Maryland
Hospital Association

# Maryland Healthcare Coalition Radiation Surge TTX

Situation Manual

April 20, 2023

Maryland Regions I & II Healthcare Council HCC
Garrett • Allegany • Washington • Frederick

Maryland Region III
Health and Medical Coalition

DELMARVA REGIONAL HEALTHCARE MUTUAL AID GROUP

REGION V EPC
Emergency Preparedness Collaborative

# EXERCISE OVERVIEW

| | |
|---|---|
| **Exercise Name** | Maryland Healthcare Coalition Radiation Surge TTX |
| **Exercise Dates** | April 20, 2023 |
| **Scope** | This exercise is a tabletop exercise, planned for four hours across the four Maryland healthcare coalitions. Exercise play is limited to the medical surge aspects following a radiological incident. |
| **Mission Area(s)** | Response |
| **HPP Capabilities** | Health Care and Medical Response Coordination<br>Medical Surge |
| **Objectives** | Review existing radiation emergency care assets and identify gaps that may occur during a radiological mass casualty incident.<br>Review agency/facility role during a radiological emergency incident.<br>Identify changes that need to be made in the HCC Radiation Emergency Surge Annex based on the roles and capabilities of the involved partners. |
| **Threat or Hazard** | Radiological release |
| **Scenario** | Train derailment causing a radiological release over a major metropolitan area resulting in patient surges at healthcare facilities across the state. |
| **Sponsor** | Maryland Hospital Association<br>Radiation Injury Treatment Network |
| **Participating Organizations** | See Appendix B for a complete list of participants |
| **Points of Contact** | **Samantha Emminizer**<br>Maryland Hospital Association<br>semminizer@mhaonline.org<br>**Curt Mueller**<br>Radiation Injury Treatment Network<br>curt.mueller@nmdp.org |

# GENERAL INFORMATION

## Exercise Objectives and Core Capabilities

The following exercise objectives in Table 1 describe the expected outcomes for the exercise. The objectives are linked to core capabilities, which are distinct critical elements necessary to achieve the specific mission area(s). The objectives and aligned HPP capabilities are guided by elected and appointed officials and selected by the Exercise Planning Team.

**Table 1. Exercise Objectives and Associated HPP Capabilities**

| Exercise Objective | HPP Capability |
|---|---|
| Review existing radiation emergency care assets and identify gaps that may occur during a radiological mass casualty incident. | • **Health Care and Medical Response Coordination**<br>• **Medical Surge** |
| Review agency/facility role during a radiological emergency incident. | • **Health Care and Medical Response Coordination** |
| Identify changes that need to be made in the HCC Radiation Emergency Surge Annex based on the roles and capabilities of the involved partners. | • **Health Care and Medical Response Coordination** |

## Participant Roles and Responsibilities

The term *participant* encompasses many groups of people, not just those playing in the exercise. Groups of participants involved in the exercise, and their respective roles and responsibilities, are as follows:

- **Players.** Players are personnel who have an active role in discussing or performing their regular roles and responsibilities during the exercise. Players discuss or initiate actions in response to the simulated emergency.
- **Observers.** Observers do not directly participate in the exercise. However, they may support the development of player responses to the situation during the discussion by asking relevant questions or providing subject matter expertise.
- **Facilitators.** Facilitators provide situation updates and moderate discussions. They also provide additional information or resolve questions as required. Key Exercise Planning Team members also may assist with facilitation as subject matter experts (SMEs) during the exercise.
- **Evaluators.** Evaluators are assigned to observe and document certain objectives during the exercise. Their primary role is to document player discussions, including how and if those discussions conform to plans, polices, and procedures.

## Exercise Structure

This exercise will be a multimedia, facilitated exercise. Players will participate in the following two modules:

- Module 1: Initial Incident

- Module 2: Patient Surge
- Module 3: Patient Treatment

Each module begins with a multimedia update that summarizes key events occurring within that time period. After the updates, participants review the situation and engage in a group discussions of appropriate response issues.

## Exercise Guidelines

- This exercise will be held in an open, low-stress, no-fault environment. Varying viewpoints, even disagreements, are expected.
- Respond to the scenario using your knowledge of current plans and capabilities (i.e., you may use only existing assets) and insights derived from your training.
- Decisions are not precedent setting and may not reflect your organization's final position on a given issue. This exercise is an opportunity to discuss and present multiple options and possible solutions.
- Issue identification is not as valuable as suggestions and recommended actions that could improve response efforts. Problem-solving efforts should be the focus.

## Exercise Assumptions and Artificialities

In any exercise, assumptions and artificialities may be necessary to complete play in the time allotted and/or account for logistical limitations. Exercise participants should accept that assumptions and artificialities are inherent in any exercise, and should not allow these considerations to negatively impact their participation. During this exercise, the following apply:

- The exercise is conducted in a no-fault learning environment wherein capabilities, plans, systems, and processes will be evaluated.
- The exercise scenario is plausible, and events occur as they are presented.
- All players receive information at the same time.

## Exercise Evaluation

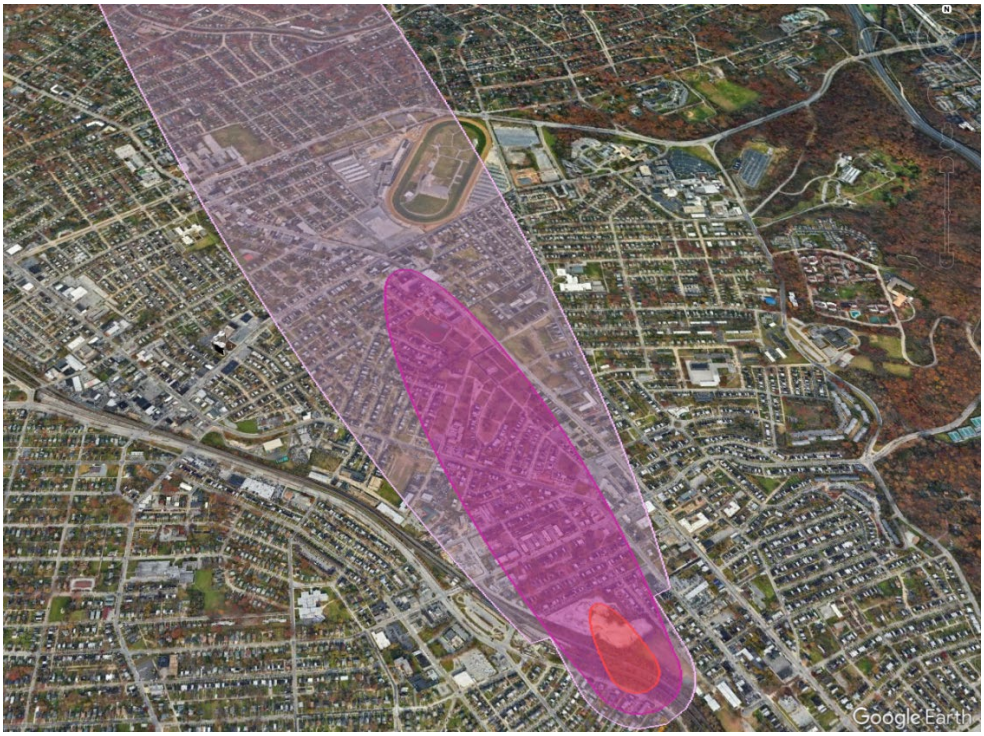
Evaluation of the exercise is based on the exercise objectives and aligned capabilities, capability targets, and critical tasks, which are documented in Exercise Evaluation Guides (EEGs). Evaluators have EEGs for each of their assigned areas. Additionally, players will be asked to complete participant feedback forms. These documents, coupled with facilitator observations and notes, will be used to evaluate the exercise and compile the After-Action Report (AAR).

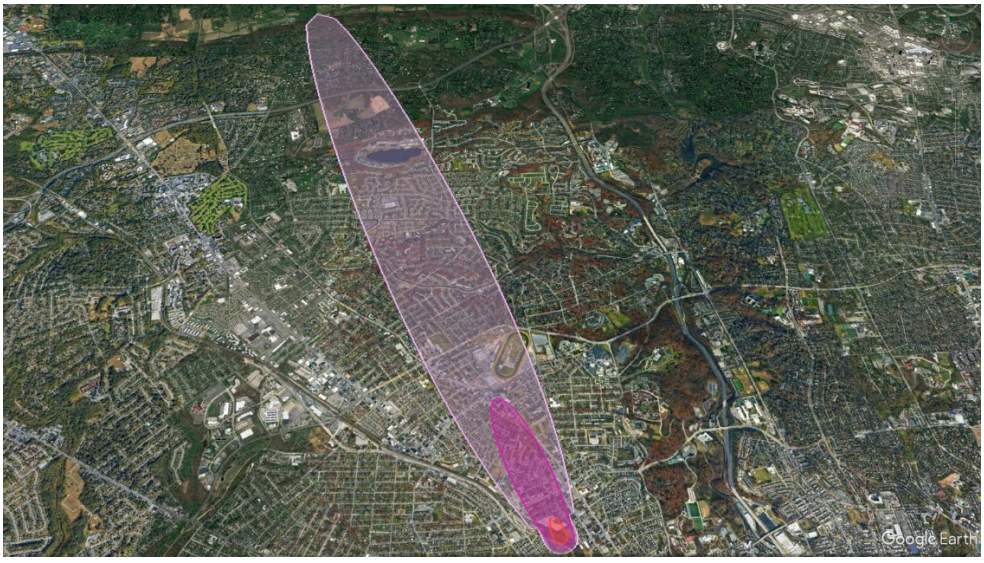
# MODULE 1: INITIAL INCIDENT

## May 20, 2023 10:00 AM

On the morning of May 20th, a freight train containing several cars of hazardous materials derails southeast of the Pimlico Race Course where approximately 90,000 people are in attendance for a horse racing event.

During the derailment several tanker cars carrying ethanol were breached causing multiple fires to burn. One of the rail cars engulfed in the fire is transporting radioactive cesium powder. As a result, resuspension of the cesium 137 has occurred causing it to spread through the plume.



## Questions

Based on the information provided, participate in the discussion concerning the issues raised in Module 1. Identify any critical issues, decisions, requirements, or questions that should be addressed at this time.

The following questions are provided as suggested subjects that you may wish to address as the discussion progresses. These questions are not meant to constitute a definitive list of concerns to be addressed, nor is there a requirement to address every question.

1. How would information about the radiation release be communicated to coalition members in the region? The rest of the state?
    a. Who is responsible for communicating this information?

2. Who initiates information sharing for HCC members? What alerts and notification mechanisms are in place to ensure that HCC members and partners are aware of the incident and can share real-time information about the disaster and plans/strategies for patient care/ transport/distribution/ decontamination/supplies?

3. What radiation detection equipment is available in your region and who is trained to use this equipment:
    a. Fire/EMS
    b. Emergency management
    c. Hospitals/healthcare facilities
    d. Other

4. What other radiological response resources are available from outside the region that could be requested?

5. What decontamination assets are available in the region?
    a. Fire/EMS
    b. Emergency management
    c. Hospital/healthcare facilities
    d. Other

6. Is additional just-in-time training needed/supported for specialty care, use of new/unfamiliar equipment (e.g., radiation detection, dosimetry, decontamination equipment)?
    a. Is the needed training readily available?
    b. Where is it located?
    c. Who conducts the training?

7. Are facility staff familiar with proper radiological screening, triage, decontamination, and treatment protocol for exposed or potentially exposed individuals?
    a. Where would you obtain guidance or additional clinical advice if needed, in real time?

8. What special considerations affect EMS patient transportation resources during a radiological emergency (e.g., EMS restrictions related to transportation and care of radiological casualties)?

# MODULE 2: PATIENT SURGE

## May 20, 2023 1:00 PM

Protective action decisions have been made and pushed out to residents in the affected area. Many of the individuals that were at Pimlico Race Course self-evacuated the area shortly after the derailment and begin to return to their homes across the state.

Given the high-profile nature of recent train derailments and the proximity to Baltimore several major news outlets have been covering the derailment and reporting about the radiation release. Social media platforms are filled with misinformation about the level of radiation released and medical countermeasures/treatment protocols that should be followed. Due to this people throughout Maryland are starting to present to their local hospital fearful that they were exposed to high levels of radiation.

To assist hospitals in their discussions the following surge numbers can be used. These numbers are only a suggestion and hospitals can increase/decrease based on the number needed to stress their systems.

| Surge Numbers | |
|---|---|
| **Hospitals in Rural Communities** | **Hospitals in Urban Communities** |
| 50 individuals | 100 individuals |

## Questions

Based on the information provided, participate in the discussion concerning the issues raised in Module 2. Identify any critical issues, decisions, requirements, or questions that should be addressed at this time.

The following questions are provided as suggested subjects that you may wish to address as the discussion progresses. These questions are not meant to constitute a definitive list of concerns to be addressed, nor is there a requirement to address every question.

1. Who is coordinating messaging to the public? What are the key messages to get out?
2. Who is leading the healthcare coordination role at this point?
3. What efforts can be made to divert concerned but not exposed residents to seek medical attention at facilities other than hospital settings?
4. Will community reception centers (CRCs) be stood up in the region?
    a. If yes, who determines this and oversees the CRC operation?
        i. How long will it take to open the CRCs?
        ii. Who will staff the CRC?
        iii. How will information about the CRCs be shared with the public?
5. Identify locations in and around your hospital that could be utilized to setup alternate care sites due to the surge in patients arriving at your facility.

   a. What equipment and supplies are available to support alternate care sites (e.g. space/tents, equipment and supply caches)?
   b. Does your facility have a staffing/shift plan for these alternate care sites? What staffing resources could be used to rapidly fill staffing needs?

6. How will the HCC, or coordination lead, work towards resupplying or redistributing needed equipment and supplies to healthcare facilities across the region?

7. Given the potential for patients to have contamination on them how will access restrictions be put in place for your facility?
   a. How will radiological screening be conducted at your facility?

8. If patients require decontamination what is your facilities capabilities?
   a. Where will decon be performed?
   b. What is the decon throughput estimate for your facility?

9. How will you address radiological waste issues; what agencies, partners can support exponential increased need for collection and disposal of contaminated materials?

10. How is HCC clinical and surge information being collected and distributed (e.g., via email, special portal, messaging boards) to ensure consistent care and guidance across facilities?
    a. Are special reporting requirements, metrics, or data being collected for situational awareness (e.g., hospital capacity, number exposed, transport needs, supply requests)?
    b. How will the HCC coordinate and share patient information across multiple facilities for patient tracking and family re-unification?

11. How will you address employee safety information needs to ensure healthcare workers feel safe?

12. What mental health services could be provided to affected populations?

# MODULE 3: PATIENT TREATMENT

## May 20, 2023 10:00 PM

Hospitals throughout the state continue to experience a large surge of individuals presenting to their emergency departments seeking treatment. This surge has been complicated by numerous clinical and non-clinical staff at hospitals calling out of work due to their fears of working around patients exposed to radiation.

## Questions

Based on the information provided, participate in the discussion concerning the issues raised in Module 3. Identify any critical issues, decisions, requirements, or questions that should be addressed at this time.

The following questions are provided as suggested subjects that you may wish to address as the discussion progresses. These questions are not meant to constitute a definitive list of concerns to be addressed, nor is there a requirement to address every question.

1. What is the process for providing ongoing situational awareness communication among the HCC facilities, regarding capacity, transported patients, updated treatment guidelines?
2. What types of staffing shortages are expected to occur for long-term response needs (e.g., over several days) and how can the HCC help to address them?
3. How will requests for radiation countermeasures (e.g. chelating agents, cytokines, etc) from the SNS be made?
    a. Where will they be delivered?
    b. Who has information about local/federal stockpiles?
        i. How do you communicate with them?
    c. What SMEs are available to assist medical staff in determining what/how countermeasures should be used?
    d. Will supplies require special storage conditions or security protocol?
4. What is the ability of hematology, clinical chemistry, and coagulation laboratories in your region to respond to the increased testing demand?
    a. How are samples prioritized if demand is greater than the current capability?
    b. Who determines this priority?
5. How will patient transfers be coordinated to specialized hospitals that can provide care for acute radiation syndrome (ARS)?

Please complete the participant feedback form using the link below or scanning the QR code to open the form on your phone.
Participant Feedback Form

# APPENDIX A: EXERCISE PARTICIPANTS

| Participating Organizations |
|---|
| **State / Federal / NGO** |
| Maryland Department of Emergency Management |
| Maryland Department of the Environment |
| Maryland Department of Health |
| Maryland Institute for Emergency Medical Services Systems |
| Maryland Hospital Association |
| Radiation Injury Treatment Network |
| VA Maryland Health Care System |
| **Region I & II** |
| Allegany County Health Department |
| Family Healthcare of Hagerstown |
| Frederick County Citizens Services Division |
| Frederick County Division of Emergency Management |
| Frederick County Fire/Rescue |
| Frederick County Health Department |
| Frederick Health Hospital |
| Garrett County Health Department |
| Garrett Regional Medical Center |
| Meritus Health |
| Thomas B. Finan Hospital Center |
| UPMC Western Maryland |
| Washington County Health Department |
| **Region III** |
| Anne Arundel County Office of Emergency Management |
| Anne Arundel County Department of Health |
| Baltimore City Fire Department |
| Baltimore City Health Department |
| Baltimore County Department of Health and Human Services |
| Baltimore County Office of Homeland Security and Emergency Management |
| Carroll County Health Department |
| Carroll Hospital |
| City of Annapolis Office of Emergency Management |
| Howard County Health Department |
| Johns Hopkins Hospital |
| LifeBridge Health |
| MedStar Franklin Square Medical Center |

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| MedStar Harbor Hospital |
| Mercy Medical Center |
| Springfield Hospital Center |
| University of Maryland Baltimore Washington Medical Center |
| University of Maryland Medical Center Midtown Campus |
| **Region IV** |
| Annapolis Fire Department |
| Annapolis Office of Emergency Management |
| Atlantic General Hospital |
| Caroline County Health Department |
| Cecil County Health Department |
| Christiana Care - Union Hospital |
| Coastal Hospice |
| Deer's Head Hospital Center |
| Dorchester County Health Department |
| Eastern Shore Hospital Center |
| Holly Center |
| Kent County Health Department |
| Optimal Health Care |
| Queen Anne's County Department of Health |
| Shore Regional Health |
| Somerset County Health Department |
| Talbot County Emergency Services |
| TidalHealth |
| University of Maryland Shore Health |
| Wicomico County Department of Emergency Services |
| Worcester County Department of Emergency Services |
| Worcester County Health Department |
| **Region V** |
| Montgomery County Department of Health and Human Services |

# APPENDIX B: ACRONYMS

| Acronym | Term |
|---|---|
| AAR | After Action Report |
| ARS | Acute Radiation Syndrome |
| CBC | Complete Blood Count |
| CRC | Community Reception Center |
| Cs | Cesium |
| EEG | Exercise Evaluation Guide |
| FEMA | Federal Emergency Management Agency |
| GCSF | Granulocyte Colony-Stimulating Factor |
| HCC | Healthcare Coalition |
| HPP | Hospital Preparedness Program |
| HSEEP | Homeland Security Exercise and Evaluation Program |
| MDEM | Maryland Department of Emergency Management |
| MDH | Maryland Department of Health |
| MDE | Maryland Department of the Environment |
| MIEMSS | Maryland Institute for Emergency Medical Services Systems |
| MHA | Maryland Hospital Association |
| NGO | Non-Governmental Organization |
| REAC/TS | Radiation Emergency Assistance Center & Training Site |
| REMM | Radiation Emergency Medical Management |
| RITN | Radiation Injury Treatment Network |
| ROSS | Radiological Operations Support Specialist |
| SitMan | Situation Manual |
| SME | Subject Matter Expert |
| SNS | Strategic National Stockpile |
| TTX | Tabletop Exercise |

# APPENDIX C: REFERENCE MATERIAL

**Radiation Emergency Assistance Center/Training Site (REACT/TS)**
https://orise.orau.gov/reacts/

**Radiation Emergency Medical Management (REMM)**
https://remm.hhs.gov/index.html

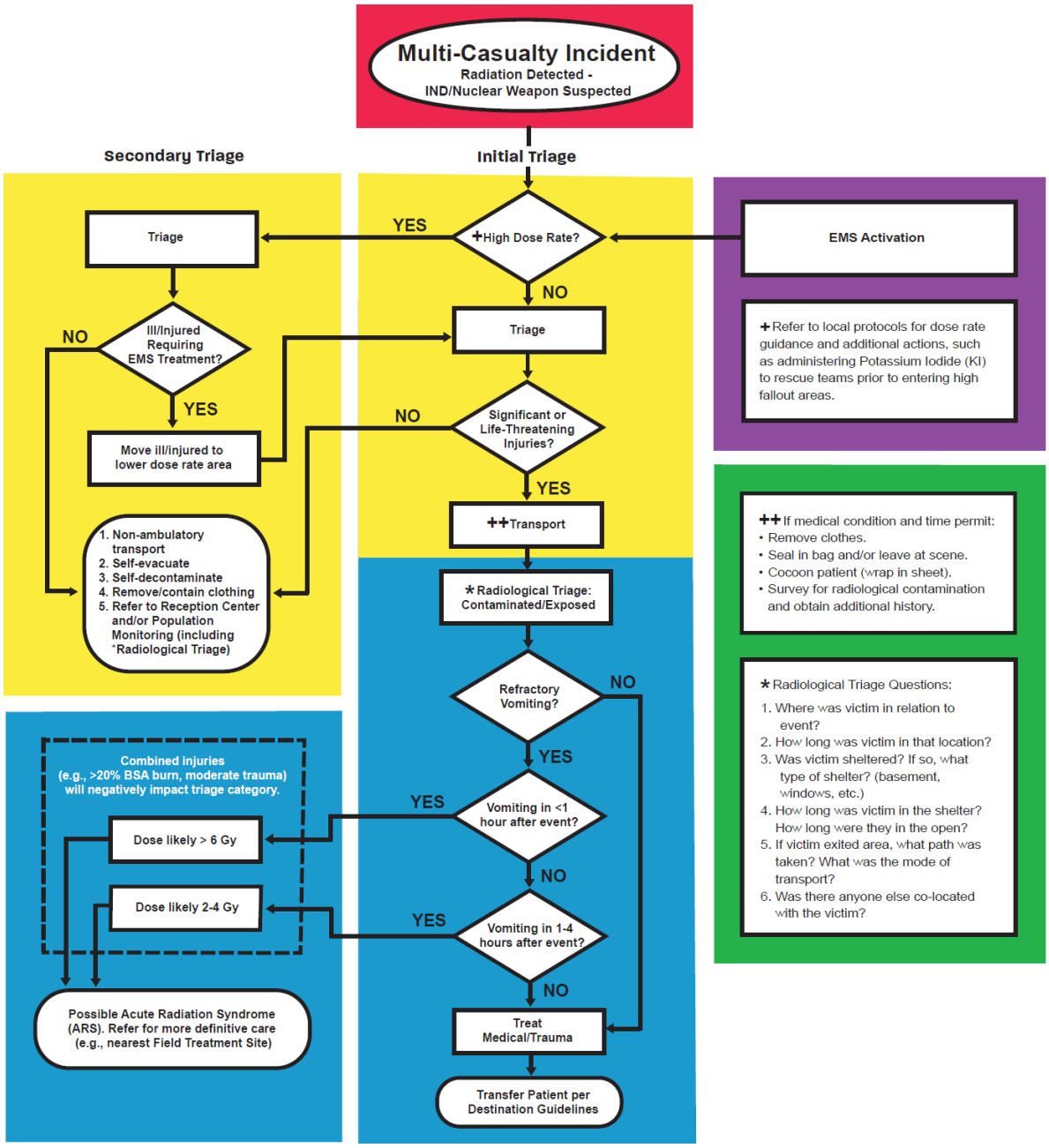
**Radiation Injury Treatment Network (RITN)**

- Training
  https://ritn.net/training/web-based-training
- Response Planning & Guidance Resources
  https://ritn.net/resources/response-planning-and-guidance-resources
- Medical Resources
  https://ritn.net/resources/medical-resources

REAC/TS
Radiation Emergency
Assistance Center/Training Site

# Prehospital Radiological Triage

Version 1.1, March 2020




**Radiation Emergency Assistance Center/Training Site (REAC/TS)**
*After Hours Emergency Assistance*
US Department of Energy Oak Ridge Operations Center: 865.576.1005
Phone: 865.576.3131 · orise.orau.gov/reacts

Oak Ridge Institute for Science and Education
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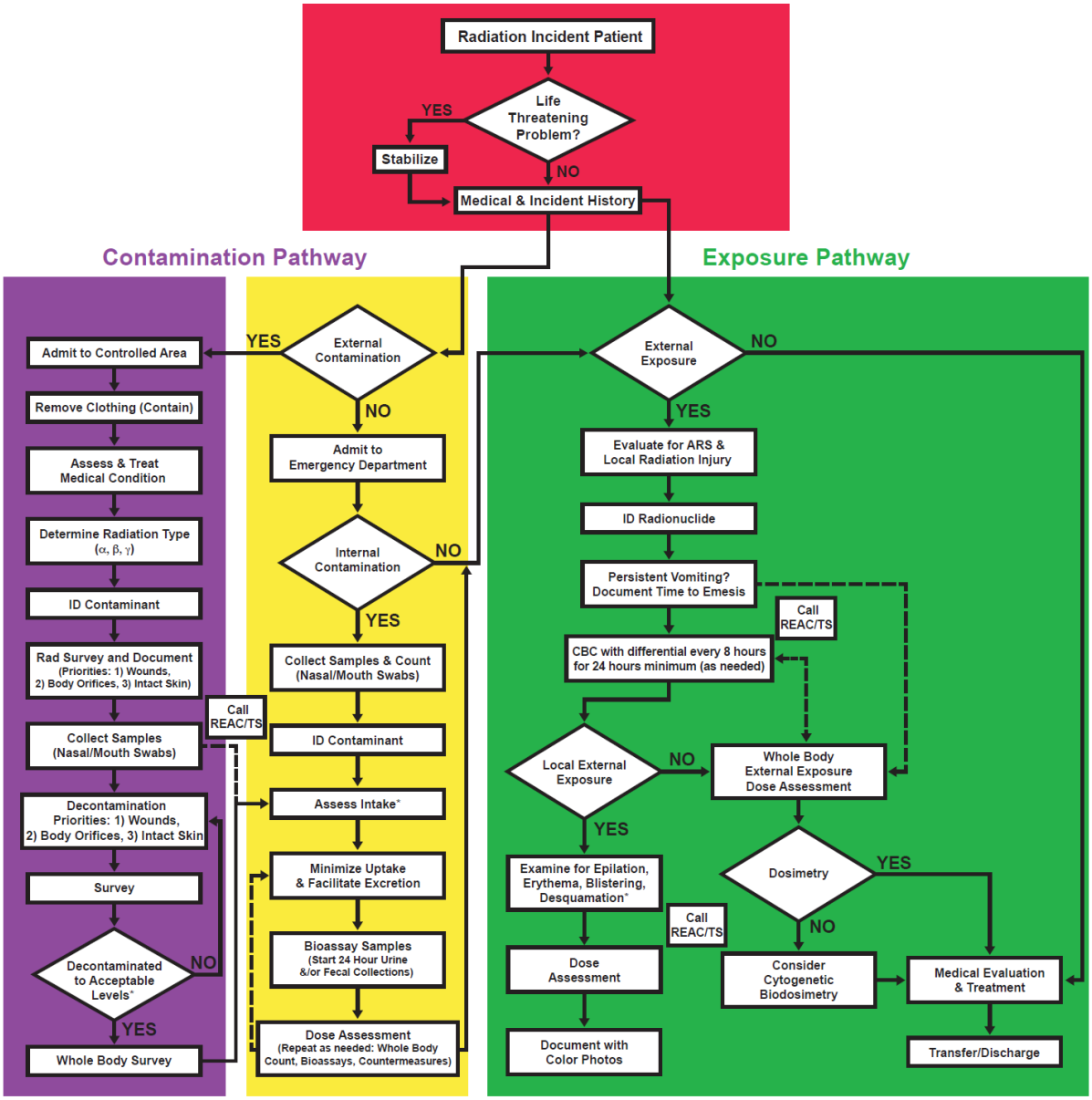
REAC/TS
Radiation Emergency
Assistance Center/Training Site

# Radiation Patient Treatment

Version 3.1, March 2020




**Radiation Emergency Assistance Center/Training Site (REAC/TS)**
*After Hours Emergency Assistance*
US Department of Energy Oak Ridge Operations Center: 865.576.1005
Phone: 865.576.3131 • orise.orau.gov/reacts

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* Further guidance and information may be found on the REAC/TS website.