PEDIATRIC SURGE ALL HOSPITALS HANDBOOK

HOW TO USE THIS DOCUMENT

This is a Pediatric Surge Hospital Handbook. The purpose of this handbook is to simplify the process of preparing for a pediatric no notice surge event for all hospitals.

Audience

- All hospital disaster and emergency planners
- Health care coalition
- Pediatric Medical Operations Coordination Cell (PMOCC)

Hospital Pediatric Disaster Ready Levels

In an ideal world, all hospitals would prepare to care for children of all ages at any time, especially during a pediatric surge event. This planning guide understands that not all hospitals have the same daily pediatric capabilities. Each section describes the recommendations for each of the following levels of pediatric capabilities:

F **Foundation:** A hospital with absolute minimal pediatric inpatient or outpatient services

I **Intermediate:** A hospital with some inpatient or outpatient pediatric services but not considered a pediatric hospital

A **Advanced:** Any hospital that considers itself a pediatric hospital and has at a minimum, outpatient pediatric primary care, pediatric emergency area, and a Pediatric Intensive Care Unit (PICU) and general pediatric surgery.

E **Everyone:** All hospitals prepare to manage children with these recommendations

A hospital may follow one capability level throughout all sections of the handbook or switch back and forth between the levels depending on their resources and capacity for that section topic.

This is Not...

- An all-inclusive disaster resource. It does touch on the key pediatric needs and has resource links to additional details on disaster management for each topic.
- A just-in-time guide. It is a planning resource, that can be referenced in an acute event. Our recommendations are that the planning and practice occur before a real event occurs.
- A long duration surge guide. Though the basics remain the same, a longer surge event has slightly different needs. For longer surge events please see the Western Regional Alliance for Pediatric Emergency Management (WRAP-EM) surge toolkit: **WRAP-EM Pediatric Surge Playbook**
- A manual on crisis standards of care

MENTAL HEALTH TIPS

In most sections, we have included mental health tips. These are not meant to be a total list of mental health considerations, but practical tips to decrease stress on children and their families that should be considered during an acute surge event.

Recognizing that mental health surges occur after disasters, we have included a short section on ways to develop a mental health surge management.

SURGE TOOLKIT ACRONYMS

- **AAP COCD:** American Academy of Pediatrics Council on Children in Disasters
- **AAP:** American Academy of Pediatrics
- **ACS:** Alternate Care Site
- **APPs:** Advanced Practice Providers
- **ASPR:** Administration for Strategic Preparedness and Response
- **BH:** Behavioral Health
- **CONOPS:** Concept of Operations
- **CYSHCN:** Children and Youth with Special Health Care Needs
- **DME:** Durable Medical Equipment
- **ED:** Emergency Department
- **EEIs:** Essential Elements of Information
- **EMA:** Emergency Management Agency
- **EMR:** Electronic Medical Record
- **EMS:** Emergency Medical Services
- **EMSC:** Emergency Medical Services for Children
- **EPA:** Environmental Protection Agency
- **ESAR-VHP:** Emergency System for Advance Registration for Volunteer Health Professionals
- **ESF-8:** Emergency Support Function #8
- **EUA:** Emergency Use Authorization
- **FEMA:** Federal Emergency Management Agency
- **HCC:** Healthcare Coalition
- **HICS:** Hospital Incident Command System
- **ICS:** Incident Command Systems
- **ICU:** Intensive Care Unit
- **JIC:** Joint Information Center
- **MCI:** Mass Casualty Incident
- **MH:** Mental Health
- **MOU:** Memorandum of Understanding
- **MRC:** Medical Reserve Corps
- **OSH:** Occupational Safety and Health
- **OT:** Occupational Therapist
- **PACU:** Post Anesthesia Care Unit
- **PECC:** Pediatric Emergency Care Coordinator
- **Ped-COE:** Pediatric Centers of Excellence (ASPR)
- **PICU:** Pediatric Intensive Care Unit
- **PIO:** Public Information Officer
- **PMOCC:** Pediatric Medical Operations Coordination Cell
- **PPE:** Personal Protective Equipment
- **PSA:** Pediatric Safe Area
- **PT:** Physical Therapist
- **RN:** Registered Nurse
- **RT:** Respiratory Therapist
- **SALT:** Sort, Assessment, Live-saving Interventions and Treatment/Transport
- **SPP:** State Partnership Program
- **START:** Simple triage and rapid treatment
- **SW:** Social Work
- **TEEX:** Texas A&M Engineering Extension Service
- **TRAIN:** Triage by Resource Allocation for Inpatients
- **VOAD:** Voluntary Organizations Active in Disaster

GETTING STARTED: ORGANIZATION AND STRATEGIES

Section Objectives

- Create a pediatric disaster champion
- Educate team on pediatric disaster management/treatment
- Educate team on their role as disaster champions

Pediatric Disaster Champion

Pediatric disaster champion(s) can come from any background and have an interest in improving the process for managing children in a disaster.

Possible Pediatric Disaster champions can be physicians, nurses, administration, social workers, respiratory therapists, physical therapists, occupational therapists

- Consider using PECC as disaster champion
- Include provider with pediatric medical expertise
- Consider forming a committee of the above possible champions if available
- Supplement with disaster management education including:
  - **What is a PECC?** EMSC Innovation and Improvement Center (EIIC)
  - **Pediatric Emergency Care Coordinator Role** Massachusetts Pediatric Emergency Toolkit

Roles of the Pediatric Disaster Champion(s) may include but are not limited to:

F I
- Serve on the HICS command staff and strategize for pediatric specific needs during a response
- Aid with integration of pediatrics in disaster drills, exercises, and education.

A
- Serve as the disaster experts to the incident command staff

E
- Aid in protocol and policy development and updates
- Pursue self-training
- Aid in education and preparedness of staff-drills and exercises

Training and knowledge

- Pediatric disaster champions may begin with any levels of disaster knowledge: awareness —> proficient —> expert
- Provide avenue for pediatric disaster training for this group and others. Possible trainings:
  - **TEEX:** TEEX Pediatric Disaster Response and Emergency Preparedness Course
  - **Gulf 7:** Gulf 7 Pediatric Preparedness for the Healthcare Professional
  - **Just In Time Handbook:** A Quick Pediatric Reference Guide for Adult Healthcare Providers
  - **FEMA:** FEMA: Planning for the Needs of Children in Disasters
  - **AAP:** COCD – physician and affiliate membership possible
- Recommend Proficient or better level of knowledge–thorough competence from training and practice:
  - Clinical: unit medical directors/nurse managers,
  - Non-clinical: directors and managers/supervisors
- Basic awareness – all staff has to have exposure to area needs and where to find this information for just-in-time use

MENTAL HEALTH TIPS

Pediatric Mental Health Disaster Champion(s)

Mental Health technical assistance may include: pediatric psychiatrist, psychologist, social worker, other licensed mental health provider with pediatric knowledge of pediatric disaster mental health practices

Role

- Provide expertise regarding the clinical delivery on a continuum of behavioral health services to children, families, and those who care for them.
- Deliver "just-in-time training" to healthcare workers, first responders, clergy/faith-leaders, school counselors, non-profit volunteers, and community members on disaster behavioral health principles.
- Conduct public education presentations and distribute educational materials to educate and prepare the public on how to address behavioral health impacts from disasters.

Requirements

- Basic disaster response knowledge/experience
- Mental health disaster training (when able)
- Northwest Center for public heath preparedness: Disaster Behavioral Health Training
- National Children's Disaster Mental Health Concept of Operations

HOSPITAL INCIDENT COMMAND SYSTEM (HICS)

Most hospitals use the Hospital Incident Command System (HICS) as the infrastructure for emergency response.

HICS Infrastructure

F I — Include pediatric subject matter expert from disaster champion team in the response leadership structure

- Recommend familiarity with HICS.
- This pediatric subject matter expert should ideally understand operational nuances for pediatric care throughout the institution/healthcare system.

I A — Pediatrics may have its own HICS (PHICS)

- This may be a sub-branch of a larger hospital HICS

A

- This may be the main response structure for the hospital

Please see chart on the following page

HICS Education and Training

- **HHS:** Understanding the Hospital Incident Command System
- **XX:** Framework for creating an incident command center during crises:
- **FEMA Training:** ICS Organizational Structure and Elements

Resources

- **WRAP-EM:** Surge Playbook MH section
- **PPN:** Stepped Triage to Care Learning Collaborative
- **Code Triage:** Integrating the National Children's Disaster Mental Health Concept of Operations Across Health Care Systems

MENTAL HEALTH TIPS

Pediatric Mental Health in a HICS Integration into HICS

- Include mental health in pediatric HICS
- MH Triage HICS Component Draft - EMSA: Hospital Incident Command System Guidebook 2014 (Pg 24)
- May have a pediatric liaison integrate across HICS including any MH operations

Function

- Assist public information officer (PIO) in messaging
- Integrate in additional operation groups
- Work with safety officer to monitor responder wellness
- Connect with the liaison to outside/community resources

HOSPITAL INCIDENT COMMAND SYSTEM (HICS)

- Incident Commander
  - Public Information Officer
  - Safety Officer
  - Liason Officer
  - Mechanical Technical Specialist
  - Operations Chief
    - Staging Manager
    - Medical Care Branch Director
    - Infrastructure Branch Director
    - HazMat Branch Director
    - Security Branch Director
  - Planning Chief
    - Resources Unit Leader
    - Situation Unit Leader
    - Documentation Unit Leader
    - Demobilization Unit Leader
  - Logistics Chief
    - Service Branch Director
    - Support Branch Director
  - Finance Chief
    - Time Unit Leader
    - Procurement Unit Leader

Include pediatric expertise in these highlighted HICs branches.

Also consider including pediatrics representation in the following unit planning for a surge:

- Inpatient Unit
- Outpatient Unit
- Casualty Care Unit
- Mental Health Unit
- Clinical Support Services Unit
- Food Services Unit
- Victim Decontamination Unit
- Access Control Unit
- Family Care Unit

Ⓔ Communication

SECTION OBJECTIVES
- Understand your mass internal and external communication tools,
- Know or build redundancies for internal and external communication
- Form appropriate groups for notifications
- Establish templated script for messaging, patient families and community

- Notification cascade may include alerts and activations
  - Groups to consider- leadership notification, including ancillary leadership like pediatric champion(s), all ED staff notification, all OR staff notification
  - Understand the response for each service area for any notification cascade
  - Staff need to be educated on what each activation initiates
  - Consider system to notify patient families for possible delay in care or obvious disruption of unit spaces
    - Predetermined messages for children and families
  - Hazard specific notification (technical specialist)
  - Notification through multiple regularly utilized platforms (email, phone trees)
  - Dedicated personnel for notification
  - Regular staff briefings
- Public Messaging
  - Message early, state what is not known, give regularly scheduled updates
  - Consider population: culture, literacy, language
  - Transparent, concise, plain language
  - Use regular channels of communication and alternatives to written messages (videos, audio, social media)
  - Media staging: have a designated area removed from patient area for communication experts to engage with Public Information Officer and media
  - Risk communication strategies:
    - **Practical playbook for addressing health misinformation** (Pg 3-6)
    - **HealthyChildren: How to Talk With Kids About Tragedies & Other Traumatic News Events**
    - **HealthyChildren: Talking With Children About Disasters**
- Establishment of call centers or dedicated team with scriptingwith ability to pivot and accommodate
- Communicate location for reception sites or community assistance centers
- Provide situational awareness updates between external partners/response functions
- Educate/remind staff about continuing to maintain privacy with all patients (ie. not posting on social media)

External Supports

SECTION OBJECTIVE

- Familiarize yourself with your external pediatric supports

(F) Develop relationships with key state and regional partners to aid in pediatric disaster response such as the "how" to reach out/ find these people

EMS Agencies -Understand capabilities and capacity of local EMS

Local Health Care or Disaster Coalition (HCC)
- Connect with pediatric subcommittee, if available.
- Consider the role of local HCC and whether available for information sharing or a larger functional role.

Regional Hospital Association
- Coordinate unified communications
- Coordinate resources between hospitals

Local, County, and State Emergency Management Agencies
- Review the structure of emergency response in your state and your communication channel to local government during a crisis.
- Department of Public Health liaison

Emergency Medical Services for Children (EMSC) State Partnership program
- State EMSC Directors
- **EIIC: National Pediatric Readiness Project**
- **EIIC: Prehospital Pediatric Readiness**

Pediatric specific medical care
- **American Trauma Society: Find Your Local Trauma Center**
- Pediatric Burn Programs: **American Burn Association: Find a Burn Center**
- **Medical Operation Coordination**
- (MOCC) HHS: **Medical Operations Coordination Cells Toolkit**
- P-MOCC: **Pediatric Care Coordination Center - Concept of Operation**

Department of Children Services for reunification related services

Local public/private schools and colleges, childcare centers/preschools
- May be considered for off-site reunification
- In conjunction with local and county emergency management, use to communicate with the public
  - Message to families of children
  - Use space for Joint Information Center

Community pediatric healthcare providers

Non-governmental organizations (ex. Red Cross, State VOADs, Faith Based Organizations)

Medical Reserve Corp and Emergency System for Advance Registration of Volunteer Health Professionals (ESAR-VHP) volunteers

EIIC: Disaster Preparedness

Pediatric Disaster Centers of Excellence

AAP State chapters may have a pediatric disaster committee or a disaster chair
- **AAP State Chapters' Websites**

Recommendations

- Establish Memorandums of Understanding (MOU)s with other regional hospitals that accept peds patients
- Establish a plan for accessing pediatric expertise at the community and regional level in person or using telemedicine
- Identify outside transfer agencies that are willing to transport pediatric or neonatal patients
  - Consider asking state level EMS authority about pediatric transport resources
  - Coordinate with state/regional transfer coordinating centers

- Actively participate in state-wide and regional coalition activities and/or drills that focus on pediatrics or include pediatric considerations
- Coordinate with a regional coalition to provide direction/oversight of transfers within the region (esp. to alternate destinations aside from a pediatric center)

- Assume a leadership role and/or establish a state-wide or regional pediatric disaster coalition
- Advocate for the inclusion of key pediatric considerations in disaster preparedness and policies at the state, regional and national level.

Additional Resource

EIIC: Pediatric Disaster Preparedness Toolkit

MENTAL HEALTH TIPS

External Support

- Example: Schools, youth groups (YMCA), faith-based groups, any existing crisis hotlines, childcare,
- Child's pediatrician, friends, neighbors,
- Supporting the child usually involves supporting their community.

Considerations Regarding Vulnerable Populations Within Pediatrics

Health Care Access Limitation

Throughout each section of surge planning, understand the non-medical factors that affect health. These factors provide important context for risk mitigation so we can improve disaster response and resilence for all children. Some children and families may need additional support including equipment, communication aids, or provisions for even basic unmet needs, especially during a disaster. Understand the most vulnerable populations within the community being served. Include representation from vulnerable population of families in planning and evaluation exercises to build stronger plans.

MENTAL HEALTH TIPS

Responder Mental Health Considerations

Responder Wellness

- Unique impacts from pediatric incidents, at risk providers
- Techniques and approaches for staff resilience
- Resources: Staff support services, chaplains, EPA, resources/APPs
- Anticipate.Plan.Deter/ PsySTART-Responder Self Triage Model
- PPN pilot research project currently considering specific pediatric provider augmentations
- Space considerations:
- Staff respite area/staff shelter and lodging, food for staff, accommodations, toiletries, amenities/basic needs

Pediatric Triage

SECTION OBJECTIVE

- Familiarize yourself with the typical pediatric triage method for the region.

All incoming children will need to be triaged or re-triaged

- Be familiar with what field triage system is used by your EMS jurisdiction
- All triage systems are based off of **The Pediatric Assessment Triangle**

May use field triage systems for quick evaluation

- **JumpSTART Triage** ~ <8yrs
- **START Triage** ~ >8yrs
- SALT (see below)
- Other options also acceptable; designate one system for consistency and training

Lifesaving interventions

- Option: SALT (Sort, Assessment, Life-Saving Interventions, and Treatment/Transport)
    - **How to use SALT to triage MCI patients**
- Include:
    - Control major hemorrhage
    - Open airways
    - Needle decompression
    - Auto-injector for chemical toxin antidotes
    - Pediatric Critical Supplies List: **Region V for Kids Critical Supply List**
- Life-saving interventions should be performed as long as it is not time intensive—a minute or less
- Consider maintaining a disaster triage supply system such as a pediatric disaster triage cart with quick access to age appropriate supplies-

Patient tracking and identification – (link to reunification)

- Recognize need for quick registration and system to track patient through their visit; plan for a paper and electronic system.
- Recognize need to identify unaccompanied minors for reunification at a later time

Consider Psych triage (link to mental health section)

Decontamination

SECTION OBJECTIVE

- Review and/or educate pediatric specific needs with your Decon/Hazmat team
- Drill/function exercise plans using children where applicable

The goal of decontamination is to ensure that a toxic substance, whether chemical, biological, or radiological, is no longer in direct contact with the patient. This prevents further absorption by the patient and will decrease the possibility of transfer of the toxic substance to health care workers. Note that in dry decontamination, 99% of chemical contamination can be eliminated by carefully removing clothes and wiping skin with a paper towel or dry wipe.

Resources of Known Toxic Exposure

- **Safety Data Sheet Search**
- Poison control 1800-222-1222 - **Web Poison Control**

Children are at higher risk

Due to greater exposure to toxin on skin or clothes because of

- Greater permeability of skin in babies
- Larger skin surface-to-body mass ratio

Due to greater exposure to airborne toxins due to higher respiratory rate and higher concentration of some toxins closer to the ground.

Due to increased susceptibility to biological agents due to less mature immune systems

Due to GI losses are more likely to lead to hypovolemic shock

Due to increased susceptibility to radiation effects due to rapidly dividing cells causing:

- Acute radiation sickness
- Long-term malignancy

Due to less ability to regulate temperature when cold, children become hypothermic faster;

- Be vigilant of unclothed children pre-decontamination
- Be vigilant of wet children post decontamination

Control Zones

Hot zone/Warm zone/Cold zone – to learn more visit:
FEMA. Site Localization of Decontamination.

Standard Procedures Must Be Augmented for Children

- Prioritize children first within the same medical triage group (ie. within emergent triage group, prioritize all emergent children before emergent adults)

- Preserve family units if at all possible
  - Parents/caregivers may not be able to decontaminate both themselves and their children simultaneously – they will need assistance.
  - (link to reunification section)
- Do not carry children if at all possible,
  - children are slippery when wet and risk being dropped
  - Consider children non-ambulatory if they cannot decontaminate themselves (infants, toddlers, Children and Youth with Special Healthcare Needs (CYSHCN), etc.)
  - Use a stretcher, bassinet or laundry basket
    - Ensure drainage holes
    - Ensure a means to secure the baby in the decontamination container
  - Safety: For all children, especially CYSHCN, balance risk of wet decontamination vs dry decontamination and involve parent/caregivers in safe practices for showers/bathing
  - 99% of chemical contamination can be eliminated by carefully removing clothes and wiping skin with a paper towel or dry wipe
- Many children will be hesitant and fearful of disrobing and of the shower – this will require extra personnel and time (10-15 min instead of typical 5-7 min)
  - decontamination PPE can be frightening to children
    - Consider involving child life or other services on ways to communicate with patients or develop visual aids to help children become more comfortable
  - When possible, have available same gender assistance to assist children with decontamination
  - Individuals in PPE can appear scary to children.
    - Explain what will occur in decontamination to the child in simple language
    - Children run when scared, so have the potential to run out of the “Hot Zone”, contaminating staff
      - ensure instruction to security/perimeter staff on how to manage if this occurs
- Ensure there is a system for tracking patients. Ex. Provide a hospital band promptly at shower exit.

Equipment Considerations

- Use low pressure (</= 60 psi), high volume systems (not high pressure), watching for any sign of asphyxia or drowning
  - Handheld systems are better
  - Water or water and mild soap only
- Ensure water temp is 98-110F (monitor temperature regularly) and that children have prompt access to sheets, blankets or mylar wrap to prevent hypothermia
  - Requires a way to monitor water temperature
  - Age/size appropriate gowns/coverings post-decontamination
- Contaminated water holding tank

People doing the Decontamination

1. Training videos/ laminated list/ items that need completed, name/picture badges (with PPE)
2. Timing considerations
3. Safety hand signals

Lifesaving interventions: See Triage section

Additional Resources

1. Resources of known toxic exposure:
   - **Safety Data Sheet Search**
   - Poison control 1800-222-1222 - **Web Poison Control**
2. **AHRQ: The Decontamination of Children**
3. Ann & Robert H. Lurie Children's Hospital of Chicago and Illinois Emergency Medical Services (EMS) for Children. (2022). **Caring for Children during a Disaster: Decontamination**
4. American Academy of Pediatrics. (2021). **AAP: Decontamination: Disaster Management Resources**
5. **AAP: Pediatric Disaster Preparedness and Response Topical Collection—Pediatric Decontamination**
6. **Pediatric Countermeasures** paper in DMPHP

Pediatric Emergency Area

SECTION OBJECTIVES

- Review trigger and notification, for pediatric surge
- Educate staff on roles and responsibilities during a acute surge event
- Review plans for surge staffing
- Review acquisition of pediatric specific supplies and medications
- Crosswalk plans for use of alternate care spaces

Often in a disaster, the less wounded arrive before many of the critically ill. It is important to maintain situational awareness of the breadth of the incident and triage emergency resources with the expectation of more critically ill children to present later.

In a large incident, EMS capacity will be relatively limited and children will present by private vehicle without having had any immediate intervention in the field.

Consider trigger and notifications for acute pediatric surge activation

- Stand by: The expected number and acuity of children can be managed by the ED (with addition of contingencies: like assistance from the Adult Emergency Department and ICU) and with minimal disruption to the remainder of the hospital
- Surge activation: The number exceeds the ability of the full ED including contingencies, and requires response from the hospital causing significant disruption to standard operating processes
    - In a minimal notice event, an exact number of patients and acuity may vary at any institute
- Requires planning for the process of activation/notification and education on what the surge activation initiates

Hospital Security:

- Control ingress/egress
- Ex. Minimize entry points to the hospital
- Restrict non guardian visitation
- Restrict to media to the designated communications areas like a Joint Information Center (JIC)

Emergency Department Space

- Triage current patients for admission, discharge, or transfer.
- Transport for transfers will be limited so prioritize or plan to admit till transfer
- Create a rapid admission process.
- Maximize current space
- Cohort in rooms where able
- Use hallway –
- Maintain privacy (ie. use screens); children will be fearful if observing other injured children
- Organize additional spaces for care
- Additional pediatric spaces will need medical monitoring and security
- Crosswalk plans with rest of hospital to confirm space availability
- Identify a location to hold transfers and discharges

To better accommodate assistance from non-ED staff, consider having teams in the ED to manage pediatric patients

- Each team can manage an area where pediatric patients are being cared. (ie. trauma bay, critical care rooms, high acuity area, low acuity area)
- Include an ED provider/nurse on each team to be able to access equipment/meds/EMR

Involve primary care pediatricians and other local pediatric health care providers when available to off-load low acuity children.

Unaccompanied children? will need to be supervised immediately on arrival. Initiate tracking for unaccompanied minors and open a Pediatric Safe Area (PSA) for uninjured unaccompanied minors (see Reunification section)

Anticipate shortages and call HICS early to acquire necessary pediatric medication and equipment.

- Foundation/intermediate: consider requesting from OSH; especially where pediatric patients are being transferred to from your hospital

System of calling in additional staffing- either from other areas of hospital or home.

Trauma

SECTION OBJECTIVE

- Review with peri-operative/surgical services the pediatric plans.

American College of Surgeons Committee on Trauma requires trauma centers to participate in disaster planning.

Disaster planning for a surgical surge: when mass trauma threatens to overwhelm your operating rooms

Planning Team

- The pediatric trauma service will need to coordinate disaster planning with preoperative services in the operating room (OR) and with the pediatric hospital resources including the Pediatric ED, Pediatric ICU and med/surg units.

- Identify a pediatric disaster advocate(s) using the checklist.
  - This team will coordinate the OR with the hospital disaster plan and should include representation from trauma service, pediatric/adult anesthesia, operating room nurse administration, PACU, RT, blood bank, central sterile processing, and pharmacy.
  - Pediatric hospital resource integration should include hospitalists, intensivists, emergency department providers, and the leadership in disaster planning for the institution, social services, and chaplains.

Activation

Pediatric trauma surge, limitations in specialty staff, equipment, and OR/PACU space may impact the trauma response with less numbers of high acuity children before impacting other areas including the EDs where disaster MCI is typically activated. Therefore, an event may not meet surge criteria for an ED, but may overwhelm and require a surge response in the ORs.

- Determine your pediatric capabilities and limitations and coordinate within the hospital MCI activation tree.
- Consider hospital “stand by” alerts for all event notifications including possible MCI, to consider holding elective cases until further notice.

Space and Staff capacity will vary by time of day and baseline utilization.

Space

Plan to decant peri-OP/PACU for incoming OR cases
When triaging current elective surgeries for rescheduling or delaying, consider families, particularly CYSHN, who may require a significant amount of home/hospital preparation prior to an elective surgery.

- Make use of non-OR spaces such as other procedure spaces and ambulatory surgery spaces to temporize deterioration
    - Prioritize damage control
- Each additional space used will need pediatric capable monitoring staff and equipment.
- Consider OR recovering non-disaster event patients in areas outside of the PACU.
- Cohort recoveries wherever possible
- Plan with periop and ED, space to coordinate staging of children waiting for the OR.

Staff

- Immediately available staffing will vary by day/time of event.
- Coordinate and cross walk plans, if expectations are to pull staff from other parts of the hospital

- All critical children will need to be stabilized before being transported to a tertiary care facility.
- Assume delays in transport to pediatric facility
- This may require surgical intervention prior to transport.
- In this context, understand the capabilities of all staff including surgery, anesthesia, and surgical specialties like orthopedics, ENT, and neurosurgery to manage children in a disaster event.
- Consider regular collaboration with a tertiary pediatric center and planning for just-in time telehealth support with pediatric surgical expertise in a disaster event.

- Designate a trauma surgeon or designee to be positioned in the ED to triage and prioritize children to the OR.
- Plan a system to share OR prioritization with OR and Peds ED staff.

Equipment/Medication

ASPR has developed the Disaster Available Supplies in Hospitals (DASH) tool to calculate the quantity and type of supplies for trauma specific disasters: DASH Tool

Use the HICS or command structure to request additional equipment.
(Link to section on HICS Page ?)

Understand the pediatric specific supply limitations of the hospital including quantity and the time it takes to obtain additional quantity from a storage location.

When patient transfer is not possible, consider transfer and sharing of equipment from other health facilities including ambulatory sites.

Include pharmacy in the trauma bay and OR/PACU to assist with obtaining and dosing of pediatric medications including liquids and crushable tablets for oral use.

Patient tracking and transfer/reunification/discharging

Coordinate the continued tracking of unaccompanied children with the hospital.

Make note of unique identifying marks that will be covered by dressing(s) post procedure.

If expedited discharge of any patients is not possible for logistical reasons, consider coordinating movement to a discharge lounge.

Burn Surge Specific Considerations

Burn patients are likely to self-evacuate from a disaster scene using a private vehicle and present to the closest healthcare facility.

Burns are very labor intensive so even small numbers can quickly overwhelm local healthcare system resources.

All hospitals should ensure protocols and platforms exist for consultation with Burn Center providers. Telemedicine platforms for secure image sharing is recommended.

Trauma always takes precedence

- Consider trauma if any altered mental status
- Consider trauma if hypotensive
- Medical Management: Please see Burn Injury Guidelines for Care in Additional Resources below.

Additional Resources:

Revised concept of operations plan (CONOPS)

- Healthcare Coalition Burn Annex template and algorithms for response.
  Burn Surge Planning Toolkit

Burn Injury Guidelines for Care.

- acute through prolonged care of both the adult and pediatric burn patient
- radiation injury considerations.
  Burn Injury Guidelines for Care

Training and exercise toolkit containing burn surge exercise templates.

Burn Surge Exercise Toolkit

MENTAL HEALTH TIPS

- Disasters / burn injury have significant psychological impact on survivors, families & responders.
- Psychosocial support, crisis counseling & resources to those affected are essential

Pediatric Inpatient/ICU Hospital Surge

SECTION OBJECTIVE

- Review space considerations based care needs and staffing
- Triage pediatric patients for level of care and location based on space and capabilities
- Exercise patient movement to accommodate surge needs within the hospital

Planning assumptions: MCI activation of the hospital command center and HICS. No notice surge plan activation by Incident Commander. Expectation that there will be multiple waves of patient influx. Impact of the surge will occur at different times for different areas of the hospital.

I A
- Initial wave will be rapidly admitted from the emergency department
  - Patients may be rapidly transferred from the ED to the ICU and med/surg floor
  - Patients may be rapidly transferred from the ICU or PACU to med/surg floor
- Subsequent waves will occur after ED triage, stabilization, and re-triage of patients from the incident.

F I
- Understand the extent of Adult Units and In-Patient providers to be able to manage children. For example, adult units may be limited by age, severity, or disease process.

Rapid Admissions

E
- Abbreviated handoff from the ED; ideally to single point of access and attending to attending
  - Handoff must be standardized, succinct and include extent of evaluation and interventions
    - One liner on patient, relevant medical history
    - Describe evaluations performed and status of diagnostics
    - List interventions that have been started or need to be started
    - Patients may not have complete evaluations
    - Patients may require further stabilization
- Space expansion, if available
- Consider an admissions team tasked with:
  - Completion of evaluations for definitive care
  - Ongoing stabilization of patients

Rapid Disposition

- Identify patient resource needs
  - Triage by Resource Allocation for INpatients (TRAIN)® tool
- Identify patients ready to transfer or discharge
  - Meet standard transfer/discharge criteria met
  - Meet a safe deviation to care pathways (ex: asthma pathway)
    - Note: This is contingency care where equivalent standards are still provided
- Include case management, social services, patient experience
- Parents/legal guardians at the bedside
  - If not, require a communications plan if child is moved or discharged

Transfer from ICU/PACU to Med-Surg

Resources needs to transfer the child

- Staffing
  - Changes to acute care RN ratios to fit borderline critically ill patients (3:1 or 2:1)
- Space expansion (activation of spaces for patient care)
- Supplies
- Structures and systems
  - Consider regulatory waivers
  - Consider increased Rapid Response Team/Codes outside of ICU
    - May need to bolster Rapid Reponse Team/Code Teams

Interfacility Transfer/Discharge

- Consider interfacility transfer of less acutely ill children to another less impacted facility.
  - Consider availability and capability of secondary transport.
  - Capacity to accept pediatric transfer may be limited or occur over days.
    - Consider just-in-time training for management
    - Utilize telehealth for pediatric expertise
      - General community hospitals will likely need to accommodate higher acuity patients for longer periods of time
      - Create aa plan for MICU to accommodate older children.
      - PICU in the MICU How Adult ICUs Can Support Pediatric Care in Public Health Emergencies
      - See External Support section

Interfacility Transfer/Discharge

- Discharge checklist:
  - Follow-up appointments
  - Medications
  - Home health/Home pharmacy
    - Ex. leverage ambulatory infusion centers for ongoing antibiotic therapy, etc
  - Durable Medical Equipment (DME) / Supplies
  - Transportation
- Discharge lounge – patient stays in the lounge could be prolonged (at least 24 hours)
  - Consider a discharge space
  - Need private spaces and facilities, ensuring that areas are pediatric safe
  - If parents/legal guardians are not available, these patients may need to be housed in a Pediatric Safe Area (see Reunification)
  - Supplies, including meals, snacks, drinks, and diapers
  - Staffing

Ⓐ Hospital Family Reunification Planning

SECTION OBJECTIVE

- Review space considerations based care needs and staffing
- Triage pediatric patients for level of care and location based on space and capabilities
- Exercise patient movement to accommodate surge needs within the hospital

Community assessment and integration

Community populations (ex. School of the Blind, vulnerable populations with access, communication, and mobility barriers.)

Understand the various populations and their different family customs and dynamics that impact how they present to the hospital including delayed presentations.

Review and integrate with regional reunification planning

- Use local health care coalition as a resource
- Understand local/county/state tracking procedures and legal responsibility for reunification/tracking which may vary from state to state
- Plan for external stakeholder involvement.
    - Partnerships with schools
    - NTSB/ Red Cross has designated role via response frameworks
    - Public health role/ liaison
    - National Center for Missing and Exploited Children (NCMEC)

Hospital planning

AAP-Reunification-Toolkit.pdf

Locate hospital spaces for Pediatric Safe Areas (PSA), Hospital Family Reunification Center, Family Reunification Site

- Security plan in all areas

Assembling an internal team (see below)

Social Media – having a social media policy for patients and public to protect the identity of other patients

Set Communication templates. (communication strategies in toolkit for front desk to respond to angry/worried parents

Exercising Family Reunification Planning: Drills/Exercises

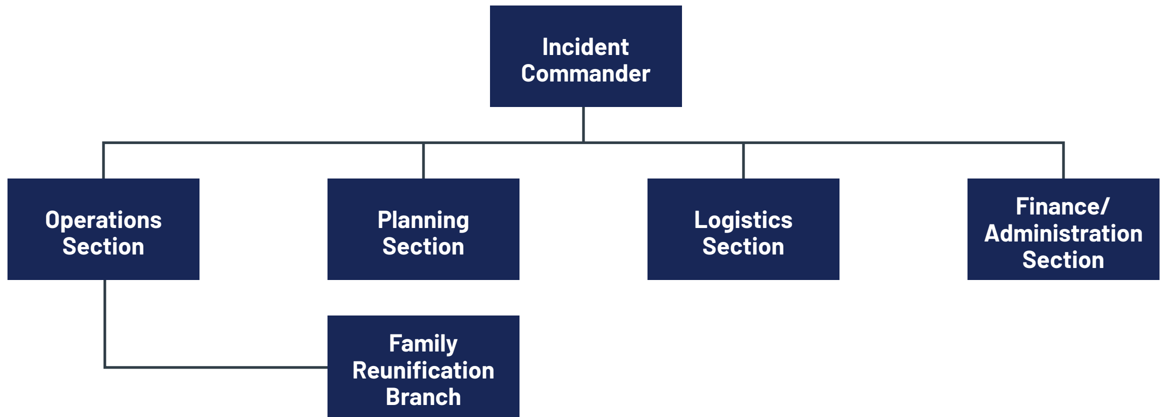
Unaccompanied minors

- will need to be tracked and cared for through the system (see below)
- work with Social Worker, department family services, NCMEC

Key Hospital Departments for Family Reunification Planning

1. Pediatrics
2. Family Medicine
3. Child Life Services
4. On-site Child Care
5. Security
6. Nursing
7. Social Work
8. Emergency Medicine
9. Emergency Management
10. Legal Counsel
11. Psychology and Psychiatry

HICS: Include how Family Reunification roles up to HICS (chart pg 12 AAP toolkit:)



Plan for Registration, Intake, and Tracking of Unaccompanied Children

Consider Data elements for tracking

1. Patient's full name
2. Parent/guardian name(s)
3. Nicknames for child and parent(s)/guardian(s)
4. Date of birth (or approximate age if unable to obtain)
5. Weight
6. Height
7. Race/ethnicity (inclusion of hair color (light vs. dark) and skin tone assessment)
8. Cultural, linguistic (languages spoken), and other special needs (eg, allergies, medical conditions, medications)
9. Gender
10. Distinguishing marks on the body (may include tattoos, scars, and missing teeth)
11. Significant belongings (eg, stuffed animal) or pets name
12. Location and mechanism of arrival/ presentation to the system
13. Photo (if system is capable) series of photos over time to document relationship
14. Association with disaster event (to aid in reporting all patients associated with incident)
15. Safe word for parent/kids

Creating a Definitive Patient Identification Policy – work with legal and or social work

Strongly suggest taking a picture of child and the caregiver to document the reunification

Identification of policy/procedure to vet who is authorized to take the child, and who is authorized to receive information about the child like the risks in an intimate partner violence situation.

Additional reunification Resources:

- **Post-Disaster Reunification of Children: A Nationwide Approach**
- **Multi-Agency Reunification Services Plan Templates**
- **National Center for Missing and Exploited Children: Disaster Preparedness and Response**
    - **AAP Family Separation and Reunification in Disasters Toolkit**

MENTAL HEALTH TIPS

Mental Health Considerations Reunification

- Establishment of reunification
- Mental health needs to be integrated in this entire section
- Operations
- Provide private setting for reunification of families
- Plan with a trained communicator on best messaging and communication techniques with families
- Understand how news (or lack of news) is communicated to families. Not communicating is form of communication that can be distressing for the receiver.
- Providing MH support while at reunification center and for after.

Mental and Behavioral Health Surge

SECTION OBJECTIVE
- Integrate mental and behavioral health considerations into broader response and coordination efforts
- Capture, characterize, and communicate mental health impacts
- Manage mental health surge by optimizing and expanding resources

Mental and behavioral health impacts from disasters often occur later in the incident, frequently last longer than the immediate physical impacts of the hazard and may comprise the bulk patient surge in some cases. Agencies should develop a deliberate strategy that integrates mental and behavioral health into the overall agency response, properly assesses and characterizes mental health impacts, manages mental health surge to provide adequate care, and aids other response functions with expertise and direct support to individuals and teams.

Two primary documents will be referenced in this section to support further action on the provided recommendations:

1. **WRAP-EM Pediatric Surge Playbook –** This playbook provides facilities and healthcare systems broad considerations, strategies, and resources to manage common problems during pediatric surge incidents.
2. **National Children's Disaster Mental Health Concept of Operations (NCDMH CONOPS) –** This document outlines an operational model (CONOPS), key principles, organizational structures, and ICS processes to conduct psychological triage using the PsySTART System. It describes how to both assess mental health impacts of a disaster and triage youth into care. A paper version of the PsySTART Triage Form and further information can be found in the resource section below.

Recommended Reponse Strategies

- Integrate mental and behavioral health functions to the broader response. Mental and behavioral health functions of an agency must be integrated into established response efforts (HICS/Emergency Operations Centers) with clearly defined roles and assigned resources:
    - Within HICS, this includes establishing operational and planning teams (such as described in the **NCDMH CONOPS**) in addition to identifying which elements of the response may benefit from mental and behavioral health support and consultation. Specifically, mental and behavioral health considerations should be integrated into other ICS/HICS functions such as planning (particularly situational awareness functions), public information (informed messaging), safety (staff wellness intersections), and liaison work (related community partnerships).
    - Where appropriate, mental and behavioral health aspects of the agency's response should be connected to interagency efforts, such as through Healthcare Coalitions or Emergency Support Function (ESF) #8. The WRAP-EM Surge Playbook (page 58) describes coordination of these interagency efforts.
    - If HICS is not activated or other functions are operating outside of HICS, connections should be established to those groups with clear expectations for roles and engagement.

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- Forecast, assess, and monitor mental and behavioral health impacts. Forecasting and assessing mental and behavioral health impacts from an incident is necessary to inform an adequate response. Since many response strategies and clinical interventions are time-sensitive, agencies should initiative these activities early in an incident. This should include the initial size-up of the incident, development of mental health Essential Elements of Information (EEIs), and a plan to monitor for ongoing impacts. Mental health EEIs should be monitored well past traditional indicators given the typical trajectory of mental health impacts in disasters.
    - The WRAP-EM Surge Playbook (page 33) addresses the challenge of insufficient behavioral health data and situational awareness from both facility and system perspectives.
    - It is recommended facilities and systems implement psychological triage as soon as possible during an incident. This is covered further below (Recommendation #4) and within both the NCDMH CONOPS and WRAP-EM Surge Playbook.

Recommended Reponse Strategies

- Provide technical assistance and direct support to other response functions. Beyond directly responding to the mental and behavioral health surge, integration of mental and behavioral health experts can benefit other components of the response. Disaster behavioral health subject matter experts (SMEs) can provide consultation and support for a broad set of response functions in the Technical Specialist (Tech Spec) ICS role. For example, they can inform the implementation of decontamination strategies to reduce mental health impacts and improve patient processing. Alternatively, they may provide direct support to patients in isolation/quarantine or to personnel.
  - Functional areas where mental and behavioral health technical assistance may be helpful include but are not limited to: public communications (informing messaging, psychological education), responder safety (work/rest ratios, wellness, resilience), unaccompanied minors support (best practices, direct support), reception centers (best practices, direct support), decontamination (process recommendations, direct support), and isolation and quarantine (considerations, direct support).
  - Integration of trauma-informed principles and strategies into response activities is recommended wherever possible. Reference the Trauma-Informed Care Overview from the American Academy of Pediatrics for further information on trauma-informed approaches.

- Manage mental health surge by optimizing and expanding resources. Assuming the above steps have been achieved, facilities and systems should consider actions they can take to manage mental and behavioral health surge. This largely falls into two broad categories of strategies: optimizing use of existing resources and expanding available resources to provide support.
  - The WRAP-EM Surge Playbook (page 21) provides considerations and broad strategies facilities and systems can use to prepare for and manage mental and behavioral health surge. Further in the playbook (page 58), are additional considerations and strategies on how to manage this surge from an interagency perspective.
  - Whereas pediatric mental health boarders can significantly impact surge capacity, facilities should reference the resource section for strategies and tools to mitigate and support boarders.
  - Within a facility or system utilizing HICS, the NCDMH CONOPS provides the key actions and organizational elements to respond to mental and behavioral health surge by utilizing PsySTART for psychological triage.

MENTAL HEALTH TIPS

Mental and behavioral health resources and trainings

1. Training

- Audiences: Medical, behavioral/mental health, response, leadership
- Topics:
- Responder resilience, psychological first-aid, listen-protect-connect, anticipate-plan-deter, additional trainings for example:
- Psychological First Aid
- Skills for Psychological Recovery
- Listen-Protect-Connect
- Anticipate-Plan-Deter
- Parent and caregiver training on how to help children during and after disaster (particularly if medical needs exist) – including psychological education and basic interventions

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