A Plan Outline for Increasing Pediatric Critical Care Surge Capacity

Institution

Date
Edition, Version
**Institution** Pediatric Critical Care Surge Task Force

**Committee Members**

**Plan Revisions**

The Plan for Increasing Pediatric Critical Care (PCC) Surge Capacity at **Institution** should be revised annually by the Pediatric Critical Care Surge Task Force.

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<th>Revision Number</th>
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<th>Date</th>
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Mission Statement:

The plan intends to increase the Pediatric Intensive Care Unit service capabilities at Institution beyond its regular capacity. The implementation of the PCC surge plan (PCCSP) encompasses the PICU and the Pediatric Inpatient Unit as well as any other unit that will be used.

Definitions:

Pediatric Intensive Care Unit (PICU) – A space within a hospital in which critically ill pediatric patients are hospitalized, monitored and managed.

Pediatric Critical Care Service (PCCS) – The clinical service delivered by the pediatric critical care medical and nursing staff. This service is most commonly provided in the PICU, but could also be provided elsewhere in the hospital when adequate personnel, equipment and supplies are made available for that purpose.

Pediatric Inpatient Unit – A space within the hospital in which acutely ill pediatric patients are hospitalized and managed.

Surge Capacity – The ability to expand care capabilities to meet sudden and/or more prolonged demand for patient triage and treatment. A Surge Capacity Plan addresses issues of availability of space, personnel, medications, supplies, and equipment.

Scope:

The PCCSP of Institution is designed to respond to a large influx, or to an impending risk of a large influx, of victims who might be critically ill or injured.

The PCCSP at Institution is an integral part of the overall Emergency Operations Plan of Institution. It refers to disasters that require implementation of the hospital’s surge capacity in general and for critical care in particular. Surge capacity incidents may occur as a result of natural disasters (i.e. earthquakes), pandemics, or human-induced disasters (i.e. mass-casualty hazardous materials exposures, mass-casualty transportation incidents, and terrorist activities).

If an incident has resulted in or is likely to result in a number of patients that may overwhelm the hospital’s ability to manage by using standard operating procedures, the hospital should activate its Emergency Operations Plan. The PCCSP is part of the Emergency Operations Plan and is implemented when an incident has resulted, or is likely to result in the hospital receiving a large number of pediatric patients that may overwhelm the ability to function using standard operating procedures. It requires specific responses by the PICU, the pediatric inpatient unit, and other inpatient units as necessary and appropriate as well as the ED.

The standard of care during a surge plan implementation may change from optimal care to sufficient care without compromising adequate utilization of skills, diligence and reasonable judgment in delivery of patient care. The goal is to save as many lives as possible with the best possible neurologic and functional outcomes.
Risk Assessment:

- The Hazard Vulnerability Assessment (HVA) tool for Institution is time period (e.g. annually) evaluated and updated.

- The most likely surge-capacity incidents for Institution PCC are:
  - Mass-casualty traumas due to transportation incidents
  - Infectious disease epidemic (Pandemic Flu, SARS etc.) resulting in respiratory failure and hemodynamic instability (shock)
  - Mass-casualty due to hazardous materials exposure incidents (non-terrorism)
  - CBRNE Terrorist incident (chemical, biological, radiologic, nuclear and explosive)
**Communication and Notification**

Once notified of incident, be sure to communicate regularly with ED (Tel: \#) and HICS/AOD (Tel: \#).

**I. Information Dissemination**

Many surge-capacity incidents (e.g. earthquake, mass-casualty transportation incident, non-terrorism hazardous materials exposure incident) occur with little or no warning. Others (e.g. hurricane, pandemic) will most likely have a known build-up period.

Potential terrorist incidents may be preceded by alerts issued by the Department of Homeland Security (DHS). The New York City Department of Health and Mental Hygiene (NYC DOHMH) and/or the Fire Department of New York (FDNY) may use a notification system to forward such alerts to their corresponding healthcare networks.

**II. Detection of Surge Capacity Incidents**

In most instances, the Emergency Department or an Outpatient Clinic will be the first unit at the hospital to become aware of a suspected/confirmed surge capacity incident. This will result from either the receipt of a DOHMH/FDNY alert notification or by virtue of encountering a cluster of patients with specific symptoms (sentinel event).

Once a receipt of external notification of a suspected/confirmed surge capacity incident arrives to any hospital unit, or the ED detects possible surge capacity incident indicators, Institution’s Chief of Staff, Chairman of Pediatrics, and Chairman of Emergency Preparedness must be immediately notified as per an existing and periodically updated roster (Appendix 1).

**PCCSP Activation**

**I. Discharge from PICU (Appendices 2 and 3):**

Patients are rapidly discharged to the Pediatric Inpatient Unit, or home, as appropriate.

**II. Rapid Patient Discharge Team:**

Space for admission is first made available by transferring patients within the hospital, utilizing the Bed Management Committee. This committee aims at periodically assessing bed availability. The Bed Management Committee which includes Pediatric Attendings, Director of Inpatient Services/Chief Resident will meet at the nurses’ station.

- **a. The Bed Management Committee will be tasked with:**
  - i. Obtaining accurate bed census and assessing existing bed situation.
  - ii. Conducting a “walk through” and deciding which patient can be discharged home, to the floor, or to step down unit.
iii. Meeting at the beginning of each shift to maximize discharges.

**b. Recommendations for discharges are as follows:**

i. Floor patients can be discharged to home as per existing tool (Appendix 2).

ii. Mild patients on the floors could be moved to the hallways.

iii. Make recommendations about transfer of patients to the Chief of PCC and Chief of ED (or their designees).

iv. Patients older than 13 years of age could be transferred to Adult ICU.

v. Patients in the PICU could be transferred to the floors using a management tool for ‘sicker than usual’ (former PICU) patients.

### III. Enlist Additional Staff: (Rosters in Appendix 1)

#### a. Physicians:

- Unit director: Name (Tel:)
- Attending’s on call: how many and when are they available
- Intensivist: how many and when are they available
- # hospitalists trained in PFCCS

#### b. Nurses:

- Nurse Manager – Name (Tel:)
- Clinical nurse specialist – Name (Tel:) PCC trained?
- # nurses are cross trained for floor and PICU

### IV. Open Alternate PICU Sites (PICU: telephone extension ________):

- Fill PICU (# beds); then,
- Open Room #: # beds; then,
- Open Room #: # beds;
- Maximum total: # beds

Where are these rooms located in proximity to existing PICU.

Additional space can be mobilized from ______ as needed.

### V. Ventilators and Gasses (Respiratory Therapy: telephone extension __________):

#### a. Ventilators

- Hospital has # ventilators, of which # are pediatric capable:

  List ventilator amount and type(s)
PICU has # dedicated ventilators:

List ventilator amount and type(s)

b. Gasses

# rooms have gas and suction outlets.

c. Respiratory Therapy

How many RTs does the hospital have, what shifts are they on and how many are capable of handling pediatric patients.

VI. Medications and Code Carts (Pharmacy: telephone extension ______________):

# code cart(s) located at PICU and Floor.

# additional code cart(s) is located where at phone number

Meds available in code carts are in stock in PICU and Floor.

Additional medications available from pharmacy where or from central pharmacy 2/7

VII. Monitors:

# monitors in PICU – # per bed

# monitors for Surge Room #

VIII. Sockets and Power:

Electric sockets are available in # surge and alternate rooms.

Red sockets (generator) are also available in # Peds and PICU rooms.

IX. Isolation Surge Capacity (Appendix 4)

Negative pressure rooms: room #s

Negative pressure beds: # of beds

Cohort isolation patients in rooms: room #s

# patients can be cohorted.
X. **Notification of Decontamination Operations**

If a patient(s) presents with indications of exposure to hazardous materials, or if the Medical Center requires decontamination, the system HazMat Team will be notified. Any staff identifying a hazardous material event has the authority to call the Operator to activate the system HazMat Team. Information will be supplied to the Operator stating the nature of the event. A hazardous materials event impacting Medical Center Operations will automatically activate the Medical Center’s Emergency Operations Plan at Level II, unless otherwise specified by the Incident Commander.

*A decontamination station is set up in the ________________.*

XI. **Accessing Equipment and Supplies**

Equipment and supplies for decontamination operations are located in the ED Pyxis, Security, Engineering and/or Safety Departments.

- **Security:** Extension:
- **Safety:** Extension:
- **Engineering:** Extension:
Appendix 1

Existing Rosters to Enlist Additional Staff

<table>
<thead>
<tr>
<th>Roster</th>
<th>Responsible Officer</th>
<th>Discipline</th>
<th>Phone# PICU/Office</th>
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<tbody>
<tr>
<td>PCCS</td>
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<td>CC nursing</td>
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<td>Transport</td>
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<td>Resp. Therapy</td>
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Appendix 2

Discharge of Patients to Home during Disasters

<table>
<thead>
<tr>
<th>Institution</th>
<th>Patient Name, MR #</th>
<th>Diagnosis</th>
<th>Institution Attending Pediatrician Approving Discharge</th>
<th>Destination</th>
<th>Parental Consent</th>
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Appendix 3

Management of Patients on Pediatric Inpatient Unit “Sicker Than Usual” Form
(To be completed by Chief Resident)

<table>
<thead>
<tr>
<th>Institution Room #</th>
<th>Patient Name, MR #</th>
<th>Diagnosis</th>
<th>F_2O_2, Ventilator, BiPAP Settings</th>
<th>Vasoactive Infusions</th>
<th>Supervising PICU MD</th>
<th>Supervising PICU RN or Transport RN</th>
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Appendix 4

Hospital Isolation Surge Capacity Plan

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<thead>
<tr>
<th>Negative pressure room #</th>
<th># of beds</th>
<th>Location</th>
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<thead>
<tr>
<th>Placing HEPA filters in room #</th>
<th># of beds</th>
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<th>Use of PPE for room #</th>
<th>Type of PPE</th>
<th>Procedure</th>
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