# Pediatric Intensive Care Unit Surge Capacity Plan

Created by:



# **How to Use This Template:**

The Pediatric Intensive Care Unit (PICU) Surge Capacity Plan Template was created by the New York City Pediatric Disaster Coalition (PDC) to help health care facilities create site-specific pediatric surge and evacuation plans to be incorporated into their emergency operation plans. PDC reviewed existing literature and collaborated with New York City subject matter experts and New York City hospitals to develop this template.

Please use this template in conjunction with PDC's <u>Pediatric Surge Capacity Plan Guidelines</u>. When necessary, please modify the template to adapt to your existing disaster plan.

PDC recommends referring to your institution's emergency operations plan for guidance on current policies and procedures. When creating your surge plan, provide references (e.g., see page number) to your facility's emergency operations plan where necessary.

For questions or more information about using this template, please contact PDC.

Thank you,

New York City Pediatric Disaster Coalition New York City Department of Health and Mental Hygiene

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# **Emergency Operations Plan: Pediatric Addendum**

Please use the PICU Surge Capacity Plan Template as an addendum to your facility's general emergency operations plan and supplement existing procedures to enhance care for PICU patients during a surge event. Please refer to your facility's emergency operations plan when filling out this template and provide page numbers when referencing existing procedures.

Location of facility's emergency operations plan:
Role/title of staff responsible for revising/updating plan:
Plan Objectives
<ul> <li>Provide the necessary emergency equipment, staff and space to safely and efficiently accommodate a surge or evacuation of pediatric patients</li> </ul>
<ul> <li>Establish a chain of command for the surge or evacuation of PICU patients</li> </ul>
• Assign roles to ensure the best possible provision of care during the surge event in the PICU
Plan Revision
This plan should be revised annually and under the following conditions:
When changes are made to the facility or PICU surge or triage spaces
After an exercise
After a surge event
PICU Details and Contacts
PICU Address (building address and floor):

If your unit has high and low acuity areas, please specify below:

**Bed Capacity** (number of beds): \_\_\_\_\_

**Surge Capacity** (number of patients): \_\_\_\_

Name of high/lower acuity area	Number of beds	Surge Capacity

PICU Emergency Contact* (role/title of person):	
Phone number or extension:	
Upon any perceived threat to the PICU, immediately dialappropriate response.	to trigger the
Security Contact* (role/title of person):	
Primary phone number:	
Alternate phone number:	
*Please list substitutes if primary is not available. All contact phone numbe numbers. List as many numbers as possible for each contact.	rs must be 24-hour
Surge Triage Space	
During surge events for which you have advance notice, triage surge patier department (ED), triage space or in alternate surge triage spaces to avoid or	

PICU. Surge events require additional staffing to sort and stabilize patients and establish beds in the PICU or alternate surge space.

Surge Triage Space Location (floor and room number):	
Alternate Surge Triage Space Location (floor and room number):	

# **Surge Triage Locations and Staffing Chart**

<b>Location</b> (building, floor and room number)	Number of Beds	<b>Staffing</b> (e.g., 2 Physicians, 4 Registered Nurses (RN), 1 Physician Assistants (PA), 1 Emergency Medical Technician (EMT), 2 Residents)

# **Staff Roles and Schedules**

To determine staffing, match facility needs to available resources. All attempts should be made to provide a standard of care that will provide the best outcomes within the constraints of the event. If necessary, implement longer shifts and more patients per health care provider.

Create schedules that show which and how many personnel in the PICU are on duty and what their hours are (e.g., eight or twelve hour shifts, all times, day, night, etc.).

Fill in the table below to track staff schedules across units and care areas in your facility. The chart can also be used to track staff at the time of the event (see **Appendix B** for blank Staff Roles and Schedules chart).

#### **PICU Staff Roles and Schedules**

<b>Shift</b> Indicate weekday(s) and hours	Shift 1	Shift 2	Shift 3	Shift 4
Number of Attending Physicians				
Number of Attending Physicians				
Number of Residents				
Number of Nurses				

[role/title of person] or designee(s) will be the PICU surge leader(s) and will coordinate staff. The PICU surge/evacuation leader will inform staff of the threat, assign individual roles, explain how patients should be triaged for transport and surge, and review and coordinate what equipment to use. The PICU leader and/or designee will communicate with the Emergency Operations Center (EOC) about situational awareness, surge and evacuation response and resource needs (e.g., space, staff and equipment). The process for coordinating incident response between the EOC and PICU should be clearly stated in the PICU Procedures section of this template and be included in each facility's site specific emergency operations plan.

# **Clinical Staff**

Clinical staff prepares patients for relocation during a surge or evacuation. This includes gathering needed equipment and medication, moving patients and continuing patient care.

#### **Non-Clinical Staff**

Non-clinical PICU staff help move isolettes, equipment and supplies to the staging area and elsewhere as needed. They also track patients and prepare their medical records.

**NOTE:** Only clinical staff are allowed to handle patients. This includes all nursing staff and physicians in the PICU at that time, as well as respiratory therapists. Clinicians from pediatrics may be called upon to assist as needed.

# **Pre-Activation**

Pre-activate this plan if the PICU receives notification of an impending surge and there is enough time to gather situational awareness.

# **Impending Threat or Condition**

Events that may cause an impending threat of surge or evacuation are those that happen outside of the PICU (e.g., a fire on another floor) or that have advanced warning (e.g., a hurricane).

\_\_\_\_\_\_(role/title of person) will inform the PICU of an impending threat and provide instructions on how to proceed. Once they are notified, the nurse manager, charge nurse on duty, attending physician or the designee should update staff on the information received.

# **Figure 1: Plan Pre-Activation Considerations**

- Monitor the situation
- Maintain situational awareness
- Initiate a meeting with all leadership involved in a surge
- Check and prepare necessary supplies and equipment
- Notify staff about possible evacuation

# **Surge Plan Activation**

PDC recommends referring to your institution's emergency operations plan for guidance on current policies and procedures. When creating your surge plan, provide references (e.g., see page number) to your facility's emergency operations plan where necessary.

Activate this plan if there is an immediate surge event that will affect the PICU. Upon activation of the surge plan, all staff in the facility will mobilize to help. Staff will gather and be assigned their roles for the surge event. During a surge event, there may be prior notification of arriving patients depending on the proximity of the transferring hospital and how quickly they need to evacuate.

#### **Immediate Threat**

Any event that directly affects the PICU without notice can cause an immediate threat and require evacuation.

If there is an immediate threat to the PICU, the person who notices the threat should contact \_\_\_\_\_\_(role/title of person) via \_\_\_\_\_\_\_(phone number and extension) and notify them of the threat. The PICU medical director or most senior physician should be notified and should begin working with the PICU nurse manager or charge nurse on duty and the command center.

Fill in the chart below with name and contact information of all individuals who can activate the PICU surge plan.\* These individuals have the authority to activate and deactivate the surge and evacuation plan and are responsible for overseeing the events that follow.

Name	Title	Phone	Phone	Email

<sup>\*</sup>Please list substitutes if primary is not available. All contact phone numbers must be 24-hour numbers.

List as many numbers as possible for each contact.

# **Notifications and Communication**

During a PICU surge event, follow the hospital's general emergency operations plan for notifications and communications closely. However, based on the nature of the event, you may need to change the notifications and communications plan.

# **Hospital Command Center**

# **Staffing and Activities**

During a PICU surge or evacuation, the hospital command center's role will mirror that of the hospital's general emergency operations plan; however, the center needs to give particular attention to ensuring that trained medical and ancillary staff with pediatric expertise can respond to a pediatric emergency or disaster as needed. This response includes opening and staffing the Family Information and Support Center (FISC) with mental health providers, providing information and assistance for reunifying families and staffing the Pediatric Safe Area (PSA) to provide a safe area for patients and families after rapid patient discharge.

# **Staffing**

Create a schedule to ensure the hospital	l command center is staffed at all times.
During nights and weekends,	(role/title of person) will act as incident commander. (role/title of person) will act as (role/title of person) is available to
•	uthority and responsibility to act as incident commander in higher level. See <b>Appendix E</b> and <b>Appendix F</b> for earts.
title of person) who will open the hospi	cation will contact (role/ al command center (role/ nse until the command center has opened and the ed.
(role/title	of person) will contact
	(email/ phone number) if additional staffing
(role/title of person) via	ceive this notification, alert (email/phone number) to coordinate the the most senior physician within the PICU.

#### **Activities**

- Alert the hospital of the plan activation
- Alert all potential staging areas that they may be taken over for patient care
- Coordinate appropriate staff to prepare staging area(s)
- Have security staff distribute communication devices (e.g., cell phones, walkie-talkies) to the PICU, if applicable
- Coordinate requests coming from the PICU or other departments
- Notify labor and delivery that the PICU will not be accepting patients
- Determine if the PICU or any other necessary departments should be placed on diversion
- Designate personnel to help with the surge
- Communicate and coordinate with external partners/organizations/agencies as needed
- Ensure continued communication with the PICU
- Maintain communication and information sharing between the PICU and the command center during all stages of the surge or evacuation

# **Senior Management**

Name	Title	Phone	Phone	Email

<sup>\*</sup>Please list substitutes if primary is not available. All contact phone numbers must be 24-hour numbers.

List as many numbers as possible for each contact.

Internal Staff Notification		
	(role/title of person) will announce	activation
of the PICU surge plan via	(e.g., email, overhead paging, text), sta (use language specific to you	_
e.g., color, code, script).		,
Internal Staff Response		
Upon activation of the plan, all PICU staff sland complete the following activities:	hould report to	(location)

<b>Off-Duty Staff Notification</b>	
Upon activation of the plan:	
	_ (role/title of person) will contact off-duty staff about the
activation of the PICU surge plan via_	(e.g., phone, email, text, social media), stating:
Off-Duty Staff Response	
Upon activation of the plan, all off-du	ty PICU staff should complete the following activities:
Labor Pool Location (holding area for	staff that arrive on site during incident):
Alternate Labor Pool Location:	
<b>External Notifications</b>	
	(role/title of person) will notify external partners,
=	like the one below to list the names and contact information ragencies that must be notified of a PICU evacuation.

Name	Title	Partner/ Agency/Org	Phone	Email
		Police department precinct number:		
		Fire department ladder/engine number:		
		Emergency medical service (EMS):		
		Hospital system:		

<sup>\*</sup>Please list substitutes if primary is not available. All contact phone numbers must be 24-hour numbers.

List as many numbers as possible for each contact.

# 

communicate all activities with the command center. They will also coordinate the surge by informing staff of the event, their individual roles and how patients should be triaged for possible

Activities

- Convene staff and discuss roles for the surge event
- Call in additional staff or request additional staff through the command center
- Triage and prep all patients and create space to accommodate surge
- Assess patients within the PICU to determine if any can be transferred to another department to free up PICU beds
  - See Figure 2 for current list of equipment and supplies
- Notify families within the PICU of a potential surge event and plan activation
- Send pertinent information regarding PICU census, patient disposition and other useful information to the command center
- Set up a patient tracking system

discharge, transfer or admission.

• If there is a surge of critically ill patients in the ED, PICU staff should report to the ED and/or triage space to care for patients who will eventually be admitted to the PICU. The PICU team should establish a treatment area in the ED to stabilize and treat patients. Patients should be admitted to the PICU as soon as patient beds are available

# **Equipment and Supplies**

Fill in the table below with your facility's available equipment and supplies.

**Figure 2: Equipment and Supplies** 

Equipment /Supply Name	Number Immediately Available	Location	Number of Patients That Can Be Accommodated
In-House Transport Isolette			
Isolettes			
Evacuation Basket			
Pediatric capable Ventilators (invasive and non-invasive ventilation)			
Portable Monitors			
Portable Suction			
Portable Oxygen			
1			

# **Patient Movement**

Describe and provide a visual route map that personnel should take when moving patients to and from the surge patient triage and treatment areas including:

- From ED and/or surge triage spaces to PICU or alternate PICU sites
- From PICU to alternate PICU sites

Use appropriate staff, personal protective equipment and transport procedures for potentially contaminated patients.

Personnel assigned to move patient	ts
1	Insert floor map(s) showing route(s)
Admitting	
guidance on current policies an	your institution's emergency operations plan for and procedures. When creating your surge plan, age number) to your facility's emergency operations
•	iage, surge spaces, ED, PICU, other)? List the infrastructure n-traditional spaces (i.e., the space(s) listed above).
<ul> <li>Are there any additional processes, surge admissions?</li> </ul>	equipment, technology or personnel required to perform
• Are there types of patients your fact outlets for ventilator patients)?	ility cannot support (e.g., insufficient generator or electrica
	nts with or without available patient information (e.g., digital device, paper chart, digital pictures, pre-designated ignated names or numbers)?

# **Patient Tracking**

The following should be edited based on your hospital's patient tracking procedures:
(role/title of person) will delegate the responsibility of patient tracking at the PICU and staging area. When the patient leaves or arrives at the PICU, (role/title of person) will record information on the
existing roster. This should include*:
Information from the patient's two identification bands
Name of person transporting the patient
Where the patient is being transported to and from and where they are going
*Upon arrival at the staging area, the same information should be documented.
This information should also be relayed to
(phone number) and(role/title of person) of security personnel via(phone number).
A clerk will be stationed at (centralized location; e.g., the front
desk in the main lobby) and will print patient records from that area.
Security Procedures
all security-related issues, and coordinate and communicate all security-related activities with the command center. Depending on the event, security should secure the facility and patient care areas from unauthorized visitors.
Activities
• Limit access to the entire facility and PICU; close non-essential entry points.
• Staff essential areas.
Post security guards at all PICU entrance and exit points.
Clear all unauthorized personnel from secure patient care areas.
• If establishing a surge triage space in a non-secure area, separate the area from public view and unauthorized access.
Direct all vehicular traffic to appropriate areas.
Reroute foot traffic as needed.
• Escort patients with serious mental health problems to a secure treatment area.
• Screen all family members prior to letting them into patient care, mental health or FISC areas.
• Contact local law enforcement(police department precinct number and/or other law enforcement resources if necessary.
• Contact the local fire department(fire department ladder/engine number) if necessary.
• Call 911 if an emergency requiring immediate police, fire or EMS response is needed.
• Obtain current Situational Awareness and share with first responders as they arrive on scene.
• Make any and all internal notifications as stated in general emergency operations plan.

(See page \_\_\_\_\_ of emergency operations plan for details).

# **Engineering/Facilities Management Procedures**

Notify	(role/title of person) via
(phone number or email address) of surge.	

#### **Activities**

- Coordinate all activities with the command center.
- Relay the total number of staff on-site to the command center.
- Relocate supplies to staging and surge areas.
- Set up a decontamination area as necessary.
- Manage electrical, heating and air conditioning.
- Manage oxygen supply, suction and other gases.
- Provide food, water, clothing and shelter for a minimum of 96 hours.

# **Respiratory Therapy Procedures**

Facilities may vary in terms of who manages ventilator therapy. For facilities without respiratory therapy, nursing staff or others may perform this function. Upon notification of a surge event, respiratory therapy or nursing should:

- Contact the command center.
- Assist in transporting supplies to surge areas, if needed.
- Prepare to care for surge patients with respiratory care needs by reviewing the current caseload.
- To increase capacity, determine which patients could go without ventilator care for one to two days.
- Determine the number of available ventilators and other respiratory-related equipment for pediatric patients of various ages. Communicate this information to the hospital command center.

• Alert	(role/title o	f person)	in the l	hospital	command
center if there are problems caring for patier	nts in need o	of respira	tory ca	re.	

# **Laboratory Procedures**

	(role/title of person) or designee will coordinate and
communicate all laboratory	related activities with the command center.

# **Activities**

- Check availability of laboratory supplies.
- Check availability of supplies for specimen and laboratory testing material.
- Discuss the need for obtaining specialized specimens and performing unusual laboratory procedures based on the nature of the event.
- Based on situational awareness and prediction of expected causalities, coordinate and work with the command center to supply specimen and results.
- Organize adequate staff for surge workload.
- Establish coordinated communications capability with clinical sites requesting supplies and hospital command center.

# **Blood Bank Procedures**

\_\_\_\_\_ (role/title of person) or designee will coordinate and communicate all blood bank related activities with the command center.

#### **Activities**

- Check available supply of blood and blood products in your facility.
- Check availability of additional blood or blood products from outside sources.
- Based on situational awareness and prediction of expected casualties, coordinate and work with command center to supply blood and blood products.
- Implement surge procedures, including thawing of blood and blood products and preparation for patient use.
- Organize adequate staff for surge workload.
- Establish coordinated communications capability with command center and clinical sites requesting blood products.
- Track blood and blood product utilization.
- Ensure that properly labeled requests and specimens from surge locations are transported to the blood bank.

# **Public Information Procedures**

The public information officer or designee \_\_\_\_\_\_ (role/title of person) will supervise all public affairs, information dissemination and communications related to the event. They will also coordinate and communicate all activities with the command center.

# **Activities**

- Establish a secure site for press conferences and other media communication away from the clinical area.
- Coordinate all public information related activities with the command center.
- Provide situational awareness, updates and disaster communications to the staff, press, patients' families and the public.
- Coordinate statements with hospital staff to establish consistency and continuity of messaging.
- Coordinate activities with local and national agencies to ensure consistency of information.

# Mental Health/Family Information and Support Center (FISC) and Pediatric Safe Area (PSA) Procedures

Notify	(role/title of person) in social work,
family services, psychiatry, child life services or o	other appropriate personnel of surge via
(e.g., phone, email	address, text, intranet, etc.). They will
coordinate and supervise the following activities	S.

# **Activities**

- Coordinate all mental health related activities with the command center.
- Provide total number of staff on-site to the command center.
- Assign staff to specific roles and areas (e.g., mental health, FISC, PSA, surge areas) to monitor and address mental health issues as they arise.
- Set up mental health, FISC, and PSA sites, including a private space for mental health staff to meet with families and individuals during the surge.
- Notify parents and legal guardians of all patients being discharged or transferred within

will follow different procedure.	depending on where
ion to the below phone numbe specific incident).	ers for surge-specific
rmation to	(phone
nave access to care, supplies ar	nd other necessary
1 12	1 1
i	ion to the below phone numbe specific incident).

# The surge plan can be deactivated by the following people:\*

Name	Title	Phone	Email

<sup>\*</sup>The same person should activate and deactivate the plan. If this is not possible, the person that activated the plan should be notified of the deactivation.

Internal Staff Notification	(role/title of person) will annound	re the deactivation of
the PICU surge/evacuation plan via _		
(insert language specific to your facil	ity; e.g., color, code, script).	
Internal Staff Response		
Upon deactivation of the plan, all sta and complete the following activities		(location)
Off-Duty Staff Notification		
Upon deactivation of the plan, all sta and complete the following activities		(location)

# **External Notifications**

All external contacts who received notification of the PICU surge/evacuation plan's activation must be notified of its deactivation:

Name	Title	Company/Org	Email	
		Police		
		department		
		precinct number:		
		Fire department		
		ladder/engine		
		number:		
Surge Triage Spa	ace			
Which departments	s will be responsible	e for:		
<ul><li>Cleaning up:</li></ul>				
<ul> <li>Returning equipm</li> </ul>	nent:			

Surge Triage Spa				
Which departments	•			
Cleaning up:				
Returning equipm				
• Replenishing equi	pment:			
Surge Spaces				
Which departments	will be responsible	e for:		
• Cleaning up:				
• Returning equipm	ent:			
• Replenishing equi	pment:			
<b>Equipment Reha</b>	abilitation			
List any duties relate	ed to equipment re	habilitation and who	o will complete thos	se duties:

M	er	nta	lΗ	ea	lth

the surge event. Serv patients and families	support to staff and their families and the families of patients involved in ces should remain available for several days following the incident. Refer staff, to community providers and additional resources if needed.
Staff and families can	call (phone number) or speak to
mental health service	(role/title of person) directly for additional assistance accessing safter the incident.
Debriefing	
_	eld after the evacuation or surge to gather information about the event and to emotional and physical needs are addressed. Everyone involved in the incident
	(role/title of person) will facilitate the debriefing after the surge each shift involved in the surge.
Debriefing Location:	
	ocation:
The debriefing will be	held hours after the immediate surge is complete.
<b>Hospital Commar</b> Upon deactivation of	<b>d Center</b> the plan, the hospital command center should be the last to disassemble.
Activities	
• Monitor deactivation	n activities of each department involved.
	s, FISC and PSA return to normal operating status.
	ions (internal and external) have been made.
	with everyone who was involved to discuss the event. ment an after action report/improvement plan (AAR/IP).
•	ge and evacuation plan to reflect all after action items and improvement plans
	(role/title of person) will facilitate a hotwash and document
the AAR/IP.	
	(role/title of person) will update the PICU surge capacity plan
within	(e.g., two weeks) and provide it to leadership.
	(role/title of person) will notify outside agencies and other
external participants	of any action items and improvement plans that are relevant to future events.

<sup>&</sup>lt;sup>1</sup> Facilitated discussion held immediately after an exercise or event amongst those involved. It captures feedback about any issues, concerns or proposed improvements. The hotwash is an opportunity for staff members to voice their opinions on the event and their performance (FEMA Glossary, https://training.fema.gov/programs/emischool/el361toolkit/glossary.htm#H).

# **Appendix A: Important Contact Information**

Include people who are essential to the surge or are leaders in their departments.

Department	Title	Work Number	Cell Number	Email

# **Appendix B: Staff Roles and Schedules**

# PICU Staff Roles and Schedules (e.g.)

PICU shift organization and the number of staff available per shift.

<b>Shift</b> Indicate weekday(s) and hours	Shift 1	Shift 2	Shift 3	Shift 4
Number of Attending Physicians				
Number of Attending Physicians				
Number of Residents				
Number of Nurses				

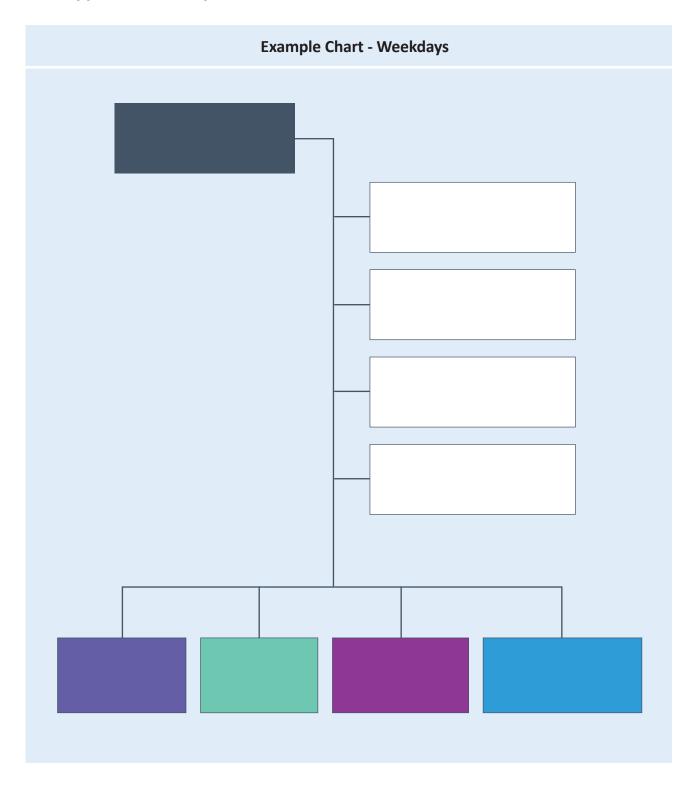
# **Appendix C: Complete Staff Directory Template**

Name	Title	Department	Work Number	Cell Number	Email

# **Appendix D: Abbreviations**

Abbreviation	Definition

**Appendix E: Example Incident Command Structure Chart – WEEKDAYS** 



**Appendix F: Example Incident Command Structure Chart – WEEKENDS** 

