

EHPC Pediatric Surge Annex Plan

1. INTRODUCTION

1.1 Purpose

This Pediatric Surge Annex Plan applies to an event that results in a surge of pediatric patients. It is recognized that children represent a special population whose specific needs are integrated and addressed throughout the planning, response, and recovery phases of an incident. This plan supports the Eastern Healthcare Preparedness Coalition (EHPC) ESF-8 Response and Recovery 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 plan by providing uniform response actions in the case of an emergency that involves (or could involve) significant numbers of children.

1.2 Scope

For the purposes of this plan, “children” and “pediatric” are defined as those under the age of 15. Medical and safety protocols of each facility may define children differently and the medical treatment of each patient should be individualized to the person and situation as appropriate. EHPC covers a region of 29 counties, over 90 EMS agencies, and 19 hospitals. Per the 2019 U.S. Census the EHPC region has a population of approximately 300,000 children under the age of 18 (22% of the total population). This number can increase during peak tourist season (June-Aug). Of the 19 hospitals, one has a dedicated children’s hospital and two have a dedicated pediatric emergency department (ED).

Table 1- EHPC Pediatric Population

| Total population <18 years old: 307,751 (2019 census) | | | | | |
|---|-----------|-------------|-----------|-------------------------------|-----------|
| Just over 200 dedicated inpatient pediatric beds across the region. 12 intensive care beds. | | | | | |
| COUNTY | <18 YEARS | COUNTY | <18 YEARS | COUNTY | <18 YEARS |
| Beaufort | 9,446 | Gates | 2,347 | Onslow | 48,495 |
| Bertie | 3,335 | Greene | 4,214 | Pamlico | 1,883 |
| Camden | 2,478 | Halifax | 10,702 | Pasquotank | 8,881 |
| Carteret | 12,227 | Hertford | 4,475 | Perquimans | 2,464 |
| Chowan | 2,816 | Hyde | 829 | Pitt*® | 38,498 |
| Craven | 22,062 | Jones | 1,743 | Tyrrell | 747 |
| Currituck | 6,219 | Lenoir | 12,589 | Washington | 2,316 |
| Dare | 6,995 | Martin | 4,533 | Wayne | 29,182 |
| Duplin | 13,922 | Nash* | 20,651 | Wilson | 18,732 |
| Edgecombe | 11,581 | Northampton | 3,390 | *pediatric ED ®pediatric hosp | |

1.3 HCC Overview

The Eastern Healthcare Preparedness Coalition (EHPC) is one of 8 Healthcare Coalitions (HCC) in the state of North Carolina. EHPC’s region encompasses 29 counties (listed in *Table 1*) and 19 hospitals with Vidant Medical Center (VMC) operating as the lead hospital for the coalition. VMC is the only children’s hospital in the region. Of these 19 hospitals, four are Critical Access Hospitals.

A chain of barrier islands, the Outer Banks, borders the eastern coast of North Carolina. Some of these islands are inaccessible by road and can only be reached by boat or aircraft. These islands in addition to other rural locations create additional barriers for the population to access necessary healthcare. Eastern North Carolina is also home to several U.S. Military Bases, five of which are in the EHPC region: Base Support Unit Elizabeth City (Pasquotank County), Camp Lejeune (Onslow County), Cherry Point Air Station (Craven County), Harvey Point (Perquimans County) and Seymour Johnson Air Force Base (Wayne County).

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Table 2- EHPC Hospital Pediatric Capabilities

| HOSPITAL | ADMITS PEDS | DEDICATED INPATIENT PEDIATRIC BEDS | PICU BEDS | NICU BEDS |
|------------------------------|-------------|------------------------------------|-----------|----------------|
| Carolina East Medical Center | ✓ | 6 | | |
| Carteret Health Care | ✓ | 4 | | |
| Lenoir UNC | ✓ | 10 | | |
| Martin General | ✓ | ® | | |
| Nash UNC | | | | 12 (level 2&3) |
| Onslow Memorial | ✓ | 3 | | 10 (level 2&3) |
| Outer Banks Hospital* | ✓ | ® | | |
| Sentara Albemarle Hospital | | | | |
| Vidant Beaufort | | | | |
| Vidant Bertie* | | | | |
| Vidant Chowan* | ✓ | ® | | |
| Vidant Duplin | ✓ | ® | | |
| Vidant Edgecombe | | | | |
| Vidant Medical Center | ✓ | 47 | 12 | 71 (level 2-4) |
| Vidant North | ✓ | ® | | |
| Vidant Roanoke-Chowan | ✓ | 3 | | 2 (level 2) |
| Washington County Hospital* | | | | |
| Wayne UNC | ✓ | 14 | | 5 (level 2) |
| Wilson Medical Center | ✓ | 12 | | 4 (level 2) |

*Critical Access Hospitals
 ®Hospitals that admit pediatrics but do not have dedicated inpatient pediatric beds, admit to a mixed unit. These facilities' pediatric admissions are limited by both bed and staff availability.

1.4 Access and Functional Needs

The Department for Health and Human Services defines access and functional needs as people who have physical, sensory, mental health, and cognitive and/or intellectual disabilities affecting their ability to function independently without assistance. Per the 2019 Public Health Emergency Preparedness Operational Readiness Review (PHEP ORR) there are over 56,000 infants and children under 18 with functional and/or access needs within the region.

2. CONCEPT OF OPERATIONS

2.1 Activation

The Pediatric Surge Annex Plan will be activated by EHPC staff members. EHPC staff members may be contacted 24/7 via 1-800-672-7828 and asking for a member of Disaster Services.

As VMC is the only children's hospital in the region, the other facilities' routine protocols require them to transfer all critical children and any children that exceed their resources to VMC. As such, VMC is in a position to assess the transfer and resource requests and activate the Pediatric Surge Annex Plan. VMC hospital leadership and the Pediatric ED attending physician will consider making a recommendation to EHPC with regards to activating the Pediatric Surge Annex Plan when the number of expected pediatric patients exceeds the available conventional spaces (see 2.4.1). Examples of situations when the Pediatric Surge Annex Plan should be considered are below. Other agencies in the HCC are similarly encouraged to make a recommendation to EHPC regarding plan activation when similar surge events are detected or suspected. These situations incorporate field disaster triage since a large number of situations that would cause a pediatric surge will necessitate EMS agencies to utilize field disaster triaging (see Table 3).

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When a situation with a potential or actual pediatric surge event occurs, members of the HCC, or VMC hospital leadership in coordination with the Pediatric ED attending physician will contact EHPC to provide notification of the disaster event in the region. The EHPC command staff and the EHPC medical advisor will analyze the information and determine resource needs for the region and, if appropriate, activate the Pediatric Surge Annex Plan.

Although the decision remains with the EHPC staff as defined above, activating the plan should be considered whenever one or more of the following scenarios occurs:

Table 3- Field Disaster Triage

| | |
|--------|--|
| Red | Immediate. Requires immediate intervention/transport. Includes compromises to Airway, Breathing, and Circulation |
| Yellow | Delayed. Transport can be delayed. Includes severe injuries that will not deteriorate over several hours. |
| Green | Minor. Minor injuries and patient is unlikely to deteriorate over several days. |
| Black | Expectant. Unlikely to survive given the injury and/or availability of care. |

Table 4- Plan Activation

| |
|---|
| Disaster Triage |
| 5 or more pediatric RED disaster triage patients expected |
| 10 or more pediatric YELLOW disaster triage patients expected |
| 12 or more pediatric RED and YELLOW disaster triage patients expected |
| 30 or more of any level of disaster triage patients expected |
| Non-traumatic Surge Patients |
| 2 or more high consequence pathogen pediatric patients expected |
| 10 or more pediatric patients with similar contagious symptoms are admitted or expected |
| 20 or more pediatric patients exposed to similar contagion are admitted or expected |

Activating the hospital’s disaster plan and emergency operations center should also be considered.

2.2 Notification

Once the Pediatric Surge Annex plan is activated, VMC leadership will call the hospital operator who will send notifications via Vidant Alert to the Pediatric Surge group. Hospital leadership, medical directors, and nursing managers of both the children’s and adult emergency departments, respiratory shift supervisor, pharmacy administration, East Care supervisor, the county emergency manager, regional HCC, and HCC medical director are included on this notification list. The Pediatric Surge Annex Plan paging notification list is different from Vidant’s capacity notification page list. When additional clinical staff are needed to care for patients, leadership will send notifications to staff regarding the activation of the surge plan. Additional information regarding staffing can be found in section 2.4.2. EHPC staff will also notify the State including NC Office of Emergency Medical Services Shift Duty Officer, Public Health Preparedness and Response Eastern Regional Office, and the NC Emergency Management Eastern Branch Office.

2.3 Roles and Responsibilities

Each hospital and facility is responsible for following their current policies and procedures in regards to triaging, providing medical care, and admitting or transferring the appropriate patients. In addition to this, VMC is responsible for accepting and arranging appropriate transfers to both VMC and any other children’s hospital in the event VMC is unable to accept a transfer.

As requested by the ESF-8/OEMS branch or a HCC member organization, the EHPC staff will help arrange and coordinate logistics to the best of their ability and resources.

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VMC’s emergency operations center is responsible for ensuring the Incident Command System (ICS) is being utilized appropriately and completing tasks in a manner consistent with ICS training and the National Incident Management System (NIMS).

The following resources have been identified as pediatric subject matter experts (SME):

- Medical Director of Children’s ED
- Child Life
- Pediatric Trauma Surgeon
- Medical Director for Preparedness and Response
- Medical Director of Infection Control
- PICU Physicians
- Pediatric Clinic Director
- Child/Adolescent Psychiatric Specialists

2.4 Logistics

Logistics has been separated into three categories: space, staff, and supplies. Many individual factors may affect the level of need for each category. Although this plan works to build a uniform approach to pediatric surges, an individual assessment and methodology to each incident is required. Hospital leadership will work with emergency management and providers to predict the duration of patient surge. Determining logistics will be contingent upon several factors including the current hospital and emergency department census, day of week, time of day, and expected length of patient surge.

Traumatic injury events are likely to create a shorter surge than a communicable disease outbreak and as such different allocations of space, staff, and supplies will be necessary. The categories below have been divided into short term and long term surge plans. Methods for transitioning from short to long term have also been identified.

2.4.1 Space

For the purposes of this plan patient care areas have been categorized as follows:

- *Conventional Spaces:* Areas where care is normally provided (e.g., treatment space inside hospital or physician’s office space).
- *Contingency Spaces:* Areas where care could be provided at a level functionally equivalent to usual care (e.g., adult rooms used as pediatric rooms, closed units).
- *Crisis Spaces:* Areas where sufficient care could be provided when usual resources are overwhelmed (e.g., non-pediatric providers and/or ambulatory care pediatric providers supervising inpatient care, temporary intensive care/ventilator support for patients who cannot be moved, or alternative space).

Each facility within EHPC’s region will identify their contingency and crisis spaces and VMC’s predesignated spaces are listed below.

Table 5- Patient Care Spaces

| Conventional Spaces | Contingency Spaces | Crisis Spaces |
|--|--|---|
| Children’s Emergency Department: 16 beds 2West: 32 KISU: 6 SCN: 21 PICU: 12 beds NICU: 71 beds Minor ED | Pediatric Day Unit (PDAY) Adult ED 1West 3West Labor & Delivery Overflow rooms Procedure rooms Children’s radiology bays Consult rooms | Parent/child overnight rooms Playroom Theater School room Therapy gym |

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Space: Short Term Surges

For the purposes of this plan “short term surge” is defined as an expected return to normal operations within 12-24 hours. Traumatic events are likely to fall into this category. Crisis spaces are less likely to be used during a short term surge and when they are used it is likely to be for a very short period. Contingency spaces are likely to be used for either staging areas or to decompress the emergency department.

In a short term pediatric surge the existing non-critical patients in the Children’s ED can be moved to the Pediatric Day (PDAY) unit. The PDAY unit contains 12 bed spaces each with oxygen, suction, and monitoring capabilities, a registration and waiting area. It is located next to pediatric radiology which enables them to easily perform radiologic exams in addition to providing additional space if necessary for procedure rooms. Any children over the age of 15 could be treated in the adult ED if their census permits.

It is estimated that it would take two hours to fully convert the PDAY to an ED location as current treatments and infusions would need to be completed. All elective procedures would be cancelled which would open up more than half of the unit fairly quickly enabling many patients to be moved quickly. The PDAY staff and all available East Carolina University (ECU) pediatricians would work together to care for these more stable patients. As new pediatric surge patients arrive any stable or disaster triaged “green” patients could be directed here as well. The PDAY unit is not open 24/7 and would require staff to be called in if the surge occurs when the unit is closed. Additional staffing plans and concerns are addressed in 2.4.2.

If the pediatric patient surge is far larger than the adult patient surge a staging area may be necessary. Either in addition to or instead of utilizing PDAY, the Minor ED could transport their current patients and waiting room to the adult ED and operate as a staging area for non-critical pediatric patients. This would allow the more critical patients to be cared for in the Children’s ED while the more stable patients can be treated and released or transferred from the Minor ED.

In the event VMC is unable to accept all pediatric transfer requests or admissions during a pediatric surge the standard practices of VMC’s bed coordination team will be used. VMC will arrange transfer and transportation to another children’s hospital (WakeMed, UNC, Duke, New Hanover, Children’s Hospital of The King’s Daughters, or Grand Strand).

If the incident includes or possibly includes a transmissible substance or pathogen, patients should be limited to using one entrance whenever possible. Utilizing the ambulance bay, front door of the pediatric ED, and the entrance to PDAY creates multiple areas that are likely to be contaminated. Funneling all patients through one entrance whenever possible will decrease this possibility and the likelihood of increasing patient numbers through accidental cross contamination.

Space: Long Term Surges

For the purposes of this plan “long term surge” is defined as an expected return to normal operations in greater than 24 hours. Biologic and communicable diseases are likely to fall into this category. Contingency and crisis spaces are likely to be used during a long term surge. Ideally crisis spaces should be used only during the initial surge period.

Long Term Surges (eg: Measles outbreak) are likely to have patients presenting to the hospitals over an extended time instead of all at once, so decompressing the ED and staging areas may not be necessary. If decompressing the ED and/or staging is necessary the same steps may be followed as outlined under short term surges. As seen during the COVID-19/SARS-2 outbreak in 2020, Public Safety Announcements advising against going to the hospital for any non-emergent concerns can be made in an effort to decompress the hospital further.

When a long term surge is predicted, all efforts to safely decompress the Maynard Children’s Hospital should occur. This includes coordinating with outpatient pediatrician’s offices to arrange for closer follow up for patients discharged, transferring stable patients over the age of 15 to adult units, utilizing ICU beds and staff to provide care to pediatric patients, and bringing pediatricians to the emergency department/PDAY/Minor ED to care for more stable pediatric patients with chief complaints unrelated to the surge.

Hospitals should coordinate with their local community health centers, primary care providers, urgent cares, and other primary care locations to expand business hours to allow patients with non-emergent concerns to seek care outside of the emergency departments. Canceling elective and outpatient surgeries and procedures will provide spaces to care for less critical patients. Planning for early discharge, using a discharge holding area, transitioning patients to observation units, using geri-chairs instead of beds for appropriate patients, and converting private rooms to semi-private can all increase

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patient care spaces. Once the conventional and contingency spaces have been fully utilized crisis spaces may be used for appropriate patients. All contingency and crisis spaces listed in *Table 5* have oxygen and medical air/gas capabilities.

In the event VMC is unable to accept all pediatric transfer requests or admissions during a pediatric surge the standard practices of VMC's bed coordination team will be used. VMC will arrange transfer and transportation to another children's hospital (WakeMed, UNC, Duke, New Hanover, Children's Hospital of The King's Daughters, or Grand Strand). In the event alternative care sites are necessary to provide care for patients, hospitals should reach out to EHPC.

If the incident includes or possibly includes a transmissible substance or pathogen, patients should be limited to using one entrance whenever possible. Utilizing several entry points creates multiple areas that are likely to be contaminated. Funneling all patients through one entrance whenever possible will decrease this possibility and the likelihood of increasing patient numbers through accidental cross contamination. For a predicted long term surge of a highly contagious pathogen staff should be trained in identifying, isolating, and informing the appropriate staff and departments immediately.

Space: Transitioning From Short to Long Term Surges

In the event that an incident initially predicted to be short term becomes long term the primary space focuses should be on decompressing the Maynard Children's Hospital and readying any crisis spaces. The steps taken in preparing space for a short term surge should not hinder the steps for long term surges.

2.4.2 Staff

For the purposes of this plan staff have been categorized as follows:

- *Pediatric Specialty Staff*: staff that have undergone training or orientation and care for pediatric patients on a routine basis. (e.g., pediatricians, Children Maynard Hospital nurses, Pediatric ED staff, Emergency Medicine physicians, Minor ED staff)
- *Pediatric Capable Staff*: staff that have received some level of training or orientation and care for pediatric patients at least once a month. (e.g., preop and PACU nurses)
- *Non-Pediatric Staff*: staff that do not routinely care for pediatric patients.

Staff: Short Term Surges

For the purposes of this plan "short term surge" is defined as an expected return to normal operations within 12-24 hours. Traumatic events are likely to fall into this category. For short term surges additional staff are likely to be needed as soon as possible. It is unlikely that large numbers of additional staff will be needed beyond the shift of impact and the subsequent shift. As such there is not a high risk for overexerting staff during the surge so some of the safety considerations necessary for long term surges are not necessary.

Utilizing PDAY and Minor ED as identified in section 2.4.1 are likely to be the fastest routes to obtaining additional staffing. If the surge occurs when one or both of these units are closed it will result in a delay in bringing in pediatric specialty and pediatric capable staff. Decompressing the Maynard Children's Hospital may result in some pediatric specialty staff being available to assist with the surge. Rescheduling elective and outpatient surgeries and procedures would provide some pediatric capable staff from the preop and PACU units.

After the leadership team has been notified of the pediatric patient surge leadership should send notification and pages to the Maynard Children's Hospital staff requesting any available staff to report to work. Once the staff arrives they can be directed by their unit's leadership where to report. Leadership should consider calling in the next scheduled shift's staff early. Staff should avoid working more than 16 hours consecutively.

Requesting ECU pediatricians to assist in caring for the more stable patients will enable emergency medicine, intensivists, trauma, and surgical providers to care for the more critically ill patients. These additional providers should report to a designated staging area before they are assigned to a care area. Paging the off-duty emergency medicine and pediatric residents will also provide additional provider resources. Paging off-duty emergency medicine residents has proven effective in previous incidents.

If there is a delay in finding staff to care for patients, strategies from the long term surge plan may be implemented.

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For hospitals other than VMC, rescheduling elective and outpatient surgeries and procedures would provide pediatric capable and non-pediatric staff to assist. If there is a delay in completing a transfer request to VMC, treatment decisions can be managed by available pediatricians and other providers from VMC. Frequent phone calls can also occur to ensure the staff of the community hospital have adequate and appropriate resources to care for the patient prior to transfer.

Staff: Long Term Surges

For the purposes of this plan “long term surge” is defined as an expected return to normal operations in greater than 24 hours. Biologic and communicable diseases are likely to fall into this category. Long term surges will likely require additional staff over several days to several weeks. In these situations it is important to not allow staff to work too many consecutive hours that they are not able to report for their next regularly scheduled shift.

The same methods for locating additional staff described in short term surges can be utilized, however special attention should be given to not call in all staff at once since it will have negative impacts for the remainder of the surge. Long term surges are more likely to require additional inpatient staffing than short term surges and as such the continual safe decompression of patients throughout the hospital will likely be necessary.

Some strategies that can be used to provide staffing for these pediatric patients over a longer time frame can include:

- Assigning pediatric specialty staff to larger numbers of patients, younger patients (e.g., age <8), or the more injured/ill to closely monitor fluids, medications, and other specific care.
- Pediatric capable staff and non-pediatric staff could take over patients that require less precise management.
- Implement just-in-time training when needed to expand pediatric expertise.
- Use of telemedicine as an adjunct for in-person staff.
- Canceling training or classes to increase staffing.

If a hospital experiences a long term surge requiring additional staffing and the long term surge strategies listed are unsuccessful or inadequate these hospitals are encouraged to reach out to EHPC staff. EHPC staff can coordinate with local Emergency Management and VMC to find and provide the best solutions. Staff sharing and emergency credentialing can be considered.

During a long term surge at any facility, Child Life Specialists should be consulted. Child Life Specialists are trained to provide crisis intervention techniques to children and adolescents. Team members are also available to provide tip sheets and activities to assist community hospitals to help children process their emotions. The staff are also available to assist with accessing resources such as Social Work, Chaplain and Tedi Bear (a children’s advocacy center that provides several services to victims of child abuse and neglect).

Staff: Transitioning From Short to Long Term Surges

In the event that an incident initially predicted to be short term becomes long term the primary staff focus should be on sending staff home or providing rest areas so they are able to return for their next regularly scheduled shift. Continuing to reschedule elective and outpatient procedures and surgeries can provide a regular source of additional staff.

2.4.3 Supplies

For the purposes of this plan supplies have been categorized as follows:

- *Pediatric Medical Supplies:* supplies that must be available in specific sizes in order to be suitable for pediatric use. (e.g., endotracheal tubes)
- *Universal Medical Supplies:* supplies that may be used on pediatric patients even if they were not expressly designed for this. (e.g., cardiac monitor leads)

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Supplies: Short Term Surges

For the purposes of this plan “short term surge” is defined as an expected return to normal operations within 12-24 hours. Traumatic events are likely to fall into this category. Regardless of the size of the hospital, supplies are a finite resource and it could be several hours or days before a hospital receives additional supplies from their regular suppliers. For hospitals without specialized children’s units pediatric medical supplies are likely to deplete rapidly. If a patient is close to adult size using universal medical supplies should be used whenever possible to preserve pediatric sized supplies. (e.g., using adult cardiac monitor electrodes and gowns on school aged kids to preserve pediatric electrodes and gowns for smaller children).

When using universal medical supplies is not an option the appropriate sized equipment should be used and closely monitored. Emergency supplies such as ambu bags and endotracheal tubes are kept in pediatric sizes by Emergency Medical Services units (EMS). Hospitals may consider discussion with local EMS regarding the availability of additional supplies to assist the hospital. When a hospital has exhausted their pediatric supplies the EMS system should be made aware to consider transporting to another pediatric ready facility.

Pediatric ventilators, syringe pumps, and syringe pump tubing have been identified as items that are likely to deplete quickly during a pediatric surge event. Routine rental turnaround time for ventilators is approximately six hours. VMC can utilize existing relationships with children’s hospitals across the state to help restock their supplies. When possible these supplies could be delivered via hospital helicopters to reduce delivery time. When possible, VMC could send pediatric supplies to community hospitals.

Supplies: Long Term Surges

For the purposes of this plan “long term surge” is defined as an expected return to normal operations in greater than 24 hours. Biologic and communicable diseases are likely to fall into this category. As soon as a long term surge is predicted by hospital leadership additional orders should be placed for all pediatric supplies. Increased amounts and frequencies of deliveries should continue until hospital leadership has declared the surge complete.

Short term surge strategies can be used during the initial impact period. The rescheduling of surgeries and procedures may also result in some additional pediatric and universal medical supplies. Despite having more pediatric supplies arriving at the hospital, universal medical supplies should be used whenever possible to ensure supply levels remain steady.

Pediatric ventilators, syringe pumps, and syringe pump tubing have been identified as items that are likely to deplete quickly during a pediatric surge event. Routine rental turnaround time for ventilators is approximately six hours but may be longer during a long term surge that affects multiple regions or states. VMC can utilize existing relationships with children’s hospitals across the state to help restock their supplies. When possible these supplies could be delivered via hospital helicopters to reduce delivery time. When possible, VMC could send pediatric supplies to community hospitals.

EHPC holds limited medical equipment caches for the region and upon request by the ESF-8/OEMS branch or a HCC member organization they can provide medical equipment to be used during a pediatric patient surge. This equipment can be deployed to any facility within EHPC’s region, however supply requests may be prioritized to specific facilities depending on the size and severity of patient surge. EHPC can also assist in requesting equipment and supplies from other coalitions and vendors via contracts through NC Emergency Management.

Supplies: Transitioning From Short to Long Term Surges

In the event that an incident initially predicted to be short term becomes long term the primary supply focus should be on determining which supplies to increase PAR levels and frequency of delivery and securing pediatric emergency equipment from other organizations and agencies (e.g., EMS, EHPC, other children’s hospitals across the state).

2.5 Special Considerations

The Assistant Secretary for Preparedness and Response (ASPR) has recognized five areas that are of special concern in regards to pediatric patients. These five concerns are addressed below as well as in other plans and policies of the individual hospitals and EHPC.

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2.5.1 Mental Health

VMC and ECU have robust mental health resources that can be mobilized during a disaster. Any facility that requires additional mental health resources should notify EHPC. EHPC staff will work with VMC and ECU staff to contact these SMEs and mobilize them to address the needs at any facility within the region. These mental health SMEs should provide just-in-time training to healthcare providers and staff at VMC and community hospitals who will interact with pediatric patients during a surge event. Once the surge is completed these SMEs should coordinate with regional healthcare providers to establish effective and timely assessments and referrals are made.

2.5.2 Decontamination

Each hospital within the EHPC region has a decontamination plan and should follow their individual facility plan. If a hospital begins a mass decontamination operation, they should reach out to EHPC or a local SMAT III team to assist with decon and supplies. State Medical Assistance Teams (SMAT) teams are able to provide additional decontamination resources when necessary. EMS agencies may provide field decontamination and may reach out to a SMAT if additional supplies are necessary. EHPC houses the SMAT II in Greenville for the region while there are 7 SMAT III teams within the region:

Table 6- SMAT III Teams

| | |
|----------------|--|
| Halifax County | Pasquotank County |
| Lenoir County | Washington County |
| Nash County | Wilson County |
| Onslow County* | *Shared with Southeastern Healthcare Preparedness Region |

The National Guard's 42nd Civil Support Team is also available to provide guidance on field decontamination and hazard identification throughout the region.

Some specific considerations from the American Academy of Pediatrics to consider when decontaminating children are:

- Children are more vulnerable to aerosolized or chemical agents because they have higher respiratory rates
- Children are more vulnerable to contact agents as their skin is thinner and they have larger skin surface-to-body mass ratios than adults do
- Children are more at risk for hypothermia and therefore warm water or decontamination sites protected from cold should be used
- Unless strictly medically contraindicated families should go through decontamination together to reduce physiological stress for all family members and to decrease assistance from medical caregivers
- Children may take longer to and display anxiety when disrobing
- Having same sex healthcare providers assisting with pediatric decontamination can reduce anxiety
- Babies and small children should go through decontamination in a mechanism that ensures both their airway and handling safety (hand spraying, using laundry baskets etc.)

Hair braids should also be undone before entering decontamination to ensure hair surfaces are completely decontaminated. Preparing staff to answer questions to parents and family members can ensure a faster decontamination process.

In the event of a nerve agent exposure the CDC/ASPR CHEMPACK containers should be accessed. There are eight CHEMPACK locations within the EHPC region. *Table 7* lists the EHPC location sites as well as neighboring coalition's sites. Each CHEMPACK is stocked with Atropine, Pralidoxime, Diazepam, and Midazolam that can be readily accessed by contacting the hospital's pharmacy. The pre-positioning of these containers enables a faster response time. EHPC staff should be notified when a container is opened and they may assist in arranging expeditious delivery of these medications to non-CHEMPACK site locations.

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Table 7- CHEMPACK Locations

| Eastern Healthcare Preparedness Coalition | |
|---|---|
| CarolinaEast Medical Center | Nash General Hospital |
| Carteret Health Care | Onslow Memorial Hospital |
| Halifax Regional Medical Center | Sentara Albermarle Medical Center |
| Lenoir Memorial Hospital | Vidant Medical Center |
| Capital Regional Advisory Coalition | |
| DLP Central Carolina Hospital | WakeMed Cary Hospital |
| Johnston Memorial Hospital | WakeMed Raleigh |
| Southeastern Healthcare Preparedness Region | |
| Cape Fear Valley Medical Center | New Hanover Regional Medical Center |
| Columbus Regional Healthcare System | Southeastern Regional Medical Center |
| Virginia (50miles of NC) | |
| Bon Secours Maryview Hospital | Sentara Norfolk General Hospital |
| Carilion New River Valley Medical Center | Sentara Princess Anne Hospital |
| Chesapeake General Hospital | Sentara Virginia Beach General Hospital |
| Clinch Valley Medical Center | Southampton Memorial Hospital |
| Danville Regional Medical Center | Southside Regional Medical Center |
| Johnston Memorial Hospital | Sovah Health Martinsville |
| Riverside Regional Medical Center | VCU Health Community Memorial Hospital |

2.5.3 Evacuation

The decision for medical evacuation is the responsibility of each facility or local emergency management officials. Evacuations of this nature may be handled at the local, regional, or state level. Partial hospital evacuations can normally be handled at a local level. The total evacuation of a hospital should be escalated to EHPC as soon as possible and will likely require regional assistance and, depending on patient census and acuity, may require state assistance.

Pediatric patients require some special consideration during evacuation, including medical and psychological safety concerns and ensuring family notification and reunification occurs efficiently (see section 2.9). Additionally, specialty transportation may be required (see section 2.7).

2.5.4 Special Pathogens

Standard operating procedures provide each hospital the ability to handle standard isolation cases and the transportation of these patients when necessary. Each facility should follow their infection control policies. When a facility does not have enough Personal Protective Equipment (PPE), caches of equipment can be provided by EHPC. For more information on long term surge supply strategies see section 2.4.3.

In regards to high consequence pathogens (HCP) (e.g., Ebola) VMC currently is set up to assess and treat two patients in the Bio Containment Unit (also serves as the Short Stay Unit). In the event more than two potential HCP patients require treatment, transfer arrangements will be made with 1 of the other 7 assessment hospitals in the state of North Carolina or with an assessment hospital in Virginia or South Carolina, if more appropriate. Transportation of these patients should be performed in conjunction with local and state epidemiology.

Special isolation carts that contain PAPRs and other PPE for HCP response have been positioned at some of the CHEMPACK hospitals.

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2.5.5 Security

Hospitals should utilize available staff to remain with unaccompanied children to ensure they remain safe. Non-clinical staff may fill this roll in an effort to ensure clinical staff are providing the necessary medical care to patients. Any contingency and crisis areas used for pediatric care should be checked for potential risks prior to moving patients to these areas. Any area being used as a waiting area for unaccompanied children must have adult supervision. Security/police officers are strongly encouraged to be used in this area. See section 2.9 for more information on ensuring guardianship before allowing children to leave the hospital with an adult.

VMC and other Vidant facilities have police officers stationed at the hospital who can be called upon to increase security in areas near children. At other non-Vidant facilities, when possible, requests can be made for additional police officers to report to a hospital to assist in providing short term security. Child Life can also be used to increase security and provide appropriate psychosocial care to patients. Child life should be prioritized to unaccompanied children whenever possible.

2.6 Medical Care

This plan is intended to support, not replace, any existing facility plan by providing uniform response actions in the case of an emergency that involves (or could involve) significant numbers of children. This plan is also not intended to provide specific medical treatment advice or suggestions. This plan recognizes that providers should be following the most current practices laid out by the State of North Carolina, the American Academy of Pediatrics, the American Pediatric Association, and the Center for Disease Control and Prevention (CDC). Below are specifics to caring for large numbers of children at a time and should be followed in conjunction with current best medical practices.

2.6.1 Triage

EHPC, SMAT teams, and local EMS agencies within the region are trained in using JumpSTART triage for patients up to age 8 and START triage for patients over the age of 8. The SMART Triage Tag is the preferred triage tagging system within EHPC. This uniform approach enables receiving hospitals to be better prepared for the acuity of patient they are about to receive via EMS. When necessary EHPC, SMAT, or EMS agencies can, in conjunction with hospital staff, set up a larger triage area at the hospital site.

Performing accurate triage is vital to ensuring the most critical patients receive the help they require. Performing disaster triage for a large number of people can require a larger footprint and is often best when set up outside of the ambulance bay or at the scene of the incident. For more information on the various agencies that can assist with and their specific roles in triage see the EHPC ESF-8 Response and Recovery Plan.

During a large scale incident destination triage can also be considered by responding EMS agencies. If 30 children are injured and require medical treatment the most severely injured (red disaster triage tags) could be transported to VMC while the less injured (yellow or green disaster triage tags) could be transferred to another community hospital. Destination triage prevents overwhelming any one medical system.

2.6.2 Treatment

Providing appropriate treatment for large numbers of people relies heavily on appropriate triage and re triage. Ensuring a method for sharing information from SMEs, poison centers, and other specialists are provided to each affected hospital is another key piece to providing the appropriate treatment to each patient. EHPC can provide assistance in sharing and spreading general information to each facility. EPIC is the most widely used electronic health record in this region and is used at the surrounding region's children's hospitals. Patient specific information is easily shared between EPIC which 11 of the 19 hospitals currently use and 2 more are bringing online in the near future.

Utilizing the same electronic health record permits the SMEs to view patient's records, lab results, and radiograph written reports so they can provide better recommendations to the community hospital providers. For hospitals not currently using EPIC frequent phone calls from VMC to the community hospital enable providers to touch base and get SME recommendations. Telemedicine can also be utilized to allow the community hospitals access to SMEs at VMC.

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Since several of the hospitals within the region do not routinely admit pediatrics they do not have the same or as many electronic safety measures built into their electronic medical record. Having pharmacists at VMC available to answer questions that other pharmacists and providers from community hospitals may have will help ensure safe and effective dosages of medication are delivered. Pharmacy leadership receives pages/notifications when the Pediatric Surge Annex plan is activated so they can ensure they have enough staff to not only work on pediatric doses at VMC but to answer questions from other facilities.

2.7 Transportation

Each facility will follow their normal operating procedures for intra-facility transfers whenever possible. Transport agencies including EastCare will follow their normal operating procedures for inter-facility transfers whenever possible. In the event transport agencies or EastCare require additional resources for transporting patients throughout the region they will follow their normal operating procedures and coordinate with mutual aid resources to arrange appropriate and timely transport. Transport agencies and EastCare will coordinate with EHPC as necessary. Normal operating procedures will be used to ensure the most critical and appropriate transfers are prioritized.

2.8 Tracking

With the potential for region wide patient movement across various health systems patient tracking will be critical to support family reunification (see section 2.9). VMC, the only children's hospital within this region, has electronic visibility of 8 other community hospitals. VMC's bed control team can assist the reunification desk in locating patients within the Vidant health system and the Outer Banks Hospital. The other 10 hospitals within this region have individual processes to track their patient's movements. Region wide electronic patient tracking during disasters is an ongoing project and this annex can be updated as it developed.

2.9 Reunification

A reunification desk should be set up at the Emergency Operations Center. Personnel will be deployed to address and ensure family reunification occurs appropriately and effectively. Reunification staff will work closely with social work/case management to ensure patients are discharged with the appropriate guardians. VMC bed control can assist in tracking patients that have been transferred from one facility to another (see section 2.8).

2.10 Deactivation and Recovery

The Pediatric Surge Annex plan will be deactivated by the Emergency Operations Center once it is determined that returning to normal operating procedures is safe for those admitted and any pending transfers. Financial recovery steps will vary depending on if a state of emergency was declared. The incident will be reviewed in an After Action Report and lessons learned will be included in future planning processes.