Hazardous Material Awareness

Initial Patient Contact & R.A.I.N. Training



2022 | IMMC Emergency Preparedness

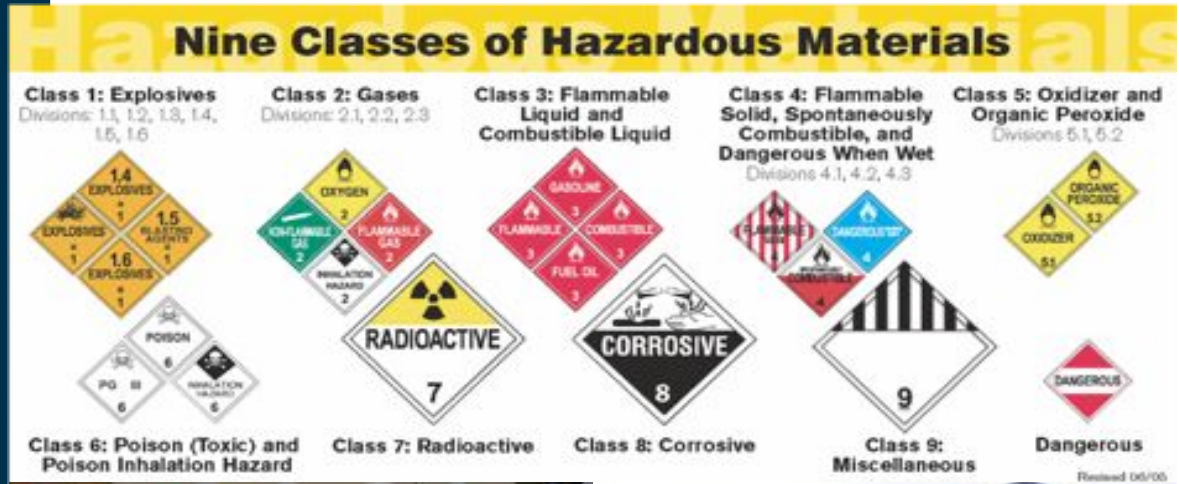
Objectives

1. Learn the acronym RAIN
2. How to recognize a contaminated patient
3. What to do when a contaminated patient presents to IMMC
4. Learn Basic Decontamination goals and procedures

How does Contamination Occur?

Toxic agents include

- ✓ Household cleaners
- ✓ Industrial chemicals
- ✓ Pesticides
- ✓ Herbicides
- ✓ Petroleum products
- ✓ Biological hazards







The most common cause of contamination is human error!

How does contamination occur?

Transportation Accidents





Industrial Spills

Natural Disaster





Criminal Acts

(such as illicit drug manufacturing, terrorist attacks, etc)

What is contamination?

- **Contaminated**: a patient that had direct physical contact with a solid or liquid hazardous material and the substance remains on their body or clothing
  - Have the potential of spreading materials to others
- **Exposure**: a person was in proximity to a hazardous substance, exposed to a radioactive source, or inhaled a toxic gas/vapor
  - cannot spread this material to others
- **Decontamination**: physical process of removing harmful substances from personnel, equipment and supplies
  - Used whenever there is known or suspected contamination with a hazardous substance





What is contamination?





- **Contaminated**: a patient that had direct physical contact with a solid or liquid hazardous material and the substance remains on their body or clothing
- Secondary contamination is when a chemical is transferred from the contaminated person to you, your coworker, other patients, or the hospital itself

What is exposure?

- **Exposure**: a person was in proximity to a hazardous substance, exposed to a radioactive source, or inhaled a toxic gas/vapor
  - cannot spread this material to others



What is decontamination?

- **Decontamination**: physical process of removing harmful substances from personnel, equipment and supplies
  - Used whenever there is known or suspected contamination with a hazardous substance





HazMat Myths

- It’s the fire departments’ responsibility to perform decon
- All contaminated patients will be treated at the scene
- Contaminated persons only go to those hospitals selected and prepared to receive them

Common characteristics of hazmat incidents

- 85% of victims leave the scene before emergency responders arrive
- Arrival at the hospital typically associated with low mortality rate
- The risk of staff exposure is related to the severity of the patient clinical condition and volatility of the material
- High acuity symptoms influence various chemical and psychological factors



Contaminated patient presents in lobby…

Remember:

R. Recognition

A. Avoidance

I. Isolation

N. Notification

Recognition

Recognize a potential threat

- Look for signs of liquid or solid contamination
  - Wet clothing, powder, etc
- Patients may report eye and/or skin irritation, cough, shortness of breath
- Patient reports possible exposure

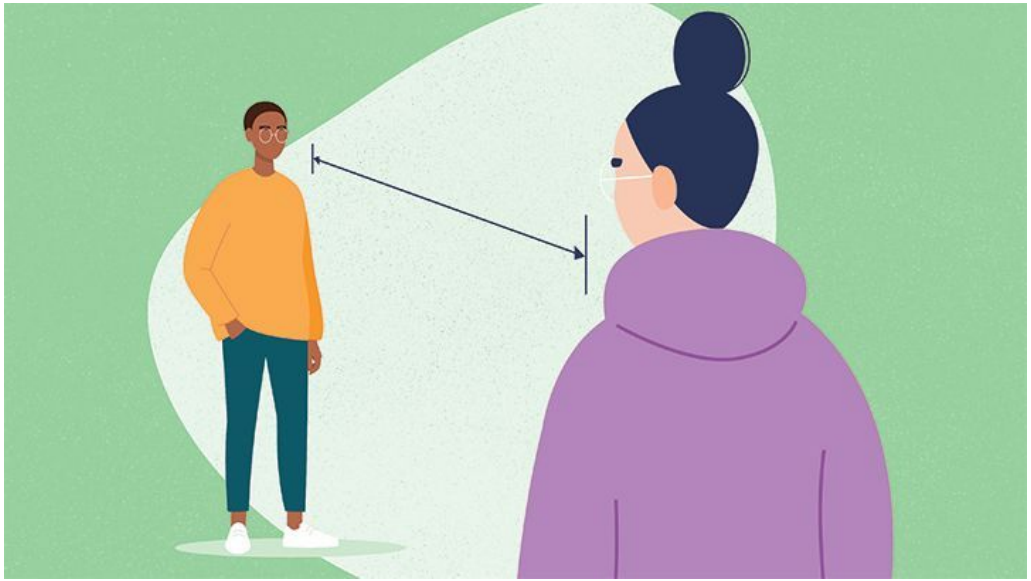


Avoid

Avoid becoming contaminated

Avoid becoming contaminated by:

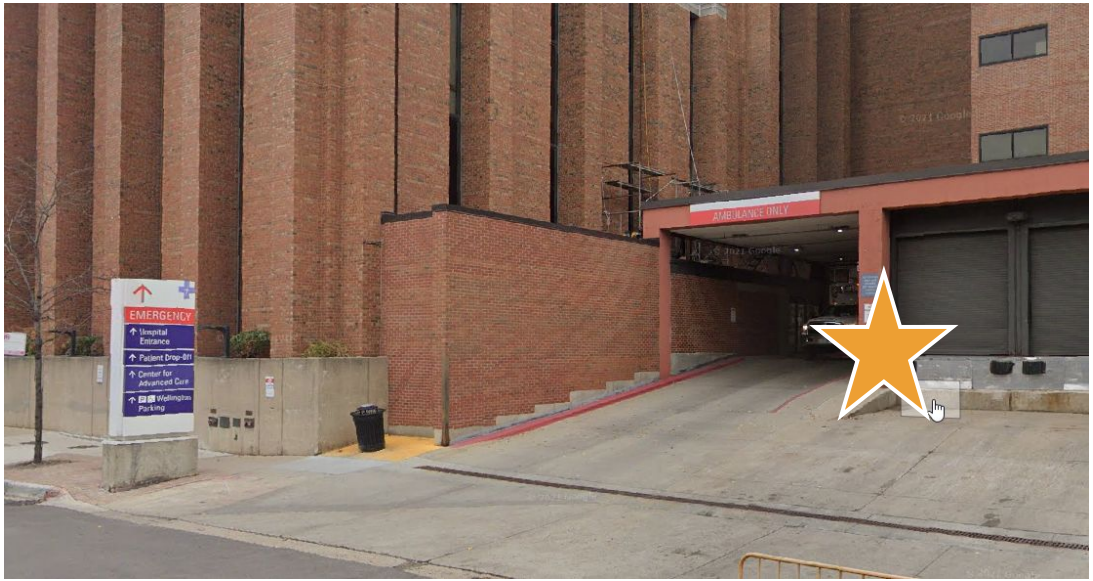
- Avoid touching the patient
- Staying 6 ft away
- Stay upwind of patient



Isolation

Isolate the hazard

- Walk the patient outside of the building
- Use nearest exit to avoid contaminating others
- Walk the patient to staging area near Emergency Department Ambulance Bay



Notify

Notify by calling decon team

- Notify ED charge nurse at 61-1339
- ED Charge nurse will notify
  - Security
  - ED Manager
  - ED Attending

- ED Manager calls Communications and activates Decon Team
- Wait for further instruction



What comes next?

1. Patient interview
2. Decon team assembly
3. Decontamination
4. Patient Treatment

How to manage a Contaminated Patient

R	**Recognize** a potential threat Look for signs of liquid or solid contamination (ie. wet clothing, powder, etc.). Pateints may report eye and/or skin irritation, cough, shortness of breath.
A	**Avoid** becoming contaminated Avoid touching the patient and stay 6 feet away.
I	**Isolate** the hazard Escort the patient outside of the building to avoid harm to others. Escort patient to staging area near ambulance bay.
N	**Notify** ED Charge RN Charge nurse will notify ED Manager who will call 61-6911 and state "Facility Alert- Decontamination Activate Hazmat Team"

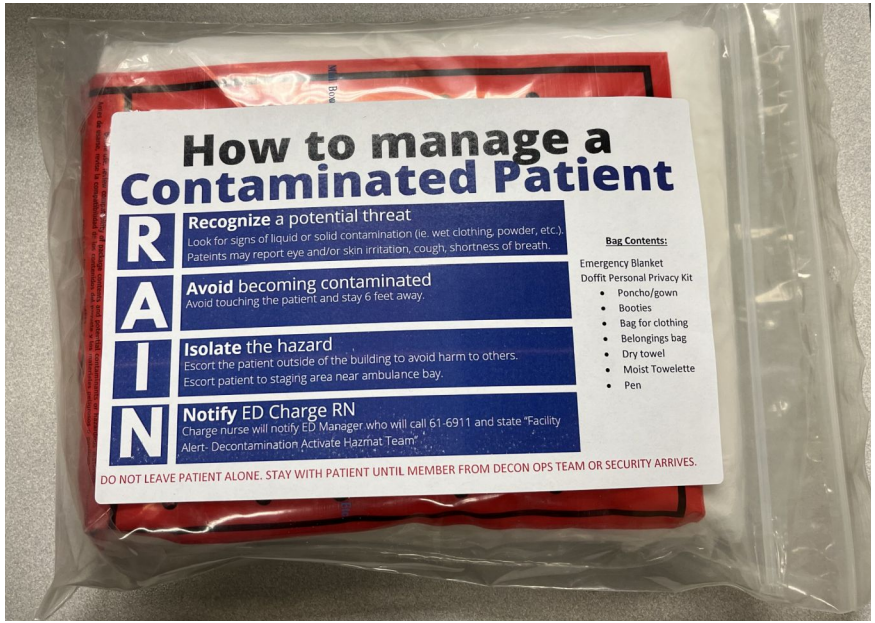
Remove contaminated clothing

- Removing contaminated clothing normally removes 85% of the contaminant
- We can provide the patient a private and safe way to remove their clothing while waiting for the decon team
- RAIN Kits are in the Ambulance Bay Cabinet and have the supplies to help the patient take off any contaminated clothing





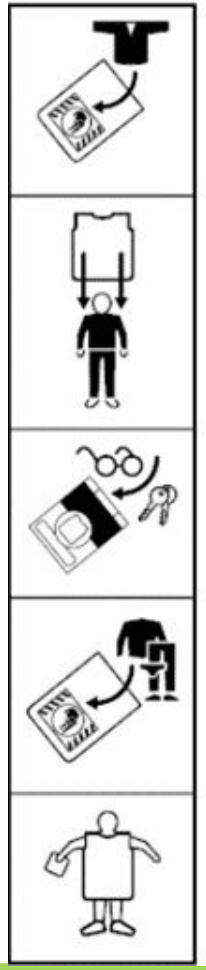
What is in the RAIN Kit?





Doff It Kit

1. Inside a personal privacy kit is a large poncho that the patient slips on once they take their outer layer of clothing off, such as jackets and sweatshirts.
2. Once the gown is slipped on, the patient will take their shirt off first while maintaining privacy.
3. Once they disrobe their shirt, the pants will come off next. Taking the shirt off first allows the patient to not worry about the gown riding up and exposing themselves.
4. Have patient take off socks and shoes and put on disposable booties provided in the kit
5. Kit also has two bags: one for their clothes, and the other for valuables, such as keys and cell phones.
    1. Write name and pt contact info on bags with pen provided in kit
    2. Alcohol wipes are available to wipe down cell phone and personal effects
6. In case of cold weather, we can provide patients with space blankets





How to safely removing contaminated clothing



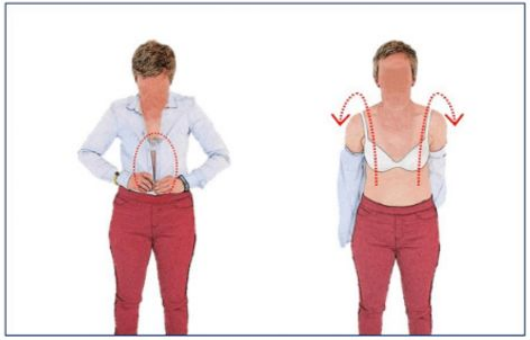






Figure 17: Standard Response Pathway Disrobe Protocol (to be read in conjunction with Table 5): Loosening of footwear without readily accessible closures using trauma shears.

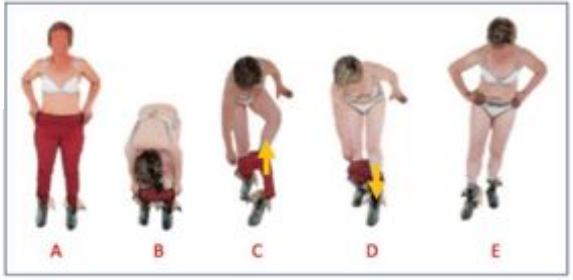


Figure 18: Standard Response Pathway Disrobe Protocol (to be read in conjunction with Table 5): Removal of lower clothes (e.g. trousers).

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The primary goal of decontamination is to protect you, your coworkers, & your hospital.

Redirecting the contaminated patient outside and removing contaminant from the victim are the two most important steps in decontamination.