



2021

BURN SURGE ANNEX

The 2019-2023 HPP Funding Opportunity Announcement (FOA) requires Healthcare Coalitions (HCCs) to develop a complementary coalition-level burn annex to their base medical surge/trauma mass casualty response plan. This annex aims to improve capacity and capabilities to manage a large number of casualties with incident-specific needs. According to the 2017-2022 Health Care Preparedness and Response Capabilities, due to the “limited number of burn specialty hospitals, an emergency resulting in large numbers of burn patients may require HCC and ESF-8 lead agency involvement to ensure those patients who can most benefit from burn specialty services receive priority for transport.” (Capability 4, Objective 2, Activity 6).

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Record of Changes

The Central VA Healthcare Coalition maintains the Burn Surge Annex as a living document intended to be annually reviewed and revised, with input from all coalition stakeholders.

Plan Review, Evaluation, and Changes		
Date of Change	Location of Change	Description of Change
11/16/21	Entire plan	CVHC introduced draft 1 of the Burn Annex to the Advisory Group and received feedback in a virtual meeting
12/20/21	Treatment and Triage Sections	These sections were discussed and updated by a Clinical Advisory group with another meeting scheduled on 01/10.
01/05/22 – 02/05/22	Entire Plan	Draft 2 of the plan was released for public comment period on the Central Region website.

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1. Introduction

1.1 Purpose

The Central Virginia Healthcare Coalition (CVHC) Burn Surge Annex is intended to provide the Central Region with guidance on responding to an incident in which the number and severity of burn patients in the region have severely challenged area EMS and/or healthcare resources.

This plan is intended to provide guidance on collaborating during a surge event and does not substitute for the experience of EMS and Healthcare personnel making clinical decisions at the time of the incident. This plan serves as an annex to the *Regional Healthcare Emergency Operations Plan (RHEOP)* and supports but does not supplant facility and agency-level plans.

1.2 Scope

This plan is designed to address the coordination and communication between regional and state partners, burn centers, trauma centers, non-trauma/non-burn centers, free-standing Emergency Departments as well as the ABA Southern Region Burn Coordinating Center to support the response to a burn surge event. It also offers general guidance to help each individual hospital and healthcare system prepare for an incident.

For the purposes of this plan, a burn patient is defined as any patient suffering from thermal, electrical, chemical, or radiological burns. However, further specific guidance on chemical and radiological burns will be addressed in separate annexes. A surge event is defined as any incident or incidents that generates a quantity or severity of patients that exceed the normal capacity of any receiving facility, necessitating the need for regional or statewide coordination of burn patient transfer and care.

This plan does not supersede any individual jurisdictional and facility plans that are already in place and is not designed to manage the internal operations of a facilities during an event. Each jurisdiction or facility is expected to have their own unique set of plans to address their own internal operations. These internal plans should be written to integrate with this regional plan when dealing with external regional stakeholders, specifically with VCU Medical Center, HCA Chippenham Hospital, and the Southern Region Burn Coordination Center. Coordinating with federal entities such as FEMA/HHS/DMAT/NDMS is beyond the scope of this regional surge annex and is better suited for a state burn mass casualty plan.

1.3 Overview/Background of CVHC and Situation

The Central Virginia Healthcare Coalition is an alliance of multiple partners throughout the region including acute care facilities, freestanding emergency departments, medically vulnerable populations groups, health districts, and fire/EMS agencies.

- The coalition includes 17 acute care hospitals, 8 freestanding EDs, 8 health districts, numerous fire/ems agencies, long-term care facilities, and dialysis centers

- Local risks include planned events or emergency incidents that involve public and private gatherings at venues in the region. Example venues: Richmond Raceway Complex, Kings Dominion, the Richmond International Airport (RIC), schools, college campuses, manufacturing and industry, military bases, and long-term care facilities.
- There are seventeen regional hospitals that make up rural, urban, and suburban areas in the Healthcare Coalition, with VCU Health Systems and Chippenham Hospital being burn centers. VCU Health System has an adult burn unit with a total of sixteen beds, eight of them capable for ICU. VCU Health has a PICU of twenty beds and can take lower acuity in their burn unit. They can surge to eighteen for ICU capability and have the capacity to do a total surge of twenty-six burn beds. Chippenham Hospital has an adult burn unit in their ICU of four beds and can surge to eight. They also have one pediatric burn bed that can surge to ten on the floor, two in the PICU that can surge to four, and take non-contaminant pediatrics. See Table 1 for a list of hospitals and their burn capabilities.
- See Table 2 for a list of facilities within and outside of the Healthcare Coalition region that have Hyperbaric Oxygen Therapy (HBOT).
- CVHC recommends that all facilities have transfer agreements in place as burn patients may need to be transferred after initial stabilization.
- Southern Region Burn Consortium (SRBC) located at the Alabama Trauma Communications Center is the regional resource for the American Burn Association.
- Every acute care hospital in the region was issued three Burn Kits and one Advanced Burn Kit from the region. It is the hospitals responsibility to maintain and replace expired equipment. Discuss with the regional partners.
- The Healthcare Coalition has funded and forward deployed decontamination equipment, Flight 60 ventilators, and other PPE support equipment resources to the regional member hospitals and free-standing emergency departments. Hospital and healthcare emergency management is the contact point for access and deployment of these forward deployed resources.
- The Virginia Hospital and Healthcare Association (VHHA) Virginia Healthcare Emergency Management Program (VHEMP) is a contact and resource for access to private vendor resources that may be able to provide consumables and non-consumable equipment and resources.

Table 1: Hospitals with Burn Capabilities

Facility	Trauma Center	Burn Center	HBOT	Pediatric Center
In the Central Region				
HCA Chippenham Medical Center	Level I	Pending	Yes	
HCA Retreat Doctors Hospital			Yes	
Henrico Doctors Hospital Forest	Level II			
Southside Medical Regional Center	Level III			
VCU Health System	Level I	Level I		Level I
Outside of the Central Region				
Carilion Roanoke Memorial Hospital	Level I		Yes	Level I
Children’s Hospital of the Kings Daughters				Level I
Inova Fairfax Hospital	Level I			
Inova Mount Vernon Hospital			Yes	

Facility	Trauma Center	Burn Center	HBOT	Pediatric Center
LewisGale Medical Center			Yes	
Sentara Norfolk General Hospital	Level I	Level I		
University of Virginia Health System	Level I		Yes	

Table 2: Facilities with HBOT Therapy

Facility	Address	Phone Number	Hours
Charlottesville Hyperbarics	925 E Jefferson St, Charlottesville, VA 22902	(434) 214-4847	8:00 – 5:00
Hampton Roads Hyperbaric Therapy	129 W Virginia Beach Blvd #140, Norfolk, VA 23510	757-452-3934	8:00 – 5:00
Holistic Family Health	459 Carlisle Drive A, Herndon, VA 20170	(703) 635-6324	9:00 – 5:00*
Hyperbaric Oxygen Therapy of Northern Virginia	1860 Town Center Drive Suite #G220, Reston, VA 20190	571-201-8238	9:00 – 3:00
Inova Wound Healing Center - Fair Oaks	3700 Joseph Siewick Dr #105, Fairfax, VA 22033	703-664-8025	9:00 – 5:00
Integrative Health & Hyperbaric	410 Pine St SE #330, Vienna, VA 22180	703-938-1421	9:00 – 6:00*
UVA Hyperbaric Oxygen Treatment Center	1221 Lee St, Charlottesville, VA 22903	434-982-3999	8:00 – 4:30
Wound Care & Hyperbaric Medicine - VHC Physician Group	1635 N George Mason Dr g200, Arlington, VA 22205	703-558-6600	8:00 – 4:30

*Can be contacted for after hours and weekend treatment

1.4 Assumptions

- Two hospitals in the Central region are designated Level I burn centers: HCA Chippenham Hospital and VCU Health. Click [here](#) for the American Burn Association (ABA) burn center search.
- When the surge capacity of the burn centers in CVHC is exceeded, it is expected that non-burn centers will be needed to assess, treat, and provide supportive care to some burn victims temporarily (12-72 hours or longer).
- A Burn Surge Event, for this plan, is defined as: an incident that results in a quantity of burn patients likely sufficient to overwhelm the capabilities of the CVHC Burn Centers and, therefore, results in the intentional diversion of ambulances transporting severely burned patients to non-burn center emergency departments anticipating admission.
- EMS agencies will follow their local protocols and, if applicable, the ODEMSA MCI Plan to load balance patients to non-burn centers when the surge capacity of the burn centers in the CVHC is met or exceeded.
- The Central Virginia Region is vulnerable to multiple hazards capable of generating a large quantity of burn patients.

- Local Fire/EMS agencies will communicate and coordinate through the appropriate regional coordination centers and/or designated receiving hospitals regarding patient transports and any specific information related to the event, which includes whether chemical, biologic, radiological, nuclear, and/or explosive agents were involved or are suspected.
- The designated burn centers in the region will support the non-burn centers with treatment guidance.
- Additional guidance and clinical assistance may be available through the Southern Region Coordination Center (SRCC) at (800) 359-0123
- Burn patients will be defined as those patients who would typically meet EMS criteria for transport to a designated burn center.
- The two designated burn centers serve as the primary receiving hospitals for burn patients from the Central Virginia Region. The adult burn centers are VCU Health and HCA Chippenham. The VCU Health pediatric burn center, located at the Children’s Tower, will take pediatric burns under fifteen years of age. The Central Virginia Region burn centers have limited surge capacity.
- Resources from, or patient transfer, to other regions may be required.
- The optimal inpatient disposition for a burn patient is a designated Burn Center.
- If requested, approved and activated, available Federal resources should not be expected to arrive for at least 72 hours.
- During a large incident, numerous hospitals may all be trying to access the same pool of supplies and resources to include transportation.

1.5 Local Risks for Mass Burn Events

Central Virginia is home to industrial pipelines and facilities, military bases, government buildings, school campuses, and major transportation systems and hubs which all present risks for mass burn incidents.

- The Colonial Pipeline transports natural gas through Virginia and transects Central Virginia.
- Fuel suppliers maintain large-scale storage of fuel products in the region (“Fuel Farms”).
- Richmond International Airport (RIC) is a major air transportation hub. Numerous smaller municipal airports and several military airfields are located throughout the region.
- Interstate 95, Interstate 64, and Interstate 295 are all high traffic major highways with the potential for HAZMAT accidents, or other major transportation mass casualty incidents that could result in burn patients.
- AMTRAK trains serve Central Virginia to include the stations: Richmond-Main Street, Petersburg, Richmond-Staples Mill Rd, and Ashland. Trains transporting cargo (CSX) also pass through the region.
- Major government institutions such as the Federal Reserve, Virginia State Capital Building, Defense General Supply Center, Ft. Lee, Ft. Pickett, and County/City government offices are potential targets of domestic and international terrorism.
- The following are a list of commercial power generation facilities to include fossil fuel, nuclear, and geothermal. Bellemeade Power Station, Brunswick County Power Station,

Chesterfield Power Station, Doswell Energy Station, Hopewell Power Station, Hopewell Cogeneration, Spruance Genco- Cogentrix, and Surry Nuclear Power Plant.

2. Concept of Operations

2.1 Activation

Any incident occurring in Central Virginia generating burn patients that severely challenges or exceeds the current capabilities of the burn centers will be considered a Burn Surge Event for the purposes of this plan.

Initial determination will be made by the Regional Healthcare Coordination Center (RHCC) based on information relayed by the Emergency Medical Service (EMS) on scene, or local incident management system. Decisions should be communicated to VCU Health and Chippenham Hospital communication/coordination centers. This will include the following situations:

- **Tier 1:** Any incident where a request for Federal resources to assist in burn patient care is indicated (e.g., activation of NDMS, etc.).
- **Tier 2:** Any incident that requires more burn beds and resources than are available but that can be managed utilizing regional assistance and the Southern Region Coordination Center
- **Tier 3:** Any incident that can be managed utilizing burn beds and resources available at the time of the incident within the region.

Table 3: ODEMSA MCI Plan Activation Classification

Type	Number of Patients
Level V	5 – 9 patients
Level IV	10 – 24 patients
Level III	25 – 49 patients
Level II	50 – 99 patients
Level I	100 patients and greater

Activation of the individual or multiple hospital systems command centers should be considered.

2.2 Notification

Notification of an incident necessitating activation of this annex will occur in accordance with the *Regional Healthcare Emergency Operations Plan*.

2.2.1 Initial Receiving Facilities

- Critical burn patients will be prioritized to the specialty burn centers in the Central Region for available care and bed placement.
- Upon notification of a Burn Surge Event, hospitals will prepare to receive burn patients, by ambulance transport or self-transport.

- In the event of an MCI hospitals in the region should be prepared for a sudden influx of patients as walk-ins. “In a study of 29 U.S. disasters, it was found that at 75 hospitals where data was available, 54% of the initial casualties arrived by ambulance, 16% by private vehicle, 16% by police car, 5% by helicopter, 5% by bus or taxi, 4% on foot, and 10% by unknown means. While these figures refer to the first patients to arrive, overall, most patients in these disasters were transported by non-ambulance vehicles.” (Heide, 2004).¹

2.2.2 Regional Healthcare Coordination Center (RHCC)

The RHCC and its equivalent notification and coordination centers in the Central Region will follow their respective protocols to support a mass casualty response. In a Burn Surge event, the Central RHCC’s responsibilities include but are not limited to:

- The RHCC will create a VHASS event with all known details.
- The RHCC will monitor the status of VCU Health System and HCA Chippenham Hospital
- The RHCC shall immediately notify counterpart RHCCs of any MCI generating a surge of burn patients and will make recommendations to field operations of hospital availability for burn beds.
- Provide initial notification of a confirmed or potential mass burn casualty event to member organizations and jurisdictions.
- Provide ongoing notifications and updates to incident status per the RHEOP.
- Collect data from potential receiving facilities regarding available beds and other capabilities as determined by the situation and relay to EMS at the scene of the mass burn casualty or to the requesting partner coordination centers.

2.2.3 Regional Burn Consortiums

Regional Burn Consortiums (RBCs) are collaborative networks of designated burn centers that work together during major burn disasters to coordinate resource sharing, patient movement, and communication. The RBCs should identify available Burn Center inpatient beds into which existing CVHC patients may be transferred. This may include new patients with acute injuries from the Burn Surge Event or existing inpatients being treated for unrelated burn injuries. Incidents in the Central Region may result in activation of the Southern Region Coordination Center (SRCC).

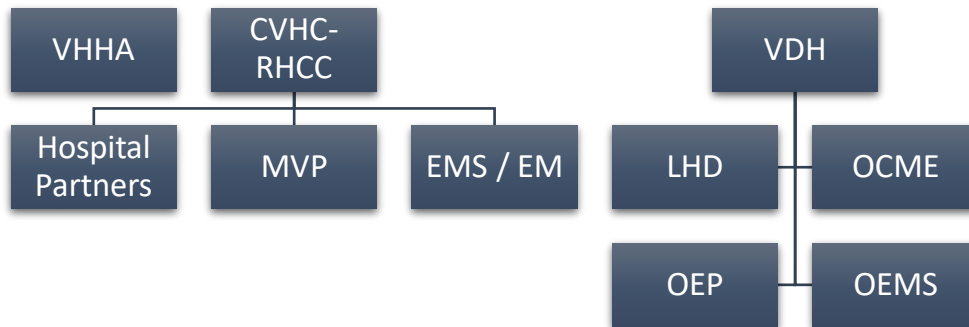
- The SRCC is based at the Burn Center at the University of Alabama Hospital in Birmingham, Alabama and can be activated for physician-to-physician support for patient transfers 24/7 by calling 800-359-0123.

2.3 Roles and Responsibilities

¹ Heide, E.A. (2004). Common Misconceptions about Disasters: Panic, the "Disaster Syndrome," and Looting.

It is recognized that there are overlapping roles and responsibilities for burn surge response between CVHC, healthcare facilities, and local, state, and federal organizations. It is recommended that all parties use the Incident Command System (ICS) to coordinate internal, external, and multiagency responses to an acute burn surge event.

- CVHC will activate the RHCC to support the coordination for a burn surge event
- CVHC may activate their ESF-8 response to assist in coordination for a burn surge event
- The Healthcare Coalition may also work through defined public health channels to coordinate with the Virginia Department of Health.



1. Primary Agencies

a. Central Virginia Healthcare Coalition

- Establish the RHCC (either virtually or in-person) to support burn surge response.
- Coordination of regional healthcare in the response to a burn surge event for local and/ or regional response and surge.
- Distribution of situational awareness information to and from healthcare organizations and public health.
- Coordination of medical and non-medical resource needs for healthcare organizations.
- Provide communications materials and support for healthcare information and communications needs.

b. Healthcare Organizations (Hospitals)

- Provide medical care for patients during a burn surge event.
- Communicate with the Healthcare Coalition all medical and non-medical resource needs.
- Provide timely situational awareness information utilizing VHASS regarding the burn surge response to the CVHC.

- iv. Achieve a base level of preparedness to be able to appropriately decontaminate, manage and/or transfer patients with burn injuries including burns caused by a HAZMAT incident.
- v. Provide assistance to other healthcare organizations during a response in line with signed mutual aid agreements.
- vi. Coordinate EMS transportation needs for burn surge transfers
- vii. Non-burn centers should coordinate burn patient transfers with the Central Region burn centers utilizing their transfer centers. A list of all hospital systems transfer centers in the region is below
 1. Bon Secours: 1-888-476-4472 (Adult); 1-888-427-7337 (PEDs)
 2. HCA: 855-422-8200 or 844-374-0955 (MD line)
 3. VCU Health: 804-828-2638
 4. Sentara: Pending
 5. Centra: Pending
 6. VA McGuire: Pending

c. Local Health Districts (Public Health)

- i. Notify the Central Region Office of Emergency Preparedness Coordinator
- ii. Share incident information with Virginia Department of Health (VDH) Central Office. The VDH ECO can connect the on-call officer who will then alert their chain of command.
- iii. Support localities by sharing information from the RHCC to local EOCs, local health districts, and other public safety stakeholders

d. Local Emergency Management

- i. The CVHC will work with local emergency management, local public health, local public safety, and the VDEM Region 1 on behalf of area healthcare system member and partners to coordinate non-medical resource requests and needs.

e. Southern Burn Coordination Center

- i. For a Burn Mass Casualty Incident occurring in the Central Region the SRCC serves as a communications and coordination center to support VCU Health and HCA Chippenham Hospitals with burn bed census and/ or patient triage and transfer.
- ii. Once assistance is requested SRCC will conduct a bed census of Southern Region burn centers and support and assist with regional efforts for patient triage and transfer.
- iii. SRCC can be contacted 24/7 at the University of Alabama at 800-359-0123.
- iv. Click here for a link to their plan. (SRCC is in the process of updating their plan and the link will be updated once it is released).

f. Other Primary Agencies (may include)

- i. Private EMS
- ii. Local Law Enforcement

- iii. Community Based Organizations such as the Red Cross
- iv. Blood banks
- v. Department of Health and Human Resources

2.4 Logistics

2.4.1 Space

Hospitals should be prepared to receive and treat burn patients during a surge event either in designated emergency treatment areas or in alternate settings in accordance with existing facility surge plans. Spaces conducive to burn care should be identified by each facility and can be further categorized:

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

2.4.2 Staff

Staff at each receiving hospital should be augmented as needed in accordance with the facility surge plan. Initial treatment for burn patients includes identification of injury severity, airway security, fluid resuscitation, prevention of hypothermia, pain control, and surgical planning. Escharotomies may be required at bedside. Surgical debridement is typically not required emergently, allowing a window for interfacility transport of resuscitated patients to hospitals with more superior burn treatment capabilities. Staff at non-burn center hospitals will benefit from just-in-time refresher training in topic areas including signs and symptoms of inhalational injury, fluid resuscitation formulae, accurate burn measurements, and burn wound care. The Healthcare Coalition also recommends staff take Advanced Burn Life Support (ABLS) courses and engage in critical care, fixed wing or rotor, transportation training.

2.4.3 Supplies

Topical antimicrobials and specialty dressing supplies may be quickly exhausted at non-burn center hospitals and a plan for supply replenishment from existing vendors and other hospitals should be part of each hospital's EOP. Requests for supplies and equipment may be made to the RHCC in accordance with the standard procedures outlined in the RHEOP. Burn surge incidents may strain or deplete equipment and supplies in non-burn specialty facilities.

Healthcare Coalition-level strategies for provision of burn surge supplies and/or burn-specific medications may be coordinated via the RHCC and in coordination with state and local public

health. Requests for supplies from the Strategic National Stockpile will be made in accordance with the procedures outlined in the RHEOP.

2.5 Special Considerations

The Assistant Secretary for Preparedness and Response (ASPR) has recognized three areas that are of special concern regarding burn patients. These three concerns are addressed below as well as in other plans and policies of the individual hospitals and CVHC.

2.5.1 Behavioral Health

Behavioral health is an important aspect of treatment for burn patients and should not be downplayed. Healthcare facilities are strongly recommended to offer burn survivor support to affected patients. Telemedicine resources should be included in the individual facility plans along with considerations for patient access to a continuum of stepped-care mental health services. This section also includes mental health services for the providers and caregivers. While health insurance type is a strong factor in determining type of service for the individual patient, caregiver, and staff, facilities should ensure different behavioral health service resources are made clear. See below list for some resources:

- [Center for the Study of Traumatic Stress](#)
- [Disaster Behavioral Health](#)
- [Recovery and Reintegration for Healthcare Workers](#)
- [ODEMSA Peer Support Program](#)
- [The Code Green Campaign](#)
- [ABA Burn Survivor Resources](#)

2.5.2 Pediatric

Pediatrics, particularly infants and children less than five years of age, are at risk during a burn surge event of severe physical and psychological consequences. Children are less likely to be able to protect themselves, escape from a burn mass casualty incident (BMCI) without adult assistance, and are at risk of injury or illness in the chaotic period of aftermath. It is also important to recognize the differences in adult and children for burn care. “Children differ from adults in physiology, body surface area (BSA), lung development, fluid requirements, ability to heal, response to sepsis, susceptibility to infection, language skills, and socialization.” (Young et al., 2017).²

Many of the EMS agencies in the region utilize the triage system JumpSTART for pediatrics and CVHC recommends annual training as having to suddenly triage pediatric patients is a very challenging situation. If a pediatric patient has both traumatic and burn injuries every effort should be made to transport or transfer that patient and family to VCU Health as they are a Level I trauma, burn, and pediatric hospital.

² Young, A. W., Graves, C., Kowalske, K. J., Perry, D. A., Ryan, C. M., Sheridan, R. L., Valenta, A., Conlon, K. M., Jeng, J. C., & Palmieri, T. (2017). Guideline for burn care under austere conditions. *Journal of Burn Care & Research*, 38(2). <https://doi.org/10.1097/bcr.0000000000000369>

2.5.3 Combined Injury

This section is under review of the CVHC Clinical Recommendations Group. Combined injury (i.e., burns with trauma or radiation or chemical injuries) markedly increases mortality and these patients may be better served at trauma and other centers depending on the severity of each injury.

This section should address how expert clinical input to support decision-making will be obtained, to include decontamination considerations if chemical agents are involved. Initial triage by EMS should always focus on traditional trauma triage guidelines when trauma is present; and secondary triage providers will need to consider the combined injury.

2.5.4 Special Disability Services

This section addresses items specific to access and functional needs for burn patients that require specialty needs resources. Accessible and effective communication (i.e., limited English proficiency, English as a second language) for not just the burn patient but their families can be handled by using qualified interpreters and translators (i.e., in person and print).

- The Virginia Department of Behavioral Health and Developmental Services also has a program to train bilingual staff to be Qualified Bilingual Behavioral Health Interpreters. This program trains existing staff members with the goal of meaningful language access at the organization.
- Persons who need language interpretation or translation of printed documents can be supported by any number of contracted agencies with your facility.
- Persons who have developmental disabilities (i.e., onset before the age of 22 with/without a cognitive impairment), may need some additional considerations. For example, a person with Spina Bifada, may not need any supports other than physical. A person with cerebral palsy may need physical and communication supports. A person with Autism, may need a companion (i.e., family, parent) who they are familiar with 24/7, to decrease the fear, fright, and flight factors. Each person is unique, so ask and be open to providing supports to maximize the success of the treatment and rehabilitation.

Burn patients with preexisting / post burn physical disabilities may have or need additional processes to be cared for. Facilities should consider the following accessible needs list and have a way to put into place one or more of these access requirements.

- [Accessible Toilets and Toilet Seats](#)
- [Accessories for Scooters](#)
- [Anti-fatigue Matting](#)
- [Braille and/or ADA Signage](#)
- [Doorknob Grips and Handles](#)
- [Examination and Procedures Chair](#)
- [High Visibility Floor Tape and Paint](#)
- [Portable Ramps](#)
- [Ramps](#)

- [Scooters](#)
- [Service Animal](#)
- [Smart Locks/Keyless Entry Locks](#)
- [Stair Assists](#)
- [Stair Tread/Textured Tape](#)
- [Support Animal](#)
- [Wheelchair Accessible Scales](#)
- Wheelchair accessible rooms with wheelchair accessible bathrooms
- Lifts: (i.e., Hoya, Sara, or ceiling lifts)

Allow the person with the physical disability to tell you what they need and how they need supports, as each person is different. Ensuring and maintaining as much independence as possible is essential to maintaining one's highest physical and mental wellbeing.

Persons with limited vision, may require large print documents or enlarged instructions, or may have assistive technology to read the documents. Individuals with mental illness diagnoses should be treated similarly, with asking what supports are needed to maintain their highest well-being. Some supports may include a respected partner to be a facilitator between the facility and the person, or ensuring the person understands the treatment. A trusted person present can be key to ensuring success, whether the person is a family or friend.

Access must also be ensured for appropriate support partners (i.e., deafblind, American Sign Language (ASL) interpreters) who would need to be present in the healthcare system to ensure adequate communication from the medical staff and patients, and/or families.

- ASL can be provided in various ways, from in person to video thru contracts with appropriate providers.
- Note: American Sign Language is for the English language.
- Communication and pictorial cards which are laminated are useful for acute settings or limited communication.
- Persons who are deaf also frequently read lips, hence provisions need to be made to use the Clear Masks in settings where masks are required.
- Persons who are deaf may also use assistive technology (i.e., cochlear implants) with/without hearing appliances.

Regardless of type of facility or entity, the Americans with Disabilities Act, Civil Rights laws, and other local and state laws would apply. Accessible communication is key to effective and compliant treatment. Communication between healthcare providers needs to clearly state the method of communication and very visible in the charting or electronic health records (E.H.R.), for compliance by/with all staff.

The appropriate state agencies are also available to give technical assistance or training as needed (i.e., Virginia Dept. of Deaf and Hard of Hearing, Virginia Dept of Blind and Visually Impaired, etc.).

2.6 Operations – 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 burn patients.

2.6.1 Triage and Secondary Triage

The region’s EMS agencies use a mixture of START and SALT triage. The region’s facilities use SALT, START, or JumpSTART. Old Dominion EMS Alliance (ODEMSA) is the regional EMS council and has an MCI plan that has consensus with all EMS agencies and hospitals in the area. A triage scheme (Table 4) using data after year 2000 from the National Burn Repository (NBR) shows the “anticipated ratio of resources to benefit from the treatment of burns of various sizes in various aged patients. Each category reflects both the volume of resources necessary to care for the patients in each group, and the expected outcome,” (Taylor et al., 2014).³ This schema was designed to help regions whose local burn resources were overwhelmed by a BMCI. Burn experts in the region along with other partners could use Table 5 to determine delivery of care to the burn patient.

Resource Utilization Criteria Categories

- Outpatient: No admission required, survival $\geq 95\%$
- Very High: Survival $\geq 90\%$; length of stay ≤ 14 –21 days, 1–2 operations
- High: Survival $\geq 90\%$; length of stay 14–21 days, multiple operations
- Medium: Survival >50 and $<90\%$ (mortality 10–50%)
- Low: Survival >10 and $<50\%$ (mortality 50–90%)
- Expectant: Survival $\leq 10\%$ (mortality $\geq 90\%$)

Table 4: Anticipated Ratio of Resources for Burn Patients

Age	Burn Size Group, % TBSA All									
	0-9.9	10-19.9	20-29.9	30-39.9	40-49.9	50-59.9	60-69.9	70-79.9	80-89.9	≥ 90
0-1.99	Very High	Very High	High	High	High	Medium	Medium	Medium	Low	Low
2-4.99	Outpatient	Very High	High	High	High	Medium	Medium	Medium	Low	Low
5-19.99	Outpatient	Very High	High	High	High	High	Medium	Medium	Low	Low
20-29.99	Outpatient	Very High	High	High	High	Medium	Medium	Medium	Low	Low
30-39.99	Outpatient	Very High	High	High	Medium	Medium	Medium	Low	Low	Expectant
40-49.99	Outpatient	Very High	High	Medium	Medium	Medium	Medium	Low	Low	Expectant
50-59.99	Outpatient	Very High	High	Medium	Medium	Low	Low	Expectant	Expectant	Expectant
60-69.99	Outpatient	High	Medium	Medium	Low	Low	Low	Expectant	Expectant	Expectant
≥ 70	Very High	Medium	Low	Low	Low	Expectant	Expectant	Expectant	Expectant	Expectant

This section is under review of the CVHC Clinical Recommendations Group. Secondary triage of patients to an appropriate center for continued care will be critical – this function may have to be delegated to burn experts outside the immediately affected area, due to competing demands for direct patient care and based on available resources within the region. Additionally, triage

³ Taylor S, Jeng J, Saffle JR, Sen S, Greenhalgh DG, Palmieri TL. Redefining the outcomes to resources ratio for burn patient triage in a mass casualty. *J Burn Care Res.* 2014;35(1):41-45. doi:10.1097/BCR.0000000000000034

decisions about expectant management for patients with catastrophic burns will require expert input. This section should also list who will assist and what information they will need/be provided to support decision- making.

2.6.2 Treatment

This section is under review of the CVHC Clinical Recommendations Group.

If the victims of the mass casualty incident are contaminated, or potentially contaminated with a chemical, biological or radiological agents or materials, consider the activation of the Regional Hazardous Materials (HAZMAT) Team. Regional Hazardous Material Teams are contacted through the Virginia Emergency Operations Center (VA EOC) at 1-800-468-8892. See list below for additional HAZMAT resources.

- Henrico Fire Department (Regional HAZMAT Team)
- Chesterfield Fire and EMS
- Hanover County Fire and Rescue
- Richmond Fire and Emergency Services
- Colonial Heights Fire and Rescue
- Hopewell Fire Department
- Dupont Fire and Hazardous Material Response Team
- Defense Logistics Agency Fire and Rescue
 - VDEM Regional HAZMAT Officer at 1-800-468-8892.

2.7 Transportation

2.7.1 Inter-Facility Transports

Hospitals needing to transfer burn patients to a Burn or Trauma Center shall employ their normal EMS transport contracts. An individual facility may make arrangements directly or request assistance from the RHCC if additional resources or support are needed. The RHCC will facilitate the following assistance:

- Contact local Health Department/ESF-8 to relay the need for transportation assistance.
- Local ESF-8 will utilize their internal policies to contact public safety Fire and EMS for immediate help (via the jurisdiction's EOC if activated).
- The RHCC will utilize existing relationships with locality and private EMS to obtain additional patient transport services.
 - Many hospitals in the region utilize the same vendors for interfacility transports. During a large incident, numerous hospitals may all be trying to access the same pool of surge transport capability.
 - Whenever possible, an Advanced Life Support (ALS)/Critical Care-Capability vehicle shall be used to transport a critical burn patient.

- The RHCC will notify the requesting facility of what transportation arrangements have been made and relay any facility-specific details back to local ESF-8 and/or the EMS transport.

2.7.2 Aeromedical Transport

Aeromedical transports shall be used when applicable, available, and weather permits. An individual facility or Fire/EMS agency may make arrangements directly or request assistance from the RHCC. Assisting aeromedical programs may include the following:

Agency	Phone Number
Central Region	
Air Care Eagle	(940)591-5800
LifeEvac	(276)698-7800
VA State Police – Medflight I	(804)743-2232
Outside of the region, in Virginia State	
Air Evac EMS	(606)248-3222
Air Care	(833)925-3247
Centra Health Inc.	(434)200-2197
Fairfax County Police Department	(703)830-3105
Carilion Life-guard	(927)459-4914
Mid-Atlantic Air Transport Service	(202)877-7234
Nightingale Air Ambulance	(757)388-2500
Phi Air Medical	(703)661-0935
Airlife Virginia	(276)957-1569
Health Net Aeroomedical Service	(304)340-8000
UVA Medical Transport Network	(434)297-7081
VA State Police – Medflight II	(800)433-1028
VDEM Situational Awareness Unit (Watch Center Number): (804) 674-2400	

Additional information on aeromedical transportation resources in Virginia can be found at: <http://www.vdh.virginia.gov/emergency-medical-services/other-ems-programs-and-links/medevac-system/>

2.8 Tracking

The Virginia Healthcare Alerting and Status System (VHASS) is used for regional bed management and situational awareness. This system has a module for patient tracking that is used during evacuation, surge, and MCI events. Utilization of the system requires a dual registration process. Dual registration means the healthcare facility’s initial registration process through their EPR system AND registering the patient into the VHASS Patient Tracking Module. This system can also be used in the event of inter-facility transports of both adult and pediatric patients. The RHCC can also make a request to activate the Virginia 2-1-1 system for the purpose of patient tracking assistance and family assistance/reunification. If the patient tracking module is in use for an event the CVHC will make reminders on the event log to enter the patients into the system. If

this event occurs at a medically vulnerable population facility the Healthcare Coalition recommends utilizing patient tracking as soon as possible.

2.9 Rehabilitation and Outpatient Follow Up Services

This section is under review of the CVHC Clinical Recommendations Group. This section should discuss burn rehabilitation services, outpatient follow-up services, and coordination of continued care following the surge event, including procedures for repatriation of any patients transferred out of the area as needed.

2.10. Deactivation and Recovery

The RHCC will continuously monitor and provide sitreps as needed. The RHCC will also monitor the level of reporting activity within the VHASS system as related to the burn surge event. Once it is determined that affected facilities are no longer posting situation reports and making posts in the VHASS event log, the RHCC will make an announcement that the region is deactivating the burn surge plan and returning to normal operations. The Healthcare Coalition will follow-up and coordinate with the healthcare systems for After Action Review (AAR).

3.1 Additional Resources and References

This appendix should include relevant baseline or just-in-time training to support burn surge care and evaluation and exercise plan for burn surge.

3.2 Definitions / Acronyms

Acronym / Definitions	
ASPR	Assistant Secretary for Preparedness and Response
CDC	Centers for Disease Control
CHEMPACK	Deployable containers of nerve agent antidotes
CRISiS	Central Region Incident Support System
ED	Emergency Department
EMAC	Emergency Management Assistance Compact
EMS	Emergency Medical Services
ESI	Emergency Severity Index
ICU	Intensive Care Unit
IV	Intravenous
JumpSTART	Pediatric START triage tool
MCI	Mass Casualty Incident
MRC	Medical Reserve Corps
NICU	Neonatal Intensive Care Unit
ODEMSA	Old Dominion Emergency Medical Services Alliance
PACU	Post – Anesthesia Care Unit
PICU	Pediatric Intensive Care Unit
PPE	Personal Protective Equipment
RHCC	Regional Healthcare Coordination Center
SALT	Sort, Assess, Life-saving interventions, Treatment / Transport
SME	Subject Matter Experts
START	Simple Triage and Rapid Treatment
UHF	Ultra-High Frequency
VA211	A phone number connecting people with free information on available community services
VHASS	Virginia Healthcare and Alerting Status System