

Radiation Injury Treatment Network



RUSH

2017 Functional Exercise

Exercise Plan

Exercise Date: August 23, 2017

PREFACE

The Radiation Injury Treatment Network (RITN) is a group of voluntary hospitals focused on preparing to respond to a large scale radiological incident that results in casualties with acute radiation syndrome that occurs distant to their location.

RITN comprises of medical centers with expertise in the management of bone marrow failure, stem cell donor centers and umbilical cord blood banks across the US.

RITN is preparing to:

- Accept casualties from a distant incident
- Provide supportive care for casualties with marrow toxic injuries
- Provide treatment expertise to practitioners caring for casualties at other locations
- Collect data on casualties treated at their treatment facility
- Facilitate marrow transplantation for the small percentage of casualties who require hematopoietic stem cell transplantation

Irradiated casualties will be decontaminated, stabilized and triaged prior to their arrival at RITN medical centers. The National Disaster Medical System (NDMS) will oversee these activities and control the distribution of patients to the Federal Coordinating Center (FCC), which will then coordinate with local public health agencies to distribute patients to the appropriate hospital. After a mass casualty incident, formal transport of patients to distant RITN centers is expected to be delayed by at least 96 hours. However, many casualties will self-evacuate and could arrive at RITN centers within the region of the incident even before the onset of symptoms. RITN has established treatment guidelines that include the principles of acute radiation syndrome (ARS) management, including template hospital admission orders, approaches for casualty triage and selection of candidates for human leukocyte antigen (HLA)-typing and marrow transplantation. For more information on RITN, please go to: <https://ritn.net/about/>.

This functional exercise is intended to address policies and procedures in a command setting as it relates to Rush University Medical Center's (RUMC) RITN Standard Operating Procedure.

ADMINISTRATIVE HANDLING INSTRUCTIONS

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2. Some of the material in this ExPlan may be considered sensitive.
3. Reproduction or distribution of this document, in whole or in part, without prior approval from Rush University Medical Center (RUMC) is strictly prohibited.
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GENERAL INFORMATION

Purpose and Scope

The purpose of this exercise is to address the operational (command-based) elements of the receipt, triage, and care of radiation-injury casualties in accordance with existing RUMC/RITN plans and procedures to evaluate effectiveness of operational systems.

Particular emphasis will be placed on: coordination with the FCC, City of Chicago, and other Federal Agencies as it relates to communications, family assistance, resource needs, and patient care (inpatient and outpatient).

The scope is to provide a Functional Exercise on the campus of RUMC utilizing the command center with significant input through simulation cells (SIMCELL) staffed by representatives from City and Federal agencies.

Exercise Objectives

Six objectives have been developed for this exercise:

Objective 1. Assemble appropriate command staff, provide situational awareness, and staff briefings to prepare for the receipt of radiation-injury casualties. .

Objective 2. Identify staff, equipment, and supplies necessary to care for a surge of radiation-injury casualties to include decompression and expansion of acute patient care areas.

Objective 3. Operationally coordinate with external organizations to include the FCC, Chicago Department of Public Health (CDPH), Chicago Office of Emergency Management and Communications (OEMC), the Region XI Hospital Coordinating Center (RHCC), and others regarding the transfer and receipt of evacuated patients to RUMC.

Objective 4. Triage two waves of patients received from the FCC (paper patients) and make treatment determinations for inpatients and outpatients.

Objective 5. Coordinate housing, transportation and other assistance needs for families of radiation-injury casualties who have arrived from distant locations.

Objective 6. Address financial tracking throughout incident and identify priorities and mechanisms for federal reimbursement through NDMS and the Stafford Act.

Assumptions and Artificialities

The scenario for this exercise involves the intentional detonation of an improvised nuclear device (IND) in Atlanta, GA. The planning team made the following assumptions in developing the scenario for this exercise:

- The scenario is plausible. Assumptions have been made that radiation exposure from this type of event can create multiple casualties requiring activation of the National Disaster Medical System (NDMS) and RITN facilities.
- This exercise will be based on a scenario that includes the notional transfer of patients to the Federal Coordination Center (FCC) and then onto your facility. Although there are many facets of the NDMS Program and its operations, these will not be a focus of this exercise. It is simply intended to serve as a source for patients requiring medical treatment at your facility as part of the RITN Network to exercise communications, medical surge, and hospital coalition considerations.

Additional Considerations

- Participants are asked to accept the details of the scenario, even if they believe that events would not necessarily unfold as outlined. The scenario is merely a tool to facilitate achievement of the exercise objectives by the group.
- The exact timing of the exercise **WILL NOT** correspond to the timing of events as they would actually occur.
- The exercise is conducted in a no fault, learning environment wherein capabilities, plans, systems, and processes (rather than individuals) will be evaluated.
- Decisions/actions are not precedent setting and may not represent an organization's final position.
- Participating agencies may need to balance exercise play with real world emergencies. Real world emergencies take priority.

Roles and Responsibilities

Master Control Cell (MCC): The MCC will be located at the RUMC Command Center and will be staffed by MCG. Overall exercise control will be facilitated in-person to RUMC Incident Management Team (IMT), Emergency Department (ED) and Bone Marrow Transplant (BMT)

staff. The controller will provide specific scenario information and then injects, which will be associated with six separate task sets (to correspond with each module).

CHSCPR Member Evaluators: MCG will provide on-site evaluation at RUMC on the day of the exercise. There will be three MCG staff, all who have been HSEEP trained and understand the nuances of RITN response. These evaluators will not interfere with exercise play, but will be taking notes on all player actions and documenting strengths and opportunities for improvement, which will be included in the after action report (AAR).

Players: Players will respond to exercise tasks as instructed by their exercise controller using expert knowledge of response procedures, current plans and procedures, and insights derived from training and experience. Players will need to ensure that requests for information (e.g., triage of NDMS evacuees, coordination with external partners such as CDPH and the FCC, and the use of various systems such as HCStandard and EMResource™) are addressed in a timely manner.

Observers: Observers may be invited to this exercise, but will not participate unless directly asked to do so by exercise participants or the exercise controller.

EXERCISE LOGISTICS

Exercise Location & Structure

This exercise will be centralized in the RUMC Command Center located in the *Security Conference Room Tower 1502LL*. The Command Center will receive injects and reach out to other departments/units as necessary to include:

- Emergency Department
- Pharmacy
- Bone Marrow Transplant Unit
- Intensive Care Unit
- Public Information Officer
- Family Assistance Center

A summary of the pertinent exercise play contact information follows:

RUMC Command Center Phone 312-947-0970

RUMC Command Center Email Miriam.Miller@rush.edu

Master Control Cell (MCC) (Steve Mier) 773-354-2136

SIMCELL (Ann Hammer) 612-309-5941

There will also be a simulation cell (SIMCELL) established for this exercise, that will be comprised of several external organization and will be located in the *Armour Academic Center (AAC), room 909 and 916*. The SIMCELL will receive requests for information from RUMC and will also conduct multiple communication to RUMC throughout. The organizations who will comprise the SIMCELL include:

- Chicago Department of Public Health
- Health and Human Services/Region 5
- Chicago Office of Emergency Management and Communications
- The Federal Coordinating Center

- Radiation Injury Treatment Network
- The Region 11 Regional Hospital Coordinating Center

Exercise Rules

The following are the general rules that govern exercise play:

- Real-world emergency actions take priority over exercise actions.
- Exercise participants will comply with real-world response procedures, unless otherwise directed by the controller.

Player Instructions

- Arrive at 8:00 AM for a prompt 8:30 AM start.
- Confirm access to EMResource™ and Red Cross Patient Connection Program along with provided system training materials.
- Review the RUMC RITN Standard Operating Procedure (SOP).
- Review RUMC plans for a family assistance center (FAC).
- Respond to the exercise events and information as if the response were real unless otherwise directed by the exercise controller.
- Obtain other necessary information through existing emergency information channels.
- Document all exercise participants on the **sign-in sheet provided**. **Following the exercise:**
- Complete the Participant Feedback Survey. A hard copy of the survey form will be provided to all participants to gather candid comments on response activities and effectiveness of the exercise.

Safety Considerations

General. Exercise participant safety takes priority over exercise events. RUMC owns the basic responsibility for ensuring a safe environment for all personnel involved in the exercise. Professional health and safety ethics should guide all participants to operate in their assigned roles in the safest manner possible. The following requirements apply to the exercise:

- RUMC will assign staff to serve as safety observers while the exercise activities are underway.
- Participants are responsible for their own and each other's safety during the exercise. It is the responsibility of all persons associated with the exercise to stop play if, in their opinion, a real safety problem exists. Once the problem has been corrected, exercise play will resume.
- All participating entities will comply with their respective environmental, health, and safety plans and procedures, set forth by RUMC.

Real Emergency Procedures. For an emergency that requires assistance, the phrase will be “*Real-World Emergency*” and appropriate actions according to the rules, regulations, and policies of that facility apply and will be taken. If the nature of the emergency requires a suspension of the exercise, the on-site controller will immediately halt all exercise activities. Exercise play may resume once the “*Real-World Emergency*” situation has been addressed. Exercise play at other participating hospitals and facilities should not cease if one facility has declared a “*Real-World Emergency*” unless they are reliant on the affected facility. If a real emergency occurs that affects the entire exercise, the exercise may be suspended or terminated at the discretion of the exercise planning team and all controllers will be notified to suspend or terminate exercise play.

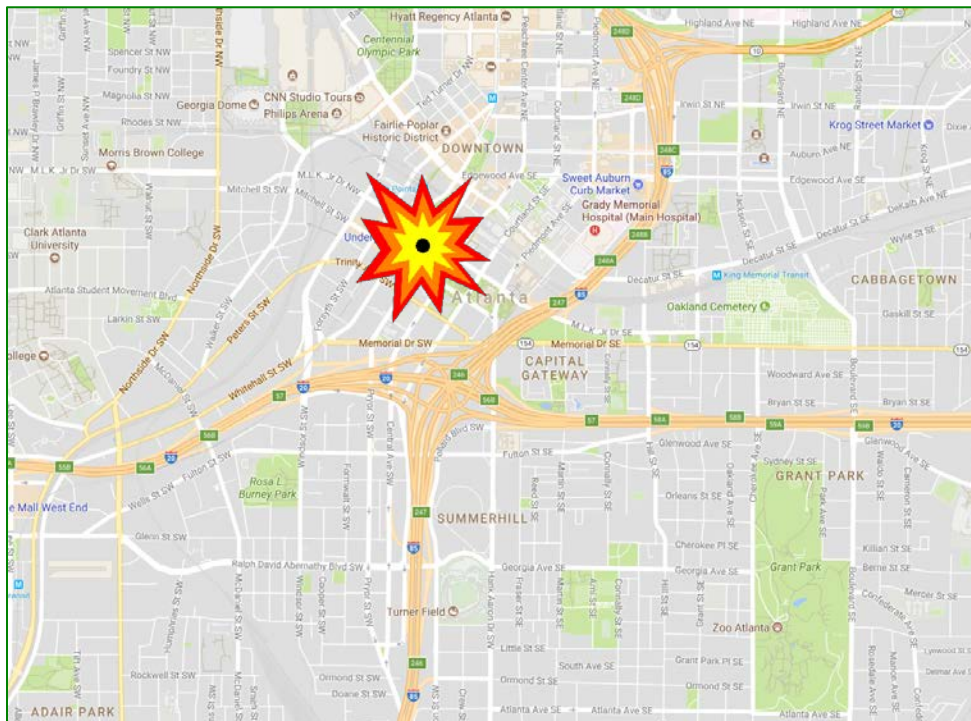
EXERCISE SCHEDULE

<i>Time</i>	<i>Item</i>
8:00 AM	Registration
8:30 AM	Welcome and Introductions – RUMC
8:45 AM	Module 1: Day 1 – Improvised nuclear device (IND) incident occurs; initial briefings; review plans
9:30 AM	Module 2: Day 4 – FCC placed on alert; prepare for impending receipt of patients
10:30 AM	BREAK
10:45 AM	Module 3: Day 5 – Patients spontaneously arrive
11:30 AM	Module 4: Day 7 – FCC begins to receive evacuated patients from IND blast City
12:00 PM	Module 5: Day 7 – RUMC triage patients received from FCC; financial considerations
12:00 PM	Module 6: Day 7 – Establish Family Assistance Center; address family and outpatient needs
1:00 PM	HOT WASH
2:00 PM	Adjourn

EXERCISE SCENARIO

Initiating Event – Day 1

- On August 17, 2017, terrorists in Atlanta, GA transport a 10-kiloton improvised nuclear device assembled with highly enriched uranium.
- The van is parked in the highly populated Little Five Points neighborhood near several bars and restaurants.
- At 6:00 PM, the device is detonated.
- The destruction within 1-2 miles of the IND blast is severe and generates radiation exposure to people from at least 25 miles from the blast.
- Much of the downtown Atlanta infrastructure is severely damaged, including hospitals.
- Those hospitals that are still operational become quickly overwhelmed with blast, burn, and other trauma victims who are also exposed to high doses of radiation.
- The explosion and fallout is expected to result in thousands of casualties with marrow toxic injuries who will need to be eventually transported to other healthcare facilities across the country.



EXERCISE TASKS

Module 1: Day 1 – IND incident occurs; initial briefings; review plans

- Receive Initial communications from RITN (**SIMCELL**)
- Notify appropriate staff for this type of response
 - Notify as you normally would (i.e., *RUAlert*, email, etc.)
- Review internal RITN plans with BMT, IMT, and others as appropriate
 - Brief on NDMS evacuation process and the types of casualties you could expect in this type of event
- Submit *HCStandard* capabilities report (beds, medication, blood, etc.)
- Coordinate messaging strategy with City on potential role of RUMC as RITN (**SIMCELL**)
 - Develop content that describes role of RUMC as RITN
 - Ensure content is consistent with that City would provide

Module 2: Day 4 – FCC placed on alert; prepare for impending receipt of patients

- Assess resources of granulocyte colony-stimulating factor (G-CSF), antifungals, and other supplies (with City [**SIMCELL**])
 - RUMC submits resource request (via 213-RR/EMResource) for G-CSF
 - CDPH adjudicates resource requests
- Evaluate housing needs with HHS, OEMC, and others as appropriate (**SIMCELL**)
- Establish communications with FCC (**SIMCELL**)
 - FCC to send out alert orders (i.e. at 48 and 72 hours)
- Prepare for receipt of patients who may self-report to RUMC from Atlanta
 - Determine metering needs and locate instruments and staff to operate them

- Prepare for decontamination of patients that spontaneously arrive
- Develop and deliver communication content with staff in the event patients from ATL do self-report

Module 3: Day 5 – Patients spontaneously arrive

- Receive communications from ED that patients are registered
- ED notify internal BMT or other RITN personnel as necessary
- Begin evaluation of family (use paper patient profiles)
- Communicate to RITN and others as appropriate (**SIMCELL**)
- Coordinate housing for the 3 non-hospitalized patients with OEMC (**SIMCELL**)
- Determine reimbursement process for these non-NDMS patients

Module 4: Day 7 – FCC begins to receive evacuated patients from IND blast city

- FCC contacts RUMC to discuss transports in reference to patient manifest (**SIMCELL**)
 - RUMC should identify what/if any screening or evaluation process takes place at the FCC
 - RUMC should inquire regarding how many and what type of patients will be sent
 - RUMC should provide information regarding where patients should be sent
- RUMC identify and assemble triage area (call down staff from ED and identify resources necessary)
- Evaluate capability/need to decompress BMT unit
- RUMC identify areas for expansion to accommodate the influx of patients
- If any patients need to be discharged to other facilities, RUMC coordinates with CDPH and RHCC (**SIMCELL**)
- FCC contacts RUMC when patients are in transit (**SIMCELL**)

- Engage finance section. Identify the forms necessary for reimbursement through NDMS and what needs to be done to receive additional reimbursements (i.e. for housing and transportation of outpatients and families) through the Stafford Act.

Module 5: Day 7 – RUMC triage patients received from FCC; financial considerations

- Triage and determine inpatient vs. outpatient considerations for patients
 - Coordinate lab testing and initial evaluation process
 - Time it takes for evaluation
 - Where patients will wait during evaluation
 - Utilize RITN Medical Order Sets
 - Determine level of care for each patient
 - Tests ordered
 - Medications prescribed/administered
 - Additional consultations/treatment for comorbidities
 - Provide instructions for follow-up on each outpatient
 - Handoff from ED to BMT
 - Admit into unit
- Identify and coordinate with outpatient clinics where blood draws and other services can be provided
 - Contact those clinics
- Contact CDPH and RHCC (**SIMCELL**) to determine what other hospital laboratories (in Chicago) can support HLA and transplant typing
- Identify beds for inpatients and staffing needs for each
- Finance section start tracking costs of treatment for each patient

- Track costs for treatment (consults, medications, testing, etc.)

Module 6: Day 8 – Establish Family Assistance Center (FAC); address family and outpatient needs

- Identify area within RUMC that can serve as FAC
- Identify and call down staff to work FAC (i.e., social workers and clergy)
 - Brief staff on their role in the FAC
- Setup the FAC
- Identify resources to setup and activate hotlines; coordinate with CDPH (**SIMCELL**)
- FAC staff receive and address injects from family members looking for RITN patients
- Develop press release to address RUMC’s role as a RITN Center. Coordinate this with CDPH (**SIMCELL**)
- Implement process to track NDMS patients
- Work with **SIMCELL (SAT)** to determine housing and transportation availability for outpatients and families of those evacuated (consider long-term needs).
 - Locate and contact hotels and other housing providers
 - ***There are 40 outpatients with 3 family members each that need to be supported***
- Address “Worried Well” populations (calls coming in to hospital and people showing up)

APPENDIX A – ACRONYMS

AAC	Armour Academic Center
AAR	After Action Report
ARS	Acute Radiation Syndrome
ASPR	Assistant Secretary for Preparedness and Response
BMT	Bone Marrow Transplant
CDC	Centers for Disease Control and Prevention
CDPH	Chicago Department of Public Health
ED	Emergency Department
EMS	Emergency Medical Service
EOP	Emergency Operations Plan
ExPlan	Exercise Plan
FAC	Family Assistance Center
FCC	Federal Coordinating Center
G-CSF	Granulocyte Colony-Stimulating Factor
HHS	U.S. Department of Health and Human Services
HICS	Hospital Incident Command System
HLA	Human Leukocyte Antigen
HSEEP	Homeland Security Exercise and Evaluation Program
ICS	Incident Command System
IMT	Incident Management Team
IND	Improvised Nuclear Device
MCC	Master Control Cell
MCI	Mass Casualty Incident
NDMS	National Disaster Medical System
OEMC	Chicago Office of Emergency Management and Communications
PRA	Patient Reception Area
RHCC	Regional Hospital Coordinating Center
RITN	Radiation Injury Treatment Network
RUMC	Rush University Medical Center
SIMCELL	Simulation Cell
SOP	Standard Operating Procedure

