



*-Fortuna Favet Paratis-*  
est. 2006

# Radiation Injury Treatment Network - 2024 Year in Review

Cullen Case Jr.  
RITN Program Director  
Operated by the National Marrow Donor Program/Be The Match

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[www.RITN.net](http://www.RITN.net)

January 7, 2025

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## RITN Mission

*Preparing to treat Acute Radiation Syndrome casualties from a distant radiological mass casualty disaster*



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## Agenda

- 2024 Highlights
- 2025 Projects
- 2025 Tasks
- Q & A

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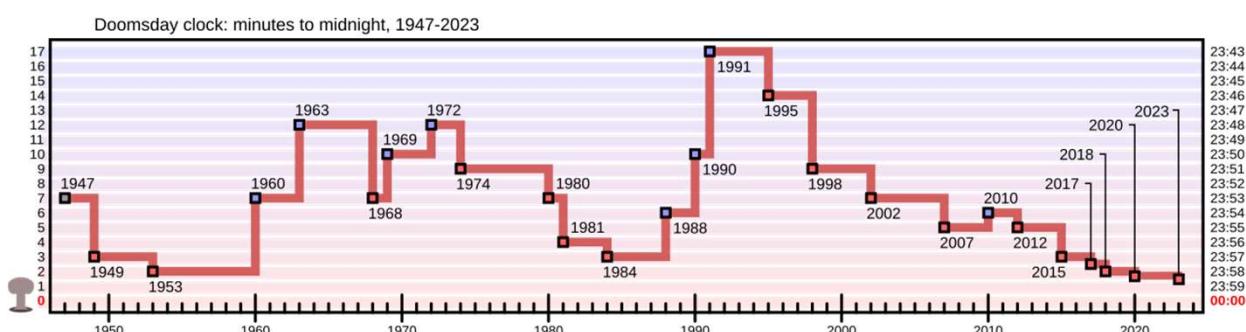


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## Click to edit Master title style

**Bulletin  
of the  
Atomic  
Scientists**

**It is *still* 90 seconds to midnight**



**Doomsday Clock graph, 1947–2023.** The lower points on the graph represent a higher probability of technologically or environmentally-induced catastrophe, and the higher points represent a lower probability, in the opinion of the *Bulletin*. (from Wikipedia:  
[https://en.wikipedia.org/wiki/Doomsday\\_Clock#:~:text=The%20Clock's%20original%20setting%20in,seconds%2C%20set%20in%20January%202023\)](https://en.wikipedia.org/wiki/Doomsday_Clock#:~:text=The%20Clock's%20original%20setting%20in,seconds%2C%20set%20in%20January%202023))

<https://thebulletin.org/doomsday-clock/>

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# 2024

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## RITN Participating Hospitals *(full list = ritn.net/map)*



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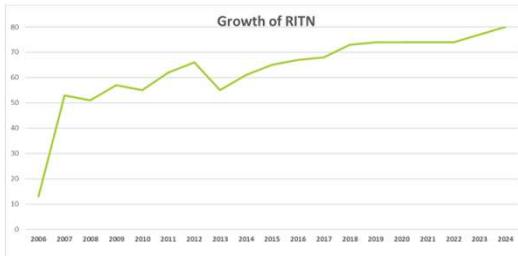
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## 2024 Projects



- **Growth:**

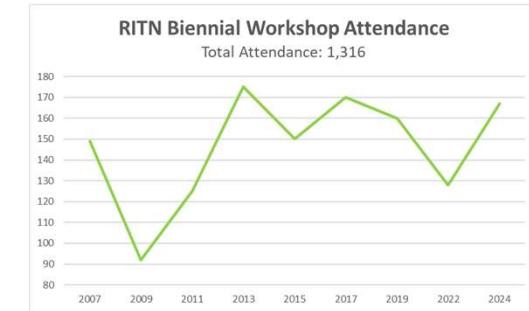
- 3 new hospitals (80 total): St. David's (Austin, Tx), Children's Hospital LA, Helen DeVos Children's

- **Workshop:**

- 9th Biennial RITN Workshop Creating a Unified Understanding of Radiological/Nuclear Preparedness
  - Opening speaker was Jonathan Greene the Deputy Assistant Secretary, Director of the Office of Response, HHS ASPR

- **Collaboration with:**

- Armed Forces Radiobiology Research Institute (AFMRI)
- Administration for Strategic Preparedness & Response (ASPR)
- Department of Energy National Nuclear Security Administration (DOE-NNSA)
- American Burn Association (ABA)



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## 2024 Projects

- **Training & Education**

- 4 x AHLS training courses
- 1 REAC/TS course
- RITN Public Information Officer (PIO) training workshop at Rush Univ, Chicago
- Pacific Islands CBRNE Planning and Training Workshop in Saipan:
  - 50 preparedness staff from across the Pacific Rim and the Department of Defense
  - Preparedness training for medical aspects of a radiological incident
  - Updated each jurisdictions existing plans to incorporate supporting one another
  - Conducted a tabletop exercise where they reviewed how each island nation would support one another following a radiological disaster
- Communications exercise with ASPR EOC

- Guam training:

- RITN provided radiological and chemical decontamination training
- Disaster drill (exercise) training
- Hospital incident command system training
- For 40 military staff from the Naval Hospital Guam as well as for another 40 civilian staff from Guam Memorial Hospital

- **Special Projects:**

- Ukrainian preparedness support
- Translation of Cytokine Triage Guidelines

- **Exercises**

- 7 x web based RITN TTXs
- Regional TTX (Corewell Health)
- Participated in International Nuclear Emergency Exercise (INEX-6)



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## 2024 Publications & Presentations

- DOD Joint Trauma System Clinical Practice Guideline (JTS CPG)
  - Published on 20 Aug 2024
  - Chemical, Biological, Radiological and Nuclear (CBRN) Injury Response Part III: Medical Management of Radiation Exposure and Nuclear Events
  - [https://jts.health.mil/index.cfm/PI\\_CPGs/cpgs](https://jts.health.mil/index.cfm/PI_CPGs/cpgs)
- Presentations: rad/nuke preparedness presentations to
  - N. Idaho Healthcare Coalition
  - ASPR Blizzard preparedness council
  - Chicago Healthcare Coalition
  - EBMT (formerly European Society for Blood and Marrow Transplantation) Nuclear Accident Committee
  - NDMS FCC Coordinators
  - Idaho Department of Health



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## Ukrainian Burn/Blast/ARS Medical Kits

- Collaboration with Department of Energy, USAID, burn, and trauma specialists to develop trauma/burn and ARS medical kits for use in Ukraine
- Creation of kits for burn/blast/ARS/first receivers to bridge casualty care for the initial five days following the attack
- Translation of RITN Cytokine Triage Guidelines



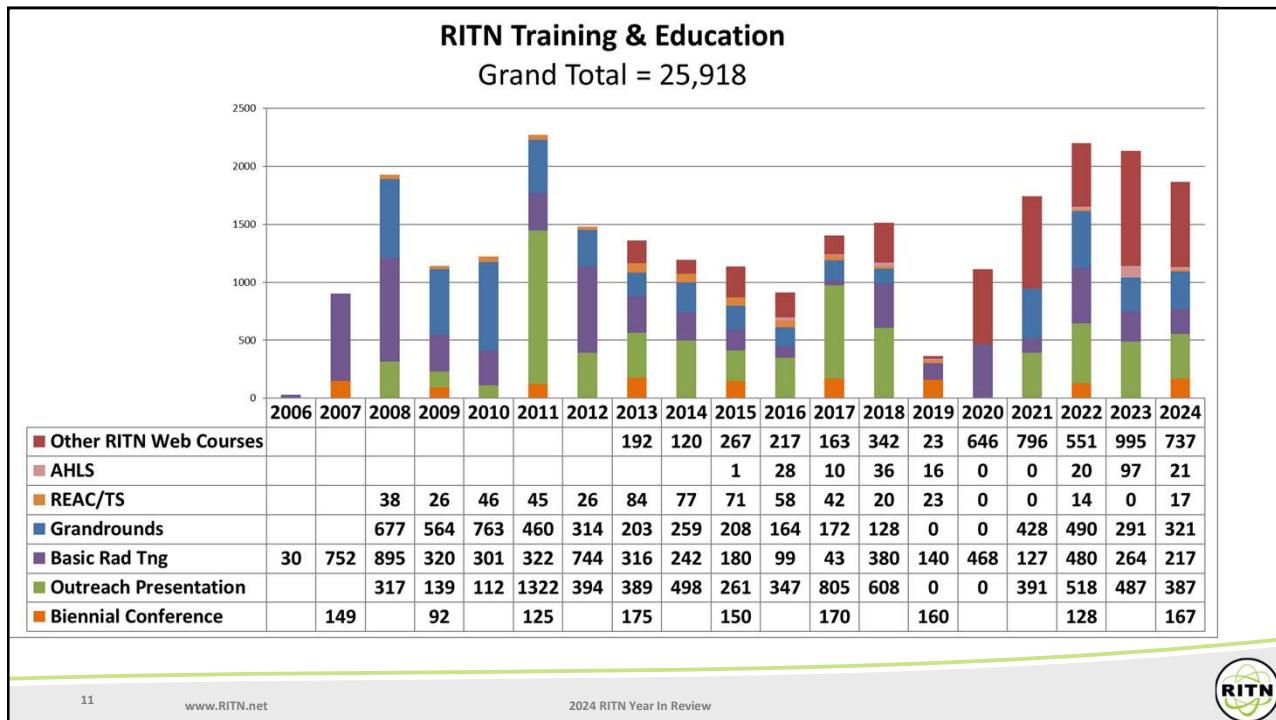
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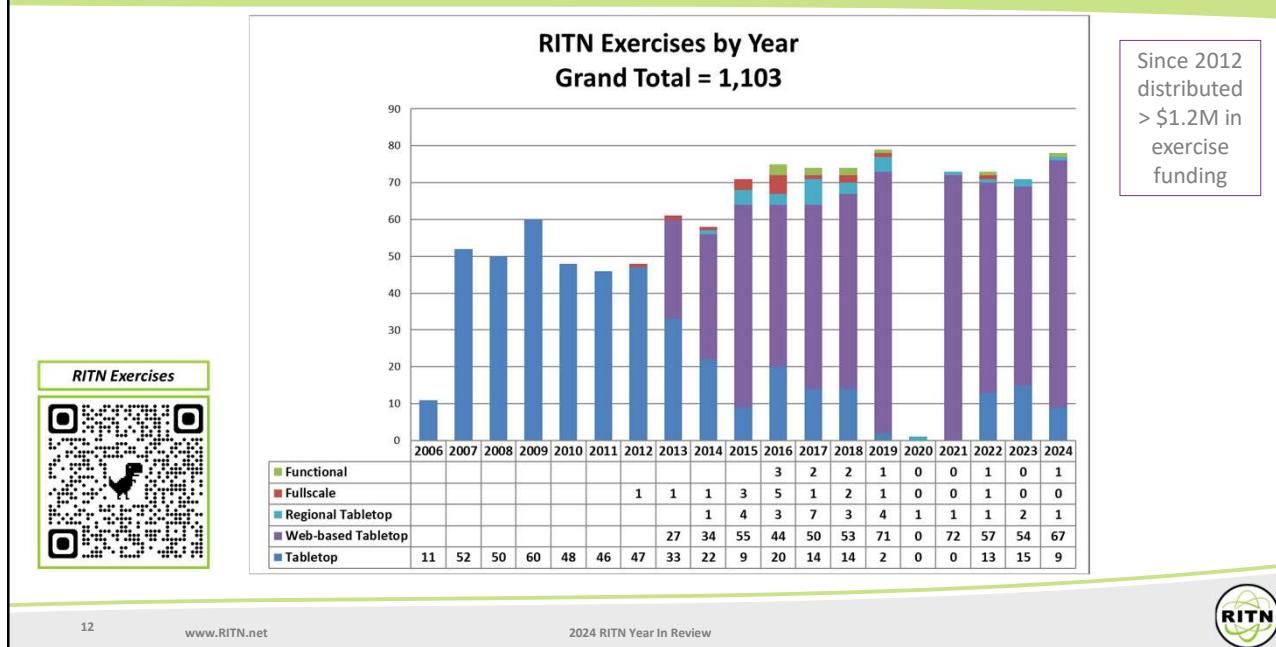


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## Exercise Accomplishments

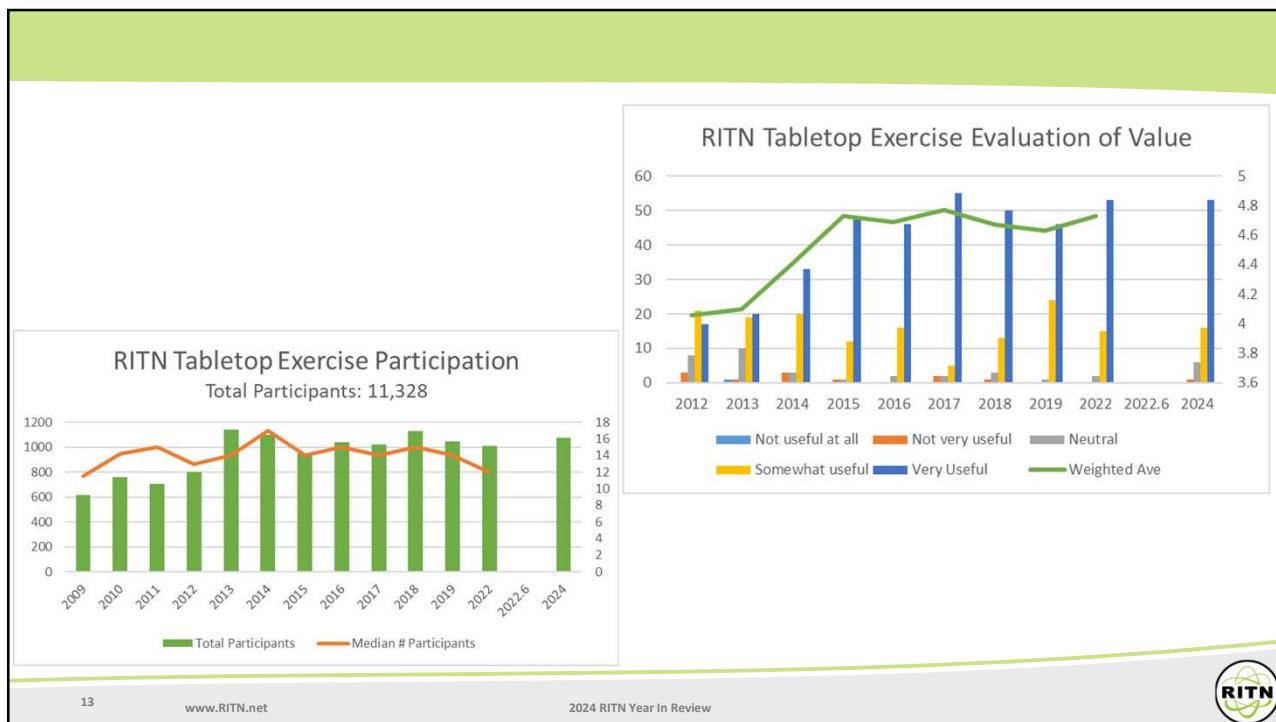


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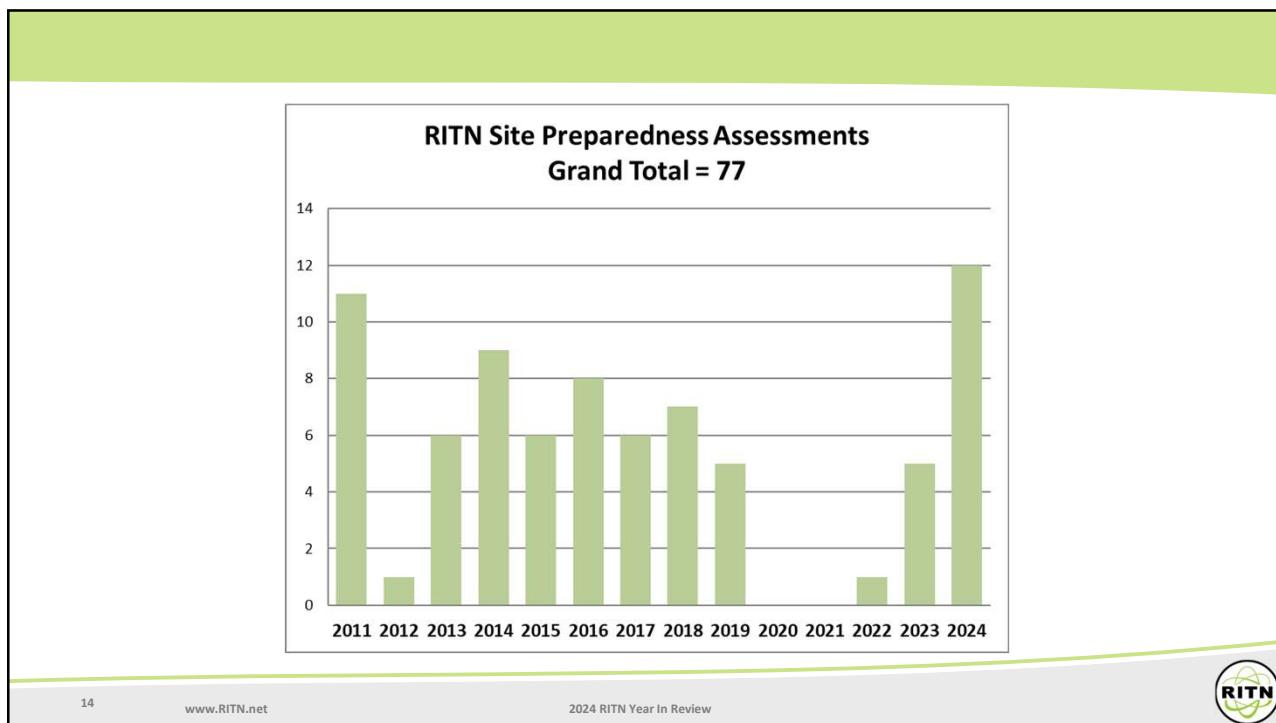
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# Future

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## New Growth Model (*send Questions to [RITN@nmdp.org](mailto:RITN@nmdp.org)*)

- Not seeking new hospitals unless they are within 75 miles of one of these Federal Coordinating Centers (FCCs) to ensure patient distribution is tied to ASPR-NDMS plans:

**DOD FCC locations:**

Augusta, GA

Biloxi, MS

El Paso, TX

Honolulu, HI

Portsmouth, VA

San Antonio, TX

**VA FCC locations:**

Albany, NY

Albuquerque, NM

Boise, ID

Fresno, CA

Las Vegas, NV

Little Rock, AR

Memphis, TN

Nashville, TN

Leeds, MA

Phoenix, AZ

Reno, NV

Shreveport, LA



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- Still must be:
  - Medical centers with bone marrow transplant units and/or hematology/oncology units
- And will have same tasks and commitment as existing hospitals

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## 2025 Projects

- **Preparedness Resources:**
  - ARS Discharge Guidance
- **Training:**
  - Advanced Hazmat Life Support (AHLS) Radiological Incidents & Terrorism training course x 3
  - Radiation Emergency Assistance Center and Training Site (REAC/TS) training course x 2
  - PIO messaging workshop
  - Navy First Receiver Operations Training (FROT) course
  - Host NATO International Medical Management of Radiation Injuries (I-MED) course in API
  - 1<sup>st</sup> Annual Virtual Grand Rounds (COMPLETE)
- **Exercises:**
  - Palau Ministry of Health exercise
  - Regional exercises
  - Functional exercises
  - Annual tabletop exercise
- **Special Projects:**
  - Support Pacific Islands Preparedness and Emergency Response (PIPER) Summit in Saipan, API
  - FAQs on RITN.net
- **Partnerships & Awareness:**
  - Nine workshops scheduled



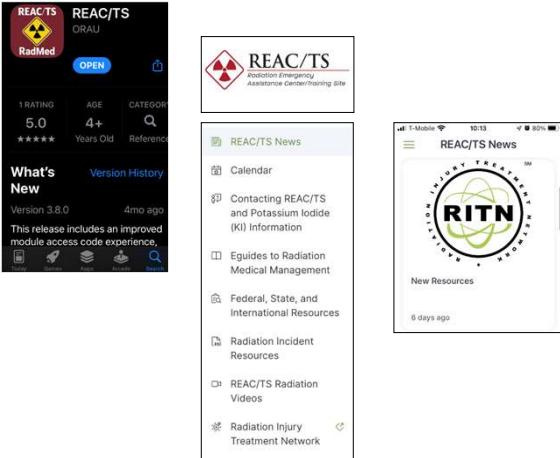
## 2025 Tasks

### **TASK DEADLINES (may also be completed any time before deadline):**

1. 1/31/2025 – Contact information updated/confirmed (Task 1)
2. 2/28/2025 – RITN-issued GETS card test completed (Task 1)
3. 4/30/2025 – Submit capacity survey via RITN Portal (Task 1)
4. 7/31/2025
  - a. Education (Task 3)
  - b. Institutional Review Board (IRB) Approved Marrow Toxic Injury Research Consent Forms Up to Date (Task 1)
  - c. Standard Operating Procedure (SOP) update (Task 1)
5. Three (3) days **AFTER** completion of Annual Exercise (Task 2)
  - a. Submit responses from participation via Survey Monkey link
  - b. Exact date will be different for hospitals depending on when they participate in annual exercise
  - c. Situation Manual (which includes the dates and registration link) will be sent in



## REAC/TS App



REAC/TS App

REAC/TS ORAU RadMed OPEN

1 RATING 5.0 AGE 4+ CATEGORY Reference

What's New Version History

Version 3.8.0 4mo ago

This release includes an improved module access code experience.

What's New

Version 3.8.0 4mo ago

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REAC/TS News

Calendar

Contacting REAC/TS and Potassium Iodide (KI) Information

Guides to Radiation Medical Management

Federal, State, and International Resources

Radiation Incident Resources

REAC/TS Radiation Videos

Radiation Injury Treatment Network

REAC/TS News

10:13 REAC/TS News

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New Resources 6 days ago

Radiation Incident... 1 item

Radiation Injury Treatment Network (RITN) Guidelines 6 items

Recursos sobre radiación en español 1 item

Tratamiento del Paciente por Radiación, Versión 3.1... 1 item

Radiation Injury Tr... 1 item

Myeloid Cytokine Triage Guidelines, Ext... Size: 909 KB

Myeloid Cytokine Triage Guidelines, Sm... Size: 683 KB

RITN Acute Radiation Syndrome (ARS) Guid... Size: 2.32 MB

RITN Concept of Operations Size: 859 KB

Transferring to an RITN

REAC/TS App

QR code

ANDROID APP ON Google play

Available on the App Store

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## Soup to Nuts Rad Info Including Medical Orders: RITN.net/treatment & REMM.HHS.GOV

### Adult Medical Orders

REMM Prototype for Adult Hospital Orders During a Radiation Emergency Version: Jan 25, 2019

**Cautions**

- Authored by REMM and RITN physicians. This set of orders is a prototype only.
- Orders must be customized for each patient and incident.
- Specific drugs are suggested for function only. Patients may not need any/every category of drug listed.
- No medical orders or other US government entity endorsement of specific drugs or drug doses is intended or implied by inclusion in this order set.
- Consult the notes at the end of this document for additional, key information.

**Internal contamination (decontamination treatments)**

- This Adult Orders Prototype lists only FDA-approved medications as radiotropes/countermeasures.
- Some, but not all, of these drugs are currently in the Strategic National Stockpile.
- Decontamination countermeasures are FDA-licensed for complete prescribing information.
- Decontamination drugs should be used in children and pregnant women with great caution.
- Online version contains additional recommendations about **additional countermeasures** that may be considered.
- This prototype does not address threshold levels of **internal contamination** that would trigger initiation, continuation, or discontinuation of decontamination treatments.
- See **REMM Countermeasures Caution and Comment**, which discusses this issue.

**Drug dosages**

- All pediatric drug doses in this prototype are based on a 70 kg adult with normal renal and hepatic function.
- Appropriate dose adjustments should be made based on age, weight, drug-drug interactions, nutritional status, renal, and hepatic function.

REMM RADIATION EMERGENCY MEDICAL MANAGEMENT

www.REMM.HHS.gov

REMM App

ANDROID APP ON Google play

Available on the App Store

**Pediatric Medical Orders**

REMM Prototype for Pediatric Hospital Orders During a Radiation Emergency Version: Jan 25, 2019

**Cautions**

- Authored by REMM and RITN physicians. This set of orders is a prototype only.
- Orders must be customized for each patient and incident.
- Specific drugs are suggested for function only. Patients may not need any/every category of drug listed.
- No medical orders or other US government entity endorsement of specific drugs or drug doses is intended or implied by inclusion in this order set.
- Consult the notes at the end of this document for additional, key information.

**Internal contamination (decontamination treatments)**

- This Pediatric Orders Prototype lists only FDA-approved medications as radiotropes/countermeasures.
- Some, but not all, of these drugs are currently in the Strategic National Stockpile.
- Decontamination countermeasures are FDA-licensed for complete prescribing information.
- Decontamination drugs should be used in children and pregnant women with great caution.
- The online version of REMM has additional recommendations about **additional countermeasure drugs** that may be considered.
- This prototype does not address threshold levels of **internal contamination** that would trigger initiation, continuation, or discontinuation of decontamination treatment.
- See **REMM Countermeasures Caution and Comment**, which discusses this issue.

**Drug dosages**

- All pediatric drug doses in this prototype should be customized for each patient.
- All pediatric drug doses should be prescribed as appropriate for **age, weight, and any clinical needs**, including allergies.
- Appropriate dose adjustments should be made based on age, weight, drug-drug interactions, nutritional status, renal, hepatic function, and risk/benefit calculus.

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## Great wealth of knowledge



- ASPR-TRACIE Radiological/Nuclear Topic Collection
  - <https://asprtracie.hhs.gov/technical-resources/32/radiological-and-nuclear/27>

**Sections Navigation**

Must Reads	General Guidance and Research	Resources for Emergency Responders
Clinical Guidance	Pediatric Considerations	Scarce Resources
Education and Training	Plans, Tools, and Templates	Agencies and Organizations
Event-Specific Lessons Learned	Population Monitoring/Community Reception Centers	

**TRACIE Rad/Nuc Topic Collection**

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## Critical to Success

### Partners



National Institute of Allergy and Infectious Diseases (NIAID), Radiation and Nuclear Countermeasures Development Program (RNCP)



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## What are your questions?

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