Draft Connecticut Acute Care Hospital Pediatric Disaster Preparedness Checklist

1. Hospital-based incident command generally is informed by three goals:
* Chain of command
* Span of control
* Common language

See Monteiro article1 for Hospital Incident Command System2, 3 chart with highlighted pediatric portions of the system model. Checklist items for incident command pertinent to children include:

|  |  |
| --- | --- |
| **Present?**  | **HICS Chart Items With Recommended Pediatric Components** |
| Yes | Pediatric Medical/Technical Specialist Who Reports to Incident Commander* Works within the incident command group to identify potential pediatric care related concerns and strategies
 |
| Yes | Pediatric **Inpatient#** Leader Who Reports to Medical Care Branch DirectorPediatric **Outpatient** Leader Who Reports to Medical Care Branch DirectorPediatric **Mental Health Leader^** Who Reports to Medical Care Branch DirectorPediatric **Casualty Care Leader\*** Who Reports to Medical Care Branch DirectorPediatric **Clinical Care Support Leader** Who Reports to Medical Care Branch Director |
| Yes |
| Yes |
| Yes |
| Yes |
| Yes | Food Services Unit Leader who Reports to Infrastructure Branch Director* Responsible for nutritional needs of children
 |
| Yes | Victim Decontamination Unit Leader who reports to HazMat Branch Director* Responsible for providing age-appropriate communication and assistance while pediatric patients are undergoing decontamination
 |
| Yes | Access Control Unit Leader who reports to Security Branch Director* Responsible for security of pediatric patients (injured and well) and enforcing disaster credentialing identification/reunification policies as they relate to access control.
 |
| Yes | Family Care Unit Leader who reports to Logistics Section Chief* Helps coordinate issues of reunification and psychosocial issues of family(not victims)
 |

^ Mental health leader may be a psychiatrist, psychologist, social worker or child life specialist, \* Casualty care is Emergency Medicine in HICS, #If a hospital does not have inpatient pediatrics, than a transfer and contingency care plan is desirable.

1. Strategies for Operational Continuity

|  |  |
| --- | --- |
| **Present?** | **Planning consideration** |
| Yes | * Overstaffing: Influx of staff /convergent volunteerism
	+ Emergency credentialing plan such as The Emergency System for Advance Registration of Volunteer Health Professionals (ESAR-VHP)
 |
| Yes | * Understaffing: Staff may be unable or unwilling to come to work at the hospital
 |
| Yes(Lodging, family of pets and staff, medical needs of staff not covered) | * Stranded staff plan
	+ Lodging/’Hoteling’
	+ Food
	+ Hygiene
	+ Communications
	+ Family and pets of staff policy
	+ Reimbursement plan for staff who work overtime/protracted hours
	+ Medical needs of stranded staff
 |
| No | * Staff education for personal disaster preparedness strategy
 |
| Yes | * Pediatric Disaster Formulary
	+ Equipment quickly available, in pediatric sizes when applicable (*See appendix. For the purposes of the checklist, facilities should have all listed equipment or a reasonable alternative)*
 |
| Yes(?updates) | * Push notification strategy (Everbridge and/or AmCom system, Mass-texting, automated phone messages, etc.) for staff
 |
| Yes | * Back-up phone tree staff notification strategy with responsible person to activate the tree.
 |
| No | * ‘Pull’ Notification Strategy, e.g. website with information for staff and the general public
 |
| Yes | * *Memoranda of Understanding* with local, state and regional hospitals4
 |

1. Pediatric principles of Surge Capacity4

|  |  |
| --- | --- |
| **Present?** | **Planning consideration** |
| No | Alternate care site for low-acuity patients (e.g. lobby or cafeteria), with triage/assess/discharge for worried well  |
| No | Policy for treating children with family and care-givers5 |
| No | Child-proofing of the alternate care site |
| No | Supervisory plan with ratios of caregivers to children of 1:4 for infants, 1:10 for preschool age children, and 1:20 for older children. * Pre-vetted, predetermined staff for the surge capacity site (e.g. child life, volunteers [preschool teachers, other educators, nursing assistants/CNAs)
 |
| No |
| No | Plan for rapid discharge and admission of patients to generate surge capacity |
| No | Plan for unidirectional flow of disaster patients through the emergency department |
| Yes | Rapid registration protocol |
| No | Family tracking, family unity and family reunification plans (computerized system, GPS locators, etc) |
| Yes (SW, child life, and behavioral health) | Plan to activate additional support staff, including social work, mental health providers, chaplains, and child life |
| Yes | Plan to mobilize surge capacity equipment, medication, and patient supplies (gowns, clothes, bedding) |

1. Development of staff safety and decontamination protocols/ Infection control

|  |  |
| --- | --- |
| **Present?** | **Planning consideration** |
| No | Stockpile of N95 respirators and fit-testing policy for staff |
| No | Have a supply of PAPRs available for staff |
| Yes | Have a stock of PPE available for staff |
| Yes(not in this policy) | Decontamination policy for children including means to counter hypothermia, provide for modesty, and identify disrobed patients* Presence of temporary (pop-up) decontamination venue
* Presence of permanent (brick-and-mortar) decontamination venue
 |
| Yes(not in this policy) |
| No |
| No | Plan to cohort patients with potentially transmissible infectious agents* Policy about parents/family members staying with child with infectious disease
 |
| No (done in usual care) | Provision of surgical masks to patients with potentially transmissible agents |
| No | Provision of linens, dressings and gowns for coverage of infectious rashes |
| Yes | Provision of hand sanitizer to children and families  |
| Yes (not in policy) | Antibiotics, antivirals, and antidotes for potential disaster agents available in pharmacy |

(5) Sheltering in Place

|  |  |
| --- | --- |
| **Present?** | **Planning consideration** |
| Yes (not specific) | 96 hour self-sufficiency disaster plan: Food, generators, supplies, medication, and redundant/resilient communications infrastructure* Plan for controlled degradation of care and environment after 72 hours.
 |
| Yes | Alternate medical record plan if electronic medical record fails |
| No | Plan for sheltering uninjured/well children  |
| Yes | Available toys, games, and other distractions for children |

(6) Evacuation Strategies

|  |  |
| --- | --- |
| **Present?** | **Planning consideration** |
| Yes | Potential receiving facilities for child disaster victims identified with memoranda of understanding |
| Yes | Evacuation routes and alternate routes identified |
| Yes (not in policy) | Evacuation tabletop drill or full scale exercise conducted |
| No | Family reunification plan for evacuation established |
| Yes(not in policy) | Evacuation devices for children (e.g. pediatric evacuation sleds) present* Use of stairwells
* Infant aprons
* Plan to avoid hypothermia
 |
| No | Protocols for the transport of ventilated patients and patients on extracorporeal membrane oxygenation (if present at facility) |

**References**

1. Monteiro S, Shannon M, Sandora T, Chung S. Pediatric Aspects of Hospital Preparedness. *Clin Ped Emerg Med*. 2009;10(3):218-227.

2. Yarmohammadian MH, Atighechian G, Shams L, Haghshenas A. Are hospitals ready to response to disasters? Challenges, opportunities and strategies of Hospital Emergency Incident Command System (HEICS). *J Res Med Sci*. 2011;16(8):1070-1077.

3. Zane RD, Prestipino AL. Implementing the Hospital Emergency Incident Command System: an integrated delivery system's experience. *Prehosp Disaster Med*. 2004;19(4):311-317.

4. Burke RV, Kim TY, Bachman SL, Iverson EI, Berg BM. Using mixed methods to assess pediatric disaster preparedness in the hospital setting. *Prehosp Disaster Med*. 2014;29(6):569-575.

5. Markenson D, Reynolds S. The pediatrician and disaster preparedness. *Pediatrics*. 2006;117(2):e340-362.

**Appendix: Pediatric-specific disaster surge formulary to support surge**
**Instruments/Equipment**
Disposable BP cuffs—neonatal, infant, child, small adult

Gastrointestinal system supplies

Antireflux valve (10, 12, 14 Fr) Feeding tubes (5, 8 Fr)

Sharps: needle/syringes Bulb syringes
Safety syringes (21, 25) Filter needles

Catheter tip syringe 60 mL

Sharps container
Luer lock syringes, 20 and 60 mL Syringes 1, 3, 5, 10 ml

IV access/supplies IV start kits

 Stopcocks

T-connectors

IV start catheter (18, 20, 22, 24 G) Arm boards—infant, child
Blood administration tubing
IV filters (0.22 and 1.2 μm)

Syringe pump tubing Microdrip tubing

**IV solutions**
Glucose water
Normal saline 10 mL

 Normal saline 1000 mL

**Irrigation solutions**
Normal saline irrigation solution 2000 mL

Sterile water irrigation solution 2000 mL

**Miscellaneous**

 Sterile lubricant

Alcohol wipes

Alcohol swab sticks

Tongue blades

Heel warmers
Tape measure
Body bag
Disposable linen savers

 Safety pins

Povodine iodine wipes

 Hydrogen peroxide

 Individual bottled drinking water

**Child Specific Supplies**

Formula

Nipples

Bottles

Diapers

Pacifiers

Warmers/Warming Devices for Infants

Blankets

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