

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

October 28, 2014





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.*
- *Guidance for Safe Handling of Human Remains of Ebola Patients in U. S. Hospitals and Mortuaries, 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)

DHS Interim Guidance on the Safe Disposal of Ebola Patient Waste in Sanitary Sewers

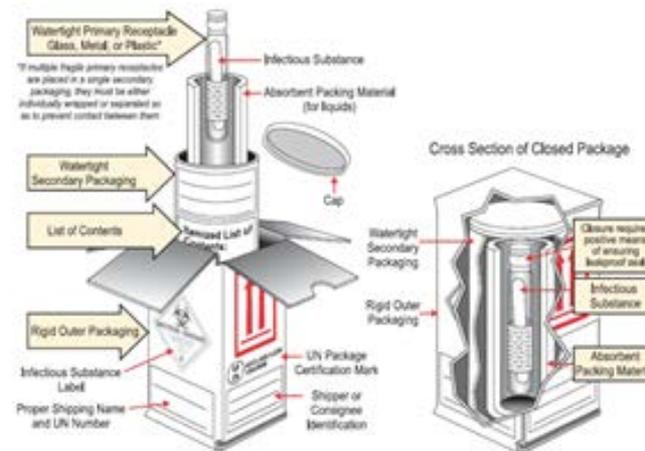
- Healthcare facilities should pre-treat patient waste in a toilet bowl with 1 cup full-strength bleach for at least 5 minutes before flushing.
- Pre-treatment should be performed only by HCP wearing appropriate PPE.

<http://www.dhs.wisconsin.gov/communicable/DiseasePages/docs/DHSInterimGuidanceSafeDisposal.pdf>



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) **Infectious Substances**



Note 1: The smallest external dimension of the outer packaging must not be less than 100 mm (3.9 inches).
Note 2: The primary receptacle or the secondary packaging must be capable of withstanding without leakage an internal pressure producing a pressure differential of not less than 95 kPa.
Note 3: Follow package manufacturer's closure instructions.





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.*
- *DOT Guidance for Preparing Packages of Ebola Contaminated Waste for Transportation and Disposal, 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



Cleanup

- 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.
 - *Suspected Communicable Disease – General Guidelines for Cleaning Crew*, International Air Transport Association.



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.