

West Virginia Department of Health and Human Resources

Smallpox: Information for Public Health Officials

Virus

Unique Epidemiological Characteristics

- ▶ No natural reservoir anywhere in the world
- ▶ Implications for investigation: Case is BT until proven otherwise (i.e., lab accident)
- ▶ Incubation period: 7-17 days
- ▶ Person-to-person transmission by droplets > contact with contaminated clothing and bedding > aerosol
- ▶ Mortality: 30% in pre-eradication era
- ▶ Environmental: not environmentally hardy.
- ▶ Prophylaxis: vaccine is effective if administered within 72 hours of exposure
- ▶ Treatment: none

Laboratory confirmation:

- ▶ CDC
- ▶ Implications: *Hospital personnel must be trained in recognition of smallpox so that persons are presumptively isolated.*

Employee Health:

- ▶ Vaccine and personal protective equipment recommended for persons who will have contact with smallpox-infected individuals
- ▶ Contraindications (pre-event - not a comprehensive list):
 - ▶ immunosuppression, eczema or exfoliative skin condition, or pregnancy in vaccine candidate OR household member of vaccine candidate
 - ▶ Age < 18
 - ▶ Vaccine component allergy
- ▶ Employees who will have face-to-face contact with smallpox patients MUST have been vaccinated (with documented take) AND fit-tested with an N-95 mask. In addition, contact precautions (gloves, gown) are required

Lifesaving interventions - in order:

- ▶ Recognition / reporting / case-finding + airborne and contact isolation of cases
- ▶ Contact tracing and ring vaccination
- ▶ Collect and analyze risk information to identify source AND
 - ▶ identify the exposed population to be placed under surveillance AND
 - ▶ identify household contacts of exposed so they can be vaccinated.

Training considerations

- ▶ Physicians: recognition / reporting / isolation / employee health
- ▶ ICPs: reporting, active surveillance procedures / vaccination / isolation / employee health
- ▶ Labs: procedure for referral of specimens to CDC.
- ▶ Local health departments, regional epidemiologists: Investigation / vaccination / isolation / employee health
- ▶ IDEP / DSDC / BPH: employee health / investigation / isolation / vaccination / priorities for prevention and control