Decontamination, Waste Handling & Transport for Cases of Ebola Virus Disease (EVD)

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Topics

1. Transportation and disposal of Ebola waste from health-care and non-health care settings.

2. Addressing possible Ebola contamination at non-health care locations used or frequently visited by a person recently diagnosed with EVD.
Guidance on Ebola medical waste available for health-care settings

- Hospitals generate medical waste and already have handling & disposal plans.

- Protocols for hospital are similar to Ebola waste issues at non-health-care settings.
Available Guidance

- *Interim Guidance for Environmental Infection Control in Hospitals for Ebola Virus*, CDC.
- *Ebola-Associated Waste Management*, CDC.
EVD Patient Waste (Sewage)

Per CDC

- Sanitary sewers may be used for the safe disposal of patient waste
  - U.S. sewage handling processes designed to inactivate infectious agents.
- Wastewater utility workers must practice sound hygiene when handling sewage
EVD Patient Waste (Sewage)


- Healthcare facilities should pre-treat patient waste in a toilet bowl with 1 cup full-strength bleach for at least 5 minutes before flushing.
- Pre-treatment should be performed only by HCP wearing appropriate PPE.

Transportation of Ebola medical waste

- Requirements for packaging and labelling of Category A infectious waste in guidance from the US Department of Transportation. (49 C.F.R., Parts 171-180)
Existing guidance on handling and transport of Ebola medical waste

- *Department of Transportation Guidance for Transporting Ebola Contaminated Items, a Category A Infectious Substance, US DOT – PHMSA.*
- *Transporting Infectious Substances Safely, US DOT – PHMSA.*
Disposal of Ebola medical waste

- Limited options for treatment to destroy virus
  - Incineration, Microwave, Autoclave, Chemical
  - Best option is incineration at approved facility.
- No in-state Ebola-ready disposal facilities identified that can receive medium to large amounts of Ebola waste.
- Two medical incinerators in adjacent states
  - Clinton, Ill, and Rochester, Mn.
Guidance needed to address Ebola virus contamination in non-health-care settings
People with EVD when first contagiously ill and not in hospitals

- Symptoms can first occur in any setting
  - Home
  - Traveling (vehicles, aircraft, public transport)
  - Offices, jails, schools, or other

- Concerns about contagion releases in uncontrolled environments.
  - Immediate direct-contact infection of others
  - Virus residuals left behind for latent direct-contact.
    - Ebola virus viable up to 6 days
Ebola contamination in uncontrolled, non-health-care settings

Issues
- Variety of settings for contamination to occur
- Clean-up of biological waste
- Environmental decontamination
- Safe and proper packaging of waste
- Transportation of waste
- Disposal of waste
State of Wisconsin contracts for environmental cleanup of spills of hazardous substances.

**NO** in-state contractors identified who are ready to conduct an Ebola cleanup.

- Contractors need to develop protocol, obtain equipment & materials, and train.
- Hazmat teams can help secure a site.
- National Guard 54th Civil Support Team can address Weapons of Mass Destruction, but has limited capacity.
Worker Safety

- Use of appropriate PPE and safety practices.
- Safe decontamination, handling, and disposal of potentially contaminated materials.
Decontamination of Ebola Virus in Non-clinical Environments

- Settings with Ebola contamination should be considered a *Human Health Hazard* (Wisc Stat 254).
- LPHAs need to secure & placard the setting.
- Setting needs decontamination, disinfection, or other cleanup.
Decontamination of Ebola Virus in Non-clinical Environments

- DHS technical support available to LPHAs:
  - Assess the location and situation.
  - Develop site-specific cleanup strategy.
  - Assist the Local Health Officer with writing cleanup/abatement orders.
  - Help identify cleanup contractor.
  - Ensure a complete cleanup occurs.
  - Assist LPHA’s with clearing a setting and writing clearance letter.
Decontamination of Ebola virus in Non-clinical Environments

Guidance for Decontamination of:
- Residences, offices, personal possessions (soft goods, hard surfaces).
  - Disinfection and Disposal of Household Goods Belonging to Patients Infected with Ebola Virus. USAPHC Technical Information Paper 13-032-1014,
  - Cleaning and Decontamination of Ebola on Surfaces, OSHA.
- Vehicles:
  - Decontamination of Vehicles & Equipment Used for Transportation of Potential Ebola Virus Disease (EVD) Patients or Related Equipment. USAPHC Technical Information Paper 13-031-0914,
- Aircraft:
  - Interim Guidance about Ebola Infection for Airline Crews, Cleaning Personnel, and Cargo Personnel, CDC.
Summary

- DHS is developing guidance for the safe cleanup of Ebola-contamination at non-health-care locations.
- Properly packaged Ebola medical waste is free of virus on the outside of the containers and is safe for transport to disposal facilities.
- State agencies are collaborating to identify private-sector contractors who can offer services for the cleanup of Ebola-contamination.