Burn Surge Annex

Region 3 Healthcare Coalition Alliance

Approved: June 2022

REGION 3 HEALTHCARE OPERATIONAL PLAN

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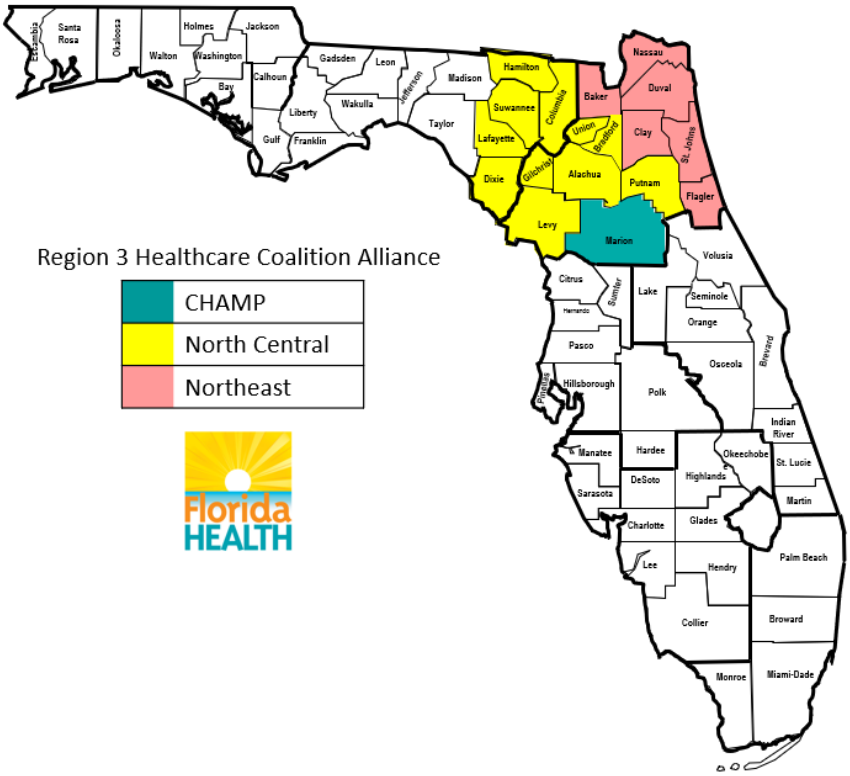
1. INTRODUCTION

The Northeast Florida Regional Council (NEFRC) is contracted by the Florida Department of Health (FDOH) to manage the healthcare coalition contract for the three healthcare coalitions in north Florida. The Region 3 Healthcare Coalition Alliance (Alliance), established in 2017, provides oversight to funding and contract deliverables while allowing the three coalitions to maintain their individual missions within their unique geographic and demographic healthcare communities. During a disaster, each county's Emergency Operations Center is responsible for coordinating the overall disaster response within its jurisdiction and the Alliance can be used in support of an EOC's Emergency Support Function 8- Health and Medical (ESF8) or Operations Section activities. Each Alliance member organization is expected to have organizational plans for preparedness and response.

Referred to as the Region 3 Healthcare Coalition Alliance, The Alliance's geographic area, as defined by FDOH, includes all 13 counties in Region 3 Regional Domestic Security Task Force (RDSTF) and five counties from RDSTF Region 2. The Alliance's three established healthcare coalitions are:

- Northeast Florida HCC
- North Central HCC
- Coalition for Health and Medical Preparedness (CHAMP)



1.1 Purpose

The Region 3 HCC Alliance's goal is to develop and promote healthcare emergency preparedness and response capabilities across the 18 Alliance counties. This annex provides guidance to support a burn mass casualty incident (BMCI) in which the number and severity of burn patients exceeds the capability of Alliance's member facilities. The annex will identify the experts and specialized resources that exist within and external to the region that would be engaged in a BMCI response, and the mechanisms/processes that will be used to determine the distribution of patients.

1.2 Scope

This plan does not supersede or conflict with applicable laws, rules, statutes, or any plans of the participating entities and is intended to supplement the state and local emergency operations plans with information specific to burn related events. This plan provides guidance to all members of the three coalitions in Region 3 to address Capability 1, Objective 3: Develop a Health Care Coalition Burn annex, as defined in the 2017-2022 Health Care Preparedness and Response Capabilities.

1.3 Plan Development

The Region 3 Alliance staff works with subject matter experts and the state Healthcare Coalition Working Groups to develop the basic planning template. The Burn Surge Annex and all supplemental, supporting documents are presented to all healthcare coalition members during a scheduled Board meeting. The draft plan is then emailed to every member and posted on the Alliance website. Members are asked to provide review and input. Comments and feedback from members are analyzed and included in the final planning document presented to each Board for annual approval. This Burn Surge Annex is considered a "living document", in that it is subject to an annual review and revision based upon recommendations following any type of test of the plan or change in State or Federal guidelines.

The final plan is provided to all Board members for approval annually at the June meeting. A copy of the approved plan is posted on the Coalition Alliance website (www.FLRegion3HCC.org) for use by all Coalition members.

1.4 Situation

Northeast Florida is home to over 2.6 million persons and contains multiple international ports of entry. Planning for response and recovery for the Alliance's 12,000 square mile geographic area can be challenging as it includes immense diversity from rural to urban areas and includes both coastal and inland counties. With major highways, ports and railways, the region is at risk to various hazards that could cause a significant number of burn injuries.

1.4 Burn Centers

A Burn Center provides a comprehensive team approach to the care of burn victims. The specialized clinical team, including burn/trauma surgeons, advanced practice providers, nurses, skilled technicians, occupational therapists, physical therapists, respiratory therapists, social workers, clinical nutritionists, pharmacists, and psychologists provide care throughout the duration of stay for each patient. It is encouraged that all trauma centers and hospital systems be pediatric ready. It is also recommended that trauma centers and hospital systems encourage, not mandate, Advanced Burn Life Support (ABLS) certification for their ED staff.

After completing the rigorous process set forth by the American Burn Association (ABA) and American College of Surgeons (ACS), the Burn Center is awarded national verification status. This verification demonstrates a continued commitment to the treatment of patients suffering burn injuries and the allocation of resources necessary to ensure the best outcomes. The State of Florida Trauma Standards also address burn care; however, both the ACS and the State of Florida follows the ABA's criteria with regard to burn center and burn care specifics. In addition, the Burn Center Director for each center maintains open communication with directors of other burn centers throughout the state as well as the Southern Region Coordination Center (SRCC) as a resource. Thru the SRCC, the disaster facilitator has access to essential contact information, predetermined regional burn center capabilities, information on regional transport capabilities, and a spreadsheet of ground transportation distances between all Southern Region burn centers (AL, AR, FL, GA, KY, LA, MS, NC, OK, SC, TN, TX, VA, WV).

Burn Center Verification is overseen by the American Burn Association (ABA) Verification Committee with endorsement of the American College of Surgeons Committee on Trauma (ACS-COT). Verified burn centers will have guidelines for transfer, triage, and treatment of burns. Providers must demonstrate competency in caring for the burn injured patient, and there must be adequate outpatient clinic facilities and post-injury burn recovery support. Verification – American Burn Association (ameriburn.org)

Burn and Reconstructive Centers of America https://burncenters.com/locations/

1.4.1 Burn Centers in Florida

Florida Committee on Trauma Burn Centers https://floridacot.org/florida-burn-centers

Region 3 Alliance Service Area

Shands Burn Center at the University of Florida https://ufhealth.org/uf-health-shands-burn-center
1600 SW Archer Rd. Box 100335
Gainesville, Florida 32610

Type of Burn Center: Adults & Pediatrics

24/7 Emergency Phone: (352) 265-0200
Transfer Center: (352) 265-0559
Burn Center Director Name: Ian Driscoll, MD, FACS
Burn Center Director Phone: (352) 273-5670
Children's Hospital Pediatric Trauma/Burn Director: Shawn Larson, MD: (352) 273-8761
Disaster Contact Emergency Phone: (352) 265-0200
Head of Nursing: Janet Popp, MSN, RN, CCRN
Charge Nurse Phone: (352) 733-3904
Adult and Pediatric Outpatient Clinic Phone: (352) 265-8932

Number of ICU Acute Care Burn Beds:	**27**
Total Number of Beds:	**27**
Surge Capacity:	**40**

ABA Verified Burn Center: Yes
Verification Expires On: 2/28/2025
Region: Southern (AL, AR, FL, GA, KY, LA, MS, NC, OK, SC, TN, TX, VA, WV)
Burn Information https://ufhealth.org/burns

Outside of the Region 3 Alliance Service Area

Warden Burn Center
52 W. Underwood St.
Orlando, Florida 32806

Type of Burn Center: Adults

Adult Outpatient Burn Service
1335 Sligh Blvd, Suite 200
Orlando, Florida 32806
407-649-6884

Burn Center Director Name: Howard G. Smith, MD
Burn Center Director Phone: 407-841-5142

Total Number of Beds:	**10**

Tampa General Hospital Regional Burn Center
1 Tampa General Cir
Tampa, Florida 33606-3571

Type of Burn Center: Adult & Pediatric

24/7 Emergency Phone: (813) 844-7979
Burn Center Director Name: David Smith, MD

Burn Center Director Phone: (813) 844-8416
Disaster/Emergency Preparedness Contact: Wayne Cruse, MD
Disaster Contact Office Phone: (813) 844-8416
Head of Nursing: Lancia Simmons
Nursing Phone: 8138447103

Number of ICU Acute Care Burn Beds:	**6**
Number of Non-ICU (Step Down) Burn Beds:	**12**
Total Number of Beds:	**18**

ABA Verified Burn Center: Yes
Verification Expires On: 8/31/2022
Region: Southern (AL, AR, FL, GA, KY, LA, MS, NC, OK, SC, TN, TX, VA, WV)

University of Miami Jackson Memorial Burn Center
1800 NW 10th Ave
Miami, Florida 33136-1018

Type of Burn Center: Adult & Pediatric

Burn Center Director Name: Louis R. Pizano, MD
Burn Center Director Phone: (305) 585-1290
Disaster Contact Emergency Phone: (305) 585-1822
Head of Nursing: Olga Quintana APRN, MSN
Nursing Phone: 305-585-1140

Number of ICU Acute Care Burn Beds:	**5**
Number of Non-ICU (Step Down) Burn Beds:	**25**
Total Number of Beds:	**30**
Surge Capacity:	**45**

ABA Verified Burn Center: Yes
Verification Expires On: 6/30/2024
Region: Southern (AL, AR, FL, GA, KY, LA, MS, NC, OK, SC, TN, TX, VA, WV)

HCA Florida Kendall Hospital Burn Center
11750 SW 40th Street
Miami, FL 33175
305-223-3000
ABA Verified Burn Center: Yes

Blake Medical Center
2020 59th St W
Bradenton, Florida 34209-4604

Type of Burn Center: Adults Only 16 and older

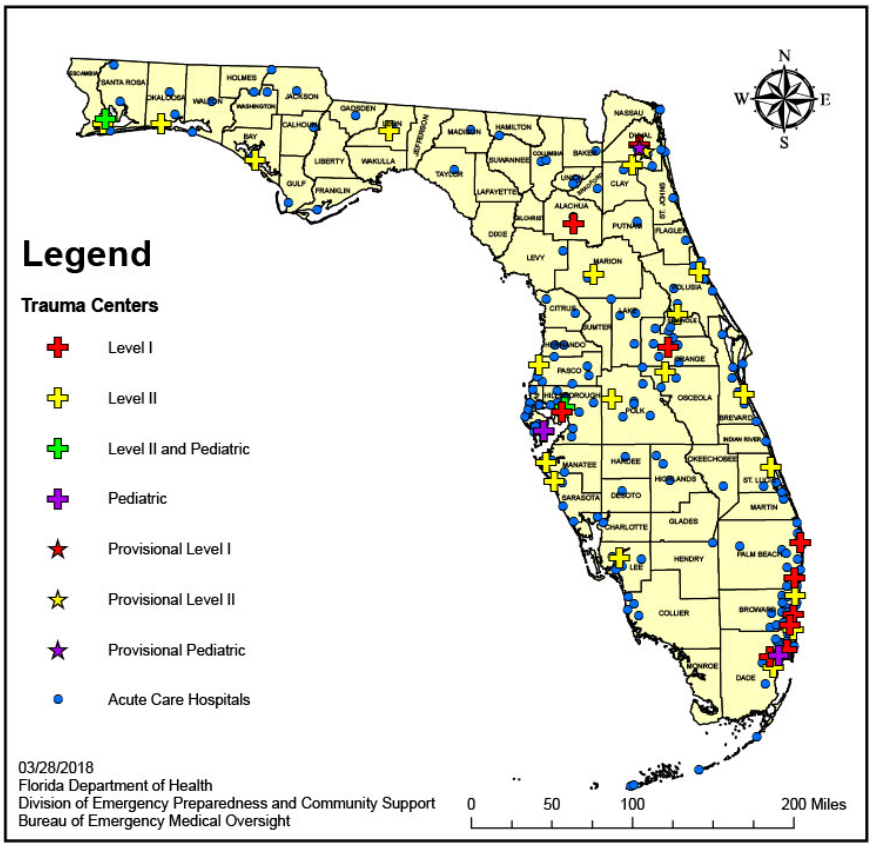
Burn Center Director Name: Michael Van Vliet, MD
Burn Center Director Phone: 706-863-9595
Disaster Contact Emergency Phone: 855-863-9595
Head of Nursing: Alexandara Cavallo
Nursing Phone: 941-567-2865

Number of ICU Acute Care Burn Beds:	**5**
Number of Non-ICU (Step Down) Burn Beds:	**25**
Total Number of Beds:	**30**
Surge Capacity:	**45**

ABA Verified Burn Center: No
Region: Southern (AL, AR, FL, GA, KY, LA, MS, NC, OK, SC, TN, TX, VA, WV)

1.5 Trauma Centers

Although trauma centers have more capacity to treat burn victims than acute care facilities, they will not have the full capacity to treat the burn injured patient of a burn center. Patients with second and/or third degree burns on 30% or less total body surface area (TBSA) of the body or do not otherwise meet the transfer criteria set forth by the ABA can be managed at trauma centers. Burn injured patients may receive care at non-burn centers if they are not critically ill, have a less than 10% total body surface area, or have not suffered concomitant trauma, and those burn injuries that do not otherwise meet the transfer criteria set forth by the ABA.



Trauma Centers and Acute Care Hospitals

Disclaimer: This thematic map is for reference purposes. Any reliance on the information contained herein is at the user's own risk. The Florida Department of Health and its agents assume no responsibility for any use of the information contained herein or any loss resulting there from.

The Region 3 Alliance Service Area has the following Trauma Centers:

FLORIDA TRAUMA CENTERS		
Trauma Center	**Level**	**County**
Shands UF (Gainesville)	Level I	Alachua
UF Health Jacksonville (Jacksonville)	Level I	Duval
HCA Florida Ocala Hospital	Level II	Marion
HCA Florida Orange Park Hospital	Level II	Clay
Memorial Hospital (Jacksonville)	Level II	Duval
Wolfson Children's Hospital (Jacksonville)	Pediatric	Duval

Trauma Center Data Source: https://www.floridahealth.gov/licensing-and-regulation/trauma-system/index.html

1.6 Assumptions

All hospitals providing emergency care may receive burn patients and should be able to provide initial assessment and stabilization. The agencies (EMS, fire, hospitals, public health, emergency management) within the jurisdiction will have primary responsibility for initial response including casualty distribution and triage of patients for forward movement.
The agencies (state public health, emergency management) will have primary responsibility for support of the response and will help coordinate transfers with the closest burn center/ABA regional coordinating facility in accordance with established regional protocols and ABA burn transfer criteria.

The state of Florida follows the Southern Region Burn Disaster Plan. In the event that more beds are needed for a mass casualty event, a hospital may contact the Southern Region Coordination Center, which will activate the Southern Region Burn Disaster Plan, conduct a burn bed census of non-affected burn centers in the region, and coordinate patient transfers out to those beds.

Southern Region Burn Disaster Plan expectations of preparedness and coordination are that Burn Centers and Level 1, and Level 2 trauma centers should plan for a major role in the receipt and care of burn patients and understand their role in a BMCI in their community or state. Care of critical burns is extremely resource-intensive and requires specialized staff, expert advice, and critical care transportation assets. Severe burn patients often become clinically unstable within 24 hours of injury, complicating transfer plans after this time frame. Transport can be provided by Level 1 trauma centers.

Federal resources (e.g., ambulance contracts, National Disaster Medical System teams), though potentially available to assist, cannot be relied upon to mobilize and deploy for the first 72 hours.

2. CONCEPT of OPERATIONS

2.1 Activation

This plan will be activated upon rapid identification and communication to the local jurisdiction of a potential BMCI incident. This plan can be initiated by any of the region's hospitals, health clinics and offices, local health departments, emergency medical services, or County Emergency Operations Centers when potential BMCI occurs.

2.2 Roles and Responsibilities

State Role: The Florida Department of Health (FDOH) State Surgeon General is responsible for the overall direction, management and control of all Department personnel and resources committed from the state. Once the State Emergency Response Team (SERT) is activated this plan is incorporated into the established state emergency management structure.

Regional Role: The State and local ICS structure will expand and contract as the situation warrants. If an area command or multi-agency coordination system (MAC) is used, it will follow Regional Domestic Security Taskforce (RDSTF) geographical boundaries. Florida Statute does not recognize regional boundaries nor provide for a regional authority.

Local Role: County Emergency Management will coordinate and manage the response to an incident and will utilize the incident command system (ICS). The Health and Medical Emergency Support Function (ESF-8) is supported by the county health departments.

EMS Role: EMS agencies provides emergency medical services outside of a hospital setting.

Hospital Role: Hospitals are responsible for acute health care service provision and activation of internal burn mass casualty disaster plan.

Burn Center Role: The American Burn Association (ABA)-designated Southern Region 1 encompasses Burn Centers located along the southeast and gulf coasts of the United States extending from Virginia through Texas, including West Virginia, Kentucky, Tennessee, Arkansas, and Oklahoma. For a BMCI occurring anywhere within the Southern Region of the United States, the Southern Region Coordination Center (SRCC) serves as a communications and coordination center to support Burn Center(s) with burn bed census and/or patient triage and transfer. A BMCI is defined as any incident where capacity and capability significantly compromises patient care, as identified in accordance with individual Burn Center(s), state, regional or federal disaster response plans.

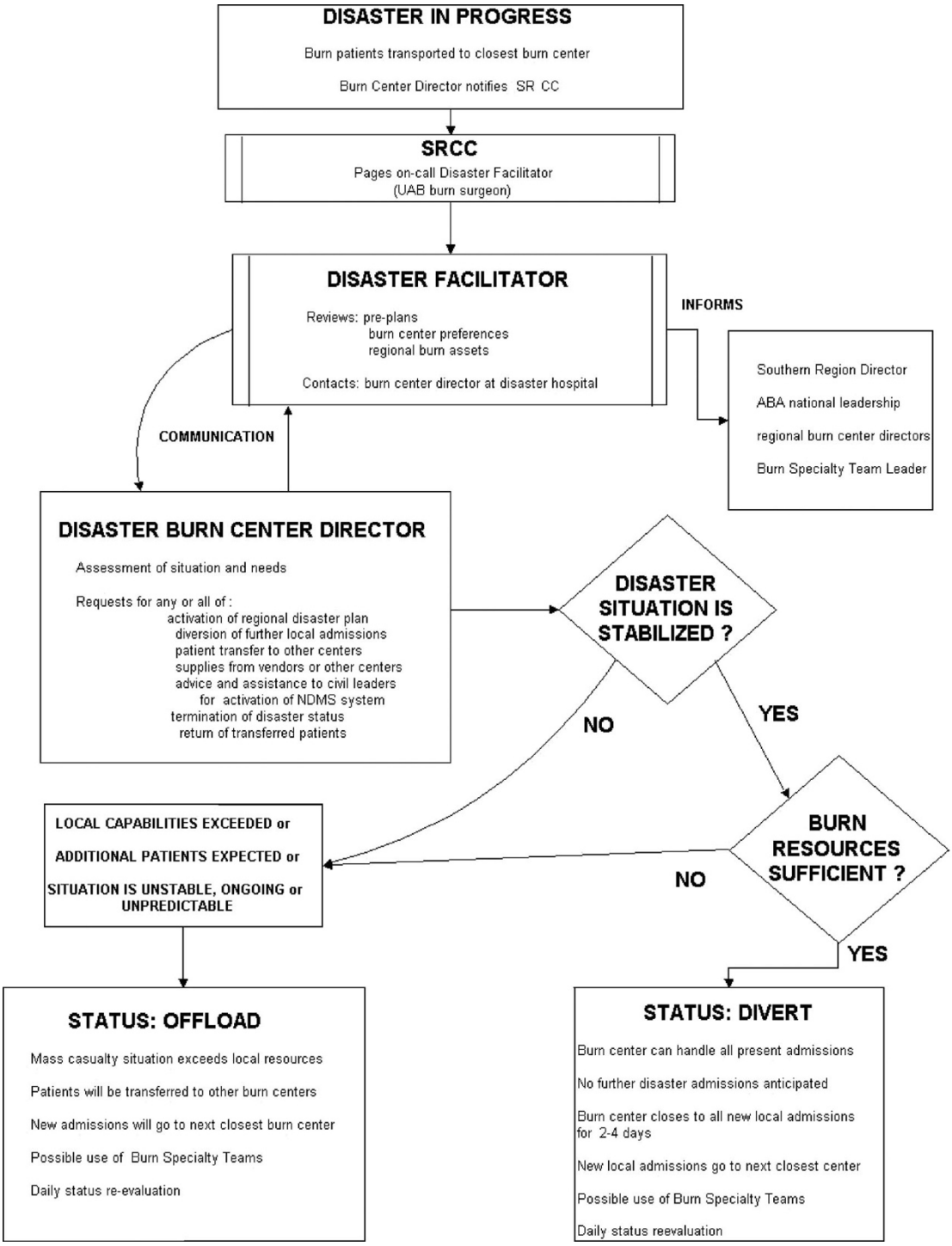
Coalition Role: The Coalition's role in information sharing is to monitor communications from local and State ESF8 and share information with member agencies and organizations as requested by response partners.

SRCC at University of Alabama: Upon request by a referring Burn Center, the SRCC will conduct a bed census of Southern Region Burn Centers to support and assist with regional efforts for patient triage and transfer.

To request SRCC assistance contact: SRCC at University of Alabama at 800-359-0123.

The diagram below demonstrates how the SRCC plan revolves around two key personnel:

- the Burn Center Director at the center experiencing the emergency and
- an experienced burn surgeon located distant from the disaster site who functions as a disaster facilitator.



2.3 Special Considerations

Behavioral Health: Disaster Behavioral Health responders work with survivors, families, responders, and the community to assist with the mitigation of emotional, psychological, and physical effects of a disaster, natural or man-made. Disaster behavioral health responders apply the concepts of psychological first aid to help those affected overcome the initial impact of shock, denial, and depression when confronting disasters.

Combined Injuries: The following are recommendations adapted from "Guidelines for Burn Care under Austere Conditions: Surgical and Nonsurgical Wound Management" (2017) developed by the physician leadership of the American Burn Association.

- Before assisting anyone, verify scene safety. Once you reach the patient with a burn injury, follow with general assessments for airway, breathing, circulation and address any potential for spine injuries with application of cervical collar and spinal immobility, if indicated. Follow disaster triage procedures for determining the priority of care needs (i.e., internal injuries, broken bones, etc.). Always treat life threatening trauma injuries first and assess need for intubation.
- Identify and train a wound care team. Prepare a venue for wound care. Protect burn patients from extremes of temperature, especially prevent hypothermia and unprotected sun exposure as possible. Collaborate with Burn Center physicians on need for limb or trunk escharotomies.
- Determine availability of topical antimicrobials and other wound care supplies.
- Use a potable water supply and soap to clean loose debris from burns. Then apply antimicrobial ointment to non-adherent gauze and place on open wounds and secure with dry gauze. Recommend Silver dressings, they are easy to apply and can be changed every 7 days.
- Provide adequate multimodal narcotic and non-opioid analgesia and anxiolysis.
- For patients with minor burns (<10% TBSA), consider having them perform their own wound care or help each other if resources are limited. Recommend IV fluids via large-bore IVs: LR (adults) titrate to UOP 0.5ml/kg/hr.

American Burn Association. (2018). Advanced Burn Life Support Course – Provider Manual 2018 Update. Chicago

Cancio, L. C., Barillo, D. J., Kearns, R. D., Holmes, J. H., Conlon, K. M., Matherly, A. F., Cairns, B. A., Hickerson, W. L., & Palmieri, T. (2017). *Guidelines for Burn Care Under Austere Conditions: Surgical and Nonsurgical Wound Management, 34*(4), 203-214. http://doi.org/ 10.1097/BCR.0000000000000368

3.0 OPERATIONS – MEDICAL CARE

3.1 Triage and Secondary Triage

Below are considerations for triage of burn patients and expectations for hospital transport including patient allocation by number of patients, age, and severity priority for burn and non-burn hospitals.

- If facility resources are overwhelmed, triage according to the "Resource Triage Diagram for Burn Injury in a Disaster" (see Rule of Nines below). To estimate Total Body Surface Area (TBSA) burn use the "Rule of Nines" or Palmar Method. Note: Only 2nd and 3rd degree burns are tallied.
- Direct exposure to ionizing radiation (even as low as 2-6 Gy) may change the above triage categories (worsened outcomes).
- Consider concomitant injuries from the effect of the blast.
- Follow Advanced Trauma Life Support (ATLS) guidelines.

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. In this event, the local jurisdiction having authority may activate the RTCC to assist with patient placement and may seek other avenues for delivery of care, such as, telemedicine.

Rule of Nines

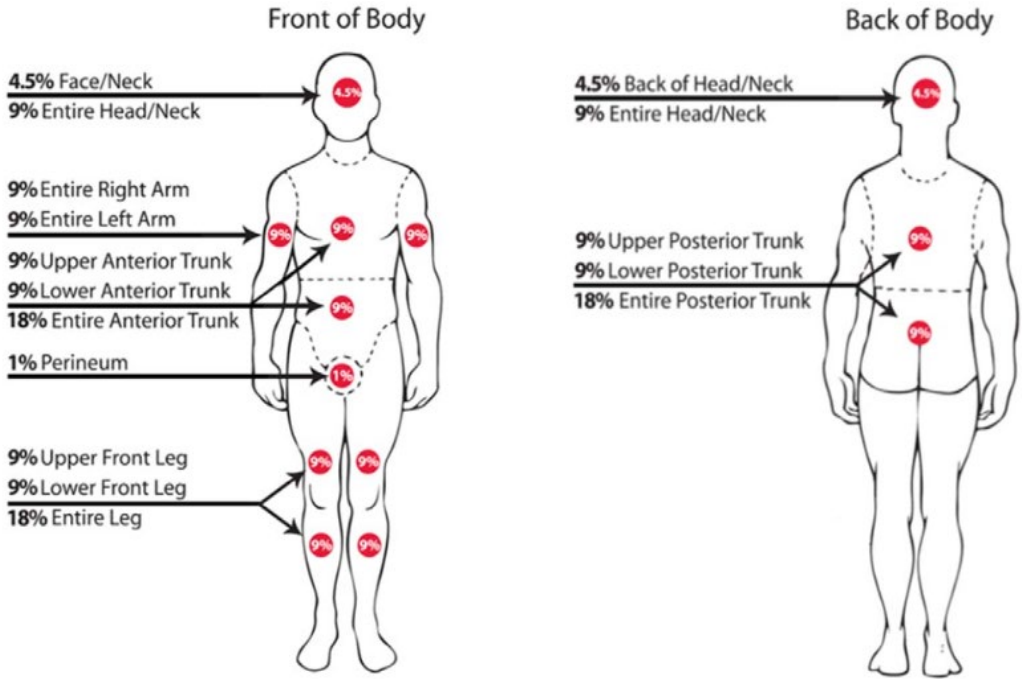


Figure 1. Depiction of the Rule of Nine's and Palmar Method of burn size estimation. For the Rule of Nines, each body region has a surface area in a multiple of nine. In the Palmar Method, the patient's palm represents approximately 1% of that patient's BSA. Reprinted with courtesy from The Burn Center at Saint Barnabas Medical Center, Livingston, New Jersey.

3.2 Referral Criteria

The American Burn Association uses the following criteria to determine if transfer to a specialized facility is warranted. https://ameriburn.org/public-resources/burn-center-referral-criteria/

Courtesy of the
American Burn Association
Advanced Burn Life Support (ABLS)
Learn more about the ABA and ABLS at **www.ameriburn.org**

Burn Center Referral Criteria

A burn center may treat adults, children, or both.

Burn injuries that should be referred to a burn center include:

1. Partial thickness burns greater than 10% total body surface area (TBSA).
2. Burns that involve the face, hands, feet, genitalia, perineum, or major joints.
3. Third degree burns in any age group.
4. Electrical burns, including lightning injury.
5. Chemical burns.
6. Inhalation injury.
7. Burn injury in patients with preexisting medical disorders that could complicate management, prolong recovery, or affect mortality.
8. Any patient with burns and concomitant trauma (such as fractures) in which the burn injury poses the greatest risk of morbidity or mortality. In such cases, if the trauma poses the greater immediate risk, the patient may be initially stabilized in a trauma center before being transferred to a burn unit. Physician judgment will be necessary in such situations and should be in concert with the regional medical control plan and triage protocols.
9. Burned children in hospitals without qualified personnel or equipment for the care of children.
10. Burn injury in patients who will require special social, emotional, or rehabilitative intervention.

Excerpted from Guidelines for the Operation of Burn Centers (pp. 79-86), Resources for Optimal Care of the Injured Patient 2006, Committee on Trauma, American College of Surgeons

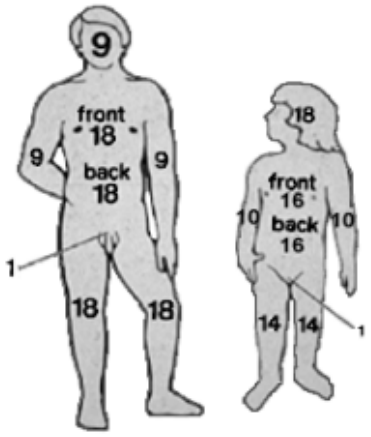
Severity Determination

First Degree (*Partial Thickness*)
Superficial, red, sometimes painful.

Second Degree (*Partial Thickness*)
Skin may be red, blistered, swollen. Very painful.

Third Degree (*Full Thickness*)
Whitish, charred or translucent, no pin prick sensation in burned area.

Percentage Total Body Surface Area (TBSA)



3.3 Transportation

The Trauma Coordination Center transport coordinator will coordinate with EMS for patient transport.
The appropriate EMS asset will be assigned based on the level of care required during the transfer, the acuity of the patient, and the destination. The Trauma Coordination Center will contact the requestor based on the appropriate level of care and bed availability information, in consultation with or by the Trauma Coordination Center medical officer.

Once a receiving facility has been identified and confirms acceptance of the patient(s), the Trauma Coordination Center transfer coordinator will coordinate a clinical provider call between the requesting facility and receiving facility.

3.4 Rehabilitation and Outpatient Follow Up Services

Burn rehabilitation starts within the first 24 hours of admission, where a burn patient is evaluated and treated by a Burn Center trained physical and occupational therapists. Patients with burns over joints/areas prone to contracture should be supported in position of function.

Outpatient Burn clinic is held 5 days a week, and a patient can self-refer, may be referred upon discharge from the Emergency Department, or may be sent to us from a rehab center, SNF, or other facility.

4.0 DEACTIVATION and RECOVERY

Deactivation/demobilization can be done by scaling back services as they are no longer needed. Tasks associated with this include:

- Coordinate demobilization with Agency Representatives.
- Identify surplus resources and probable release time.
- Develop incident check-out function for all units.
- Evaluate logistics and transportation capabilities to support demobilization.

Debriefing and after-action evaluation should be conducted following any MCI event. The lessons learned through a formal evaluation process may be used to improve the policies and processes for all member facilities.

APPENDIX: Resources

ASPR TRACIE Developed Resources:

- Burn Topic Collection
- Disaster Behavioral Health Resources
- Healthcare-Related Disaster Legal/ Regulatory/ Federal Policy Topic Collection
- Mass Burn Event Planning Overview

American Burn Association. (2018). Mass

Casualty.

Cancio, L., Sheridan, R., et al. (2016). Guidelines for Burn Care Under Austere Conditions: Special Etiologies: Blast, Radiation, and Chemical Injuries. American Burn Association.

DC Emergency Healthcare Coalition. (n.d.). Initial Management Guidelines for Pediatric Burn Patients.

DC Emergency Healthcare Coalition. (2011). Mass Burn Incident Specific

Annex. Illinois Department of Public Health. (2016). Burn Surge Annex.

Jeng, J., Gibran, N., and Peck, M. (2014). Burn Care in Disaster and other Austere Settings. (Abstract only.) Surgical Clinics of North America. 94(4):893-907.

Leahy, N.E., Yurt, R.W., Lazar, EJ., et al. (2012). Burn Disaster Response Planning in New York City: Updated Recommendations for Best Practices. Journal of Burn Care Research. 33(5): 587-594.

Los Angeles County Emergency Medical Services Agency (EMS). (2010). Burn Resource Manual.

Michigan Bureau of EMS, Trauma, and Preparedness. (2018). Burn Mass Casualty Incident Surge Plan.

Minnesota Department of Health. (2019). Burn Surge Plan and Training Resources.

National Capital Region. (n.d.). National Capital Region Burn MCI Response Plan - Attachment 5: Patient Reporting and Transfer Request Form.

Saint Barnabas Health Care System. (n.d.). Burn Disaster Response: A Plan for New Jersey.

State of Michigan Burn Coordinating Center. (n.d.). Emergency Burn Triage and

Management. State of Michigan Burn Coordinating Center. (2014). Pediatric Annex for Burn

Surge.

University of Utah Burn Center. (n.d.). Crisis Standards of Care Portal. (Request Access).

U.S. Army Medical Department, Medical Research and Materiel Command, U.S. Army Institute of Surgical Research. (2016). Burn Care.

Utah Hospital Association. (2018). Utah Crisis Standards of Care Guidelines and Burn Injury Guidelines for Care. (Request from ASPR TRACIE or University of Utah Burn Center CSC Portal).

Utah Hospital Association. (2018). Utah Prolonged Care of the Burn Patient in a Non-Burn Facility Following a Burn Mass Casualty Incident E-Learning (CME and CEUs available). (Access via the University of Utah Burn Center CSC Portal).

Western Region Burn Disaster Consortium. (2018). Mass Burn Event 96-Hour Response Plan. (Request from ASPR TRACIE or University of Utah Burn Center CSC Portal).

Young, A., Graves, C., et al. (2016). Guideline for Burn Care Under Austere Conditions: Special Care Topics. American Burn Association.

Organizations

American Burn Association

- Burn Center Referral Criteria

Burn Center Regional Map Radiation Injury Treatment Network