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 (decorporation treatments)
- This Adult Orders Prototype lists only FDA-approved medications as radioisotope 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.
- Decorporation drugs should be used in children 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 decorporation 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.

- After a mass casualty incident, practitioners may encounter counterfeit drugs. This FDA website will provide information on avoiding and detecting counterfeit drugs and assist with reporting of suspected counterfeit medications.

- If this adult order set, Version date 4/17/2017, has been printed for use offline, consult the online version of REMM to see if updates are available. https://www.remm.nlm.gov/adult-order.pdf
Table of contents:

<table>
<thead>
<tr>
<th>Topic</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cautions</td>
<td>1</td>
</tr>
<tr>
<td>Table of Contents</td>
<td>2</td>
</tr>
<tr>
<td>1. Administrative information</td>
<td>3</td>
</tr>
<tr>
<td>2. Admit to</td>
<td>3</td>
</tr>
<tr>
<td>3. Diagnoses</td>
<td>4-5</td>
</tr>
<tr>
<td>4. Precautions</td>
<td>5</td>
</tr>
<tr>
<td>5. Urgent consultations</td>
<td>6</td>
</tr>
<tr>
<td>6. Condition</td>
<td>6</td>
</tr>
<tr>
<td>7. Vital signs</td>
<td>6</td>
</tr>
<tr>
<td>8. Allergies</td>
<td>7</td>
</tr>
<tr>
<td>9. Activity</td>
<td>7</td>
</tr>
<tr>
<td>10. Diet</td>
<td>7</td>
</tr>
<tr>
<td>11. Height, weight</td>
<td>7</td>
</tr>
<tr>
<td>12. Admission Studies: Labs</td>
<td>7-8</td>
</tr>
<tr>
<td>13. Standing Lab Studies</td>
<td>8</td>
</tr>
<tr>
<td>14. Blood Bank Orders</td>
<td>8</td>
</tr>
<tr>
<td>15. Imaging</td>
<td>9</td>
</tr>
<tr>
<td>16. Electrocardiogram</td>
<td>9</td>
</tr>
<tr>
<td>17. IV fluid management</td>
<td>9</td>
</tr>
<tr>
<td>18. Foley catheter management</td>
<td>9</td>
</tr>
<tr>
<td>19. Monitor I/O</td>
<td>9</td>
</tr>
<tr>
<td>20. Deep vein thrombosis prophylaxis</td>
<td>9</td>
</tr>
<tr>
<td>21. Respiratory therapy</td>
<td>10</td>
</tr>
<tr>
<td>22. Wound care</td>
<td>10</td>
</tr>
<tr>
<td>23. Orthopedic care</td>
<td>10</td>
</tr>
<tr>
<td>24. Radiation dose assessment</td>
<td>11</td>
</tr>
<tr>
<td>25. General medications</td>
<td>12-13</td>
</tr>
<tr>
<td>26. Radioisotope decorporation or blocking agents</td>
<td>13-14</td>
</tr>
<tr>
<td>27. Neutropenia therapy and antimicrobials</td>
<td>15-17</td>
</tr>
<tr>
<td>Notes</td>
<td>18</td>
</tr>
<tr>
<td>Body chart for recording results of radiation survey</td>
<td>19</td>
</tr>
</tbody>
</table>
1. Administrative information

Name: ____________________________________

Unique Identifier: ____________

Address: ____________________________________

Phone: ______________________

Spoken language: ____________

Unaccompanied minor: _________

Date of Birth: ____________

Age (years: _____

Gender: __________________________

Next of kin contact information (home phone, cell phone, email, or address):

_____________________________________________________________________

2. Admit to:

___ Inpatient Service _____________ Area________________

___ Team: _________________ PICU_______________

___ Hem/Onc: _____________ Hematopoietic Stem Cell Transplantation: ____

___ Admitting Physician: __________________ Pager: ______________________

___ Attending Physician: __________________ Pager: ______________________

___ Other Physician: __________________ Pager: ______________________
3. Diagnoses

**Acute/Chronic Non-radiation Related Admission Diagnoses:**

a. ________________________________
b. ________________________________
c. ________________________________
d. ________________________________
e. ________________________________
f. ________________________________

**Acute Radiation-related Admission Diagnoses:**

a. **Radiation contamination?**  Yes_____ No_____
   
   See REMM Body Chart (page 19) to record whole body radiation survey.
   
   __ External contamination with Isotope (Specify or unknown) ____________
   __ Internal contamination with Isotope (Specify or unknown) ____________
   __ Contamination suspected, Isotope uncertain

b. **Radiation Exposure / Acute Radiation Syndrome (ARS)?**
   
   Yes_____ No_____  
   
   • Estimated whole body dose from exposure__________(units of gray/Gy)
   • See also Item #24, page 11 for additional radiation details and work-up

**Other potential complicating factors**

__ Mass casualty incident

__ Other, Specify ________________________

**Specific populations potentially requiring more customized management?**

Yes_____ No_____  

__ Age > 65 y

__ Pregnant/Possibly pregnant  Duration of Pregnancy (weeks): _______
Prototype/Template for Adult Hospital Orders  
During a Radiation Incident

Version: June 26, 2018

__ Immunosuppressed
__ Other, Specify ________________________________

• See REMM page about at-risk populations

4. Precautions:

Infectious
__ Contact
__ Droplet
__ Airborne
__ Reverse Isolation/Neutropenic

Radiation precautions
• For persons with known or suspected external or internal contamination.
• Persons with exposure but NO contamination are NOT radioactive.
• Patients with exposure only do not need Radiation Precautions.

__ Precautions: Single room, gown, mask, cap, boots, and gloves
__ Use medical facility procedures for discarding all
  biological/physical/radioactive waste, including linens/towels/trash/personal
  protective equipment.
__ Contact Radiation Safety Officer for additional instructions.
  Phone: ____________ Pager: ____________
__ Place Radiation Safety Sign on door if patient has internal or external
  radioactive contamination
__ Notify pregnant staff that entry to room is prohibited if patient is/may
  be contaminated.
__ Everyone entering room/area of contaminated patient must wear personal
  radiation dosimeter assigned by Radiation Safety.
__ Use medical facility procedures for disposal of radiation waste, including
  linens/towels/trash/personal protective equipment.

• See guidance
  • 2007 Guideline for Isolation Precautions: Preventing Transmission of
    Infectious Agents in Healthcare Settings. Healthcare Infection
    Control Practices Advisory Committee (HHS/CDC)
5. Urgent consultations: specify

__ Intensive Care __ Transfusion Medicine
__ Hematopoietic Stem Cell Transplantation __ Radiation Oncology
__ Mental Health / Psychiatry __ Endocrinology
__ Ophthalmology __ Palliative Care and Pain Service
__ Dermatology / Plastic Surgery __ Gastroenterology
__ Radiation Safety __ Burn Therapy
__ Surgery: ___General ___Trauma ___Thoracic ___ Orthopedics
__ Hepatology __ Infectious Disease
__ Pulmonary __ Plastic Surgery
__ Cardiology __ Nephrology
__ ENT
__ Other ________________

6. Condition:

__ Good __ Fair __ Stable __ Guarded __ Critical

7. Vital Signs:

__ q 2 hours X 4 __ q 4 hours X 4
__ Ward routine

Notify physician for:

Temperature _____> 38 ºC __ Other: ____________
SBP: _____> 180, <100 __ Other: ____________
DBP: _____> 100 < 50 __ Other: ____________
HR: _____>100 <50 __ Other: ____________
RR: ______ >30<8 __ Other: ____________
O₂ saturation: _____< 92% __ Other: ____________
8. Allergies:
   __ No Known Drug Allergies (NKDA)
   __ Allergies (drugs, foods)
   If yes, specify: ____________________________

9. Activity:
   __ Bed rest __ Bathroom privileges
   __ Out of bed/up to chair every ___ hrs.
   __ Ambulate as tolerated
   __ Confine to room

10. Diet:
    __ Regular Diet __ Liquids (full, clear) __ NPO
    __ Advance as tolerated
    __ Neutropenic diet
    __ Special dietary needs/requests: __________________________

11. Height, weight:
    Height: ____ cm
    Weight: ____ kg
    Repeat body weight: q ____ hours q ____ days

12. Admission studies: Labs
    __ CBC w/differential __ w/ Platelet count
    __ Comprehensive Metabolic Panel (CMP) / Chem 14
    __ PT or INR/PTT/fibrinogen/TT
    __ Urinalysis - Collection method: ________________
    __ Urine culture
    __ Blood culture - Collection method: ___________ Sets: ________________
       Type of culture: Bacteria, fungal, aerobic, anaerobic
    __ Sputum culture
    __ Urine HCG (for all girls ≥10 years or post-menarche, whichever is earlier)
    __ Serum HCG (for any girls ≥10 years or post-menarche, whichever is earlier)
__ Thyroid Function Tests (Specify) _____________

___ Wound cultures

**Serologies:**

___ Herpes Simplex Virus type 1 (HSV-1)
___ Herpes Simplex Virus type 2 (HSV-2)
___ Cytomegalovirus (CMV)
___ Varicella-zoster virus (VZV)
___ Epstein Barr Virus (EBV)

### 13. Standing labs / studies

___ CBC w/diff and platelets q ___ hours, x ___ days,
Followed by q ___ until further orders

___ Comprehensive Metabolic Panel (CMP) / Chem 14
Followed by q ____ hours, x ____ days
Followed by q ____ until further orders

___ Other __________ (specify test and frequency)

### 14. Blood bank

(May set institutional transfusion parameters, e.g.: PRBC transfusion for Hgb < (7 g/dl) and platelet count < 20000/micL unless otherwise specified by medical staff.)

___ Type and cross match

___ Type and screen

For ____ units or ____ ml of packed red blood cells (~10-15 ml/kg)
For ____ units or ____ ml of platelets (~5-10 ml/kg)

**Note:**

- Use only leukoreduced AND irradiated products, if available, unless it is known with certainty that the patient was exposed to allow dose of radiation, e.g. less than 100 cGy.
- If radiation whole body dose is not known with certainty, leukoreduced AND irradiated products are preferred, if available.
- See REMM blood use page for additional information.
15. Imaging

__ Chest x-ray  Urgency:_________
__ PA/Lateral  Urgency:_________
__ Portable  Urgency:_________

__ Other imaging studies    Specify: ________________  Urgency: _________

16. Electrocardiogram

__ Electrocardiogram
__ STAT Electrocardiogram for chest pain, notify physician

17. IV fluid management:

__ IV Fluids: ______ @ _____ cc/hr, with additive ______

__ IV Fluids: ______ @ _____ cc/hr, with additive ______

18. __ Foley catheter management (specify) ________________

__ Use radiation precautions for urine and feces for patients with internal radiation contamination.

19. __ Monitor I / O

Frequency ____________

__ Use radiation precautions for urine and feces for patients with internal radiation contamination.

20. Deep Venous Thrombosis (DVT) prophylaxis:

__ TED hose to Bilateral Lower-Extremities

__ Sequential Compression Devices (SCD)

__ Anticoagulation regimen ________________________________

__ Other

Note: The potential benefit of any anticoagulation regimen (e.g. heparin) should be balanced against the risk of excessive bleeding in patients with severe thrombocytopenia or significant gastrointestinal toxicity.
21. **Respiratory Therapy:**

__ Use radiation precautions for personnel, equipment, and waste if patient has internal radiation contamination.

__ Room air  __ Chest tube care (Specify)___________

__ Titrate oxygen supplementation for Oxygen saturation > ____%  
__ Nebulizer treatment (Specify) ____________________________

22. **Wound care: (see also item 25)**

__ Decontaminate external wounds if there is external radiation contamination.  
See REMM radiation [contaminated wound](#) care recommendations.

__ Sterile dressing to wounds daily 
__ Monitor waste 

__ Use medical facility procedures for discarding biological/radioactive/physical waste and linens/towels/trash/personal protective equipment.

__ **Radiation precautions** (needed if patient has radiation contamination)

__ **Silvadene (Silver Sulfadiazine)** cream topically to burns 

__ **Bacitracin** topically to burns 

__ Plastic Surgery Consultation 

__ Other wound management per Burn team/Dermatology/Surgery:  
Pager ___________  Phone ________________________

23. **Orthopedic care:**

__ Splint/brace/cast/crutches 

__ Other orthopedic management procedure per orthopedics:  
Pager ___________  Phone ________________________
24. Radiation Dose Assessment

A. Biodosimetry and Bioassay assays
   • **Difference between Biodosimetry and Bioassay**
   • **Define biodosimetry**
   • **More about biodosimetry**
   • **Dicentric chromosome assay**

B. Biodosimetry assays for radiation exposure
   • See REMM information on
     - **Dose Estimator for Exposure: 3 biodosimetry tools**
     - **Dose Reconstruction**
   • **Estimated whole body dose from exposure: _____ (Gray)**
     - Using which tool(s) __________________________
       e.g., vomiting, lymphocyte depletion kinetics, dicentric chromosome assay
     - Note: if different assays give different results
   • METREPOL Scores: Heme___ GI___ Neuro___Cutaneous____
     - Response Category (RC score) __________
     - **Explain METREPOL**
     - **Consider Response Category in clinical triage** (Interactive tool for ARS)

   - Date of exposure: ___________
   - Time of exposure: ___________
   - Location of patient at time of exposure:____________
   - Estimated whole body/partial body dose, specify ________ (dose)
   - Dose unknown: _______

**Dicentric Chromosome Assay Instructions:**
   • Draw extra green top tube and provide: date ________ time ________
   • See REMM for location of approved US laboratories that perform this test.
   • Send this tube **ON ICE** for outside lab study
     - To the attention of: _______________________________________
     - Name of lab:_______________________________________________
     - Address of lab:_____________________________________________

C. Radiation bioassay for evaluating/managing internal decontamination
   • Collect ≥ 70 mL spot urine for ____________ (name of radioactive isotope)
   • See directions for sample collection, labeling, packaging and shipping bioassay specimen to CDC bioassay lab: [https://emergency.cdc.gov/radiation/labinfo.asp](https://emergency.cdc.gov/radiation/labinfo.asp)

**Note:** Consult senior radiation event medical managers for name and location of other laboratories that may become available to perform this test in a large mass casualty incident. Routine labs generally cannot perform this test, although in large incidents, senior managers may announce special arrangements.
25. General Medications:

- Drug names are generally listed as follows **Generic (Brand)** names
- Some drugs with **bold blue font** have **DailyMed** hyperlinks with additional information.

**For gastric acid suppression:**

- Lansoprazole (**Prevacid**) 15-30 mg PO daily

**For radiation-induced nausea & vomiting:**

- Ondansetron (**Zofran**) 4-8 mg IV/PO q 8h PRN nausea/emetis
- Lorazepam (**Ativan**) 0.5 mg – 1 mg PO q 6-8h PRN anxiety/insomnia/breakthrough nausea
- Prochlorperazine 10 mg PO/IV/IM (if adequate platelets) q 6-8h PRN anxiety/insomnia/breakthrough nausea

See **REMM bibliography on treatment of nausea and vomiting**

**For fever:**

- Acetaminophen 650 mg PO q 6 – 8h PRN temperature > 38 ºC

**For diarrhea:**

- Loperamide hydrochloride (**Imodium**):
  - Recommended initial dose is 4 mg (2 capsules) followed by 2 mg (1 capsule) after each unformed stool.
  - Daily dose should not exceed 16 mg (8 capsules)

**For rash:**

- Topical sterile dressing
- Diphenhydramine hydrochloride (**Benadryl**) 25-50 mg PO q 4-6 hours for pruritis, not to exceed 300 mg/24 hours

**For pain:**

- Morphine sulphate _____ mg _____ route _____ frequency
- Other pain medication (specify): name, dose, route, frequency
For skin burns:  (see also item 18: wound care)

Burn topical regimen __________________________________________
Replace body fluid _____________________________________________
Other burn therapy ___________________________________________

For oral mucositis:

Mouth care regimen __________________________________________

26. Radioisotope decorporation or blocking agents:
- Note: Only FDA approved radiation countermeasures are listed in table below.
- See REMM Table for longer list of countermeasures which have been recommended by some experts but are not FDA approved as radiation countermeasures.

<table>
<thead>
<tr>
<th>Medical Countermeasure</th>
<th>Administered for</th>
<th>Route of Administration</th>
<th>Dosage</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ca-DTPA$^{1,3}$</td>
<td>Americium (Am-241)$^1$</td>
<td>IV$^1$</td>
<td>Give once daily as a bolus or as a single infusion, i.e., do not fractionate the dose.</td>
<td>• Ca-DTPA for the first dose</td>
</tr>
<tr>
<td>Zn-DTPA$^{1,3}$</td>
<td>Californium (Cf—252)$^2$</td>
<td></td>
<td>DTPA is FDA-approved for intravenous Rx of known or suspected internal contamination with Am, Cm, and Pu only.</td>
<td>• Give Zn-DTPA for any follow-up doses (i.e., maintenance as indicated)</td>
</tr>
<tr>
<td></td>
<td>Cobalt (Co-60)$^2$</td>
<td></td>
<td></td>
<td>• Duration of therapy depends on total body burden and response to treatment</td>
</tr>
<tr>
<td></td>
<td>Curium (Cm-244)$^1$</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Plutonium (Pu-238 and Pu-239)$^1$</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Yttrium (Y-90)$^2$</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: Only FDA approved radiation countermeasures are listed in table below.
<table>
<thead>
<tr>
<th>Medical Countermeasure</th>
<th>Administered for</th>
<th>Route of Administration</th>
<th>Dosage</th>
<th>Duration</th>
</tr>
</thead>
</table>
| **Potassium iodide**

1. See REMM’s KI summary information.
2. See FDA’s KI information.

- Iodine (I-131) | PO | Adults >40 years:
- 130 mg/day (for projected thyroid exposure ≥500 cGy)
- Adults 18-40 years:
- 130 mg/day (for projected thyroid exposure ≥ 10 cGy)
- Pregnant or lactating women of any age: 130 mg/day (for projected thyroid exposure ≥ 5 cGy) |
| **Prussian blue, insoluble**

1. See REMM page on Prussian Blue
2. See FDA Prussian Blue information page.
3. See FDA’s Prussian Blue drug label.

- Cesium (Cs-137)
- Thallium (TI-201) | PO | Adults:
- 3 g PO tid (See FDA package insert)
- OR
- 1 - 3 g PO tid with 100-200 mL water, up to 10-12 g/day (based on Goiânia accident data) |
| **Cesium** (Cs-137) | PO | Minimum 30 days course per FDA
- Obtain bioassay and whole body counting to assess treatment of efficacy
- Duration of therapy depends on total body burden and response to treatment |
27. Neutropenia therapy ± antimicrobials

**Neutropenia definition:**
Total count of neutrophils + bands in the peripheral blood <1,000 /microL

- The 2 drugs listed below have been approved by the FDA for the indication of acute exposure to myelosuppressive doses of radiation
- See [REMM cytokines page](#) for much more detailed information, especially potential need for [dose alterations during large mass casualty incidents when medical countermeasures may be scarce.](#)

<table>
<thead>
<tr>
<th>Cytokine</th>
<th>Adult dose</th>
</tr>
</thead>
</table>
| **G-CSF or filgrastim** (Neupogen® drug label) | • 10 mcg/kg/day as a single daily subcutaneous injection in adults and children  
• Continue administration daily until absolute neutrophil count remains greater than 1,000/mm³ (= 1.0 x 10⁹ cells/L) for 3 consecutive (daily) CBCs or exceeds 10,000/mm³ (= 10 x 10⁹ cells/L) after a radiation-induced nadir.  
• See [REMM cytokines page](#) for more information about potential dose alterations during large mass casualty incidents when medical countermeasures may be scarce. |
| **Pegylated G-CSF or pegfilgrastim** (Neulasta® drug label) | • Two doses, 6 mg each, administered subcutaneously one week apart.  
• A CBC should be obtained prior to administration of the second dose of Neulasta®. Subject matter experts recommend not administering the second dose if absolute neutrophil count is greater than 5,000/mm³ (= 5.0 x 10⁹ cells/L).  
• See [REMM cytokines page](#) for more information about potential dose alterations during large mass casualty incidents when medical countermeasures may be scarce. |
| **GM-CSF or sargramostim** (Leukine® drug label) | • A subcutaneous injection administered once daily as follows:  
• 7 mcg/kg in adult and pediatric patients weighing greater than 40 kg  
• 10 mcg/kg in pediatric patients weighing 15 kg to 40 kg  
• 12 mcg/kg in pediatric patients weighing less than 15 kg  
• Continue administration of Leukine until absolute neutrophil count remains greater than 1,000/mm³ (= 1.0 x 10⁹ cells/L) for 3 consecutive CBCs or exceeds 10,000/mm³ (= 10 x 10⁹ cells/L) after a radiation-induced nadir.  
• See [REMM cytokines page](#) for more information about potential dose alterations during large mass casualty incidents when medical countermeasures may be scarce. |
See Clinical Practice Guidelines for Myeloid Cytokines (Adults)

- NCCN Clinical Practice Guidelines in Oncology, Myeloid Growth Factors, Version 2.2016. See section entitled "NCCN Guidelines for Supportive Care" > "Myeloid Growth Factors". (Registration required.)

For Antimicrobial prophylaxis (no fever) with neutropenia:
- For patients with neutropenia who have NOT HAD NEUTROPENIC FEVER.
- Use as appropriate for each patient.
- Drugs listed are examples only.

**Anti-bacterial prophylaxis:**

- **Levofloxacin (Levaquin)** 500 mg PO/IV daily

**Anti-viral prophylaxis (neutropenia without fever)**

- **Acyclovir (Zovirax)** 400 mg PO q12h, or
- **Acyclovir (Zovirax)** 250 mg/m² IV q12h

**Anti-fungal prophylaxis (neutropenia without fever)**

- **Fluconazole (Diflucan)** 400 mg PO/IV daily – beginning when absolute neutrophil Count (ANC) becomes < 1000
  
  **or**

- **Posaconazole (Noxafl)** extended release tablets – 300 mg – one tablet twice daily day 1, then one tablet daily thereafter. Suspension is 200 mg TID– beginning when Absolute Neutrophil Count (ANC) becomes < 1000.

**For treatment of neutropenia AND fever** (defined as T>38 ºC while neutropenic)
Anti-microbial work-up and therapy

__ Blood cultures __ Urinalysis w/culture

__ Sputum culture + sensitivity __ Chest x-ray

__ **Cefepime (Maxipime)** 2gm IV q 8h

__ **Vancomycin (Vancocin)** 1gm IV q 12h –
Consider if: suspected catheter-related infection, skin or soft tissue infection, pneumonia or hemodynamic instability.

Consider trough level before 4th dose.

Antifungal therapy

Consider one of the following if: fever >72 hours on antibacterial therapy, evidence of fungal infection or hemodynamic instability.

__ **Voriconazole (Vfend)** 6mg/kg IV q12h for two doses, then 4 mg/kg IV q12h

Maintenance oral dose:  Weight <40 kg: 100 mg PO every 12 hours

Weight ≥40 kg: 200 mg PO every 12 hours

__ **Caspofungin (Cancidas)** 70 mg IV once then 50 mg IV daily

__ **Liposomal amphotericin B (Ambisome)** 3 mg/kg/day IV over 1-4h

__ **Amphotericin B lipid complex (Abelcet)** 3 mg/kg/day IV over 1-4h

See REMM page on peer-reviewed Fever and Neutropenia Guidelines
NOTES

1. FDA approved for this indication

2. This drug is not approved by the FDA for this indication. If used, this would be an "off label use", and physician discretion is strongly advised.

3. Ca-DTPA and Zn-DTPA have not been approved by FDA for treating internal contamination with californium, thorium, and yttrium. For initial treatment, Ca-DTPA is recommended, if available, within the first 24 hours after internal contamination. Zn-DTPA is preferred for maintenance after the first 24 hours, if available, due to safety concerns associated with prolonged use of Ca-DTPA.
Body Chart for Recording Results of Radiation Survey