MANAGING EXPOSURE TO EBOLA

BACWA ANNUAL MEETING

JANUARY 30, 2015

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Presentation Objectives

• Brief Review of Ebola Virus Disease
• Understand Transmission of Ebola Virus
• Review Potential Exposure of Wastewater Workers
• Summarize Measures to Manage Exposure to Ebola Virus
Review of Ebola Virus Disease

• Ebola virus is old and relatively stable
• Recent outbreaks in West Africa
• High mortality rate when infected
• Symptoms of Ebola virus disease
  – Fever, Severe headache, Muscle pain, Weakness, Fatigue, Diarrhea, Vomiting, Abdominal (stomach) pain, Unexplained hemorrhage (bleeding or bruising)
  – Appear from 2-21 days after exposure (average 8-10 days)
Transmission of Ebola Virus

- Exposure from direct contact with bodily fluids of contaminated person or animal exhibiting symptoms

- Current knowledge – Ebola Virus is **not** transmitted by air, water, or food

- Survival of Ebola virus in wastewater reported to be short time (few minutes)
  - Documentation not located
  - Research needed
Potential Exposure of Wastewater Workers

• Risk of exposure to Ebola Virus is very low during routine wastewater work
• Highest exposure is when working in collection system downstream of known Ebola source (e.g. hospital caring for Ebola patient)
  – Collection system workers
  – Source Control staff sampling hospital wastewater
• Processes that aerosolize wastewater contaminated with Ebola virus
Measures to Manage Exposure to Ebola Virus

• Reinforce proper use of PPE to prevent exposure to raw wastewater
• Reinforce personal hygiene (e.g. hand washing) before taking breaks or eating
• Follow health and safety procedures established for bloodborne pathogens
• Control known or suspected sources of Ebola virus (e.g. wastes discharged from hospitals treating Ebola patients)
• Limit exposure to wastewater with known or suspected sources of Ebola virus
• Consider using enhanced personal protective equipment (PPE) for higher risk work
Control Known or Suspected Sources of Ebola Virus

- CDC guidance is to flush contaminated human wastes to sanitary sewer without pretreatment
- January 13, 2015 CASA Guidelines for Wastewater Agencies to Work With Hospitals on Managing Ebola Wastes
  - Managing human wastes from patients known, or suspected, to be contaminated with Ebola virus
    - Isolate and do not discharge to sanitary sewer when feasible
    - Disinfect wastes prior to flushing to sanitary sewer
  - Notify wastewater agency if patient known, or suspected, to be contaminated with Ebola virus is admitted or treated
Enhanced Personal Protective Equipment (PPE) for Higher Risk Work

- CDC identified enhanced PPE for workers working with wastewater contaminated with Ebola virus
  - Respiratory protection (exposure to mists), liquid resistant coveralls, double gloves (at least one liquid resistant), rubber boots
- Additional health and safety considerations
- Consider when and when not to use
Suggested Program Elements

1. Address Concerns With Open Communication

2. Integrate Management Strategies With Existing Programs When Feasible

3. Make Adjustments To Work Practices When Necessary
Resources

- [http://www.cdc.gov/vhf/ebola/about.html](http://www.cdc.gov/vhf/ebola/about.html)
QUESTIONS AND DISCUSSION