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Fox Valley Healthcare Emergency Readiness Coalition

Region 6

Pediatric Surge Annex

Medical Surge planning is a priority for FVHERC and the health care systems in East Central Wisconsin. This requires building both capacity (the ability to manage a sudden influx of patients) and capability (the ability to manage patients requiring very specialized medical care). An event resulting in a large number of pediatric casualties could quickly overwhelm the pediatric resources within our region and state. All regional hospitals should be prepared to receive, stabilize, and manage pediatric patients, regardless of size and specialty.

This Surge Plan provides a structure for how the Pediatric Trauma Centers will coordinate with each other and work with partners including local hospitals, EMS, health care coalitions, and the Wisconsin Department of Health to respond to such an event. This plan is the culmination of collaboration with all aforementioned partners and will be exercised and updated as needed.

Purpose

This pediatric surge annex has been developed for local jurisdictions, public health partners, first responders and healthcare organizations within the Fox Valley Health Care Emergency Readiness Coalition (FVHERC) to increase pediatric surge capacity. This annex is intended to support any number of pediatric patients that would overwhelm local capacity. This annex applies to a mass casualty event with a large number of pediatric patients. It supports the HCC Response Plan by addressing specific needs of children and supporting appropriate pediatric medical care during a disaster. This plan is intended to support, not replace, any existing facility or agency policy or plan by providing uniform response actions in the case of an emergency that involves (or could involve) significant numbers of children.

## Overview and Background

The unique needs of children mandate specialized and appropriate planning for response to a pediatric event. Children differ from adults in physiology, developing organ systems, behavior, emotional and developmental understanding of and response to traumatic events, and dependence on others for basic needs. Children’s rapid minute ventilation, large surface area relative to body mass, more permeable skin, and proximity to the ground increase their risk of adverse outcomes from exposure to environmental hazards such as particulates or droplets, whether from debris or biological or chemical threats.

## Scope

This Pediatric Surge Plan provides guidance/reference to healthcare facilities in the FVHERC region in relation to pediatric surge trauma needs. Infectious disease-related pediatric surge planning will be addressed in another plan. This Plan also takes into consideration national best practices and lessons learned while leveraging Wisconsin specific strengths and weaknesses when faced with a pediatric surge disaster.

For the purpose of this annex, the following age groups comprise the pediatric population, based upon [US Department of Health, the Food and Drug Administration, and American Academy of Pediatrics (AAP) “Phases of Life.”](https://pediatrics.aappublications.org/content/pediatrics/140/3/e20172151.full.pdf)

* Gestation/Prenatal
* Infancy (0-24 months)
* Childhood (2-12 years)
* Adolescence (12-21 years)
  + Early 11-14
  + Middle 15-17
  + Late 18-21

These phases are further broken down into [Ages and Stages at healthychildren.org from the AAP](https://www.healthychildren.org/English/ages-stages/Pages/default.aspx):

* Prenatal/Gestation
* Baby: 0-12 months
* Toddler: 1-3 years
* Preschool: 3-5 years
* Grade schooler 5-12 years
* Teenager 12-18 years
* Young Adult 18-21

Across the HERC region, there are local risks for pediatric-specific events (e.g., incidents at schools, transportation accidents, events at tourist destinations) that might arise. It recognizes that facilities that treat patients will have stocks of age-appropriate medical supplies that may be requested to share resources in an emergency.

Background

According to the American Academy of Pediatrics, the pediatric age range spans from birth to young adulthood. Children, ages 0-18 years, make-up 23% of the Wisconsin population. Additionally, 11.3% of the Wisconsin population over the age of 5 speak a language other than English at home. Over the past century, these 74 million infants, toddlers, adolescents and teenagers have been greatly impacted through man-made and natural disasters, infectious disease outbreaks and other catastrophic incidents leading them to be one of the most vulnerable populations during times of disaster. Pediatric surge is unique due to the specialized equipment and resources needed: pediatric experts, mechanical and alternative modes of ventilation, medication and pediatric beds. Therefore, emergency preparedness responders are working towards developing pediatric surge plans (locally and statewide) to address these limitations, while leveraging existing resources and creating a redundant framework. As directed by the Office of the Assistant Secretary of Preparedness and Response (ASPR), states nationwide are to work with health care systems in establishing pediatric surge preparedness and response plans to address pediatric surge. “All hospitals should be prepared to receive, stabilize, and manage pediatric patients. Additionally, pediatric practitioners may be able to help identify patients who are appropriate for transfer to non-pediatric facilities. EMS resources, including providers with appropriate training and equipment, should be prepared to transport pediatric patients”.

## Planning Assumptions

## Planning assumptions include, but are not limited to the following:

## All hospitals providing emergency services are equipped to initially treat and stabilize pediatric patients in accordance with their available resources. All hospitals have differing capacities and capabilities of treating and stabilizing pediatric victims; however, all hospitals should at minimum provide initial triage and resuscitation for pediatric patients.

## Each pediatric trauma center has an updated surge plan to fully maximize and leverage their organizational resources prior to activating the Wisconsin Pediatric Surge Plan.

## The pediatric surge response will use existing NIMS/HICS response frameworks.

## Most critical access hospitals will not be able to treat critically injured pediatric patients long term and will need to transport them to a higher trauma level hospital.

## Providers specializing in pediatrics are able to provide definitive care for pediatric patients.

## Planning and response under the Pediatric Surge Plan will be coordinated with other response plans because most disasters involving pediatric patients also include other victims.

## Determination of whether a child meets pediatric age should follow both organizational definitions and assessment of physical maturity and anatomical characteristics of victim.

## The Wisconsin system for Tracking Resources, Alerts, and Communications (EMResources) will be used to send alerts and notifications and will have a Command Center open to partners and should be monitored during an incident.

**Designated Pediatric Trauma Centers**

**FV HERC Regional Resources:**

* Thedcare Neenah Level 2 trauma center with Pediatric resources.( ED 920-792-2060)
* ThedaStar Air Medical (920-236-2066) \* they will help coordinate other air medical as needed

**State Resources:**

* Children’s Hospital of WI-Milwaukee (Transport Hotline 414-266-2470)
  + Children’s Hospital of WI- Fox Valley (Neenah)- No PICU/ NICU and medical beds
* American Family Children’s Hospital-Madison (ED Primary 608-262-2398)
* St Vincents HSHS Green Bay (920-433-0111)
* PICU, NICU
* Marshfield Children’s Hospital (Marshfield Medical Center) (Nursing Supervisor 715-389-4208)
  + Pediatric Level 2 Trauma center
  + Level 3 Neonate Intensive Care Unit (NICU)
  + 8 Bed Pediatric Intensive Care Unit
  + 24 Bed NICU
  + 24 Pediatric In-patient Beds
* Aspirus Wausau Hospital (House Supervisor 715-847-2657/715-843-1232)
  + Trauma center
  + 14 bed Neonatal Intensive Care Unit

**Interstate Resources:**

* Children’s Hospital- St. Paul, MN 651-220-6000

## Concept of Operations

**Indications/Triggers**

When an incident occurs resulting in pediatric victims, the initial response should follow local surge plans. Local hospitals and EMS agencies should assess:

* Scope and magnitude of the incident
* Estimate the influx of patients and the real or potential impact on the local health care system
* Any special response needs (e.g., infectious disease, hazardous materials, etc.)
* Internal response plan activation(s).

### Activation and Notifications

Notification of a pediatric surge events will be to the HERC by individual member entities in the same way as any other incident, and as described in the HERC Response Plan/ Regional Medical Coordination Plan (RMCC.) This will trigger the alerting and notification of members as described in the HERC Response Plan in order to ensure general situation awareness across the region.

The primary trigger for a pediatric surge event will overwhelm local responding resources. This will be different depending upon local assets. HERC members recognize that a pediatric surge event could precipitate from the most rural of locations. One pediatric patient could indicate a surge for rural parts of the region.

Alerting will be notification to the closest acute care facility, this facility will alert the regional and state partners via EMResource and WISCOM as deemed appropriate and described in the Regional Medical Coordination Plan.

A pediatric surge event will likely overwhelm regional resources and state, or even multi-state resources will likely need to be simultaneously notified and activated. Availability of resources are in constant flux. It is critical to create regional situational awareness as soon as possible to identify currently available resources.

Public Messaging

Public information and messaging should be coordinated among all partners (Hospitals, EMS, supporting pediatric trauma centers, HCCs). Designated Public Information Officers (PIOs) can work with hospital communications staff to draft and coordinate public messaging and information as needed to inform and educate the public about the incident and response efforts. Public information materials may include but are not limited to news releases, talking points, public website updates, and social media posts. Information can be shared with response partners in a variety of methods, including a virtual Joint Information Center (JIC) if needed.

### Roles and Responsibilities

Partner Roles and Responsibilities

|  |  |  |
| --- | --- | --- |
| Partner | Role | Responsibilities |
| State Coordinating Pediatric Trauma Center | Lead Coordinating Entity and Treatment | * Provide treatment and care per trauma level designation for victims * Admit patients per normal operating protocols until surge capacity is met * When internal surge plan is activated, request HCC to activate the Minnesota Pediatric Surge Plan * Maintain frequent communications with HCC, other pediatric trauma centers, EMS, and others as deemed appropriate * Monitor for and acknowledge all alerts, notifications, and communications during an incident and provide information a requested to local, regional, and state partners * Maintain appropriate users in EMResources to receive and monitor notifications * Provide telephone/telemedicine expertise to assist stabilizing hospitals caring for victims * Specialty care personnel from other pediatric trauma centers may be engaged to provide advice and support to the Level III and IV trauma centers or others caring for specialty care patients for a prolonged period * SCPC will maintain lead on definitive care guidance for patient placement |
| Designated Pediatric Trauma Centers | Treatment | * Provide treatment and care per trauma level designation for victims and utilize telephone/telemedicine if needed * Admit patients per normal operating protocols until surge capacity is met * Maintain frequent communications with HCC, other pediatric trauma centers, EMS, and others as deemed appropriate * Monitor for and acknowledge all alerts, notifications, and communications during an incident and provide information as requested to local, regional, and state partners * Maintain appropriate users in EMResources to receive and monitor notifications |
| Local Hospitals | Support and Stabilization | * Provide initial treatment and stabilization of any victim transferred to their facility * Follow normal organizational referral protocols and transport criteria with respect to pediatric victims * Monitor for and acknowledge all alerts, notifications, and communications during an incident and provide information as requested to local, regional, and state partners * Maintain appropriate users in EMRsources to receive and monitor notifications |
| Regional Health Care Coalitions | Regional coordination of health response | * Activate their Pediatric Surge Plan when requested * Support information sharing and coordination of activities between coalition members * Help manage resources between hospitals in the area * May provide single point of contact for patient transfer coordination |
| Regional EMS Programs | Regional coordination of EMS | * Support information sharing of activities between EMS, hospital, emergency management and local, regional and state emergency operations centers * Assist in coordination of EMS resources and emergency management in collaboration with the State, Regional or Local Emergency Operations Centers * If needed, activate a EMS Multi-Agency Command Center (MACC) to assist with influx of victims * May provide or develop regional procedures for EMS disaster response * Maintain appropriate users in EMResources to receive and monitor notifications |
| Local EMS Agency | Emergency response and patient transport | * Following normal surge protocols, coordinate patient destination hospitals to the degree possible to avoid overloading a single facility * Interface with local hospitals and regional health care coalition to share information/status * Maintain appropriate users in EMResources to receive and monitor notifications |
| First Responders | First response | * Frequently the first personnel on scene to assess and report on the situation, provide initial triage and care and help determine what additional resources may be needed * Support and assist arriving ambulance personnel on scene. |

State Roles and Responsibilities

|  |  |  |
| --- | --- | --- |
| Wisconsin Department of Health | Lead state agency for health related issues | * Support HCC information exchange and situational awareness needs * Facilitate health care resource requests to state/inter-state/federal partners * Request State Disaster or Public Health Emergency Declarations and governor’s emergency orders as required to support response * Request CMS 1135 waivers as required during response to allow patient billing when usual conditions cannot be met * Request specific emergency orders/actions by the governor’s office if needed * Provide health related guidance and recommendations for clinicians, local and tribal public health and community members |
| Wisconsin Emergency Management | Lead for incident coordination | * Serve as point of contact for resource requests * Request State declaration of emergency if needed Support hospitals by regional and state level coordination of EMS surge capacity implementation * Provide support to regional health care coalition/response through regional EMS system program personnel * Work with Multi-Agency Coordination Centers (MACC) at the local, regional, and state level to deploy Ambulance Strike Teams (AST), MCI buses, additional ground or air ambulances from regions as requested by local EMS agencies through the State Duty Officer * Communicate suspension of selected regulatory statutes/rules to facilitate crisis care activities during declared disaster * Support local EMS medical directors by providing guidance on patient care if needed |

In the absence of a statewide pediatric plan, the role of the HERC during a pediatric surge event will be consistent with the response role during any large-scale event: predominantly information sharing amongst membership, facilitation of resource support if any is available, and as a liaison to state and federal resources, if needed. During the preparedness phase, the HERC can work to support pediatric readiness through provision of regional training, exercising around such events, and participation in statewide efforts to coordinate pediatric planning. A list of initial resources to support member readiness is included at the end of this annex.

When the HERC is notified of a pediatric event, the member organization experiencing the surge, the closest receiving acute care facility, may notify the HERC of any needs or requests. The HERC will assist the activating facility in determination of needs and assist in conveying to the membership through information sharing channels (I.e., EM Resource, eICS, etc.) or conveyed to state partners for a wider dissemination.

At this time, in the absence of a statewide coordinated pediatric surge plan, the HERC will work with the Wisconsin Department of Health Services and Wisconsin Emergency Management as needed to determine available local, state, and interstate resources. This includes access to subject matter experts at the local, state, and national levels.

#### Prioritization method for specialty patient transfers

For initial coordination, scene response is asked to notify the nearest acute care hospital with an initial “scene size-up.” This information is critical for helping determine assets needed and how to prioritize them.

Critical Information for scene responders to report includes:

* Pediatric age demographic (pre-school, elementary, high school, etc.)
* Disabilities or access and functional needs
* Field triage summary

Upon receiving this information, the closest activating acute care facility will begin a regional notification via EMResource and WISCOM.

#### Treatment Pathways and General Flow of Care

Transport directly to “Final Destination of Care” is identified as best practice. Resources are limited with the region: air and ground transport, as well as pediatric specific beds. In north central Wisconsin, resources will be further limited related to current weather conditions.

Transport to the closet, most appropriate facility may be necessary for stabilization prior to transport to “Final Destination of Care.” An event may exceed regional and state bed capacity. Not all peds patients may need or be able to be transported to a pediatric facility. The closest receiving facilities should be ready to provide care to these patients as necessary. For these reasons, it is critical for a facilities emergency department to have a basic level of pediatric readiness in the form of treatment and/or stabilization for transport to an appropriate pediatric treatment facility.

Most injured patients should be prioritized air resources and pediatric specific bed space. Upon depletion or air assets, ground transport assets will be utilized.

Like other surge events, decompression and post-acute care should be considered. FVHERC recognizes pediatrics post-acute care, rehabilitation, home care and hospice as best practices and advocates for strong, regional development of these resources.

#### Just-in-time training & Access to Subject Matter Experts

At this time, in the absence of a statewide coordinated pediatric surge plan, the HERC will not have a role in offering just-in-time training to support pediatric care.

Systems are encouraged to pre-identify and have access to subject matter experts (I.e. on-call pediatric hospitalist, intensivist, trauma surgeon) that could provide support in an event to a rural response with personnel less skilled in pediatrics.

#### Evaluation and exercise plan for the specialty function

At this time, the HERC will exercise its roles in information sharing and coordination of assistance upon request for pediatrics in the same way that it does for any other event of regional significance.

FVHERC has made a commitment to incorporating elements of pediatric considerations into all HERC activities and exercises when possible.

### Deactivation and Recovery

Upon notification of the end of the incident, the HERC will cease its support operations in sharing information and resource coordination. At the request of membership or a decision of leadership, the HERC may choose to facilitate, or support, an after-action process to identify areas of strength or improvement.

## Resource List

**FVHERC Regional Resources:**

* Thedcare Neenah Level 2 trauma center with Pediatric resources.( ED 920-792-2060)
* ThedaStar Air Medical (920-236-2066) \* they will help coordinate other air medical as needed

**State Resources:**

* Children’s Hospital of WI-Milwaukee (Transport Hotline 414-266-2470)
  + Children’s Hospital of WI- Fox Valley (Neenah)
* American Family Children’s Hospital-Madison (ED Primary 608-262-2398)
* St. Vincent Hospital-Green Bay (24/7 Switchboard 920-431-3171)
* Marshfield Children’s Hospital (Marshfield Medical Center) (Nursing Supervisor 715-389-4208)
  + Pediatric Level 2 Trauma center
  + Level 3 Neonate Intensive Care Unit (NICU)
  + 8 Bed Pediatric Intensive Care Unit
  + 24 Bed NICU
  + 24 Pediatric In-patient Beds
* Aspirus Wausau Hospital (House Supervisor 715-847-2657/715-843-1232)
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**Interstate Resources:**

* Children’s Hospital- St. Paul, MN 651-220-6000

### Education for Pediatric Care

As stated above, related to the scarce resource of Pediatric beds in Wisconsin, a basic level of readiness is strongly encouraged for all health care providers. FVHERC advocates for and strongly encourages all its members to be pediatric ready!

**Resources Recommended for the Care of Pediatric Patients in Hospitals:**

[**https://pediatrics.aappublications.org/content/145/4/e20200204**](https://pediatrics.aappublications.org/content/145/4/e20200204)

Pediatric Education for Prehospital Professionals (PEPP): <http://www.peppsite.com/>

Pediatric Advanced Life Support (PALS) Recognition: <http://cpr.heart.org/AHAECC/CPRAndECC/Training/HealthcareProfessional/Pediatric/UCM_476258_PALS.jsp?_sm_au_=i7VtnrjNnqT1vH7s>

Certified Pediatric Emergency Nurse: <http://www.pncb.org/ptistore/control/about/about_exams>

### Pediatric Guidelines:

Pediatric Allergy and Anaphylaxis:

<https://www.dhs.wisconsin.gov/library/pediatricallergyanaphylaxis.htm>

Pediatric Asthma:

<https://www.dhs.wisconsin.gov/ems/provider/pediatric-asthma.doc>

Pediatric Cardiac Arrest:

<https://www.dhs.wisconsin.gov/ems/provider/pediatric-cardiacarrest.doc>

Pediatric Hyperglycemia:

<https://www.dhs.wisconsin.gov/ems/provider/pediatric-hyperglycemia.doc>

Pediatric Hypoglycemia:

<https://www.dhs.wisconsin.gov/ems/provider/pediatric-hypoglycemia.doc>

Pediatric Hypovolemia and Shock:

<https://www.dhs.wisconsin.gov/ems/provider/pediatric-hypovolemiashock.doc>

Pediatric Respiratory Distress:

<https://www.dhs.wisconsin.gov/ems/provider/pediatric-respiratorydistress.doc>

Pediatric Seizure:

<https://www.dhs.wisconsin.gov/ems/provider/pediatricseizure.doc>

Pediatric Toxic Exposure and Overdose:

<https://www.dhs.wisconsin.gov/ems/provider/pediatrictoxic-exposureoverdose.doc>

### Pediatric ACLS Guidelines:

Pediatric Bradycardia:

<https://www.dhs.wisconsin.gov/ems/provider/aclspediatric-bradycardia.doc>

Pediatric SVT:

<https://www.dhs.wisconsin.gov/ems/provider/aclspediatric-bradycardia.doc>

Pediatric Wide Complex Tachycardia:

<https://www.dhs.wisconsin.gov/ems/provider/aclspediatricwide-complextachycardia.doc>

Pediatric Preparedness Resource Development Document including:

* Pediatric Disaster Preparedness Guidelines
* Addressing the Needs of Children in Disaster Preparedness Exercises
* Pediatric Disaster Triage: Utilizing the JumpSTART Method
* Pediatric Disaster Triage Scenarios: Utilizing the JumpSTART Method
* Pediatric Disaster Triage Algorithm
* Neonatal Intensive Care Unit (NICU) Evacuation Guidelines
* NICU/Nursery Evacuation Tabletop Exercise Toolkit
* Use of Strategic National Stockpile (SNS) Ventilators in the Pediatric Patient. Instructional Guidelines with Training Scenarios
* Hospital Pediatric Preparedness Toolkit
* Antibiotic informational brochures
* Regional Pediatric Resource Guides
* Children with Special Health Care Needs (CSHCN) Reference Guide
* Characteristics of Biologic, Nuclear, Incendiary and Chemical Agents
* Children and Facemasks
* Emergency Preparedness Planning Guide for Child Care Centers & Child Care Homes
* EMSC Pediatric Reference Pocket Card
* Pediatric & Neonatal Disaster/Surge Pocket Guide
* Patient Identification Tracking Form
* Pediatric and Neonatal Care Guidelines
* Caring for Non-Injured and Non-ill Children in a Disaster: A Guide for Non-Medical Professionals and Volunteers

[www.stritch.luc.edu/emsc](http://www.stritch.luc.edu/emsc)

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