



REGIONAL BURN SURGE TABLETOP EXERCISE (TTX)



After Action Report and Improvement Plan (AAR-IP)

The After-Action Report and Improvement Plan (AAR/IP) summarizes exercise information required for preparedness reporting and trend analysis by aligning exercise objectives with preparedness doctrine, related frameworks, and national guidance. This information is compiled into recommendations and corrective actions in the improvement plan to improve local and regional preparedness, response, and recovery activities.

EXERCISE OVERVIEW

Exercise Name	Regional Burn Surge Tabletop Exercise (TTX) 2021
Exercise Date	Thursday, January 28, 2021
Scope	This discussion-based exercise is scheduled for 4 hours at the Southeast Texas Regional Advisory Council (SETRAC) Conference Center, 1111 North Loop West, Houston, TX 77008. Exercise discussion is limited to socializing and testing the Regional Burn Surge Plan, which includes identifying recommended triage, transport, equipment, and coordination strategies for the mass surge of burn patients after a catastrophic, no-notice mass casualty incident in the SETRAC 25-county region.
Mission Area	Health Care Preparedness and Response
Capabilities	<ol style="list-style-type: none"> 1. Foundation for Health Care and Medical Readiness 2. Health Care and Medical Response Coordination 3. Continuity of Health Care Service Delivery 4. Medical Surge
Objectives	For the list of objectives associated with each capability, refer to the table on page 4.
Overarching Goals	<ol style="list-style-type: none"> 1. Socialize the new Burn Surge Plan and region-wide collaboration expectations. 2. Discuss burn patient triage and transport coordination strategies. 3. Discuss burn bed capacity, ICU bed usage for burn patient stabilization, and transfer/transport methods for the care of 3rd and 4th degree burn patients.
Hazard	No-Notice explosions and fires, multiple scenes across the region, possible terrorism
Scenario	A regional scenario and two case studies are utilized to facilitate discussion for different types of equipment, resources, personnel training requirements, and coordination strategies between the CMOC and regional stakeholders for a surge in burn patients.
Sponsor	Regional Catastrophic Preparedness Initiative, State Homeland Security Program, the Regional Healthcare Preparedness Coalition (RHPC), and SETRAC
Participating Organizations	SETRAC, EMS, TDEM, DSHS, Air Medical, City & County EMCs, Public Health, Healthcare Management, Free Standing Emergency Room Management, ER, EM and other Healthcare Organizations/Departments, Regional, State, & Federal Partners.
Point of Contact	Adam Lee & John Wingate Regional Exercise and Training Coordinator SouthEast Texas Regional Advisory Council Adam.Lee@setrac.org / John.wingate@setrac.org 832-297-1355

EXERCISE SCENARIOS

This section summarizes the three modules with specific key issues, exercise assumptions and artificialities that participants considered and factored into discussions during the TTX.

Module 1: Regional PEMS Plan Overview

The first module was a presentation on the new Regional Burn Surge Plan. This included the plan purpose, scope and assumptions, Burn Care overview, Burn MCI Surge Coordination and surge information, and considerations for transportation, equipment, and reunification of these populations.

Module 2: Burn MCI – Initial 24 Hours

Scenario 1: Cargo Ship Explosion

A cargo ship explosion, at the same time a cruise ship leaving port had a portion explode, people came out to watch when additional explosions occurred impacting them too. Elsewhere in the region, several facilities have fires, small plane crashed into a university building and day care center.

Fires are reported at multiple facilities, school buses and schools affected; Multiple sites appear to have had explosions or gas leak related fires at the same time. Terrorism is suspected. Hundreds are coming in with blast injuries, various forms of trauma, including burn injuries (e.g. inhalation injuries, significant burns, electrocution). Patients are walking in and brought in by strangers without triage too. There are hundreds of adult and pediatric patients with various trauma injuries, including 3rd and 4th degree burns

Module 3: Burn Care Prioritization 24-72 Hours

Scenario 2: Patient Care

There are over 30 pediatric burn patients and over 100 adult burn patients identified with 3rd and 4th degree burns across multiple facilities that require stabilization and transfer to burn centers. Your hospital has 3 pediatric patients and 10 adult patients that require transfer to burn centers as soon as possible, but 10 other facilities are in the same predicament and therefore you will need to stabilize your patients for 1-3 days while coordinating transfers for burn patients with varying 3rd and 4th degree burns over 30% TBSA.

CAPABILITY PERFORMANCE RATINGS

Aligning exercise objectives and preparedness capabilities provides a consistent taxonomy for evaluation that transcends individual exercises to support preparedness reporting and trend analysis nationwide. The core capabilities included Operational Coordination, Critical Transportation, Public Health and Medical Services, and Public and Private Services and Resources; however, the table below include performance ratings for each Health Care Preparedness and Response capability objective written by the planning team and observed with average ratings based on the evaluator notes during the exercise.

Table 1: Summary of Health Care Preparedness & Response Capability Performance Ratings

Capability	Exercise Objectives	Rating
1. Foundation for Health Care and Medical Readiness	Socialize the new Burn Surge Plan and region-wide collaboration expectations.	S
2. Healthcare and Medical Response Coordination	Discuss burn patient triage and transport coordination strategies.	S
3. Continuity of Healthcare Service Delivery	Discuss burn bed capacity, ICU bed usage for burn patient stabilization, and transfer/transport methods for the care of 3 rd and 4 th degree burn patients.	S
4. Medical Surge	Discuss burn bed capacity, ICU bed usage for burn patient stabilization, a transfer/transport method for the care of 3 rd and 4 th degree burn patients.	S
<p>Ratings Definitions:</p> <ul style="list-style-type: none"> • Performed without Challenges (P): The targets and critical tasks associated with the core capability were completed in a manner that achieved the objective(s) and did not negatively impact the performance of other activities. Performance of this activity did not contribute to additional health and/or safety risks for the public or for emergency workers, and it was conducted in accordance with applicable plans, policies, procedures, regulations, and laws. • Performed with Some Challenges (S): The targets and critical tasks associated with the core capability were completed in a manner that achieved the objective(s) and did not negatively impact the performance of other activities. Performance of this activity did not contribute to additional health and/or safety risks for the public or for emergency workers, and it was conducted in accordance with applicable plans, policies, procedures, regulations, and laws. However, opportunities to enhance effectiveness and/or efficiency were identified. 		

ANALYSIS OF CAPABILITY OBJECTIVES

This section provides a summary of observations for each objective evaluated with its corresponding capability. The observations are compiled below as either strengths or areas for improvement with an analysis of factors identified and discussed by participants, then recorded by exercise evaluators.

Capability 1: Foundation for Health Care and Medical Readiness

1. **Objective 1.1:** Socialize the new Burn Surge Plan and region-wide collaboration expectations.

Strengths:

- The plan is strong and well developed.
- The education materials were appropriate, and the audience was engaged.
- Trauma Center staff were able to network with burn center staff and exchange contact information and training materials.

The following areas of improvement are required to achieve the full capability level:

Areas for Improvement:

Encourage more participation from TDEM, DSHS, vendors, First Responders, and Federal Partners

Analysis:

Attending participants identified the need for additional external partners during the exercise. The identified partners in the feedback, included representation from OEM, DSHS, and Federal Responders.

Capability 2: Health Care and Medical Response Coordination

Objective: Discuss burn patient triage and transport coordination strategies.

Strengths:

- Multi-facility coordination and cooperation.
- Multiple burn centers and trauma hospitals within the region which most engaged in the exercise.
- CMOC/SETRAC coordinating and providing support.
- Open communication with pre-hospital and hospital services.

The following areas of improvement are required to achieve the full capability level:

Areas for Improvement:

Burn capability assessment within individual trauma centers.

Analysis:

Participants expressed the desire to have a burn patient capability assessment created for non-burn facilities, who may receive patients during a Mass Burn MCI.

Capability 3: Continuity of Health Care Service Delivery

Objective: Discuss burn bed capacity, ICU bed usage for burn patient stabilization, and transfer/transport methods for the care of 3rd and 4th degree burn patients.

Strengths:

- The use of EMResource and EMTrack for patient tracking and movement.
- Information was provided on identifying additional surge capabilities.

The following areas of improvement are required to achieve the full capability level:

Areas for Improvement:

- Create MOU with out-of-state burn centers for telemedicine burn care to trauma centers

Analysis:

Individual facilities and agencies identified the need to work with non-regional partners, to establish MOU's with others to provide the appropriate level of care. (i.e., Trauma Center to Burn Center)

Capability 4: Medical Surge

Objective: Discuss burn bed capacity, ICU bed usage for burn patient stabilization, a transfer/transport method for the care of 3rd and 4th degree burn patients.

Strengths:

- Provided an overview of burn surge capacity and resources to identify additional capacity.

The following areas of improvement are required to achieve the full capability level:

Areas for Improvement:

- Coordinate ABLIS training in the Region.

Analysis:

The region requested that SETRAC coordinate ABLIS classes across the region for the Healthcare Coalition.

APPENDIX A: REGIONAL IMPROVEMENT PLAN

This Improvement Plan (IP) was developed with the following recommendations and corrective actions for the Regional Healthcare Preparedness Coalition (RHPC) based on the Regional Burn Surge tabletop exercise (TTX) conducted on January 28, 2021.

Capability	Recommendations	Corrective Actions	Capability Element ¹	Responsible Party	Projected Completion Date
Foundation for Healthcare and Medical Readiness	Encourage more participation from TDEM, DSHS, vendors, First Responders, and Federal Partners	Continue to develop relationships with non-hospital partners to encourage participation in training and exercise.	Planning & Training	SETRAC	On-going
Healthcare and Medical Response Coordination	Burn capability assessment within individual trauma centers	Develop an inventory assessment for facilities to use to gauge burn capabilities	Planning	Individual facilities	On-going
Continuity of Healthcare Service Delivery	Create MOU with out-of-state burn centers for telemedicine burn care to trauma centers	Individual facilities need to assess their capabilities and identify partners to create MOUs with.	Planning	Individual facilities	On-going
Medical Surge	Coordinate ABLIS training in the Region	Coordinating ABLIS training in the region will provide the tools and information for trauma center healthcare works to handle burn patients in the scenario of a burn surge until they can be transferred	Training	SETRAC	8/1/2021

Authorizing Signature: Lori Upton, SETRAC

Date: March 3, 2021

APPENDIX B PARTICIPATING ORGANIZATIONS

Participating Organizations	#	Participating Organizations	
Federal Total:	<i>0</i>	Hospitals Total	<i>70</i>
		Harris Health Ambulatory Surgical Center	
State / Regional Total:	<i>21</i>	Harris Health System	
CATRAC		Harris Health System - Ben Taub	
CBRAC		Harris Health System - LBJ	
Clear Lake Emergency Corps		HCA Houston Healthcare Clear Lake	
Panhandle RAC & BRAC		Houston Methodist The Woodlands	
Piney Woods Regional Advisory Council		Houston Methodist West	
Refinery Terminal Fire Company		Kindred Hospital Clear Lake	
Regional Advisory Council - G		Kindred Hospital Houston Medical Center	
Regional Catastrophic Planning Initiative		Kingwood Endoscopy	
Southeast Texas Regional Advisory Council		Liberty Dayton Regional Medical Center	
STRAC		Medical Center of SETX – Beaumont	
Office of Emergency Management Total:	<i>3</i>	Medical Center of SETX – Port Arthur	
City of Houston OEM		Memorial Hermann Children’s	
Harris County OEM		Memorial Hermann Greater Heights	
		Memorial Hermann Orthopedic and Spine Hospital	
Public Health Total:	<i>1</i>	Memorial Hermann Pearland	
City of Port Arthur		Memorial Hermann System	
		Memorial Hermann System - Ambulatory	
Emergency Medical Service (EMS) Total:	<i>7</i>	Memorial Hermann TMC	
AMR		Mid Jefferson Extended Care	
Acadian Ambulance		Oak Bend Medical Center – Jackson Street	
HFD		Oak Bend Medical Center - Wharton	
Mont Belview Fire		Oak Bend Medical Center Williams Way	
Windsor EMS		PAM Rehabilitation Hospital of Humble	
Liberty Fire		Rice Medical Center	
Hospitals		River Oaks Hospital & Clinics	
Ad Hospital East LLC		Sabine County	
Arbor Hills Rehabilitation and Healthcare Center		SE Texas ER & Hospital	

Participating Organizations	#	Participating Organizations	
Baptist Beaumont Hospital		SSA Home Health	
Bayside Community Hospital		Shriners Hospital for Children Texas	
Bellville Medical Center		Texas Children’s Hospital	
CHI St. Lukes Lufkin		The Woodlands Specialty Hospital	
Christus St Elizabeth		TTI Home Health Care	
Christus St. Mary Outpatient Center ER		UMC - Lubbock	
Columbus Community Hospital		UTMB	
Total Number of Participants:		102	