Caring for Children During Disasters

Region VII: Pediatric Priorities
Conference: 2016

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Objectives

- Identify the importance of planning/preparing to care for children during a disaster
- Recognize the unique needs of children during and in the aftermath of a disaster
- Outline specific strategies that you and your agency/facility can do to be more prepared to address the needs of children during a disaster
- Review patient tracking, identification and reunification concepts specific to children
Introduction
Children in Our Communities

- **Population**
  - 12.9 million
  - Over 3 million children 0-15 years of age (~23%)
    - 786,000 are < 5 years of age

- **Children with Special Healthcare Needs (CSHCN)**
  - 14.3% (452,574) of Illinois children meet criteria for CSHCN
    - Technology dependent (ventilators, G-Tubes, shunts, insulin pumps)
    - Developmentally delayed or disabled
    - Chronic diseases
    - Immunocompromised
    - Psychiatric/behavioral illnesses

- **Every week day in Illinois:**
  - > 2 million children enrolled in public schools
  - 62% of children < 5 years old attend daycare and/or early education programs
Why Children Need Special Consideration in Disasters

1. Increased vulnerability during disasters
2. Anatomical, physiological and developmental differences
3. Lack of appropriate sized equipment and supplies
4. Challenges related to medical interventions and safety
5. Gaps in pediatric preparedness in hospitals, agencies, communities, and on the state and federal levels
6. Critical emergency care interventions performed infrequently
7. May be intentionally targeted during the disaster
Respiratory

- Airway is smaller and more narrow
- Depend on diaphragm to breath
- Higher risk for respiratory issues
- Equipment needs vary based on size
Faster respiratory rates + Thinner skin/greater body surface area + Shorter stature

More susceptible to: infections, effects of agents, prolonged exposures, hypothermia

Faster metabolism + Immature immune system
Trauma

- Rib cage is higher
- Larger head/higher center of gravity
- Higher risk for injury, irreversible shock and death from traumatic events
- Smaller circulating blood volume

Result: Higher risk for injury, irreversible shock and death from traumatic events

Conclusion: Smaller circulating blood volume
Developmental

May lack cognitive ability to sense a dangerous situation

May lack motor skills to flee from danger

Increased exposure and risk of injuries
May be nonverbal or not know personal information

May be uncooperative
Unable to help with reunification
Long term psychological effects are possible

Age & developmental level influences response to stressful events
Challenges to Caring for Children in Disasters

- May require more time, resources, and personnel
- Reactions influenced by age, developmental level and physiology
- May be susceptible to abduction/custodial issues
- Increased risk of psychological trauma – may need continuous psychological support, unable to understand event/response activities
- May be more sick than adults – more symptomatic and show earlier symptoms
- Require help from adults
  - Understanding the event, communication, decision making, protection
- Other:
Almost 60% of EDs in Illinois care for <14 kids/day

30% of EDs in Illinois care for <5 kids/day

Few critical pediatric patients seen
60% of paramedics treat <4 kids/month (nationally)
  • Few critical pediatric patients seen

EMS transport vehicles may not carry all essential pediatric equipment
  • BLS:
    • National: 25.3%
    • Illinois: 74.6% (increase from 38.5% in 2011)
  • ALS:
    • National: 37.7%
    • Illinois: 62.6% (increase from 37.5% in 2011)

More disaster policies/plans for pets than for children (nationally)
Harsh Realities: Children as Victims of Disasters

**MYTH**

Kids are secondary victims of terrorism and inadvertently targeted

**FACT**

Children may be intentionally targeted
Harsh Realities: Children as Victims of Disasters

- **2004: South East Asia Tsunami**
  - 1/3rd of the victims were children

- **2005**
  - Hurricanes Katrina & Rita
  - India - Earthquake

- **2009: H1N1**
  - Children were at greater risk, particularly children with special healthcare needs

- **2010: Haiti Earthquake**

- **2011: Japan Earthquake and Tsunami**

- **2012: Superstorm Sandy**
Harsh Realities: Children as Victims of Disasters

- **1984: Bhopal, India**
  - Industrial gas release (methyl isocyanate)
  - Estimated 20% of victims were children

- **1999: Columbine High School Shootings**
  - 12 students killed, 24 injured

- **2004: Beslan, Russia**
  - Three day hostage event at school
  - 334 hostages killed including 186 (56%) children

- **2011: Oslo and Utoya Norway Attacks**
  - At least 60 children killed after a gunman opened fire at a youth summer camp

- **2012: Sandy Hook Elementary School Shooting**
  - 26 people killed (20 children and 6 adults)
We must assume each disaster will include children.

We must assume that regardless of what a hospital’s daily census for children is, they will have to care for children during a disaster.

We must be able to assess, treat and care for victims of ALL ages with equal confidence and competence.

Therefore, ALL hospitals need to plan and prepare to care for children during a disaster.
What Children Need in Disasters
Medical

- Equipment and Medication
  - Size (weight) dependent
  - Require specialized devices/delivery methods
    - Example: ventilators
- Providers
  - Training specific to pediatrics
    - PALS, APLS, PEPP, NRP, JumpSTART MCI Triage
- Recommendations:
  - Include children in all disaster trainings/exercises
  - Mock codes
  - “Cheat sheets”
    - Job Action Sheets specific to pediatrics
    - Drug calculation references
    - Care guidelines
Dietary

- **Age appropriate foods**
  - Formula
  - Baby cereals
  - Baby food or ability to mash table food
  - Soft small bite-sized pieces (prevent choking hazard)

- **Potable water**

- **CSHCN**
  - Children with feeding tubes
    - Supplies (feedings, pump, saline water, bags)
  - Diabetics
    - Specialized nutritional needs based on weight and medicine requirements
  - Others
Safety

- Pediatric safe areas
  - Assign staff to each unaccompanied child
  - Track who comes in and out of area
  - Child-proof area
  - Fall hazards
  - Use of checklists and job action sheets

- Family areas

- Equipment
  - Appropriate bedding based on size, age and developmental level

- Abduction risks
Safety

- Unit specific evacuation plans
  - Pediatrics
  - PICU
  - NICU
  - Nursery
- Security in staging areas
- Equipment
  - Appropriate evacuation supplies
  - Resuscitation supplies
- Transportation
Response and needs are affected by developmental level
› Children need routine, reassurance and to feel “normal”
Avoid separating child from caregiver
Distractions
› Children’s “job” is to play
• Age appropriate toys and activities
Be aware of signs of difficulty coping
› Varies by age and developmental level
Disaster drills are the pediatric mock codes of the “disaster world”

Practice! Practice! Practice!
- Incorporate children of all ages into drills/exercises/trainings
  - Infants
  - Toddlers
  - School age children
  - Adolescents
  - CSHCN/CFAN
- Add percent of kids in community/area into all drills
- Decon, surge, & evacuation
Disaster drills are the pediatric mock codes of the “disaster world”

Child “victims”
- Flat stanleys
- Dolls
- Manikins
- Girl/boy scouts
- Employees’ children
- Acting/drama clubs
Tracking, Identification and Reunification of Unaccompanied Children
Unaccompanied Minors

- At risk for abduction, abuse, maltreatment, and exploitation
- Should be assigned staff members to monitor
- Should be in a secured area
  - Treatment areas
  - No treatment needed
    - Pediatric safe areas
Inform incident command of all unaccompanied children

Keep siblings together if possible

Identify who (staff) is responsible for reunification and verification of guardianship of unaccompanied minors
# Pediatric Safe Areas

<table>
<thead>
<tr>
<th>ITEM</th>
<th>NO</th>
<th>YES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Are needle boxes at least 48 inches off the floor?</td>
<td></td>
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<tr>
<td>Do the windows open?</td>
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<tr>
<td>Are the windows locked?</td>
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<tr>
<td>Are there window guards?</td>
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<tr>
<td>Do the windows have blinds or drapes that might pose a strangulation hazard?</td>
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<tr>
<td>Are there any water basins, buckets or sinks that might pose a drowning hazard?</td>
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<tr>
<td>Can children be safely contained in this area (consider stairwells, elevators, doors)?</td>
<td></td>
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</tr>
<tr>
<td>Do you have distractions for the children (age- and gender-appropriate videos, games, toys)?</td>
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<tr>
<td>Is the area poison proof? (Check for cleaning supplies, Hemoccult developer, choking hazards or cords that should be removed or locked away.)</td>
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<tr>
<td>Are the electrical outlets child safe and covered?</td>
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<tr>
<td>Does the area have smoke and fire alarms?</td>
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<tr>
<td>Are med carts and supply carts locked?</td>
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<tr>
<td>Should separate areas for various age groups be created?</td>
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<tr>
<td>Have drills for managing this area been conducted with all relevant departments?</td>
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<tr>
<td>Is there a security plan for the unit?</td>
<td></td>
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<tr>
<td>Is there a plan to identify the children?</td>
<td></td>
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</tr>
<tr>
<td>Is there a plan for assessing the mental health needs of children?</td>
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<tr>
<td>Are there any fans or heaters in use? Are they safe?</td>
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<tr>
<td>Is there an onsite or nearby daycare center? Could they be of help?</td>
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<tr>
<td>Is there enough staff to supervise the number of children? (Younger children will require more staff.)</td>
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</tr>
<tr>
<td>Are there a sign-in and sign-out sheet for all children and adults who enter the area?</td>
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<tr>
<td>Will children need to be escorted away from the safe area to bathrooms?</td>
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<tr>
<td>Are age-appropriate snacks available for children?</td>
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<tr>
<td>Are there sleeping accommodations available (i.e., foam mats on the floor)?</td>
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<tr>
<td>Are there enough to avoid co-sleeping (to reduce the risk of Sudden Infant Death Syndrome)?</td>
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</tr>
</tbody>
</table>

- Staffing ratios
- Checklists to establish areas
- Key considerations for areas
  - Safety
  - Limited, controlled access
  - Supplies
Family Information and Support Center

Purpose:
- Information sharing
- Reunification
- Support
- Link to services
- Protect families from media

Will need:
- Support staff
- Physical space
  - Separate from treatment areas
  - Can be offsite
- Translators

Other considerations related to reunification:
- Explain rationale for reunification process
- Provide updates
- Explain delays
Patient Tracking

- **Tracking patients**
  - Locations:
    - Pre-hospital
    - Upon arrival to hospital
    - Where in hospital (pediatric safe area, inpatient unit, ED)
    - Transferring to another hospital

- **Tools:**
  - Patient Identification Tracking Forms
  - HICS 254 Tracking Form
  - American Red Cross
    - Patient Connection Program
  - National Center for Missing and Exploited Children
    - Unaccompanied Minors Registry
  - Electronic tracking systems
    - Coming soon! EMTrack in Illinois
### HICS 254 - DISASTER VICTIM/PATIENT TRACKING FORM

<table>
<thead>
<tr>
<th>Incident Name</th>
<th>Date/Time Prepared</th>
<th>Operational Period Datetime</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Triage Area</th>
<th>Name</th>
<th>Sex</th>
<th>DOB/Age</th>
<th>Area Triage to</th>
<th>Location/Time of Diagnostic Procedures/Exam (X-ray, CT, etc.)</th>
<th>Time Sent to Surgery</th>
<th>Disposition (from where, reason, location)</th>
<th>Time of Disposition</th>
</tr>
</thead>
<tbody>
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</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Submitted By</th>
<th>Area Assigned To</th>
<th>Date/Time Submitted</th>
</tr>
</thead>
</table>

### DESCRIPTION OF THE PATIENT

- Skin color:
- Hair color:
- Eye Color:
- Height:
- Weight:
- Other markings:
- Other:

### PATIENT TRACKING LOG

<table>
<thead>
<tr>
<th>Location (City, State)</th>
<th>Phone Number</th>
<th>Date of Birth</th>
<th>ID Band 1</th>
<th>ID Band 2</th>
<th>ID Band 3</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<td></td>
<td>Attach ID Band Here</td>
<td>Attach ID Band Here</td>
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<td>Attach ID Band Here</td>
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</tbody>
</table>

### Purpose:
Account for victims of identified incident seeking medical attention.

### Origination:
Situation Unit Leader

### Copies to:
Patient Registration Unit Leader and Medical Care Branch Director

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**Patient Identification Tracking Form**

**IDPH ESF-8 Plan: Pediatric and Neonatal Surge Annex 2015**

**Attachment B: Patient Identification Tracking Form**

**Purpose:** Assist in identifying, tracking, and reunifying patients during a disaster.

**Instructions:** This form should be completed to the best of the ability given the information available on all patients, especially pediatric patients, who arrive at a health care facility regardless of whether accompanied by family, parents, or guardians. Send the original form with the patient if transferred to another facility and keep a copy of the form on file with the patient’s medical record if transferring health care facilities.

**Note:** Information contained within this form is confidential and should not be shared except with those assisting in the care of the patient.

- Date of Arrival
- Time of Arrival
- A.M./P.M.
- Patient Name
- Patient’s Address
- Patient’s Full Name
- For Minor/Parent/Guardian’s Name

**Race/Ethnicity:**
- White
- Black
- Asian
- Other

**Language:**
- English
- Spanish

**Presented with patient? Yes/No**

**Additional Details:**
- Any other pertinent information.
- How patient arrived at hospital (if available):
  - EMS
  - Private medical transport service
  - Family
  - Law Enforcement
  - Private Vehicle
  - Walk-in
  - Other

**Where found:**
Describe where patient was found (be as specific as possible, including neighborhood, street address).

**Attatch photo here:**
Patient Identification

- **Identification**
  - Tag/band/label patient and include ID number
    - Triage tags
    - Surgical marking pens/waterproof markers
    - Wrist/ankle bands
    - Color coded ID bands to indicate accompanied or unaccompanied
Patient Identification (continued)

**BLUE** Marker: Lighter Skin Tone

**RED** Marker: Darker Skin Tone

Images of children's abdomens with their names written on them: Jackson and Joseph.
Patient Identification (continued)

- Identification
  - Take pictures of all unaccompanied children
    - Include ID number in picture
    - Camera with printer
  - Place to mount picture and compile information
    - Patient Identification Tracking Form
Family arrives saying their child is at your hospital
  ¿ How do you know which child they are looking for?
  ¿ How do you know they are supposed to be with that child?

Bring to Family Information and Support Center
Tools to assist with reunification:

- School
  - Before
  - During
  - After
- Child care center
  - Before
  - During
  - After
- DCFS
  - During
  - After
- Local law enforcement
  - Before
  - During
  - After
- Previous visits
  - Take pictures when children come in during non-disaster times
    - PMD, clinic, outpatient services, ED visits
Verification of Guardianship

- Challenges:
  - Legal guardian
  - Custodial issues
  - Non-traditional family make up
  - Circumstances of disaster
    - May not be able to provide any requested information
  - Non-verbal children
  - Young children unaware of custodial issues
  - Difficult to verify 100%
  - Worried family members
Verification of Guardianship (continued)

- **Suggested components:**
  - Present recent picture of child
  - Obtain information about child
    - Name
    - Description including:
      - Clothes
      - Marks
  - Obtain copy of person’s ID
  - Identify relationship
  - Present other documentation (if available):
    - Birth certificate
    - Social security card of child
    - Custodial paperwork
    - Recent report card
Suggested components (continued):

- Pick child out of picture line up
- Take picture of parent and have older child pick out of picture line up
- Bring child to parent (not parent to child unless child is a patient then can bring to patient room)
- Ensure interaction is appropriate
- Take picture of person discharging child to

Obtain information:
- Phone number
- Employer
- Take picture of car/license plate
If any concern or doubt, DO NOT DISCHARGE CHILD!!!
Planning Considerations

- Involve experts in planning:
  - Legal/risk management
  - Pediatric experts

- Write process in policy/plans
  - Patient tracking process
  - Reunification process
  - Verification of guardianship process
Planning Considerations (continued)

- Identify who responsible for reunification/verification of guardianship process
  - Registration
  - Security
  - Pediatric safe area personnel
  - Child life specialists
  - Social workers
  - Nursing staff

- Develop a checklist/job action sheet to assist who is responsible for process
  - Ensures consistency between staff
  - Helpful when not done very often
Establish relationships BEFORE disaster
  › Schools
  › Child care centers
  › Pediatric group homes
  › Special needs homes
  › Law enforcement

Establish MOU with ARC Patient Connection Program
  › Ensure clear understanding of hospital and ARC’s role in response

Develop policy to include steps to assist with reunification before disaster
  › Take pictures of patients and parent to store in medical record
  › Identify legal guardians and other approved adults and store in demographic information
Practice!!!!!

› Include patient tracking, reunification and verification of guardianship in drills/exercises/trainings
  • Tabletop exercises
  • Surge drills
  • Functional drills (walk thru process only)

› Helps reinforce role to those responsible and identify areas for improvement
Questions?????
Thank you!!

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www.luhs.org/emsc