



**Texas Children's
Hospital[®]**

Texas Children's Hospital Radiation Injury Treatment Network Full Scale Exercise 2019

After-Action Report/Improvement Plan

6/18/2019

EXERCISE OVERVIEW

Exercise Name	Texas Children's Hospital Radiation Injury Treatment Network Full Scale Exercise 2019
Exercise Dates	April 29 th , 2019
Scope	This full scale exercise is planned for three hours at Ellington Field, and three hours at Texas Children's Hospital (TCH). Exercise play will include processing of patients into the Regional Patient Reception Area (PRA) set up by the Veterans Affairs (VA) at Ellington Field (Airport), and the processing of patients for admission to Texas Children's Hospital via a Patient Reception Center (PRC) at the Texas Children's Hospital Main Campus.
Mission Area(s)	Response
Core Capabilities	Healthcare Preparedness Emergency Operations Coordination Information Sharing Medical Surge
Objectives	<ol style="list-style-type: none">1. Assess Texas Children's Hospital and Patient Reception Center Incident Command staff's ability to monitor situational awareness and deliver appropriate staff briefings to prepare for the receipt of radiation-injury casualties2. Assess operational coordination with external organizations to include the Federal Coordinating Center (FCC), Veterans Affairs, Houston Office of Emergency Management, Southeast Texas Regional Advisory Council, and others regarding the transfer of patients from the Regional PRA and receipt at the TCH PRC3. Examine the ability of assigned organizations to coordinate and support the consistent triage and treatment of patients arriving at the Regional PRA by utilizing local resources in conjunction with RITN Standard Operating Procedures (SOPs)4. Assess ability to coordinate housing, transportation, and other assistance needs for families of radiation-injury casualties who have arrived from distant locations5. Test triage of patients received from the FCC and make treatment determinations for inpatients and outpatients

Threat or Hazard	Radiological Release/Radiological Terrorism
Scenario	Radiological event occurs in Chicago, IL with the detonation of a 10 Megaton improvised radiological device. Patients requiring Bone Marrow Transplant or supportive medical care for Acute Radiation Syndrome (ARS) are transported to Houston by the federal government, arriving at Ellington Field. Exercise will begin with arrival of patients at the Regional PRA at Ellington Field.
Sponsor	Radiation Injury Treatment Network (RITN)
Participating Organizations	National Disaster Medical System (NDMS)/FCC coordinator Michael E. DeBakey VA Medical Center Texas Children's Hospital Main Campus Texas Department of State Health Services (DSHS) Southeast Texas Regional Advisory Council (SETRAC) AMR Ambulance MD Anderson Cancer Center National Aeronautics and Space Administration (NASA)
Point of Contact	Aaron Freedkin, Manager Emergency Management Texas Children's Hospital 2450 Holcombe Blvd. Suite 37G Houston, TX 77021 832-824-1245 (Office) asfreedk@texaschildrens.org

ANALYSIS OF CORE CAPABILITIES

Aligning exercise objectives and core capabilities provides a consistent taxonomy for evaluation that transcends individual exercises to support preparedness reporting and trend analysis. Table 1 includes the exercise objectives, aligned core capabilities, and performance ratings for each core capability as observed during the exercise and determined by the evaluation team.

Objective	Core Capability	Performed without Challenges (P)	Performed with Some Challenges (S)	Performed with Major Challenges (M)	Unable to be Performed (U)
1: Assess Texas Children’s Hospital and Patient Reception Center Incident Command staff’s ability to monitor situational awareness and deliver appropriate staff briefings to prepare for the receipt of radiation-injury casualties	Healthcare Preparedness	P			
2: Assess operational coordination with external organizations to include the Federal Coordinating Center (FCC), Veterans Affairs, Houston Office of Emergency Management, Southeast Texas Regional Advisory Council, and others regarding the transfer of patients from the Regional PRA and receipt at the TCH PRC	Emergency Operations Coordination	P			
3: Examine the ability of assigned organizations to coordinate and support the consistent triage and treatment of patients arriving at the Regional PRA by utilizing local resources in conjunction with RITN Standard Operating Procedures (SOPs)	Emergency Operations Coordination	P			

Objective	Core Capability	Performed without Challenges (P)	Performed with Some Challenges (S)	Performed with Major Challenges (M)	Unable to be Performed (U)
4: Assess ability to coordinate housing, transportation, and other assistance needs for families of radiation-injury casualties who have arrived from distant locations	Information Sharing		S		
5: Test triage of patients received from the FCC and make treatment determinations for inpatients and outpatients	Medical Surge	P			
<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. • Performed with Major Challenges (M): The targets and critical tasks associated with the core capability were completed in a manner that achieved the objective(s), but some or all of the following were observed: demonstrated performance had a negative impact on the performance of other activities; contributed to additional health and/or safety risks for the public or for emergency workers; and/or was not conducted in accordance with applicable plans, policies, procedures, regulations, and laws. • Unable to be Performed (U): The targets and critical tasks associated with the core capability were not performed in a manner that achieved the objective(s). 					

Table 1. Summary of Core Capability Performance

The following sections provide an overview of the performance related to each exercise objective and associated core capability, highlighting strengths and areas for improvement.

Evaluate coordination with regional healthcare partners

The strengths and areas for improvement for each core capability aligned to this objective are described in this section

Healthcare Preparedness

Strengths

The full capability level can be attributed to the following strengths:

Strength 1: Effective communication between VA, Texas Children's Hospital, and AMR Ambulance

Strength 2: Houston has a strong regional healthcare preparedness coalition which would assist in sharing information between partner institutions

Areas for Improvement

The following areas require improvement to achieve the full capability level:

Area for Improvement 1: Area of operations for Regional Patient Reception Area (PRA) needs to be modified to move Social Work to interact with patients after assessment, include portable bathrooms to assist patients with GI Upset, and add more space for patient assessment areas

Reference: None

Analysis: Observation and Feedback from participants and evaluators

Evaluate effectiveness of resources made available for response operations

The strengths and areas for improvement for each core capability aligned to this objective are described in this section

Emergency Operations Coordination

Strengths

The full capability level can be attributed to the following strengths:

Strength 1: Resources provided by regional partners were used in an efficient and effective way

Areas for Improvement

The following areas require improvement to achieve the full capability level:

Area for Improvement 1: Radiation Injury and Exposure In-service training for TCH staff and regional partners will improve response for future exercises and real world events

Reference: N/A

Analysis: Feedback from participants

Evaluate coordination between Texas Children's Hospital, NDMS, and VA representatives

The strengths and areas for improvement for each core capability aligned to this objective are described in this section

Emergency Operations Coordination

Strengths

The full capability level can be attributed to the following strengths:

Strength 1: VA Physicians and Texas Children's Hospital Bone Marrow Transplant physicians quickly established work flow for rapid evaluation of patients

Strength 2: VA staff rapidly set up Patient Reception Area

Areas for Improvement

The following areas require improvement to achieve the full capability level:

Area for Improvement 1: Command Center space for all participating agencies needs to be established at Ellington Field PRA

Reference: None

Analysis: Observation

Evaluate information sharing between response partners and organizations

The strengths and areas for improvement for each core capability aligned to this objective are described in this section

Information Sharing

Strengths

The full capability level can be attributed to the following strengths:

Strength 1: Pre exercise briefing provided information for situational awareness

Areas for Improvement

The following areas require improvement to achieve the full capability level:

Area for Improvement 1: Regional partner briefing upon notification of RITN Activation would improve situational awareness of event and improve response efforts

Reference: None

Analysis: Observation

Test surge capacity for patients with Marrow Toxic injuries

The strengths and areas for improvement for each core capability aligned to this objective are described in this section

Medical Surge

Strengths

The full capability level can be attributed to the following strengths:

Strength 1: Deployment of Texas Children's and MD Anderson physicians to the Regional Patient Reception Area at Ellington Field helped to decongest the Texas Children's Patient Reception Center and decrease time needed to process patients for admission to Texas Children's Hospital. In a real world event it would also prevent transport of patients to a hospital not prepared for care of patients with Marrow Toxic injuries.

Strength 2: Changes made to the Texas Children's Hospital Patient Reception Center process improved patient flow

Areas for Improvement

The following areas require improvement to achieve the full capability level:

Area for Improvement 1: Addition of Texas Children's Pediatrics in the RITN plan will improve process for placement of patients requiring outpatient care

Reference: Texas Children's Hospital RITN plan

Analysis: Not admitting patients well enough for outpatient care and monitoring at Texas Children's Pediatrics will allow Texas Children's Hospital to admit more critical patients for inpatient care and monitoring

Test Patient Reception Center operational effectiveness

The strengths and areas for improvement for each core capability aligned to this objective are described in this section

Medical Surge

Strengths

The full capability level can be attributed to the following strengths:

Strength 1: Locating the TCH Patient Reception Center in a larger space improved the flow of patients through the system

Strength 2: Moving assessment of patients to Ellington Field Regional PRA decreased the amount of time each patient needed to spend in the TCH Patient Reception Center

Areas for Improvement

The following areas require improvement to achieve the full capability level:

Area for Improvement 1: Issues with potential gastric upset for patients was identified during the exercise.

Reference: None

Analysis: Observation

APPENDIX B: EXERCISE PARTICIPANTS

Participating Organizations
AMR Ambulance
MD Anderson Cancer Center
National Aeronautics and Space Administration (NASA)
NDMS/ Michael E. DeBakey VA Medical Center
Radiation Injury Treatment Network
Southeast Texas Regional Advisory Council (SETRAC)
Texas Children's Hospital
Texas Department of State Health Services