

West Virginia Department of Health and Human Resources

Botulism: Information for Public Health Officials

Pre-formed bacterial toxin

Unique Epidemiological Characteristics

- ▶ Natural reservoir for the bacteria is soil
- ▶ A newly reported case should be urgently investigated considering:
 - ▶ Foodborne (intentional or unintentional)
 - ▶ Wound
 - ▶ Aerosol (intentional)
- ▶ Incubation: 12-72 hours; sometimes longer
- ▶ No person-to-person transmission
- ▶ Mortality: very high (without therapy) due to respiratory muscle paralysis - *Dire emergency*
- ▶ Environmental:
 - ▶ Aerosolized toxin decays at about 1-4% per minute - not environmentally stable
 - ▶ Foods can continue to be a source as long as they are in circulation
- ▶ Prophylaxis - not available
- ▶ Treatment - antitoxin + artificial respiration - effective if initiated early

Lab confirmation

- ▶ Virginia State Health Department
- ▶ Implications: *Use a clinical case definition early in the investigation: diplopia, dysarthria, dysphonia, dysphagia*

Employee Health Considerations

- ▶ Exposed employees should be placed under surveillance for development of symptoms
- ▶ Standard precautions for work with affected individuals

Lifesaving interventions - in order:

- ▶ Recognition / reporting / casefinding + early and appropriate therapy
- ▶ Collect and analyze risk information to identify source AND
 - ▶ remove source (e.g., food) from the environment AND
 - ▶ identify the exposed population to be placed under surveillance.

Training considerations

- ▶ Physicians: recognition / treatment / reporting
- ▶ ICPs: reporting, active surveillance procedures
- ▶ Labs: procedure for referral of specimens
- ▶ Local health departments, regional epidemiologists: investigation
- ▶ IDEP / DSDC / BPH: employee health / investigation / priorities for control
- ▶ Environmental Health: sampling of foods and other environmental specimens