2019

RITN Tabletop Exercise (TTX) After-Action Report/Improvement Plan Planning and Messaging Focus

Exercise Date: June 19, 2019
Report Date: July 19, 2019

EXERCISE OVERVIEW

Exercise Name	2019 RITN Tabletop Exercise (TTX)
Exercise Date	June 19, 2019
Scope	This exercise is a distance-based tabletop exercise planned for 1 ½ hours. Exercise play is limited to RITN facilities and their response partners' collective challenges and considerations for improved and effective response.
Mission Area(s)	Response
Capabilities	Public Health & Medical Services
Objectives	**Objective 1:** RITN hospitals are able to describe their plans for receiving, screening, and admitting a surge of NDMS patients following a distant radiological incident. **Objective 2:** RITN hospitals are able to develop messages for internal (staff and response partners) and external (patients and visitors) to keep them informed and alleviate fear and misinformation.
Hazard	Radiological
Scenario	Medical surge from a distant radiological incident
Sponsor	Radiation Injury Treatment Network® (RITN) National Marrow Donor Program (NMDP) Office of Naval Research (ONR)
Participating Organizations	Avera McKennan Hospital – Sioux Falls, SD Barnes-Jewish Hospital – St. Louis, MO Dana Farber Cancer Institute/Boston Children's Hospital – Boston, MA Mayo Clinic, Rochester, MN Memorial Sloan Kettering Cancer Center – New York, NY Nebraska Medicine – Omaha, NE Medical University of South Carolina – Charleston, SC
Point of Contact	RITN Control Cell RITN@NMDP.ORG (612) 884-8276

EXERCISE SUMMARY

On June 19 2019, RITN centers and the RITN Control Cell participated in a tabletop exercise to describe plans for receiving, screening, and admitting a surge of NDMS patients following a distant radiological event as well as develop internal and external messages regarding the incident and actions. A facilitated series of exercise tasks were provided to participants for their consideration, response, and group discussion organized by the exercise scenario summary below.

Scenario Summary: The following illustrate the scenario events considered for participant discussion:

Exercise Scenario Ground Truth

- A 10-kiloton Improvised Nuclear Device (IND) was detonated in a major metropolitan area.
- The blast occurred at least 500 miles away from your facility and there is no concern of fallout affecting your location.
- RITN Control Cell staff begins to monitor the situation and start sending out daily Situation Reports (SitReps).
- All centers are requested to submit daily Healthcare Standard (HCS) capabilities matrix.

Day 4

- The National Disaster Medical System (NDMS) issues activation protocol for your region and the local Federal Coordinating Center (FCC) establishes a Patient Reception Area (PRA) and expects patients to start arriving in the next 24-48 hours.

Day 5

- The first NDMS aircraft arrives at PRA carrying patients with traumatic injuries.
- These patients are sent to NDMS hospitals in the area, but your facility has not received patients at this time.

Day 9

- PRA staff contact your facility to indicate that patients will radiation injuries will begin to arrive within the next 24 hours. Patients will be sent to your facility.

ANALYSIS OF CAPABILITIES

Exercise Discussion Module: Preparing for a Surge

Scenario Update: Patients will arrive in waves over a multi-day period from the PRA.

	Wave 1 (event +10)	Wave 2 (event +11)	Wave 3 (event +11)
Estimated number of patients	20 12 outpatients 8 inpatients	20 18 outpatients 2 inpatients	20 17 outpatients 3 inpatients
Transportation method from the PRA	12 – Dual Use Vehicle (DUV) 8 – Ground ambulance	18 – Dual Use Vehicle (DUV) 2 – Ground ambulance	17 – Dual Use Vehicle (DUV) 3 – Ground ambulance
Arrival Time	2:00 PM	12:00 AM	10:00 AM

Patient Receipt at the Hospital

Participating hospitals were asked where the following actions would take place as patients from the blast site arrived as well as how the functions would be staffed. The responses are below.

Hospital	Initial Admission	Radiological Screening	Decontamination (if necessary)	Counseling/ Behavioral Health	Family Assistance/ Information
Avera McKennan	ED Staff: ED	Not designated Staff: Nuclear Medicine	Not designated Staff: Sioux Falls Fire Rescue and the South Dakota Air National Guard 114 Airwing Emergency Management staff	Consult would be setup on an inpatient basis or setup outpatient Behavioral Health services Staff: Avera Behavioral Health Center: Inpatient and Outpatient	Coordinated with City of Sioux Falls and a location would be designated as a FAC; and information developed jointly between our facility, City, County, and State partners Staff: Avera McKennan Social Services, Chaplaincy, EAP, and City of Sioux Falls

Hospital	Initial Admission	Radiological Screening	Decontamination (if necessary)	Counseling/ Behavioral Health	Family Assistance/ Information
Medical University of South Carolina (MUSC)	ART, Main Hospital, Children's Hospital, and potentially HCC (patients would arrive to three different sites and teams would be in place at each to receive, triage, screen, and decontaminate) Staff: Pediatric and Adult medical services with security and public safety team to ensure access	ART Staff: Radiology	ART Staff: Radiology/ Emergency Medicine	ART, Children's Hospital, HCC, Main hospital or Institute of Psychiatry if needed Staff: Social Work, Behavioral Health, Childlife Specialists	ART, CH, HCC, Main hospital Staff: Social Work, Behavioral Health, Childlife Specialists
Barnes Jewish Hospital	Southwest Tower Ambulance Bay Staff: ED	Ambulance Bay Staff: ED and Radiology	Ambulance Bay Staff: ED and Radiation Safety	EPNEC (conference center) Staff: spiritual care, HR/EAP	EPNEC (conference center) Staff: spiritual care, HR/EAP
Mayo Clinic	Main Entrance Staff: Admissions Transfer Center	Main Entrance Staff: Radiology	Emergency Center Staff: Emergency Center	Main Entrance Staff: Inpatient Social Work/Psych	Hospital Cafeteria Staff: Social Work
Memorial Sloan-Kettering (MSK)	Clinical Decision Unit (CDU) Staff: Urgent Care Center (Emergency Staffing), Admitting, Department of Nursing, Emergency Planning	CDU Staff: Radiology	Shower in CDU Staff: Radiation Safety	Private rooms and waiting areas in CDU Staff: Psychiatry, Social work, potentially volunteer behavior health groups.	Large conference room space, both in the main hospital and in large research building across the street. Staff: Social Work, Patient Representatives, Volunteers

All hospital plans adequately staff the above functions so that patients could be received during a full 24 hour period as the waves of RITN patients arrived to the area.

Hospitals also reported out on any modifications to the locations above if adverse weather conditions were anticipated during patient receipt and all indicated that the way operations were set up there would not be weather impacts. MUSC's biggest concern was hurricanes and flooding; in the event of a hurricane patients would not arrive to their RITN center and if roads are flooded the hospital recently purchased two vehicles capable of transporting patients and staff in up to 9 feet of water. MSK has underground tunnels connecting buildings to protect patients and staff from the elements.

Also all hospitals were able to receive patients arriving either via ambulance or dual-use vehicle (DUV).

Two of the participating hospitals stated that they would use volunteers for the activities associated with receiving the RITN patients (MUSC, MSK). MUSC has both an adult and a pediatric volunteer program under the auspices of the university. Volunteers are required to go through the same process employees to include applications, interviews, background checks, health screening, hospital orientation and departmental training specific to their roles, licensure and competency verification where applicable. MSK volunteers are also trained as employees and have received similar information regarding RITN. The Medical Reserve Corp would be utilized if needed for behavior health. Barnes Jewish Hospital and Mayo Clinic would not require volunteers in this scenario because with the lead time of 9-10 days before patient arrival it would be possible to create their own staffing plans (e.g., nursing units, labor pool) to accommodate the three waves of RITN patients.

Message to Hospital Staff (Internal Messaging)

In the second exercise activity, hospitals were tasked with creating both internal (staff) and external messages that would be delivered prior to ARS patient arrival. Immediately upon finding out about the incident, hospitals would activate Incident Command (at least partially) and begin message development. With the awareness 7-9 days before patients would be arriving there is plenty of time to communicate and respond to questions. Some of the key content and delivery mechanisms for internal messaging are as follows:

- Staff would receive messaging through a number of different channels such as automated notifications to mobile devices, email, intranet/internal portals, and education campaigns on radiation safety.

- Staff communications would include basic statements such as continue to come to work, business as usual, our hospital has expertise that will be utilized to help patients, no concerns for staff, direct to managers with questions, and refer to HR for counseling. Managers would be provided answers to frequently asked questions (FAQs); the FAQ could also be distributed and possibly turned into a video.
- It would be important to communicate early and often to manage mis-information.
- Nebraska Medicine would align internal and external messages closely; conversational wording used to ensure ease of understanding for people of different backgrounds and education levels.

Message to Current Patients and Families (External Messaging)

- Several platforms would be utilized by MSK to communicate with current patients, for example a one-pager that could be distributed in multiple languages as well as a digital portal for patients to log in and get information. Business as usual, accepting these affected patients, but our dedication to care and safety is first and foremost, no compromise to your care. Resources if people have questions. Anticipate heightened concerns from family members and be prepared to respond to them.
- MSK would coordinate public affairs with the other 2 RITN centers in NYC in order to standardize messages. Conference calls would also be held with NYC Emergency Management and other news organizations to manage rumor control and make a subject matter expert (SME) available.
- Boston Children's Hospital would utilize social media to message to both staff and patients. As well as prepare all possible positions that patients may come into contact with at the hospital with responses to questions (e.g., valet, parking).
- Boston Children's Hospital would ensure a leadership presence available especially on floors where the ARS patients were being admitted to alleviate fears and show that it is safe to be in that area.
- Nebraska Medicine would also have leadership go to patient rooms to meet with them and provide an informational letter about the receipt of ARS patients and expectations.

The exercise message below from Barnes Jewish Hospital (BJH) is an example of the content developed by all hospitals that submitted their messages.

Exemplar: *Approximately 60 patients are currently under investigation for the radiation exposure due to the incident in Indianapolis, Indiana. Missouri designated BJH as a state-designated assessment hospital, which is a member of the Radiation Injury Treatment Network and has the capacity to handle a mass casualty incident resulting in marrow toxic injuries.*

Patients are currently being transferred to BJH from out of state and will be evaluated further on Parkview Tower's oncology floors, The Center of Advanced Medicine's 7th floor and lobby area and within the Emergency Department. A trained transport team will move the patients from out of state to BJH. Public Safety will ensure the paths are clear during the transfer. Patients are currently scheduled to arrive starting at 2 p.m., Friday through the weekend. Only authorized and designated personnel will be allowed in these areas. Expect potential delays or disruptions to normal workflow. The safety of our patients, visitors, team members and physicians is our highest priority. No team member or physician are allowed to treat a suspected or confirmed radiation exposed patient unless, they have completed appropriate training and are deemed qualified. For any questions, please talk to your supervisor or visit the radiation injury treatment network intranet page (insert link). This is an exercise.

Strengths

The following strengths were demonstrated:

Strength 1: Hospitals had clearly identified locations for the various patient receiving activities as well as staffing plans to support those functions for 24 hours as the waves of RITN patients arrived to their area. Staffing plans included the integration of hospital volunteers and/or calling in additional staff with the 9-10 day lead time from the time of incident recognition to patient arrival.

Strength 2: Locations identified for receiving RITN patients at the hospital have been selected so that adverse weather conditions would not impact operations; similarly the locations are capable of receiving patients either by ambulance or DUV at all of the participating hospitals.

Strength 3: All hospitals would take a proactive approach to staff and patient messaging given the lead time between incident recognition and patient arrival; there was a good understanding of the type of information that would need to be communicated to alleviate fears, prioritize patient care, and continue business as usual. Several other best practices were developing FAQ responses/resources and involving leadership to communicate and/or demonstrate safety.

Areas for Improvement

The following areas require improvement:

Area for Improvement 1: While some of the RITN hospitals indicated coordination with other state/local/healthcare partners for the patient receipt and/or messaging, future planning and exercise efforts specific to a RITN response should further incorporate these entities to ensure familiarity of the nature of the response as well as roles/responsibilities.

Area for Improvement 2: RITN should consider creating templated information (e.g., overarching message) regarding expectations for hospitals that are accepting patients to streamline the process for individual hospitals to create messages and ensure consistency across the centers (and public health partners).

Area for Improvement 3: RITN centers should be sure that planning and messaging elements for a RITN response are coordinated with other RITN hospitals in the geographic area.

Area for Improvement 4: Staff awareness of radiation risks remains a concern for some hospitals. Offer education opportunities to both medical and support staff such as administrative and environmental services, for example:

- RITN Training Materials (https://ritn.net/training/)
- Radiation Emergency Assistance Center/Training Site (REAC/TS) training for medical personnel (https://orise.orau.gov/reacts/capabilities/continuing-medical-education/default.aspx)

Area for Improvement 5: Just-in-time access to the online "YouTube" RITN training videos (in particular the 4 minute "what you need to know" video) may not be possible either during an incident or due to staff access/hospital firewalls. It is recommended that this be available in a downloadable format for hospitals to access without internet (i.e., host on their internal websites).

APPENDIX A: IMPROVEMENT PLAN

This improvement plan template has been developed specifically for the RITN centers participating in the 2019 RITN Planning and Messaging Tabletop Exercise conducted on June 19, 2019. RITN centers can utilize this table to organize the opportunities for improvement to augment and develop their own corrective actions.

Core Capability	Issue/Area for Improvement	Corrective Action	Capability Element[1]	Primary Responsible Organization	Organization POC	Start Date	Completion Date
Core Capability 1: [Capability Name]	1. [Area for Improvement]	[Corrective Action 1]					
		[Corrective Action 2]					
		[Corrective Action 3]					
	2. [Area for Improvement]	[Corrective Action 1]					
		[Corrective Action 2]					

[1] Capability Elements are: Planning, Organization, Equipment, Training, or Exercise.

APPENDIX B: EXERCISE PARTICIPANTS

Participating Organizations	
Avera McKennan Hospital	Kevin Schlosser
Avera McKennan Hospital	Rae Ann Johnson
Avera McKennan Hospital	Brent Garner
Avera McKennan Hospital	Adam Frerichs
Avera McKennan Hospital	Lynn Delancy
Avera McKennan Hospital	Beth Deckert
Avera McKennan Hospital	Sandy Frentz
Avera McKennan Hospital	Matt Van Voochis
Avera McKennan Hospital	Lacey Roberts
Avera McKennan Hospital	Lisa Hansen
Avera McKennan Hospital	Rochelle Rentschler
Avera McKennan Hospital	Michelle Pellman
Avera McKennan Hospital	Cindy Kannenberg
Avera McKennan Hospital	Jared Friedman
Avera McKennan Hospital	Michael Billion
Avera McKennan Hospital	Alexis Crisp
Avera McKennan Hospital	Emily Lable
Avera McKennan Hospital	Kelly Nelson
Avera McKennan Hospital	Garth Goaseth
Avera McKennan Hospital	Sarah Koppel
Avera McKennan Hospital	Justin Snyder
Avera McKennan Hospital	Jamie Arens
Avera McKennan Hospital	Jim Kent
Avera McKennan Hospital	Mary Thompson
Avera McKennan Hospital	KaraJoo Schneckloth
Avera McKennan Hospital	Traci Hollingshead
Avera McKennan Hospital	Michelle White
Avera McKennan Hospital	Leah Heuick
Avera McKennan Hospital	Karen Miller
Avera McKennan Hospital	Alicia Vermeuler
Avera McKennan Hospital	Julie Stolle
Avera McKennan Hospital	Lori Pepkes
Avera McKennan Hospital	Maria Nagelhout
Avera McKennan Hospital	Dawn Ver Hoeven

Participating Organizations	
Avera McKennan Hospital	Regan Smith
Avera McKennan Hospital	Sheena Lewis
Avera McKennan Hospital	Susan O'Hare
Barnes Jewish Hospital	Denna Fugate
Barnes Jewish Hospital	Jason Parmentier
Barnes Jewish Hospital	Jason Campbell
Barnes Jewish Hospital	Jeanette Snett
Barnes Jewish Hospital	Kristine Wassmer
Barnes Jewish Hospital	Heather Taylor
Barnes Jewish Hospital	Keith Anderson
Barnes Jewish Hospital	Kara Price Shannon
Barnes Jewish Hospital	Kim Gregory
Barnes Jewish Hospital	Kara Dubs Wilke
Barnes Jewish Hospital	Matt Hooper
Barnes Jewish Hospital	James Ecsesser
Barnes Jewish Hospital	Jennifer Rider
Barnes Jewish Hospital	Paolo Vinzon
Barnes Jewish Hospital	Emma Hooks
Barnes Jewish Hospital	Kelly Terrell
Boston Children's Hospital – Dana Farber Pediatrics	Lenaka Maddox
Boston Children's Hospital – Dana Farber Pediatrics	Christine Rosati
Boston Children's Hospital – Dana Farber Pediatrics	Benjamin Ronan
Boston Children's Hospital – Dana Farber Pediatrics	Sid Allmendinger
Boston Children's Hospital – Dana Farber Pediatrics	Shane Snyder-Hawk
Boston Children's Hospital – Dana Farber Pediatrics	Mary Devine
Boston Children's Hospital – Dana Farber Pediatrics	Diemmy Nguyen
Boston Children's Hospital – Dana Farber Pediatrics	Ann Marie, Riley
Boston Children's Hospital – Dana Farber Pediatrics	Sarita Chung
Boston Children's Hospital – Dana Farber Pediatrics	Sue Reidy
Boston Children's Hospital – Dana Farber Pediatrics	Julie Wiatt
Boston Children's Hospital – Dana Farber Pediatrics	Grant Rowe
Mayo Clinic	Russell Phillips
Mayo Clinic	Jo Witt
Mayo Clinic	Jay Johnson
Mayo Clinic	Alex Rowland
Mayo Clinic	Kyle Underwood

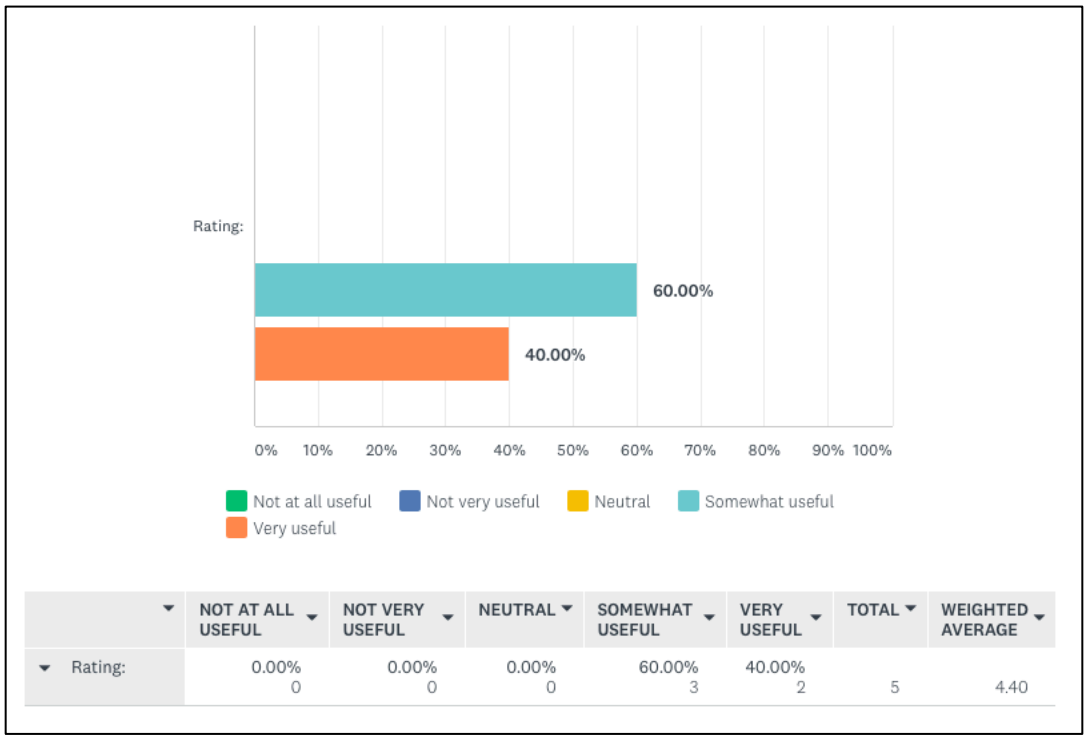
Participating Organizations	
Mayo Clinic	Jasmine Mapes
Mayo Clinic	Amy Evans
Mayo Clinic	Kathy Schwan
Mayo Clinic	Joe O'Keefe
Mayo Clinic	Beth Armstrong
Mayo Clinic	Ken Jones
Mayo Clinic	Sunni Hemingsen
Mayo Clinic	Amber Wolery
Mayo Clinic	Jilaire Rendler
Mayo Clinic	Kristi Klein
Mayo Clinic	Brenda Frye
Mayo Clinic	Michael Benz
Mayo Clinic	Byron Callies
Medical University of South Carolina	Elizabeth Williams
Medical University of South Carolina	Cindy Kramer
Medical University of South Carolina	Kim Bailey
Medical University of South Carolina	Heather Woelwin
Medical University of South Carolina	Joy Peters
Memorial Sloan Kettering Cancer Center	Adlynn Parado
Memorial Sloan Kettering Cancer Center	Kevin Keeman
Memorial Sloan Kettering Cancer Center	Jake Neufield
Memorial Sloan Kettering Cancer Center	Courtney Langen
Memorial Sloan Kettering Cancer Center	Jeanne D'Agastino
Memorial Sloan Kettering Cancer Center	Eric Davis
Memorial Sloan Kettering Cancer Center	Debbie Wells
Memorial Sloan Kettering Cancer Center	Matt Williamson
Memorial Sloan Kettering Cancer Center	Karya Prasad
Memorial Sloan Kettering Cancer Center	Jeff Groeger
Memorial Sloan Kettering Cancer Center	Holly Wallace
Memorial Sloan Kettering Cancer Center	Giselle Melendez
Memorial Sloan Kettering Cancer Center	Chelsea Brooklyn
Memorial Sloan Kettering Cancer Center	Jorge Capote
Memorial Sloan Kettering Cancer Center	Priti Patel
Memorial Sloan Kettering Cancer Center	King Hin Poon
Memorial Sloan Kettering Cancer Center	Ann Jakubawksi
Memorial Sloan Kettering Cancer Center	Nancy Kernan

Participating Organizations	
Memorial Sloan Kettering Cancer Center	Karen Collum
University of Nebraska Medical Center	Kim Schmit-Pokorny
University of Nebraska Medical Center	Dawn Jourdan
University of Nebraska Medical Center	Missy Kneifl
University of Nebraska Medical Center	Suzanne Watson
University of Nebraska Medical Center	Shelly Schwedheim
University of Nebraska Medical Center	Jen Hirschbrunner
University of Nebraska Medical Center	Rebecca Duchman
University of Nebraska Medical Center	Traci Rawlinson
University of Nebraska Medical Center	Theresa Woodrum
University of Nebraska Medical Center	Mark Theis
University of Nebraska Medical Center	Maddy Pelster
University of Nebraska Medical Center	Shawn Housh
University of Nebraska Medical Center	Neil Hansen
University of Nebraska Medical Center	Sue Homes
University of Nebraska Medical Center	Frank Rutar
University of Nebraska Medical Center	Pam Cox
University of Nebraska Medical Center	Bryan Scofield
University of Nebraska Medical Center	Joel Haman
University of Nebraska Medical Center	Jo Jameson
University of Nebraska Medical Center	Heidi Tonne
University of Nebraska Medical Center	Paul Baltes
University of Nebraska Medical Center	Todd Bartholet
University of Nebraska Medical Center	Charlotte Evans

APPENDIX C: PARTICIPANT FEEDBACK

RITN Centers were asked to provide some brief feedback on an online questionnaire following the exercise. The comments below are not in any particular order and are provided unedited to avoid intent changes.

Note: The average rating provided by the participating RITN centers regarding the usefulness of this exercise was 4.40 (out of 5.0). Number of responses = 5.



	NOT AT ALL USEFUL	NOT VERY USEFUL	NEUTRAL	SOMEWHAT USEFUL	VERY USEFUL	TOTAL	WEIGHTED AVERAGE
Rating:	0.00% 0	0.00% 0	0.00% 0	60.00% 3	40.00% 2	5	4.40

Based on discussions today, please briefly describe the 1 or 2 strengths demonstrated by your organization's ability to respond to a radiation mass casualty incident as described in this exercise scenario.	
Avera McKennan Hospital	*Partnership w/ the City of Sioux Falls Health Dept., Sioux Falls Emergency Management, South Dakota Dept. of Health, Air National Guard 114 Fighter Wing, and other healthcare providers within Sioux Falls (Sanford USD Medical Center) all played a huge role in the success of this type of exercise and preparing for an event of this type. Being part of a large health system that has a very proactive Supply Chain Management staff and those staff understand the importance of keeping suppliers and contacts very well informed and updated during this type of event.*
Barnes-Jewish Hospital	*Strong collaboration between organizations and service providers*

Based on discussions today, please briefly describe the 1 or 2 strengths demonstrated by your organization's ability to respond to a radiation mass casualty incident as described in this exercise scenario.	
Boston Children's Hospital	*No survey response*
Mayo Clinic	*Care capability and community partners*
Memorial Sloan Kettering Cancer Center	*Experience caring for these patients in normal state* *Recently completed full scale exercise, which increased our ability to understand challenges associated with RITN/ARS patients.*
Nebraska Medicine	*No survey response*
Medical University of South Carolina	*Due to our ongoing experience with weathers issues (e.g. flooding, hurricanes) our emergency management team are one of the best in the country. They have already had extensive experience with needing to shift patients, visitors, family, staff. Because of this, our communications team is also well versed in getting information out to the public and in particular to staff. Almost monthly there are flooding issues that need to be well planned and addressed with the community and with staff.*

Based on discussions today, please briefly describe the 1 or 2 challenges demonstrated by your organization's ability to respond to a radiation mass casualty incident as described in this exercise scenario.	
Avera McKennan Hospital	*We did not involve EMS actively during the exercise and that was an error on our part. We weren't able to speak for EMS when the discussions of transporting patients to the hospital arose.* *Just-in-time training is an issue. Not all staff are able to access "You-Tube" and that becomes an issue when trying to provide the short (4 minute) video from the RITN site regarding this type of event.*
Barnes-Jewish Hospital	*Allocating sufficient resources to operationalize existing plan.*
Boston Children's Hospital	*No survey response*

Based on discussions today, please briefly describe the 1 or 2 challenges demonstrated by your organization's ability to respond to a radiation mass casualty incident as described in this exercise scenario.	
Mayo Clinic	*Outpatient housing (planning, cost recovery, etc.) Family assistance planning/coordination*
Memorial Sloan Kettering Cancer Center	*Rumor control. Coordination with city agencies.*
Nebraska Medicine	*No survey response*
Medical University of South Carolina	*We have 7 BMT attendings, 5 of whom are new to our institution. This exercise allowed us to discuss, with our emergency management team, the best way to train these new staff members. We have arranged a presentation with just our attendings and APPs this September that will provide background on the RITN and what they can expect.*

List and briefly discuss elements to address for future RITN exercises.	
Avera McKennan Hospital	*The objectives that were utilized for the 2019 RITN TTX worked very well. We would envision maybe increasing the number of patients in each wave; and increasing the number that would need inpatient care vs. outpatient care. 2. One of the discussions that has arisen after the exercise was the questions of transferring patients (especially critically ill patients) to other health systems within the city or state; and what are the implications this would create when looking at insurance coverage and issues caused by the transferring of patients.*
Barnes-Jewish Hospital	*1. include more clinical, even to emergency management, to help focus conversation and eliminate hypotheticals. 2. 2nd activity slowed momentum generated from first activity. Ensure action-focused.*
Boston Children's Hospital	*No survey response.*
Mayo Clinic	*Multi-agency coordination Outpatient/Respite Housing*
Memorial Sloan Kettering Cancer Center	*Regional Coordination (VA, local emergency management agencies, EMS, hospitals).*

List and briefly discuss elements to address for future RITN exercises.	
Nebraska Medicine	*No survey response.*
Medical University of South Carolina	*We always enjoy hearing any new developments at the RITN, in particular since we are a pediatric center, we appreciate any updates on how unaccompanied minors will be addressed. Thank you!*

APPENDIX C: ACRONYMS

Acronym	Term
AAR	After Action Report
ARS	Acute Radiation Syndrome
BJH	Barnes Jewish Hospital
CDU	Clinical Decision Unit
DUV	Dual Use Vehicle
FAC	Family Assistance Center
FAQ	Frequently Asked Questions
FCC	Federal Coordinating Center
HCC	Healthcare Command Center
HCS	Healthcare Standard
IND	Improvised Nuclear Device
IV	Intravenous
MSK	Memorial Sloan Kettering (Cancer Center)
MUSC	Medical University of South Carolina
NDMS	National Disaster Medical System
NMDP	National Marrow Donor Program
ONR	Office of Naval Research
PRA	Patient Reception Area
RITN	Radiation Injury Treatment Network
SME	Subject Matter Expert
TTX	Tabletop Exercise