
 <p>-Fortuna Favet Paratis- est. 2006</p>	<h2>Radiation Injury Treatment Network - 2024 Year in Review</h2> <p>Cullen Case Jr.</p> <p>RITN Program Director Operated by the National Marrow Donor Program/Be The Match</p> <p>RITN@nmdp.org</p> <p>www.RITN.net</p> <p>January 7, 2025</p>
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1

<h3>RITN Mission</h3> <p><i>Preparing to treat Acute Radiation Syndrome casualties from a <u>distant</u> radiological mass casualty disaster</i></p>
<div> <div>2</div> <div>www.RITN.net</div> <div>2024 RITN Year In Review</div> <div></div> </div>

2

Agenda

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

3

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3

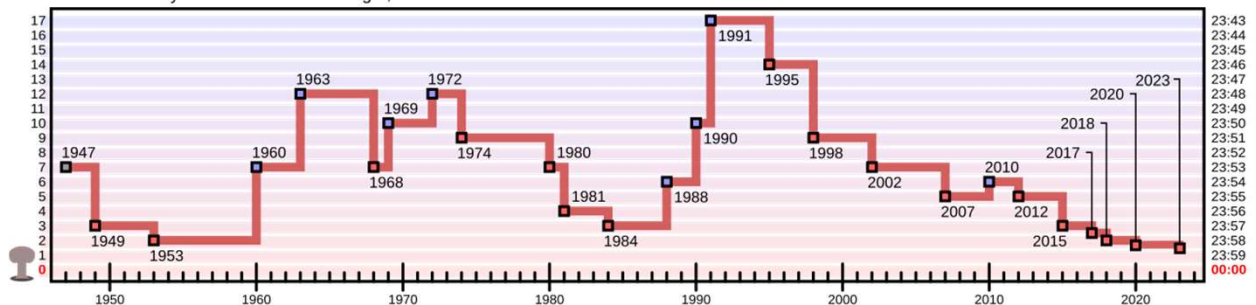
Click to edit Master title style

**Bulletin
of the
Atomic
Scientists**

It is *still* 90 seconds to midnight



Doomsday clock: minutes to midnight, 1947-2023



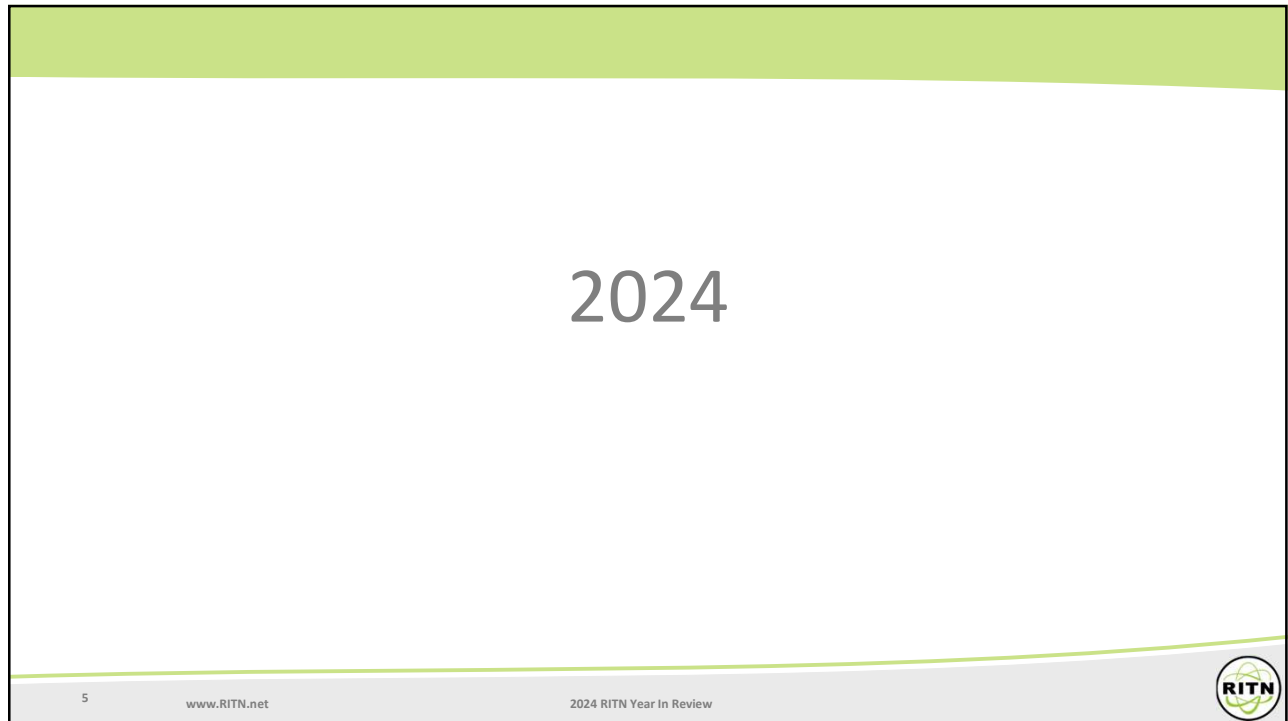
Doomsday Clock graph, 1947–2023. The lower points on the graph represent a higher probability of technologically or environmentally-induced catastrophe, and the higher points represent a lower probability, in the opinion of the *Bulletin*. (from Wikipedia: https://en.wikipedia.org/wiki/Doomsday_Clock#:~:text=The%20Clock's%20original%20setting%20in,seconds%2C%20s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

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

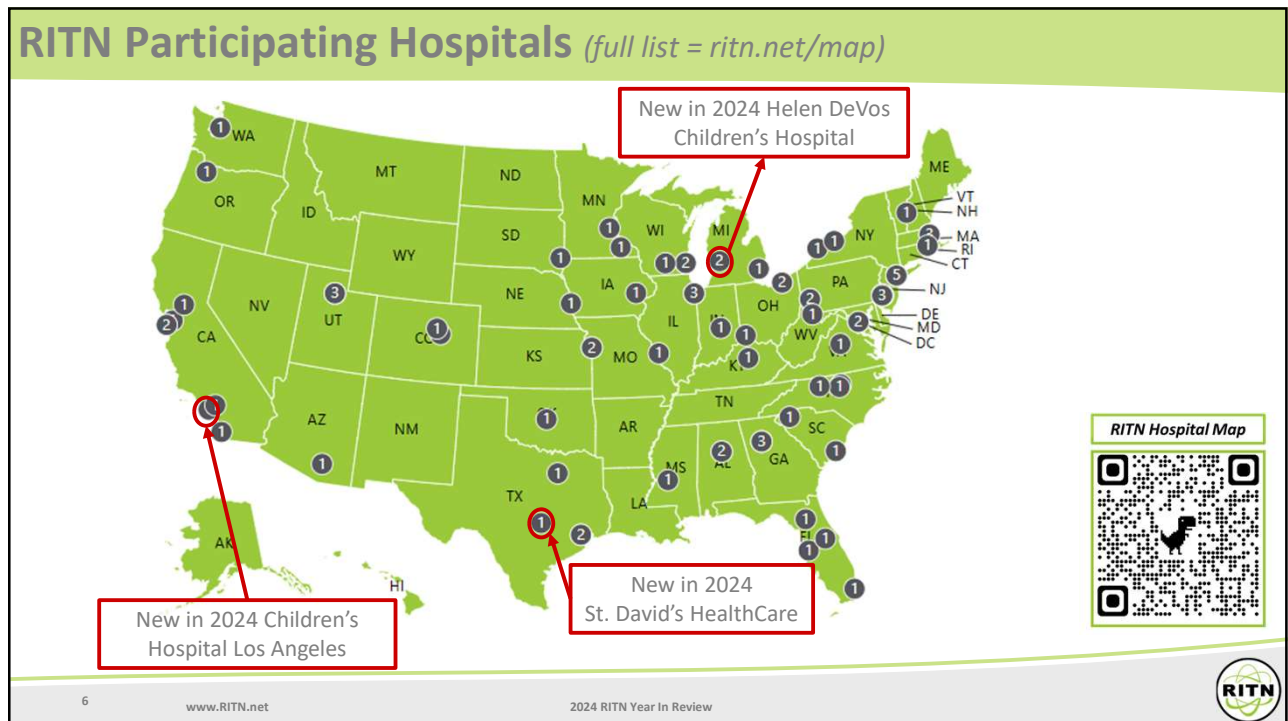
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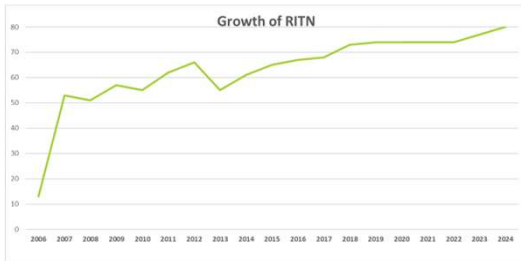


5



6

2024 Projects



- **Growth:**

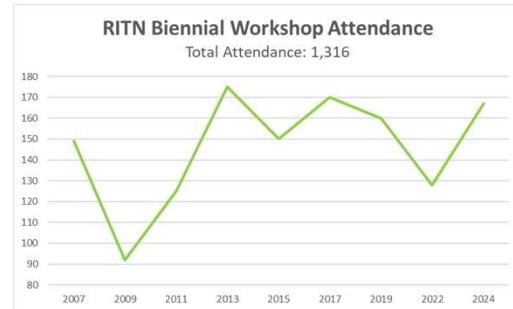
- 3 new hospitals (80 total): St. David's (Austin, Tx), Children's Hospital LA, Helen DeVos Children's

- **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 (AFRRI)
- Administration for Strategic Preparedness & Response (ASPR)
- Department of Energy National Nuclear Security Administration (DOE-NNSA)
- American Burn Association (ABA)



7

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7

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)

8

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8

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
- 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



9

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9

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



NNSA
National Nuclear Security Administration



USAID
FROM THE AMERICAN PEOPLE



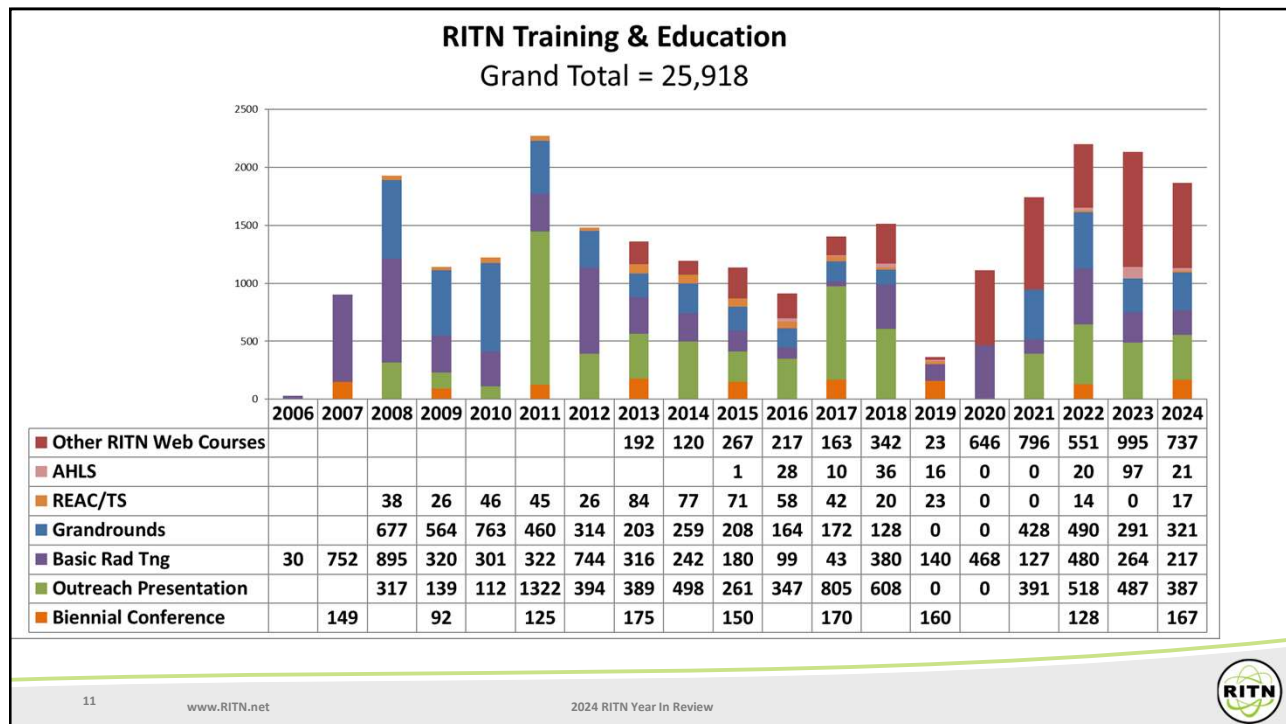
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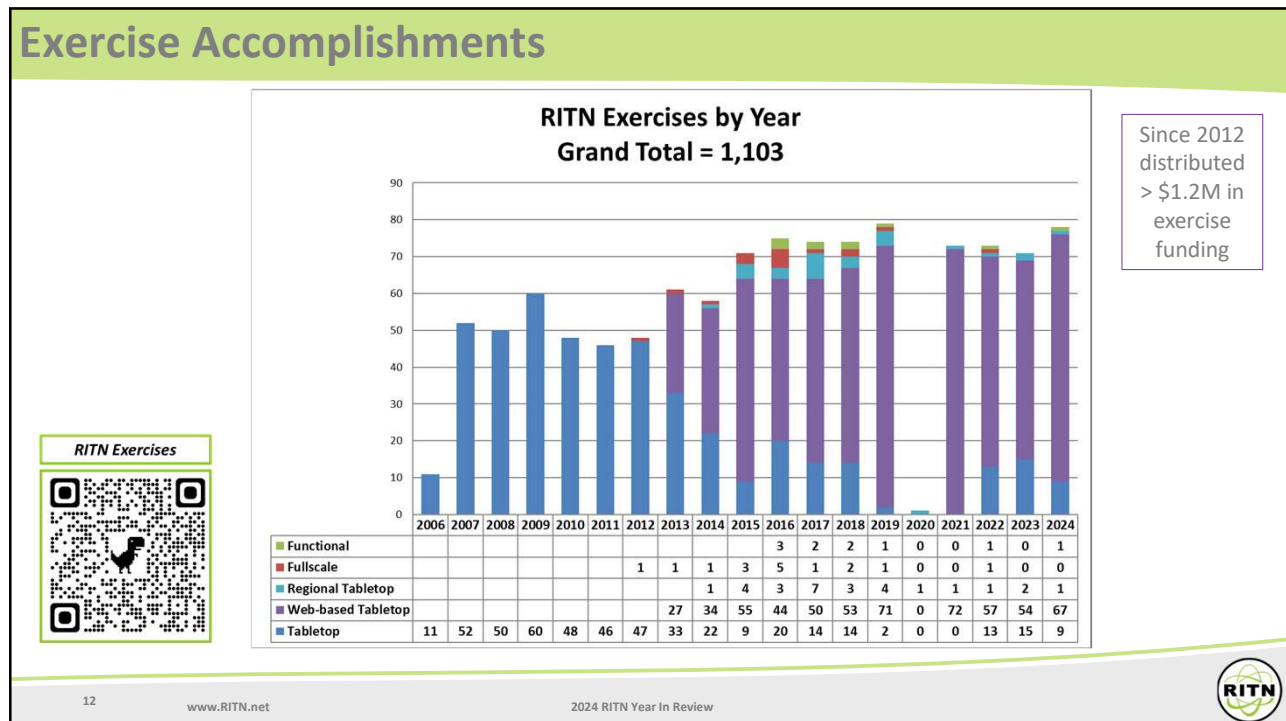
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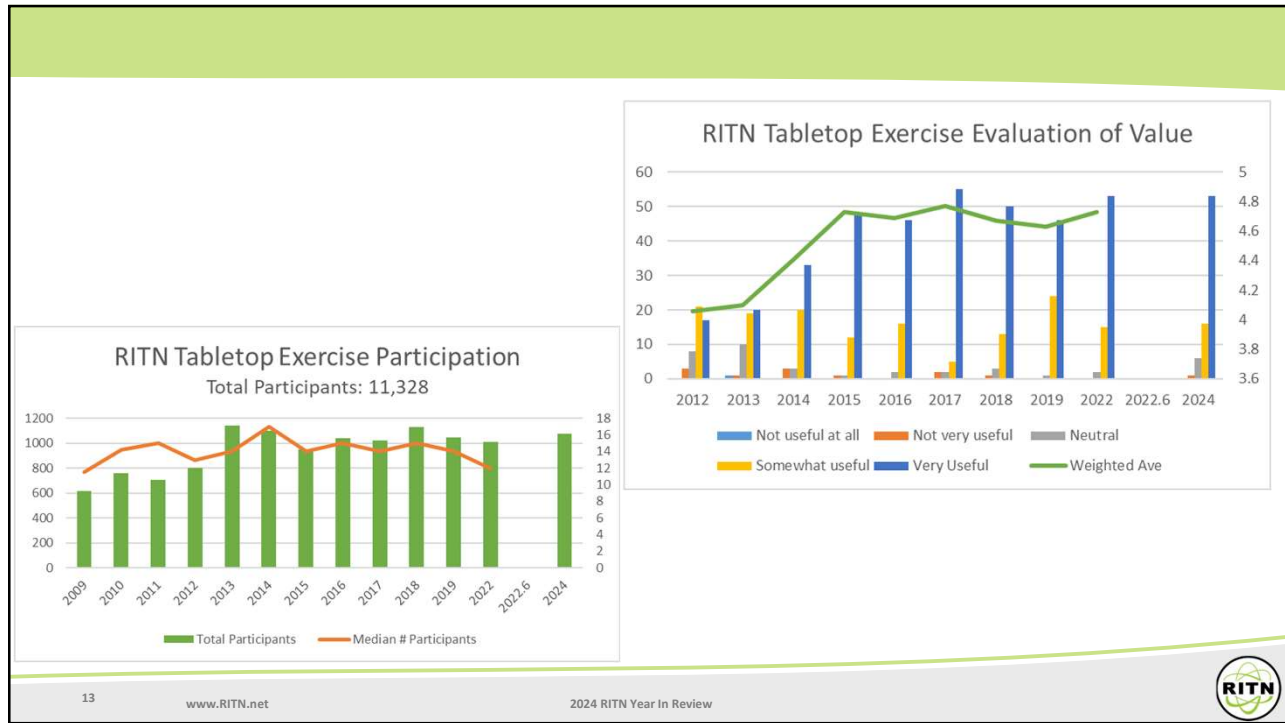
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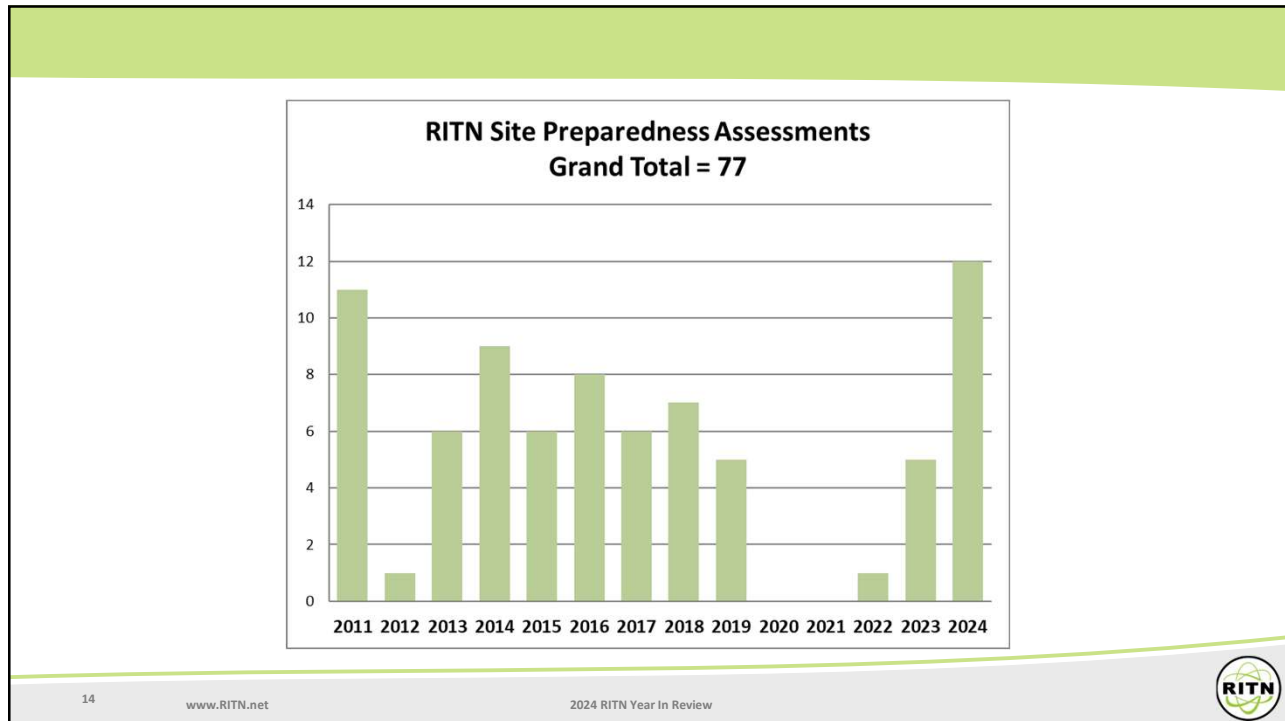
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12



13



14

Future

15

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15

New Growth Model *(send Questions to 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

VA FCC locations:

Albany, NY
Albuquerque, NM
Boise, ID
Fresno, CA

El Paso, TX
Honolulu, HI

Las Vegas, NV
Little Rock, AR
Memphis, TN
Nashville, TN

Portsmouth, VA
San Antonio, TX

Leeds, MA
Phoenix, AZ
Reno, NV
Shreveport, LA

Wichita, KS



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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

16

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16

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
 - 1st 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

17

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17

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

18

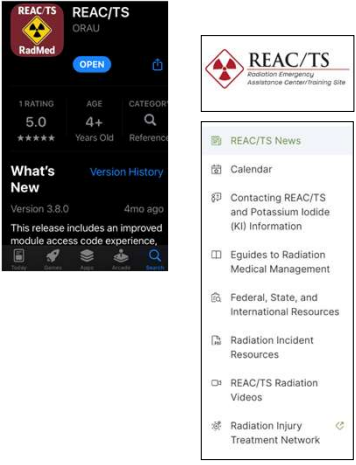
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18

REAC/TS App



REAC/TS App

QR code for downloading the app.

Available on the **Google play** and **App Store**.

19 www.RITN.net 2024 RITN Year In Review

19

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

Adult Medical Orders

REMM
Prototype / Template 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 HHS, CDC, FDA, 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 radiolabeled countermeasures.
- Some, but not all of these drugs are currently in the **Strategic National Stockpile**.
- Prescribers should consult the FDA drug label 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 countermeasures 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 adult 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.

Pediatric Medical Orders

REMM
Prototype / Template 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 HHS, CDC, FDA, 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 radiolabeled countermeasures.
- Some, but not all of these drugs are currently in the **Strategic National Stockpile**.
- Prescribers should consult the FDA drug label 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 countermeasures 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 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 issues**, including allergies.
- Appropriate dose adjustments should be made based on age, weight, drug-drug interactions, nutritional status, renal, hepatic function, and risk/benefit calculus.

REMM App

QR code for downloading the app.

Available on the **Google play** and **App Store**.

20 www.RITN.net 2024 RITN Year In Review

20

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



21

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21

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Partners



22

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22

What are your questions?

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