

YESNO  
 0 = No  
 1 = Yes

YESNO  
 0 = No  
 1 = Yes

CAMMP Annotated PUD eCRF

CLINICALCOURSE (10 of 10)

**Title: Final Status**

**PICU Final Status**

Answer these questions as they relate to patient final status upon PICU discharge.

What was patient final status at PICU discharge? (select final PICU status) \* **PICUFinalStatus #**

**DCSTATUS**  
1 = Survived with no known complications  
2 = Survived with known complications  
3 = Dead

If survived with known complications, were any of the following present?

Residual pulmonary barotrauma: (select yes or no) **DischargeBarotrauma #**

Central nervous system deficit: (select yes or no) **DischargeCNSDeficit #**

Neuromyopathy: (select yes or no) **DischargeNeuromyopathy #**

**YESNO**  
0 = No  
1 = Yes

What was patient vital status at hospital discharge?

(select vital status) \* **HospVitalStatus #**

**VITLSTAT**  
1 = Alive  
2 = Dead

CAMMP Annotated PUD eCRF

DEATH (1 of 1)

CAMMPS Death Information v1.0

subjectID #

RepeatID \$5

DaysToRepeat #

**Title: Death Information**

**Death Information**

Date of death:  \* DD-MMM-YYYY Time of death:  HHMM

Moribund on arrival to PICU:  \*

Mode of death:  \* If "other" mode of death, please specify:

Cause(s) of death:  \* Copy from Death Certificate, if available, or medical record death note.

Autopsy Available: (select yes/no)

If Yes, please upload a de-identified copy of autopsy.

Autopsy Upload:  Study Subject ID must be included on each page of the upload and the upload must not contain any PHI.

YESNOUNK  
0 = No  
1 = Yes  
97 = Unknown

DEATHMOD  
1 = Withdrawal of support/futility  
2 = Brain death  
3 = Failed CPR  
95 = Other  
97 = Unknown

THERAPIESPRIOR (1 of 1)

subjectID #

RepeatID \$5

DaysToRepeat #

**CAMMPS Therapies & Interventions – Prior to Intubation v1.0**

| Title: Therapies and Interventions   |                          |
|--|--------------------------|
| Instructions: Prior to intubation, please indicate whether the patient received any of the following therapies or interventions. |                          |
| Phase 1: Prior to Intubation   |                          |
| Prior to intubation, did patient receive any of the following therapies or interventions?  |                          |
| Oxygen: (select yes,no,or unknown) *   | Oxygen #                 |
| Bronchoscopy: (select yes,no,or unknown) *   | Bronchoscopy #           |
| BiPAP/CPAP: (select yes,no,or unknown) *   | BiPAP #                  |
| Intermittent Albuterol - Inhaled: (select yes,no,or unknown) *   | AlbutIntermittent #      |
| Continuous Albuterol - Inhaled: (select yes,no,or unknown) *   | AlbutContinuous #        |
| Terbutaline - IV: (select yes,no,or unknown) *   | TerbutalineIV #          |
| Terbutaline - SC, IM: (select yes,no,or unknown) *   | TerbutalinePT #          |
| Terbutaline - Inhaled: (select yes,no,or unknown) *  | TerbutalineInhaled #     |
| Isoproterenol - IV: (select yes,no,or unknown) *   | Isoproterenol #          |
| Epinephrine - Inhaled: (select yes,no,or unknown) *  | EpinephrineInhaled #     |
| Epinephrine - IV: (select yes,no,or unknown) *   | EpinephrineIV #          |
| Epinephrine - IM, SC: (select yes,no,or unknown) *   | EpinephrineSubq #        |
| Corticosteroids - IV, PO: (select yes,no,or unknown) *   | CorticosteroidsIVPO #    |
| Corticosteroids - Inhaled: (select yes,no,or unknown) *  | CorticosteroidsInhaled # |
| Ipratropium - Inhaled: (select yes,no,or unknown) *  | Ipratropium #            |
| Atropine - IV: (select yes,no,or unknown) *  | Atropine #               |
| Magnesium sulfate - IV: (select yes,no,or unknown) *   | MagSulfate #             |
| Aminophylline/ Theophylline - IV, PO: (select yes,no,or unknown) *   | AminoTheo #              |
| Helium-oxygen - Inhaled: (select yes,no,or unknown) *  | HeliumOxygen #           |
| Ketamine - Infusion (excluding induction): (select yes,no,or unknown) *  | Ketamine #               |

YESNOUNK  
 0 = No  
 1 = Yes  
 97 = Unknown

CAMMP Annotated PUD eCRF

THERAPIESDURING (1 of 1)

subjectID #

RepeatID \$5

DaysToRepeat #

**CAMMPS Therapies & Interventions – During Mechanical Ventilation v1.0**

| Title: Therapies and Interventions  |  |
|---|--|
| Instructions: During invasive mechanical ventilation, please indicate whether the patient received any of the following therapies or interventions. |  |
| Phase 2: During Invasive Mechanical Ventilation   |  |
| During invasive mechanical ventilation, did patient receive any of the following therapies or interventions?  |  |
| Neuromuscular Blockade (excluding induction):   | <input type="text" value="(select yes,no,or unknown)"/> * <span style="float: right; border: 1px solid red; padding: 2px;">NeuromuscularBlock #</span>     |
| Oxygen:   | <input type="text" value="(select yes,no,or unknown)"/> * <span style="float: right; border: 1px solid red; padding: 2px;">Oxygen #</span>                 |
| Bronchoscopy:   | <input type="text" value="(select yes,no,or unknown)"/> * <span style="float: right; border: 1px solid red; padding: 2px;">Bronchoscopy #</span>           |
| High-frequency oscillatory ventilation:   | <input type="text" value="(select yes,no,or unknown)"/> * <span style="float: right; border: 1px solid red; padding: 2px;">HFOV #</span>                   |
| Intermittent Albuterol - Inhaled:   | <input type="text" value="(select yes,no,or unknown)"/> * <span style="float: right; border: 1px solid red; padding: 2px;">AlbutIntermittent #</span>      |
| Continuous Albuterol - Inhaled:   | <input type="text" value="(select yes,no,or unknown)"/> * <span style="float: right; border: 1px solid red; padding: 2px;">AlbutContinuous #</span>        |
| Terbutaline - IV:   | <input type="text" value="(select yes,no,or unknown)"/> * <span style="float: right; border: 1px solid red; padding: 2px;">TerbutalineIV #</span>          |
| Terbutaline - SC, IM:   | <input type="text" value="(select yes,no,or unknown)"/> * <span style="float: right; border: 1px solid red; padding: 2px;">TerbutalinePT #</span>          |
| Terbutaline - Inhaled:  | <input type="text" value="(select yes,no,or unknown)"/> * <span style="float: right; border: 1px solid red; padding: 2px;">TerbutalineInhaled #</span>     |
| Isoproterenol - IV:   | <input type="text" value="(select yes,no,or unknown)"/> * <span style="float: right; border: 1px solid red; padding: 2px;">Isoproterenol #</span>          |
| Epinephrine - Inhaled:  | <input type="text" value="(select yes,no,or unknown)"/> * <span style="float: right; border: 1px solid red; padding: 2px;">EpinephrineInhaled #</span>     |
| Epinephrine - IV:   | <input type="text" value="(select yes,no,or unknown)"/> * <span style="float: right; border: 1px solid red; padding: 2px;">EpinephrineIV #</span>          |
| Epinephrine - IM, SC:   | <input type="text" value="(select yes,no,or unknown)"/> * <span style="float: right; border: 1px solid red; padding: 2px;">EpinephrineSubq #</span>        |
| Corticosteroids - IV, PO:   | <input type="text" value="(select yes,no,or unknown)"/> * <span style="float: right; border: 1px solid red; padding: 2px;">CorticosteriodsIVPO #</span>    |
| Corticosteroids - Inhaled:  | <input type="text" value="(select yes,no,or unknown)"/> * <span style="float: right; border: 1px solid red; padding: 2px;">CorticosteriodsInhaled #</span> |
| Ipratropium - Inhaled:  | <input type="text" value="(select yes,no,or unknown)"/> * <span style="float: right; border: 1px solid red; padding: 2px;">Ipratropium #</span>            |
| Atropine - IV:  | <input type="text" value="(select yes,no,or unknown)"/> * <span style="float: right; border: 1px solid red; padding: 2px;">Atropine #</span>               |
| Magnesium sulfate - IV:   | <input type="text" value="(select yes,no,or unknown)"/> * <span style="float: right; border: 1px solid red; padding: 2px;">MagSulfate #</span>             |
| Aminophylline/ Theophylline - IV, PO:   | <input type="text" value="(select yes,no,or unknown)"/> * <span style="float: right; border: 1px solid red; padding: 2px;">AminoTheo#</span>               |
| Helium-oxygen - Inhaled:  | <input type="text" value="(select yes,no,or unknown)"/> * <span style="float: right; border: 1px solid red; padding: 2px;">HeliumOxygen #</span>           |
| Ketamine - Infusion (excluding induction):  | <input type="text" value="(select yes,no,or unknown)"/> * <span style="float: right; border: 1px solid red; padding: 2px;">Ketamine #</span>               |
| Nitric Oxide:   | <input type="text" value="(select yes,no,or unknown)"/> * <span style="float: right; border: 1px solid red; padding: 2px;">NitricOxide #</span>            |
| Mucolytics:   | <input type="text" value="(select yes,no,or unknown)"/> * <span style="float: right; border: 1px solid red; padding: 2px;">Mucolytics #</span>             |

YESNOUNK  
 0 = No  
 1 = Yes  
 97 = Unknown

CAMMP Annotated PUD eCRF

THERAPIESANES (1 of 1)

subjectID #

RepeatID \$5

DaysToRepeat #

**CAMMPS Therapies & Interventions – During Inhalational Anesthesia v1.0**

| Title: Therapies and Interventions  |                          |
|---|--------------------------|
| Instructions: During inhalational anesthesia, please indicate whether the patient received any of the following therapies or interventions. |                          |
| <b>Phase 3: During Inhalational Anesthesia</b>  |                          |
| During inhalational anesthesia, did patient receive any of the following therapies or interventions?  |                          |
| Oxygen: (select yes,no,or unknown) *  | Oxygen #                 |
| Bronchoscopy: (select yes,no,or unknown) *  | Bronchoscopy #           |
| High-frequency oscillatory ventilation: (select yes,no,or unknown) *  | HFOV #                   |
| Intermittent Albuterol - Inhaled: (select yes,no,or unknown) *  | AlbutIntermittent #      |
| Continuous Albuterol - Inhaled: (select yes,no,or unknown) *  | AlbutContinuous #        |
| Terbutaline - IV: (select yes,no,or unknown) *  | TerbutalineIV #          |
| Terbutaline - SC, IM: (select yes,no,or unknown) *  | TerbutalinePT #          |
| Terbutaline - Inhaled: (select yes,no,or unknown) *   | TerbutalineInhaled #     |
| Isoproterenol - IV: (select yes,no,or unknown) *  | Isoproterenol #          |
| Epinephrine - Inhaled: (select yes,no,or unknown) *   | EpinephrineInhaled #     |
| Epinephrine - IV: (select yes,no,or unknown) *  | EpinephrineIV #          |
| Epinephrine - IM, SC: (select yes,no,or unknown) *  | EpinephrineSubq #        |
| Corticosteroids - IV, PO: (select yes,no,or unknown) *  | CorticosteroidsIVPO #    |
| Corticosteroids - Inhaled: (select yes,no,or unknown) *   | CorticosteroidsInhaled # |
| Ipratropium - Inhaled: (select yes,no,or unknown) *   | Ipratropium #            |
| Atropine - IV: (select yes,no,or unknown) *   | Atropine #               |
| Magnesium sulfate - IV: (select yes,no,or unknown) *  | MagSulfate #             |
| Aminophylline/ Theophylline - IV, PO: (select yes,no,or unknown) *  | AminoTheo #              |
| Helium-oxygen - Inhaled: (select yes,no,or unknown) *   | HeliumOxygen #           |
| Ketamine - Infusion (excluding induction): (select yes,no,or unknown) *   | Ketamine #               |
| Nitric Oxide: (select yes,no,or unknown) *  | NitricOxide #            |
| Mucolytics: (select yes,no,or unknown) *  | Mucolytics #             |

YESNOUNK  
 0 = No  
 1 = Yes  
 97 = Unknown

CAMMP Annotated PUD eCRF

THERAPIESECMO (1 of 1)

subjectID #

RepeatID \$5

DaysToRepeat #

**CAMMPS Therapies & Interventions – During ECMO v1.0**

|  |
|--|
| <b>Title: Therapies and Interventions</b>  |
| Instructions: During ECMO, please indicate whether the patient received any of the following therapies or interventions. |
| <b>Phase 4: During ECMO</b>  |
| During ECMO, did patient receive any of the following therapies or interventions?  |

|   |                          |
|---|--------------------------|
| Oxygen: (select yes,no,or unknown) *                                    | Oxygen #                 |
| Bronchoscopy: (select yes,no,or unknown) *                              | Bronchoscopy #           |
| High-frequency oscillatory ventilation: (select yes,no,or unknown) *    | HFOV #                   |
| Intermittent Albuterol - Inhaled: (select yes,no,or unknown) *          | AlbutIntermittent #      |
| Continuous Albuterol - Inhaled: (select yes,no,or unknown) *            | AlbutContinuous #        |
| Terbutaline - IV: (select yes,no,or unknown) *                          | TerbutalineIV #          |
| Terbutaline - SC, IM: (select yes,no,or unknown) *                      | TerbutalinePT #          |
| Terbutaline - Inhaled: (select yes,no,or unknown) *                     | TerbutalineInhaled #     |
| Isoproterenol - IV: (select yes,no,or unknown) *                        | Isoproterenol #          |
| Epinephrine - Inhaled: (select yes,no,or unknown) *                     | EpinephrineInhaled #     |
| Epinephrine - IV: (select yes,no,or unknown) *                          | EpinephrineIV #          |
| Epinephrine - IM, SC: (select yes,no,or unknown) *                      | EpinephrineSubq #        |
| Corticosteroids - IV, PO: (select yes,no,or unknown) *                  | CorticosteroidsIVPO #    |
| Corticosteroids - Inhaled: (select yes,no,or unknown) *                 | CorticosteroidsInhaled # |
| Ipratropium - Inhaled: (select yes,no,or unknown) *                     | Ipratropium #            |
| Atropine - IV: (select yes,no,or unknown) *                             | Atropine #               |
| Magnesium sulfate - IV: (select yes,no,or unknown) *                    | MagSulfate #             |
| Aminophylline/ Theophylline - IV, PO: (select yes,no,or unknown) *      | AminoTheo #              |
| Helium-oxygen - Inhaled: (select yes,no,or unknown) *                   | HeliumOxygen #           |
| Ketamine - Infusion (excluding induction): (select yes,no,or unknown) * | Ketamine #               |
| Nitric Oxide: (select yes,no,or unknown) *                              | NitricOxide #            |
| Mucolytics: (select yes,no,or unknown) *                                | Mucolytics #             |

YESNOUNK  
 0 = No  
 1 = Yes  
 97 = Unknown

CAMMP Annotated PUD eCRF

THERAPIESAFTER (1 of 1)

subjectID #

RepeatID \$5

DaysToRepeat #

**CAMMPS Therapies & Interventions – After Extubation v1.0**

| Title: Therapies and Interventions  |                          |
|---|--------------------------|
| Instructions: After extubation and prior to PICU discharge, please indicate whether the patient received any of the following therapies or interventions. |                          |
| <b>Phase 5: After Extubation</b>  |                          |
| After extubation and prior to PICU discharge, did patient receive any of the following therapies or interventions?  |                          |
| Oxygen: (select yes,no,or unknown) *  | Oxygen #                 |
| Bronchoscopy: (select yes,no,or unknown) *  | Bronchoscopy #           |
| BIPAP/CPAP: (select yes,no,or unknown) *  | BiPAP #                  |
| Intermittent Albuterol - Inhaled: (select yes,no,or unknown) *  | AlbutIntermittent #      |
| Continuous Albuterol - Inhaled: (select yes,no,or unknown) *  | AlbutContinuous #        |
| Terbutaline - IV: (select yes,no,or unknown) *  | TerbutalineIV #          |
| Terbutaline - SC, IM: (select yes,no,or unknown) *  | TerbutalinePT #          |
| Terbutaline - Inhaled: (select yes,no,or unknown) *   | TerbutalineInhaled #     |
| Isoproterenol - IV: (select yes,no,or unknown) *  | Isoproterenol #          |
| Epinephrine - Inhaled: (select yes,no,or unknown) *   | EpinephrineInhaled #     |
| Epinephrine - IV: (select yes,no,or unknown) *  | EpinephrineIV #          |
| Epinephrine - IM, SC: (select yes,no,or unknown) *  | EpinephrineSubq #        |
| Corticosteroids - IV, PO: (select yes,no,or unknown) *  | CorticosteroidsIVPO #    |
| Corticosteroids - Inhaled: (select yes,no,or unknown) *   | CorticosteroidsInhaled # |
| Ipratropium - Inhaled: (select yes,no,or unknown) *   | Ipratropium #            |
| Atropine - IV: (select yes,no,or unknown) *   | Atropine #               |
| Magnesium sulfate - IV: (select yes,no,or unknown) *  | MagSulfate #             |
| Aminophylline/ Theophylline - IV, PO: (select yes,no,or unknown) *  | AminoTheo #              |
| Helium-oxygen - Inhaled: (select yes,no,or unknown) *   | HeliumOxygen #           |
| Ketamine - Infusion (excluding induction): (select yes,no,or unknown) *   | Ketamine #               |

YESNOUNK  
 0 = No  
 1 = Yes  
 97 = Unknown