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Appendix 3.5.1.1 wcmhpc regional burn surge plan

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# Introduction

## Purpose

In the event of a medical surge burn incident, the MN State Burn Surge Plan calls on each regional Healthcare facility to initially treat and stabilize burn victims for up to 72 hours when transportation to MN Burn Centers is not feasible. This burn surge appendix provides a regional framework to support and supplement the MN Statewide Burn Surge plan. This appendix identifies the West Central healthcare preparedness coalition’s response to a medical surge event involving severe or life- threatening burns.

## Scope

The Regional Burn Surge plan is a complementary document to the Regional Response Plan. The plan is not designed to supersede the authority of any of the regional partners. Refer to the Regional Preparedness plan for a list of active coalition members.

## Overview/background of HCC and situation

The State of Minnesota currently has two Burn Centers acknowledged by the American Burn Association (ABA), which are Hennepin County Medical Center (HCMC) and Regions Hospital. Neither of these two facilities are in the West Central region. During a burn surge incident, the initial receiving facility will collaborate and communicate with the burn centers. If, at some point, the MN Burn Centers are unable to accept the number of patients referred to them, the statewide Burn Surge plan will be activated. Normal day to day operations is the goal of this plan, this plan will only be activated when local resources are exhausted, and the MN Burn Centers are unable to provide immediate care for burn patients.

The West Central region is based around the I-94 highway system and has several rail lines that run both north/south and east/west. Even though rail transportation of hazardous materials in the is recognized to be the safest method of moving large quantities of chemicals over long distances there is still the risk of derailment or accidental release of the hazardous materials that could result in a burn incident. The I-94 interstate highway is a major thorough fare through the upper United States and utilized by heavy goods vehicles carry a variety of hazardous materials. The transportation of hazardous materials through the region are not the only risks of mass burn potential. The region also has increased risk of fire from wildfire, pipeline disruption and industrial business compromise.

As rural communities a single burn patient may be needed to be transferred several hours to a burn facility. When those systems are overwhelmed the local facilities and burn surge facilities may need to be activated.

The West Central healthcare preparedness coalition has identified three burn surge facilities (BSFs) to be utilized in a surge event. In coordination with the ABA Burn Center, patients may be transferred from the initial receiving hospital to the BSF who will provide treatment until more definitive care options are available. The BSFs will be responsible to care for the burn patients in the event of a statewide surge. This responsibility can last up to 72 hours. The ABA Burn Center will work with state partners to coordinate care and transportation of burn patients according to the MN State Burn Surge plan.

The three burn surge hospitals for West Central Minnesota are:

**St. Cloud Hospital**

1406 6th Avenue North

St. Cloud, MN 56303

Transfer: 888-387-2862

**Sanford Medical Center**

801 Broadway

Fargo, ND 58122

701-234-2000

**Essentia Health**

3902 13th Ave S.

Fargo, ND 58103

701-364-6600

## Assumptions

* All hospitals within the region may receive burn patients and should be prepared to provide initial assessment and stabilize the patient.
* Emergency medical services will be responsible for providing the initial triage of the burn patients and will be critical in deciding the appropriate location for patient transfer. This may be the closest burn center, burn surge facility, or local health care facility.
* The ideal location for care of a burn patient is the burn center or a level I or II trauma center.
* Care of a critical burn patient is resource intensive and requires specialized staff.
* Burn patients often become clinically unstable within 24 hours of injury therefore transferring the patient to the appropriate care facility in a timely manner is imperative.
* Burn patients may have co-existent traumatic injuries such as inhalation injury, and penetrating trauma.

# Concept of Operations

## Activation

The initial recognition of a burn surge event will typically occur on the scene and involve the responding local emergency medical services agency. The earliest that there is communication from the scene to the local health care facility the earliest that the burn surge plan can be activated. As in any emergent situation, activation of local plans occurs first.

Assessment of the situation will include:

* Identify the nature and location of the incident
* Obtain the projected or actual number of patients
* Estimate time related to distance away from care center

## Notifications

## Roles and Responsibilities

See the State of Minnesota Burn Surge Plan Table 4 for a more in-depth review of the roles and responsibilities during a burn response.

### Initial Receiving Hospital(s)

* The initial receiving hospital will provide initial stabilization and treatment to burned patients, as directed by their medical director or through advisors at one of the MN Burn Centers. Although burn patients should be transferred to the appropriate burn center as soon as possible, the extent of the incident and the availability of burn bed resources may exceed capacity of the burn center. If this occurs, patients may be transferred to an alternative location, such as a Burn Surge Facility.
* The initial receiving hospital may be required to care for the burn victim until a higher level of care is available either at the Burn Center or a Burn Surge facility. Working with the Burn Center and utilizing telehealth options will ensure that the appropriate patient care is being provided.
* Transportation arrangements should be coordinated by the initial hospital and the receiving facility, utilizing agreements with their Emergency Medical Services (EMS) partners.
* Refer to the [**State of MN Burn Surge Plan**](https://www.health.state.mn.us/communities/ep/surge/burn/burnsurgeplan.pdf) for referral criteria

### Burn center

* Either HCMC or Regions burn center – whomever is contacted first – will take the lead in the surge event.
* The medical director of that facility will determine which facility would be the most appropriate for the burn patient by reviewing their injuries and treatment needed.
* Will act as point of contact for health care facilities currently caring for a burn victim – may provide support via telemedicine when available.

### Burn surge facility

* Will maintain situational awareness when activated and prepare to receive a burn patient.
* Will activate surge plans to increase capacity to care for a burn patient – this may include level loading patients or discharge patients if appropriate.
* Will work with the Burn Center to determine the best treatment course for the burn patient.

### Regional Healthcare Preparedness Coordinators (RHPC)

* During a burn surge event, the RHPCs in the state will be notified of the activation of the MN Burn Surge plan by the Metro Regional Healthcare Resource Center (RHRC).
* The RHPC will communicate with regional partners and together, a decision will be made if the West Central Health Multi-Agency Coordination Center (WCMHMAC) needs to be opened, either physically or virtually.
* The HMAC will be available to assist with resource requests as needed during the surge event, however, they will not be directly involved in patient care activities and will not coordinate patient movement.
	+ The Regional Medical Operations Coordination Cell (RMOCC) may be convened, if necessary, to facilitate communications between facilities/partners during the response. Discussion may include moving non-burn related patients from the effected facilities to other facilities to assist with level-loading and to increase staffing and resource capabilities at the facilities dealing with burn patients.
* If there is a request for identification of available beds within the region or in neighboring regions, the RHPC will initiate bed tracking within the MNTrac system. The information obtained will be shared with the appropriate partners. The HMAC will communicate with regional partners according to the regional communication plan. See Appendix 3.5.5 WCMHPC Communication Plan.

## Logistics

A burn patient requires specific treatment protocols that are resource intensive. The region may be asked to assist in obtaining the resources for facilities that are caring for a burn patient and waiting for transportation to a higher level of care.

### Staff

If a local health care facility is caring for a burn patient for an extended amount of time and they have limited staff, the facility can reach out to the coalition who will reach out to neighboring facilities to request assistance. This assistance would be requested via the Regional Memorandum of Understanding.

See the **3.5.6 Regional Resource Allocation Plan**

### Supples

The coalition does not have the supplies to care for a burn patient however, utilizing the Regional Memorandum of Understanding and the Regional Resource Allocation Plan, facilities can request assistance for obtaining supplies by reaching out to the coalition who in turn can reach out to coalition members for support. The state plan outlines supply recommendations for facilities to maintain for either outpatient or inpatient burn victims (see pg. 10-12, **[State of MN Burn Surge Plan](https://www.health.state.mn.us/communities/ep/surge/burn/burnsurgeplan.pdf)).**

## Special Considerations

### **Behavioral Health**

As with any traumatic event, burn patients require the support of behavioral health professionals throughout their care. Behavioral health support should be available for the families of the patient as well as to the staff providing care.

### **Pediatric burn patients**

**Pediatric burn patients require specific considerations related to their treatment and recovery. Refer to the** [**Minnesota Department of Health Pediatric Surge Toolkit**](https://www.health.state.mn.us/communities/ep/surge/burn/pedsorders.pdf)

### Combined Injury

Combined injury (burns with trauma or other injuries) increases mortality. These patients are often better treated at a trauma center. Initial triage by EMS should focus on the traditional trauma guidelines then address the burn injury. Refer to [**Guidelines for Burn Care Under Austere Conditions.**](http://ameriburn.org/wp-content/uploads/2017/05/guidelines_for_burn_care_under_austere_conditions_.68.pdf)

## Operations

### Triage

The initial triage of a burn patient happens on scene by Emergency Medical Services. EMS agencies should have a triage plan in place. [**Refer to the EMS Triage and Destination Plan**.](https://www.ncems.org/pdf/TraumaTriageTemplate.pdf)

When the burn patient is brought to a health care facility – the facility will contact the burn center to discuss treatment needs and identify the appropriate care facility.

### Treatment

The [**Minnesota Burn Surge**](https://www.health.state.mn.us/communities/ep/surge/burn/burnsurgeplan.pdf)site has two resources that discuss the recommendations for treatment. Health care facilities should familiarize themselves with these resources.

## Transportation

[**The Minnesota Burn Surge Plan – Appendix B**](https://www.health.state.mn.us/communities/ep/surge/burn/burnsurgeplan.pdf) identifies the breakdown of resources available statewide for burn transport. The hospital will determine and coordinate the appropriate transportation to a higher level of care. This determination will include a conversation with the Burn Center to identify the appropriate transport resource.

## Patient Tracking

Refer to the WCMHPC Response plan - Appendix 3.5.2 Regional Patient Tracking Plan.

## Rehabilitation and outpatient follow up

Burn rehabilitation and follow up is extensive and is typically offered by the Burn Centers. Several regional hospitals offer Wound Care nursing services that may be able to support the rehabilitation of a burn patient.

# Appendices/references

## Training and Exercise Recommendations

* It is important that first responders, EMS personnel, and first receiving hospitals have appropriate education and training to increase their knowledge, skills and abilities for the initial treatment and supportive care for the burn-injured patients. The WCMHPC will make all attempts to assist in coordinating training opportunities. Each hospital within the West Central coalition was provided with one Advanced Burn Life Support (ABLS) Handbook. All efforts to facilitate or notify facilities of training opportunities will be provided by the RHPCs.
* All providers are provided links to the Educational Curriculum for Medical Providers Responding to a Mass Casualty Burn Surge Incident:
	+ [**Burn Surge Videos**](https://www.health.state.mn.us/communities/ep/surge/burn/video.html)
	+ [**Determining Burn Depth**](https://www.health.state.mn.us/communities/ep/surge/burn/burndepth.html)
	+ [**Determining Total Body Surface Area**](https://www.health.state.mn.us/communities/ep/surge/burn/tbsa.html)
	+ [**Burn Triage**](https://www.health.state.mn.us/communities/ep/surge/burn/triageburns.html)

## References/Links

[**Minnesota Department of Health - Minnesota Burn Surge - State plan and references**](https://www.health.state.mn.us/communities/ep/surge/burn/index.html)

**Approvals and Revisions**

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| --- | --- |
| **Purpose** | **Date** |
| Updated to correct grammar, update links and remove Glacial Ridge burn surgeon notes | Emailed 3/11/2023 and approved by all 4/3/2023 |
| Updated to correct links, include language regarding the RMOCC | Emailed May 31/2023 and approved by all 6/15/2023 |
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