DC Emergency Healthcare Coalition
Mass Burn Incident Specific Annex

PURPOSE: This annex to the DC Emergency Healthcare Coalition (DCEHC) EOP provides guidance to HCRT personnel supporting an incident in which the number and severity of burn injured patients in the Washington DC area has severely challenged Healthcare Coalition member organizations.

Other attachments to the DCEHC EOP may be utilized in conjunction with this document. As with any component of the DCEHC EOP, this tool is intended to provide guidance only and does not substitute for the experience of the personnel responsible for making decisions at the time of the incident.

Situation and Assumptions

The need to care for multiple burned patients is a rarely encountered but foreseeable consequence of potential hazards facing healthcare organizations in the District of Columbia. Compounding the problem is the very limited resources for care of the burned patient not only locally, but nationwide. On a day-to-day basis in DC, the Washington Hospital Center (WHC) provides burn services for adults and Children's National Medical Center (CNMC) provides burn services for pediatrics. These resources can be rapidly challenged in a mass burn scenario and the DC EHC (The Coalition) may provide support through: 1) situation and resource-related information processing, 2) assisting with patient and resource tracking, 3) dissemination of treatment protocols to non-burn centers, and 4) facilitating communication and agreements between facilities currently treating burn patients and burn specialty receiving facilities.

Assumptions:

- Various hazard etiologies are possible that could simultaneously generate a large number of burn victims in the District of Columbia.[1]
- Victims of these incidents may sustain co-existent traumatic injuries (inhalation injury, blunt, penetrating, etc.).
- DC Fire and EMS would, in most foreseeable cases, be the lead agency for field response to an incident of this nature.
- Existing burn beds in the District of Columbia are limited and have restricted ability to surge at any given point.

[1] Though not specifically written for radiation or chemical burns, elements of this plan could be applied to these etiologies provided adequate decontamination and elimination of hazards has been addressed for these patients.

- When the surge capacity of the burn centers in DC is exceeded, it is expected that non-burn centers may need to temporarily provide treatment and supportive care to some burn victims.

- Based on historical evidence from other mass burn casualty incidents, many burn patients cared for at non-burn centers may be directly discharged from those facilities after initial treatment is completed.

- The optimal final disposition for patients with serious burns is a recognized burn treatment center.

- Transfers of burn patients from non-burn centers to burn centers will have to be coordinated at the jurisdictional (and potentially regional) level to prevent duplication of effort and to maximize efficiency of the process. This is in distinction to the everyday process in which individual facilities arrange transfer of their patients in an uncoordinated fashion.

- Severe burn patients often become very unstable clinically within 24 hours of injury, complicating transfer plans after this time frame.

- Federal resources, though typically available to assist, cannot be relied upon to mobilize and deploy for the first 72 hours.

- The success in executing any response plan is dependent upon the regular examination, revision, and training on the plan.

Key definitions

- **Mass burn casualty incident**: Any incident generating burn patients that severely challenges or exceeds the current capabilities of the adult and/or pediatric burn centers in the District of Columbia.

- **Mass burn casualty incident response level**: Used to convey seriousness of mass casualty incident involving burn patients and used by Burn Centers and DOH/HCRT to facilitate the healthcare system response. The three (3) designated levels are:

  - Level I: Any incident that can be managed utilizing burn beds and resources within the District of Columbia
  - Level II: Any incident that requires more burn beds and resources that are available in DC but that can be managed utilizing regional assistance and the Eastern Regional Burn Disaster Consortium.
  - Level III: Any incident where a request for Federal resources to assist in burn patient care is indicated (e.g. activation of the NDMS system, Burn DMAT deployment).

- **Triage decision table**: A tool developed by the American Burn Association that will be utilized by Burn Centers/ DC DOH to facilitate triage decisions as to which patients should be transferred to a Burn Center or Trauma Center for definitive care (see **Attachment 1**).

- **Hospital tiers**: Hospitals designated to receive burn casualties based on acuity when burn victim counts exceed capacity of designated adult and pediatric burn centers.

    - Tier I: Designated adult and pediatric Burn Centers
    - Tier II: Designated adult and pediatric Trauma Centers
    - Tier III: Acute care facilities with Emergency Departments and Intensive Care Units.

System Description

- Burn Centers: There are two recognized burn centers in the District of Columbia (Washington Hospital Center (adult burn center) and Children's National Medical Center (pediatric burn center). It is expected that during any Mass Burn Casualty Incident in the District of Columbia that these two facilities would serve as the primary referral centers for burn surge capacity per their individual facility protocols. When their capacities are exceeded, non-burn trauma centers will be expected to take burn patients. The burn facilities in DC will provide strategic management guidance regarding placement of patients and clinical management guidelines for non-burn facilities.

- Acute care facilities: Level II facilities (as defined above) will be prioritized to receive burn patients once the capacity of the burn centers is reached. In a large incident, any acute care facility with a functioning ED (including Level III facilities as defined above) may have some burn patients transported to them. Level II and III facilities in the National Capital Region may also receive patients per DC FEMS tactical protocols.

- Rehabilitation and Skilled Nursing Facilities: The major contribution that rehabilitation and Skilled Nursing Facilities (SNFs) can make will be to facilitate rapid in-take of appropriate patients from acute care facilities to free up space in the hospitals. There may be select situations in which rehabilitation facilities will be able to accept recovering burn patients but this will require additional guidance, resources, and assistance (e.g. from Burn Centers).

- Community Health Centers (CHCs): The 29 CHCs in the District of Columbia may have walk-in patients but only the most minor of burns will be handled primarily in the CHCs. Though guidance for outpatient management of burns can be provided by the Burn Centers, the treatment and follow up on any significant burn will be referred out by the CHCs.

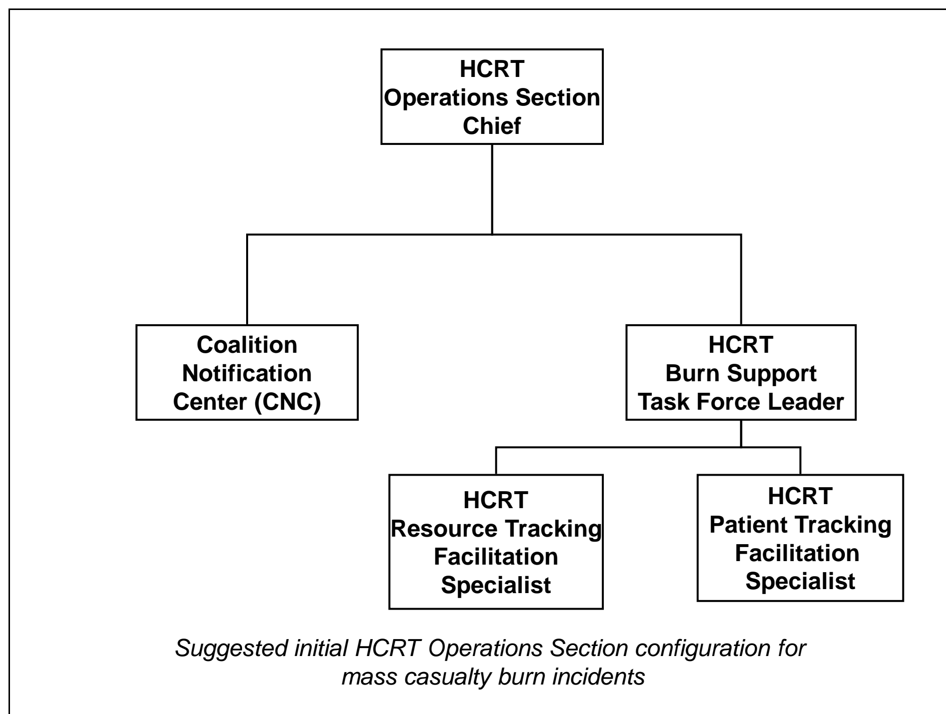
- DC Emergency Healthcare Coalition (Healthcare Coalition Response Team or HCRT)

  - Projected activities that the HCRT may conduct to support mass casualty burn response include:

    - Provide initial notification of an actual or potential mass casualty burn incident to member organizations and the jurisdiction
    - Provide on-going notifications regarding any change in the incident status (including hosting situation update teleconferences as per the Coalition EOP Base Plan).
    - Collect data from the receiving facilities regarding the numbers of patients received and severity of burns
    - Interface with regional coalitions in Maryland and Virginia to collect data regarding available resources in those jurisdictions. This task is conducted in conjunction with actions by DC DOH.
    - Facilitate dissemination of treatment guidelines to non-burn centers and CHCs.
    - Facilitate accumulation of resource needs from all healthcare organizations in DC and work to address through implementation of mutual aid or through support from the jurisdiction (including hosting resource sharing teleconferences as per the Coalition EOP Base Plan).
    - Support the process of identifying burn center beds for patients out of the immediate NCR (see Concept of Operations)
    - Facilitate coordination with jurisdictional response efforts.

  - HCRT staffing pre-plan for mass casualty burn incidents:

    - The initial staffing of the HCRT will be determined by the HCRT Leader at the time of activation. The staffed positions will be based upon initial incident parameters and initial response objectives for the team.
    - The HCRT Operations Section organization chart with burn support positions that may be staffed for this annex is below:



Suggested initial HCRT Operations Section configuration for mass casualty burn incidents

- The DCEHC Burn Support Task Force could address multiple activities depending on requests submitted to the Coalition by the impacted organizations. Two of the most likely activities are represented with the following 'positions' (or teams in a large or complex incident when many more personnel are needed).
    - Resource tracking facilitation specialist: This position would be staffed according to need and could facilitate the tracking of resources related to the incident. This could include mutual aid and/or the burn beds identified by the Eastern Regional Burn Disaster Consortium (see below). This position could facilitate the notification of, teleconferencing, and information needs of the DC Burn Task Force.
    - Patient tracking facilitation specialist: This position would be staffed according to need and could facilitate the tracking of burn patients received at DC acute care facilities. **Attachment 2** may be utilized by this position to facilitate this task.

- Eastern Regional Burn Disaster Consortium (ERBDC): Burn Centers located in the eastern region of the United States that have mutually agreed to collaborate

on issues pertaining to communication, education, resources, and patient transfers during mass burn casualty incidents. Available bed locations are coordinated through a call center located at the Burn Center at St Barnabas Hospital in New Jersey. The 24/7 contact number is 1-866-778-3659. Data provided on available beds includes the following:

  - Facility name
  - Bed type
  - POC
  - ???

- "DC Burn Task Force:" A response collaboration made up of representatives from the private and public sector assembled usually virtually and as needed during response. The primary purpose of the DC Burn Task Force is to examine burn patient data from the DC acute care facilities and to prioritize and allocate available beds identified through the ERBDC. The DC Burn Task Force can also assist with decisions related to the incident such as prioritization of transportation assets. Representatives include:

  - DC Department of Health: A senior representative from DC DOH (Health Emergency Preparedness and Response Administration or HEPRA) oversees the Burn Bed Task Force and has ultimate decision making authority over prioritization of patients for allocation to burn beds outside of the region or other critical resource allocation.
  - WHC and CNMC representatives: An attending burn physician or senior burn nurse from each facility to provide expert input into any discussions.
  - HCRT representation: Operations Section Chief or Resource Tracking Facilitation Specialist provides support to the Task Force by developing teleconference scheduling, agendas, and supporting documentation (i.e. accumulating patient data and ERBC data for presentation). May include the HCRT Planning Section Chief to support documentation needs such as teleconference minutes.

Concept of Operations

Incident recognition

- The most likely scenario will be a burn incident in which EMS recognizes that some burn patients will have to be transported to non-burn facilities due to the volume/number of patients involved. Per the EOP Base Plan, an initial call will go to the CNC requesting ED Bed Capacity. The CNC will contact the Coalition Duty Officer.

HCRT notification, activation, and mobilization

- The HCRT will mobilize according to the EOP Base Plan with the following specific considerations:
  - The Duty Officer should contact the ELO to:
    - Confirm the nature of the incident
    - Obtain location of incident
    - Obtain the projected number of patients
    - Confirm that the number of burn patients will challenge or exceed the usual burn capacity in Washington DC
  - If indicated by the acquired information, the HCRT is activated. A transitional management meeting of the HCRT is then convened (per EOP Base Plan) and the HCRT positions staffed according to incident parameters utilizing the above figure as a template.
  - Either just before or just after the transitional management meeting, the DO/HCRT Leader should disseminate an HIS ALERT with details including:
    - Nature of the incident
    - Projected numbers of patients (confirmed or tentative)
    - Informing whether non-burn facilities will be receiving burn patients
    - Requests completion of full bed capacity grid for hospitals on HIS
    - Requests POC for each facility uploaded to HIS
- NOTE: DC DOH may elect to send a representative to the scene. If this occurs, they will establish contact with the HCRT for further information management purposes.

HCRT Incident Operations

- The HCRT will operate according to the EOP Base Plan with the following specific activities to be considered as applicable (see operational checklist **Attachment 3**):
  - Sharing acute care instructions with non-burn centers: To assist non-burn facilities receiving burn patients, a clinical guideline has been developed that outlines important considerations for the care of a burn patient during the first 24-48 hours (see **Attachment 4**). The HCRT will review these guidelines with representatives from WHC and CNMC and ensure they are up to date and applicable and then post to HIS for access.
  - In select situations, the HCRT can facilitate telemedicine consultations by WHC and CNMC burn experts (as they are capable of doing) with non-burn facilities.

- Patient information: The HCRT Patient Tracking Facilitation Specialist or Operations Section Chief will send out a notification to all facilities receiving burn patients. This notification will instruct these facilities to fill out **Attachment 2** and submit this information as directed (usually submitted electronically).

- Based on evolving incident parameters, availability of jurisdictional representatives (DC FEMS and DC DOH), and the need for more robust information exchange, the HCRT may conduct a Situation Update Teleconference per-protocol.

- HCRT captures information about the number of patients being transported to patient care destinations outside of DC (contact with DC FEMS ELO). If additional regional beds needs are anticipated, the HCRT (through the CNC and in coordination with DOH) establishes regional bed data by contacting the RHCC (Northern Virginia) and the EMRC (Maryland).

- The HCRT recommends to DC DOH to assemble the DC Burn Task Force. If activated by DC DOH, the following steps should be taken:

    - Full situational awareness:
        - Follow up with facilities receiving burn patients to ensure completeness of patient data collection
        - Complete Summary Burn Data Form (**Attachment 5)** using information obtained from the received Patient Burn forms (**Attachment 2**)
        - An initial DC Burn Task Force teleconference should be established with the following representatives:
            - HCRT (all members as staffed and as appropriate)
            - DC DOH HEPRA representative
            - WHC and CNMC burn center representatives
                - Call Medstar Transport at 800-824-6814 and asking for burn surgeon on call
                - Call CNMC operator at 202-476-5000 and asking for burn surgeon on call
            - Eastern Regional Burn Disaster Consortium representative as appropriate (may be more appropriate for follow on calls)
        - Prior to the DC Burn Task Force teleconference, the HCRT transmits copies of the Summary Burn Data Form (**Attachment 5**) and all Patient Burn Forms (**Attachment 2**) to each teleconference participant.

    - Establishing transfer destinations and transfer priorities
        - The purpose of the initial DC Burn Task Force teleconference is to:

- Review summary data and begin to prioritize patients for placement in burn centers (NOTE: the DC DOH representative has the final authority on priority designations)
- Ensure contact has been established with Eastern Regional Burn Disaster Consortium to initiate bed availability through the out-of-region network.
- Establish initial projected transportation needs and determine if incident parameters indicate individual facilities may encounter difficulties with this

- Follow on Burn Task Force teleconferences may be held as needed to finalize patient evacuation priority, bed assignments, and transport resources.
- As individual assignments are made, the HCRT documents them on the Summary Burn Data Form (**Attachment 5**).
  - The HCRT will be responsible for posting **Attachment 5** to the HIS so that individual facilities may access the information.
  - Each organization is individually responsible for contacting receiving facilities to formally establish transfer requirements.
  - Individual facilities should utilize their regular documentation to effect the transfer
  - Individual facilities should be instructed to contact the HCRT when each patient transfer is initiated or if problems are encountered. The HCRT can promote communications with DC DOH or other parties to promote problem resolution.
- NOTE: As burn patients may become unstable within the first 24 hours, early transfer is a priority. Bed assignments and transportation arrangements should be completed within 12 hours of incident onset if feasible.

- Transportation: The HCRT can collect specific individual facility needs as appropriate and forward to DC DOH. Of note, some of these transportation requirements are expected to include aero-medical transportation assets (see **Attachment 6** – potential transportation assets).

- Federal assistance: DC DOH may, depending on incident parameters, initiate the process for City requests for Federal assistance. This may include:

  - DoD assets: Burn beds and transportation assets
  - ASPR/NDMS:
    - Burn beds nationally
    - Additional equipment and supplies needed in the City

- Specialty related clinical management guidance (i.e. radiation or chemical burns, etc.)
- Disaster Medical Assistance Teams (DMATs)

▪ As appropriate, the HCRT may be requested by DC DOH to interface with the Federal coordinating entities or responding Federal resources (e.g. present collective needs, disseminate guidance, etc)

o Mutual aid: The HCRT will facilitate mutual aid within DC among the healthcare organizations as per the Resource Sharing Annex to the DC EHC EOP.

o In-hospital deaths: It is anticipated that in-hospital deaths from the burn incident will be DC Office of Chief Medical Examiner cases for post-mortem processing. Individual facilities are expected to contact OCME for individual cases. If the in-hospital deaths become excessive, the HCRT can assist with city-wide tracking of deaths (as requested), working with DC DOH to identify support needs for storage at the facilities, and petitioning for regulatory relief regarding storage of the deceased beyond 30 days (if OCME case load prevents timely removal from the healthcare facilities).

o Mental health assistance: The HCRT can catalogue mental health needs anticipated by healthcare facilities and convey to DC DOH (as needed).

o Rehabilitation and outpatient follow up services: Depending on incident parameters, rehabilitation and outpatient follow up services for burn patients may exceed current capabilities within DC.

▪ Rehabilitation: The three rehabilitation facilities will only be able to provide rehabilitation services to a limited number of burn patients and only with assistance from the Burn Centers. Options include transfer of patients out of region or coordinating with DC DOH with other outside resources to be brought in.

▪ Outpatient services: In case the outpatient services for patients is limited, the HCRT can facilitate the development of clinical guidance by burn specialists from WHC and CNMC to be distributed to outpatient providers such as Community Health Centers. However, any complicated burns requiring outpatient follow up will have to have physical therapy, occupational therapy, and garment issues addressed. The HCRT may be in a position to facilitate these issues……..

HCRT Demobilization and transition to recovery

o Reimbursement: Emergency burn care under mass casualty burn incident conditions can be expensive and incur costs not readily reimbursed by

insurance and other payers. The HCRT may work with DC DOH to facilitate recuperation of costs for healthcare organizations. This assistance can include:

- Facilitate data collection from healthcare organizations regarding non-reimbursed costs to advocate for City and/or Federal reimbursement.
- Convey instructions (as provided by DC DOH) to facilities regarding funding eligibility and application/documentation procedures
- Facilitate submission

- Demobilization: as per EOP base plan.

Attachments

Attachment 1: ABA Triage Table
Attachment 2: Burn Patient Data Form
Attachment 3: HCRT Operational Checklist for Burn Incidents
Attachment 4: Clinical Guidance for Healthcare Facilities Caring for Burn Patients
Attachment 5: Burn Summary Form
Attachment 6: List of Acronyms