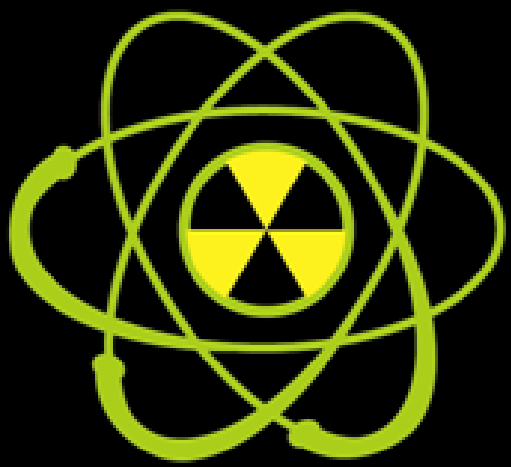
2016

After-Action Report/Improvement Plan
July 27, 2016



EXERCISE OVERVIEW

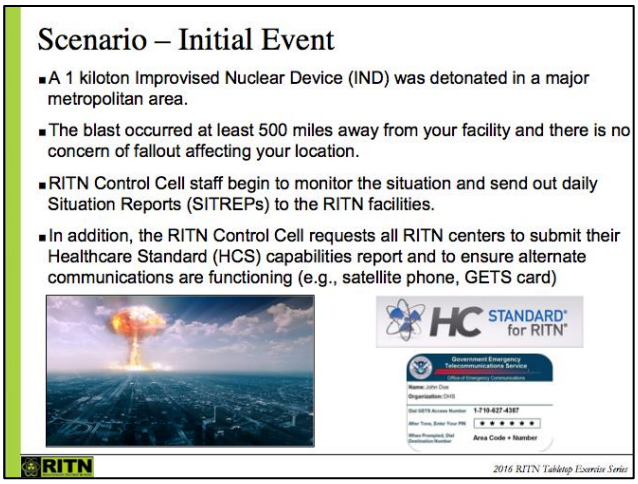
Exercise Name	2016 RITN Tabletop Exercise (TTX)
Exercise Date	July 27, 2016
Scope	This exercise is a distance-based tabletop exercise planned for 2 ½ hours. Exercise play is limited to RITN facilities and their response partners' collective challenges and considerations for improved and effective response
Mission Area(s)	Response
Capabilities	Public Health & Medical Services
Objectives	**Objective 1:** Conduct internal and external communications that include staff, patients, and visitors as well as the media and other response partners. **Objective 2:** Describe the procedures for establishing a Family Information Center and how information will be shared with family members both on-site and at distant locations. **Objective 3:** Identify just in time training requirements and the resources needed to meet those needs. **Objective 4:** Describe their approaches used for hematopoietic cell transplantation (HCT) in casualties who appear to have received myeloablative doses of radiation.
Threat or 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 Transplant Institute – Sioux Falls, SD Barnes-Jewish Hospital – St. Louis, MO Children's Mercy Hospital – Kansas City, MO

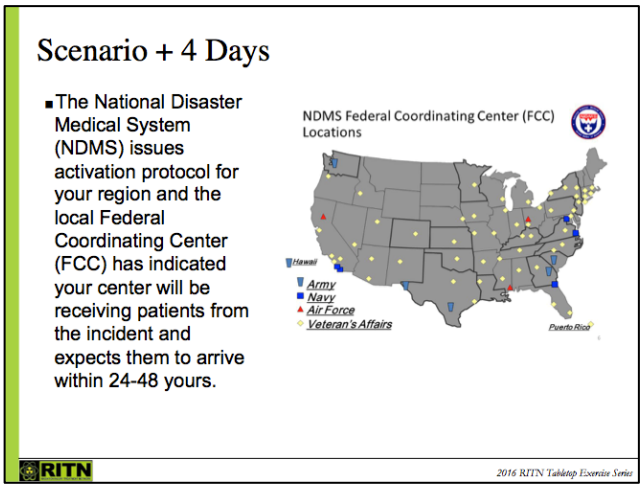
	Children's Hospital of Philadelphia – Philadelphia, PA Children's Hospital of Wisconsin – Madison, WI Froedtert Memorial Hospital – Milwaukee, WI Barbara Ann Karmanos Cancer Center – Detroit, MI Massachusetts General Hospital – Boston, MA Roswell Park Cancer Institute – Buffalo, NY South Dakota Office of Emergency Management – Sioux Falls, SD Stanford Hospital and Clinics – Stanford, CA University of Alabama at Birmingham – Birmingham, AL University of Iowa Hospital and Clinics – Iowa City, IA University of Pittsburgh Medical Center – Pittsburgh, PA U.S. Veterans Affairs Administration
Point of Contact	RITN Control Cell RITN@NMDP.ORG (612) 884-8276

EXERCISE SUMMARY

On July 27, 2016, RITN centers and the RITN Control Cell participated in a tabletop exercise to discuss initial triage and treatment of transported patients who were exposed to a radiological exposure device. 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:





ANALYSIS OF CAPABILITIES

Module 1: Planning for Patient Arrival

Staff Training: Participating centers indicated that their incident command/hospital management team would be activated immediately with a 24-48 hour advance notice of patients' arrival. All staff (clinical and non-clinical) would be required to attend refresher training (or just in time training) and staff would review the hospital's emergency preparedness plans, hospital emergency operations plan, radiation safety/exposure, triage, and disaster protocols. All centers indicated both classroom and online just-in-time training would be offered; multiple centers also stated staff would receive emails with radiation safety information. Training and informational content discussed by all centers was generally led by Radiation Safety and/or Nuclear Medicine and would include:

- Radiation awareness and safety (i.e. radiation dose, exposure, survival information)
- Decontamination protocols/procedures
- Radiation detection equipment (for appropriate staff)
- RITN® ARS Treatment Guidelines
- Staff roles and responsibilities
- Risk to caregivers, current patients and families, and the community
- Signs and symptoms
- Screening patients for contamination
- Staff PPE

Lastly, participating centers stated that all staff would be provided general information to prepare them for the arrival of potentially contaminated patients in an effort to manage misinformation and temper exposure/contamination concerns.

Information Provided to Current Patients/Families/Others: All of the participating centers would utilize a JIC to review and disseminate public information content. All information communicated would be developed/reviewed by a combination of the following prior to dissemination:

- BMT Medical Director (and other team members)
- Radiation Safety
- Senior Leadership (Administration and Medical)
- Hospital Incident Commander
- Medical/Technical Specialists

- Public Affairs/Public Information Office-Officer/Public Relations/Government Relations
- Hospital Risk Management
- Compliance and Regulatory Staff
- Federal Coordinating Center
- Local and State Departments of Public Health
- Emergency Management Agency

Hospital website, social media, radio, print media (letters/flyers with FAQs) were discussed as being the most readily available manner in which information would be disseminated to those in the hospital as well as the general public.

External Message Coordination: Outside agency coordination would occur among the RITN center, hospital coalition, local emergency management agency, FCC, and the hospital's EOC as the regional coordinating entities to manage and distribute external messaging. All RITN centers indicated their hospital liaison officer working in collaboration with local public health, and FCC through a JIC would jointly develop and disseminate all messaging with outside agencies. Finally, participating RITN centers stated the 24-48 hours prior to patient arrival would allow them sufficient time to coordinate messaging.

Strengths

The following strengths were demonstrated:

Strength 1: All RITN centers demonstrated a depth and breadth of training immediately available for their staff to prepare for receipt of NDMS patients. Additionally, participating centers discussed multiple examples of annual training (e.g. radiation awareness and safety, hospital EOP, staff PPE related to contaminated patients) required by their staff to maintain awareness and capability to respond quickly.

Strength 2: All RITN centers demonstrated the ability to rapidly train their staff (especially with as much as 48 hour notice) and augment their existing training materials quickly.

Strength 2: RITN centers indicated immediate use of a JIC to establish and maintain consistency in managing public messaging and as a means of rumor and min-information control.

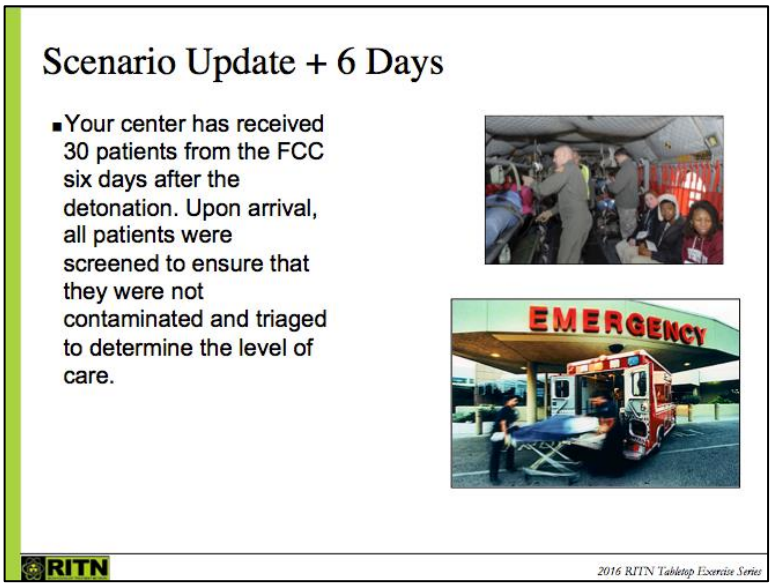
Areas for Improvement

The following areas require improvement:

Area for Improvement 1: All RITN centers should actively coordinate with their local FCC to update their EOPs as well as their radiation training materials.

Module 2: Family Information Center

Participants were provided the following update to the scenario to further facilitate discussion.



Plan for Family Information Center: All centers discussed existing plans or, at a minimum, provisions and a capability to establish and operate a family information center.

Activation & Demobilization of FIC: Activation of a family information center varied among participating RITN centers. Nine (of the participating 13 centers) stated FIC activation would occur as one of the primary objectives following notification that their facility would be receiving NDMS patients. Three centers indicated FIC activation would occur within 24-48 hours of patient receipt. One center stated operation of a FIC as part of their routine hospital operations and the FIC would adjust based on need. The FIC would remain operational until all family members have been reunited, regardless of the length of time for the FIC to remain operational. The FIC would begin demobilization when it is determined patients will be discharged from the hospital. Staff and FIC services would remain active, though scaled down in number of services provided, during demobilization to accommodate all onsite patients and families until all patients have been discharged. Staff will be assigned responsibilities as part of the Planning Section to continue follow up with all patients.

Staffing FIC: The FIC would be staffed from a variety of hospital departments, such as:

- Hospital Administration
- Security

- Social Services
- Case Management
- Psychology (and all support services)
- Ethicists
- Patient Advocacy
- Chaplain
- Patient Representatives
- Child Life Specialists
- American Red Cross
- Local Child and Youth Services
- Support would be requested from local public health departments (e.g. mental/behavioral health staff)

All but one center indicated having 24-hour operational capability if needed.

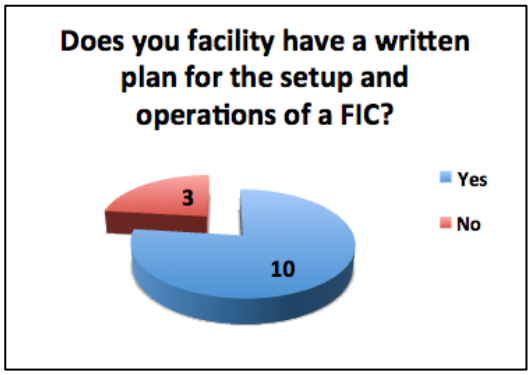
HIPAA Policy: Centers discussed currently having an emergency incident health insurance portability and accountability act (HIPAA) policy, although all centers stated following their current HIPAA policies for the events described in this scenario and consultation with their Legal Departments or Regulatory Compliance Departments for any explanations or modifications needed. Once center indicated having their Compliance Officer prepare a briefing on HIPAA privacy in emergency situations for their incident command team and their hospital emergency preparedness staff.

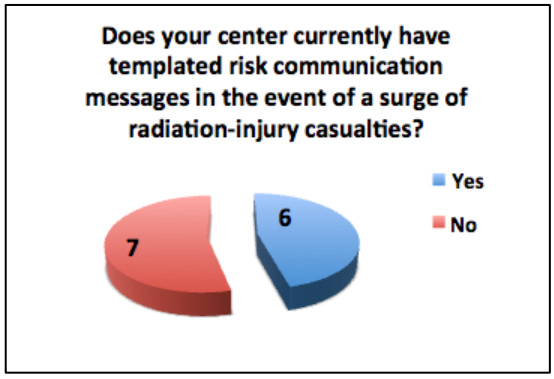
Minors at the FIC: Centers indicated social services/social work staff at the outset would address the needs of any unaccompanied minors, but their local children's hospital would be contact immediately to assume care and management of unaccompanied minors. All centers indicated continued involvement of their FIC in the support of care of any unaccompanied minors, especially since all of the centers indicated use of their social services and behavioral health staff to operate the FIC.

Polls:

Participating facilities were asked if they had a written plan for the setup and operations of a family information center.

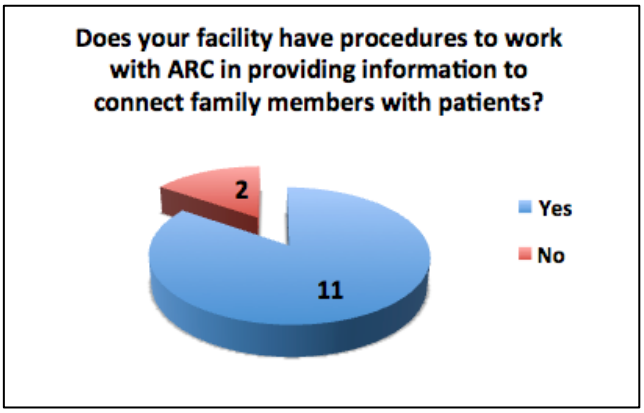
Of the 13 participating facilities, 10 centers indicated having a family information center (FIC) plan while 3 of the centers currently did not have a FIC plan.





Facilities were also polled regarding risk communication messaging templates. Of the 13 participating facilities that responded to this poll question, approximately half of the centers (6 out of 13) do not currently have template risk communication messages in the event of a surge of radiation-injury casualties.

Participating RITN facilities were polled regarding existing procedures to work with an external organization such as the American Red Cross (ARC) for family reunification.



Eleven of the 13 participating centers (85%) stated they have current procedures to contact the American Red Cross to lead efforts to connect family members with patients, while 2 centers indicated not having currently procedures to work with ARC.

Strengths

The following strengths were demonstrated:

Strength 1: Once incident command activated the Family Information Center, all participating RITN centers discussed plans and procedures to staff the FIC across various departments including staff and plans to provide behavioral and mental health services to those in need.

Strength 2: A majority of the participating RITN centers currently have plans and procedures to request support services from organizations such as the American Red Cross to assist the center with family reunification.

Strength 3: RITN centers demonstrated protocols and involvement of their legal resources (e.g. compliance officer) to adequately accommodate any needed HIPAA interpretation or requirements for an emergency response event.

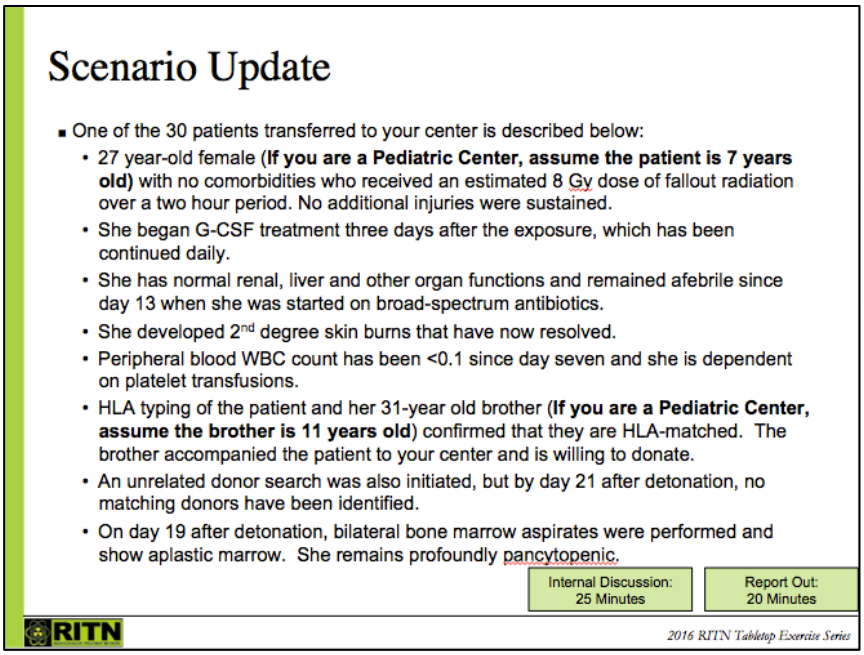
Areas for Improvement

The following areas require improvement:

Area for Improvement 1: All RITN centers should develop internal and external risk communication messaging related to the receipt of NDMS patients. As with radiological training materials, the general messaging content can be developed as part of the annual emergency operations plan (EOP) review and updating process. Messaging templates can be developed for current patients/families/those receiving care at your facility as well as messaging templates and FAQs intended for use by local media). Readily available resources include: RITN, NMDP, CDC, and REACTS.

Module 3: Patient Treatment

Participants were provided the following update to the scenario to further facilitate discussion.



Patient Treatment (27 year old): All of the participating RITN Centers would proceed with HCT, as the patient remains profoundly pancytopenic as well as aplastic at day 21 since detonation. One center stated they would increase the dose of Neupogen for one week and acknowledged that count recovery is less likely. All centers would not repeat the marrow assessment if the patient remained pancytopenia. Participating centers were consistent in their preparative regimen: For a related match, Cytoxan-ATG regimen would be used, as this is the least toxic to the patient. If the donor were unrelated, a Flu/Cytoxan/ATG regimen would be used. All centers but one stated they would use the brother's bone marrow. If the brother matched only for 1 haplotype, Centers indicated there would be no in their regimen as this would still be best option with bone marrow as the graft source, with post-transplant Cytoxan as GVHD (except for the 1 center that would use peripheral blood). Six of the 13 participating centers would not utilize *in vitro* or *in vivo* T-cell depletion; while 7 centers stated they would, but did not specify *in vitro* or *in vivo*.

All centers indicated the course of action would not be impacted if the patient was 67 years old and the brother was 64 years old provided there is confirmation of no comorbidities (one center indicated switching to PBSCs with no comorbidities in the patient). If comorbidities were present, centers would consider using a different donor.

If patient was 1 year old and brother was 3 years old, all adult and pediatric RITN centers participating would proceed with transplantation and would not repeat a marrow assessment. If available, the parent's marrow would be used. The preparative regimen remained unchanged.

Polls:

Participating RITN facilities were asked to indicate the types of just-in-time training that can be conducted. The following table illustrates their responses.

Training Type	Number of Facilities
HLA Typing	11
Medical Countermeasures	11
Patient Triage	13
PPE for Staff	13
Risk Communication	13
TOTAL Participating RITN Centers	**13**

All of the participating RITN centers responding to the poll indicated the ability to provide the following just-in-time training: Patient triage, PPE for staff, and risk communication, while 11 of the 13 responding RITN centers are able to provide JITT for HLA typing and medical countermeasures.

Strengths

The following strengths demonstrated:

Strength 1: Each participating RITN center demonstrated capability to medically manage a patient in need of a transplant 21 days following detonation/significant radiation exposure including discussing altering medical care (if appropriate) for an elderly patient and pediatric patient as stated in the exercise scenario.

Strength 2: All RITN centers indicated plans and procedures to conduct just-in-time training for patient triage, PPE for staff, and risk communication in preparation to receive NDMS patients.

Areas for Improvement

The following areas require improvement:

Area for Improvement 1: RITN should consider providing a daily briefing (via teleconference call) to RITN centers during NDMS activation. Participating RITN centers requested RITN consider instituting a daily briefing as part of their CONOPS in order for centers to have a forum to interact with one another via teleconference call as opposed to email communication or message boards.

Area for Improvement 2: All participating RITN centers should develop and or augment their existing just-in-time training (based on the poll results) for HLA typing and medical

countermeasures pertaining to the receipt of victims that were exposed to radiological material. This training should be developed as part of improvement planning following this exercise.

Area for Improvement 3: RITN centers treating adult only patients should confirm their plans and procedures to prepare and transport a pediatric patient receiving radioactive fallout dosage to a pediatric facility that can provide transplantation services and a continuum of medical and social services care. The adult RITN centers stated they would arrange transport of a pediatric patient, but did not discuss details such as: receiving pediatric hospital/medical, existing contract with an ambulance provider that will transport patients exposed/received radiological material, air transport vendor that would transport this type of patient, and medical team (if needed) to accompany the patient.

CONCLUSION

This report augments existing planning/training/exercising programs related to RITN center triage and medical management of radiologically exposed patients transported to their center and their capabilities to communicate internally and externally. The strengths validate well-established aspects of the plans while the opportunities for improvement provide information to enhance, refine, or improve existing plans, protocols, procedures, and systems. It is anticipated that the improvement plan will be incorporated into the efforts of each participating RITN center to strengthen the response of the radiation injury treatment network of hospitals and healthcare systems as it relates to the core capabilities identified in this report.

APPENDIX A: IMPROVEMENT PLAN

This improvement plan template has been developed specifically for the RITN centers participating in the 2016 RITN Tabletop Exercise conducted on July 27, 2016. 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

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Members of the Incident Response Team Activated for the Exercise

Position	Avera McKennan	Barnes Jewish Hospital	Children's Mercy Hospital	Children's Hospital of Philadelphia	Children's Hospital of WI	Froedtert Memorial Hospital	Karmanos Cancer Center	Mass General Hospital	Roswell Park Cancer Institute	Stanford Hospital and Clinics	Univ of AL at Birmingham	Univ of Iowa Hospital and Clinics	Univ of Pittsburgh Medical Center
RITN Medical Director			☐	☐			☐	☐	☐	☐	☐	☐	☐
RITN Primary Coordinator	☐	☐	☐	☐		☐		☐	☐		☐	☐	☐
RITN Alternate Coordinator	☐	☐		☐	☐		☐		☐	☐	☐		☐
Additional physician(s)		☐		☐			☐	☐	☐			☐	☐
Nursing staff	☐	☐	☐	☐	☐	☐	☐		☐	☐	☐	☐	☐
Admission process rep	☐		☐								☐	☐	☐
Admin / hospital executive	☐		☐			☐	☐				☐	☐	☐
Emergency mgt staff	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Pharmacy staff member	☐		☐	☐			☐		☐				☐
Radiation safety officer / Health physicist	☐		☐		☐	☐	☐	☐	☐	☐	☐	☐	☐
Social services rep	☐		☐	☐			☐	☐		☐	☐	☐	☐
Psychiatry/psychology rep			☐									☐	
Blood center rep		☐	☐	☐				☐				☐	☐
Emergency department rep	☐	☐	☐				☐	☐		☐	☐	☐	☐
Quality rep	☐	☐		☐	☐	☐	☐	☐	☐				
Regulatory rep	☐		☐	☐			☐						
Infectious disease specialist			☐				☐		☐				☐
Cell processing lab rep	☐	☐	☐		☐	☐	☐	☐					☐
Environ health and safety rep	☐	☐	☐				☐						
Ethicist			☐										
Burn center rep			☐										

Position	Avera McKennan	Barnes Jewish Hospital	Children's Mercy Hospital	Children's Hospital of Philadelphia	Children's Hospital of WI	Froedtert Memorial Hospital	Karmanos Cancer Center	Mass General Hospital	Roswell Park Cancer Institute	Stanford Hospital and Clinics	Univ of AL at Birmingham	Univ of Iowa Hospital and Clinics	Univ of Pittsburgh Medical Center
Public information rep	□		□	□			□		□	□	□	□	
VA/NDMS rep	□		□					□					
Public Health rep	□		□				□					□	
County/city/state emergency manager	□		□				□	□					□
Poison control center rep			□										
Healthcare coalition rep	□		□				□						
Other	Fire/EMS Security Nuclear Medicine Transplant Facility Services		Ronald McDonald House Rep ARC Laboratory Transport Home Care BMT Nurse Leader Education Univ of Kansas RITN Coordinator Ambulatory Nurse Leader				Volunteer Services Customer Services Oral Oncology	Pathology		Outpatient Cancer Center Guest Services			

APPENDIX C: PARTICIPANT FEEDBACK

RITN Centers were asked to provide some brief feedback on an online questionnaire following the exercise. There were three questions asked with related responses are included below. 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 for this exercise was 4.46 (out of 5.0).

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 Transplant Institute	*Have precanned messaging ready to go to the public.*
Barnes-Jewish Hospital	*1. Strong, multidisciplinary collaboration between partners. 2. Existing plans and policies addressed information requested during exercises; reiterated functional status with always room for improvement*
Children's Mercy Hospital	*Strengths include ability to put together educational training for staff quickly. Also the ability to put together a FIC, utilizing CMH staff and members of coalition.*
Children's Hospital of Philadelphia	*We have been and RITN center for about 6 years. So we now have some key stakeholders in EP, Onco and BMT. People at this point pull up the REMs!*
Children's Hospital of Wisconsin	*Our organization has a large pool of resources available through the state and hospital MOUs which would allow us to respond rapidly to an event.*
Froedtert Memorial Hospital	*Very strong emergency preparedness through policies, mandatory staff education and yearly event exercises. Strong clinical program to manage this patient population.*
Barbara Ann Karmanos Cancer Center	*Our emergency operation plan is strong and we are able to mobilize quickly; we have strong relationships with adjacent hospitals including regular collaboration/practice with disaster management.*

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.	
Massachusetts General Hospital	*Well organized emergency preparedness team that conducts drills and training sessions on a regular basis. Highly trained competent BMT team knowledgeable in dealing with immune compromised patients.*
Roswell Park Cancer Institute	*The ability for RPCI to respond to a "code white". The policy and procedure is complete with all required details of a Information Center, Family Information Center, communication for internal and external needs and acquiring resources from all available support from within and the community. The Department Emergency Operations Plan is written with very concise and implicit role description for an emergency situation to be successfully carried out at RPCI. The RPCI team is committed to preparing for such an incident and willing to act on the policies in place for the best possible outcome for all involved. RPCI is very serious about educating staff and the community to achieve a higher understanding about RITN and its patients.*
Stanford Hospital and Clinics	*Great mix of pewople in the room, and even though some were unfarmiliar with RITN, very engaged. We got some great ideas for places to improve plan: communications templates, ongoing training, JIT training.*
University of Alabama at Birmingham	*No response provided*
University of Iowa Hospital and Clinics	*We have a robust and significantly organized emergency management protocol/policy in place. Our team of doctors, nurses, staff and volunteers are all committed to assisting to minor or mass radiation events.*
University of Pittsburgh Medical Center	*UPMC has many procedure put into place for emergency management, Because of the pre-created processes it allows us to seamlessly utilize current processes to care for RITN patients.*

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 Transplant Institute	*We currently do not have a just in time training; it is something that we will be addressing in the near future*
Barnes-Jewish Hospital	*1. No formal partnership with American Red Cross for coordinating information; need to coordinate at Coalition-level to include ARC (and other regional service providers) into planning process 2. Lack of programmatic awareness for Emergency Management and RITN.*
Children's Mercy Hospital	*Transportation of patients.*
Children's Hospital of Philadelphia	*Always the blood product support comes up as well as what the Red Cross will be doing to help support us locally. We were also concerned about the ATG supply running low. Designated phone number for the Family Reunification - currently we do not have one.*
Children's Hospital of Wisconsin	*The biggest challenge would be additional BMT trained staff. We would reach a capacity of specialty-trained staff we could bring in if a casualty of this type occurred. BMT training would be necessary for the care of these patients.*
Froedtert Memorial Hospital	*Housing for families and significant others coming in this scenario. Managing the social media around such an event.*
Barbara Ann Karmanos Cancer Center	*Our group was wondering if the medication for preparative regimen would be easily obtained especially since multiple sites were demonstrating a need and what medications were included in the SNS stock pile Our institution felt that HIPPA could only be waived by federal government but the other sites had varying opinions.*
Massachusetts General Hospital	*Method and degree of triage/screening for radiation contamination prior to entering the hospital and staffing necessary to perform this task. Define a more standard Family Information Center and determine staffing requirements NDMS only provides 30 days coverage. BMT patients require special housing requirements and could not be moved to a shelter. How would this be found and would it be covered by NDMS? Is there a source or government stockpile of ATG and would it become available through HHS?*
Roswell Park Cancer Institute	*A challenge would be considered time constraints for educating and maintaining competency. The staff needs to fully understand that there would be no risk in caring for theses patients, since all patients would have been triaged at RPCI and determined not to be a hazard. Another*

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.	
	challenge would be working under a "Code White" scenario. Although we have strong and detailed policies, the truth of functioning under this situation would still be stressful. RPCI is dedicated to meet such challenges and feel that all patients and staff will remain safe and care will be delivered as our stated standard of care.
Stanford Hospital and Clinics	*We were unsure about how FCC patients are coordinated into the hospitals - is it through ED or through direct admit from MD to MD transfer? The baseline knowledge of RITN among all staff at the time of the incident is low. We would have a lot of education to do about why we are taking patients.*
University of Alabama at Birmingham	*No response provided*
University of Iowa Hospital and Clinics	*We have a semi-family information center (FIC) in place, however we do not have an institutional policy/protocol rolled out hospital-wide.*
University of Pittsburgh Medical Center	*Education content for all staff*

List and briefly discuss elements to address for future RITN exercises.	
Avera McKennan Transplant Institute	*Please look at distributing a standardized just in time training for hospital staff*
Barnes-Jewish Hospital	*1. Open forum for Hot Wash debrief (versus Round Robin style) 2. Coordinate with regional training and exercise initiatives for complimentary objectives.*
Children's Mercy Hospital	*Would like to see a little more of the actual treatment of patients addressed. Especially as those sent to our center will require various levels of care -- not all inpatient and not all outpatient.*
Children's Hospital of Philadelphia	*This was stated earlier but this 2.5 hours is packed. Would love to get to 2 hours and use it to focus on a component of the response and expand on that. one year family reunification another year clinical management, another rear communications, another year national response and interaction with local sites.*
Children's Hospital of Wisconsin	*No response provided*

List and briefly discuss elements to address for future RITN exercises.	
Froedtert Memorial Hospital	*How would the FCC send 30 patients to a center. Would help in pre planning. Potential shortages of medications to manage many patients at different centers thru out the disaster area. We are constantly faced with antibiotic shortages.*
Barbara Ann Karmanos Cancer Center	*During future exercises focus on logistics and operations of mass influx (e.g. determine actual alternate locations for setting up care; obtaining medications, blood products etc).*
Massachusetts General Hospital	*Standardization of training across RITN centers so all centers are 'on the same page' in what is required and when training has been completed. Where and how SAT teams could be utilized to assist patients and families when the hospital is overwhelmed. Loop in NMDP for donor searches and ARC for HLA typing and blood products. Our center may be receiving several patients, but NMDP and ARC would need to respond to all centers within a large geographical area should an event occur.*
Roswell Park Cancer Institute	*Challenges of a more local incident Duration of time that requires community resources and local hospital collaboration Receiving patients that are contaminated, and how a hospital would respond.*
Stanford Hospital and Clinics	*Loved the Communications and FIC pieces, it incorporated different pieces. Would like a scenario that engaged pharmacy, lab and ED more as well (if that isn't too much)! We would love to see a document sharing website for RITN centers. We are happy to share our FAC plan and would love communications and JIT templates. Thank you!*
University of Alabama at Birmingham	*No response provided*
University of Iowa Hospital and Clinics	*Review previous exercises and responses to questions. Review our deficiencies well in advance to the next RITN exercise to ensure we have addressed areas to improve.*
University of Pittsburgh Medical Center	*Education content for all staff*

APPENDIX D: ACRONYMS

Acronym	Term
AAR	After Action Report
ARC	American Red Cross
ARS	Acute Radiation Syndrome
ASPR	Assistant Secretary for Preparedness and Response
ATG	Anti-Thymocyte Globulin
BMT	Bone Marrow Transplantation
Cy	Cyclophosphamide
EOP	Emergency Operations Plan
FCC	Federal Coordinating Center
FIC	Family Information Center
FluBu2	Fludarabine, intravenous Busulfan
GCSF	Granulocyte Colony-Stimulating Factor
GETS	Government Emergency Telecommunications Service
GVHD	Graft Versus Host Disease
Gy	Gray
HCT	Hematopoietic Cell Transplantation
HHS	Health and Human Services
HIPAA	Health Insurance Portability and Accountability Act
HLA	Human Leukocyte Antigen
HSCT	Hemetopoietic Stem Cell Transplantation
IND	Improvised Nuclear Device
JITT	Just In Time Training
NMDP	National Marrow Donor Program
NDMS	National Disaster Medical System
ONR	Office of Naval Research
PB	Peripheral Blood
PPE	Personal Protective Equipment
REACTS	Radiation Emergency Assistance Center/Training Site
RITN	Radiation Injury Treatment Network
SITREP	Situation Report
SNS	Strategic National Stockpile
TBI	Total Body Irradiation

Acronym	Term
TTX	Tabletop Exercise
WBC	White Blood Count