

SMALLPOX EXPOSURE IN A COMMUNITY

In any Bioterrorism event, including smallpox, the local public health department should be the lead agency in the response effort. If there is an actual or suspected smallpox event, the local health department should be contacted immediately. A coordinated response from the local public health department, private healthcare professionals, emergency management, and other local agencies is imperative.

SMALLPOX

- Etiology – Smallpox is an acute viral illness caused by the variola virus. Smallpox is a bioterrorism threat due to its potential to cause severe morbidity and mortality in a nonimmune population and because it can be transmitted via the airborne route. A single case is considered a public health emergency and requires immediate notification of local and state public health officials
- Clinical Features – Initial clinical symptoms of smallpox resemble other acute viral illnesses, such as influenza. Other clinical symptoms to aid in identification of smallpox include:
 - 2-4 day, of non-specific prodrome of fever, myalgias followed by development of rash
 - rash most prominent on face and extremities (including palms and soles) in contrast to the truncal distribution of chickenpox
 - skin lesions progress from macules to papules to vesicles to scabs over period of 1-3 weeks
 - smallpox rash has a synchronous onset (all lesions are at the same stage), in contrast to the rash of chickenpox which arises in “crops”
- Mode of Transmission – Smallpox is transmitted via both large and small respiratory droplets. Patient-to-patient transmission is likely from airborne and droplet exposure, and by contact with skin lesions or secretions. Patients are considered more infectious if coughing or if they have a hemorrhagic form of smallpox.
- Incubation Period – The incubation period for smallpox is 7-17 days; the average is 12 days.
- Period of Communicability – Unlike chickenpox, which is contagious before the rash is apparent, patients with smallpox become infectious at the onset of the rash and remain contagious until all scabs separate and fall off (approximately 3 weeks). Scabs do contain smallpox virus and can transmit disease.

POINT OF DISCOVERY

- If suspected or confirmed contagious disease is diagnosed by a “medical professional”, complete the following actions:
 - Immediately initiate standard, contact and airborne precautions
 - Notify transporting personnel and receiving facility staff of suspicion
 - Immediately contact the local health department and the State Department for Public Health at (1-888-973-7678) (24/7)
- If contagious case is suspected by a non-medical person, complete the following action:

- Seek medical attention and immediately notify office or hospital staff of suspicion upon arrival or preferably in advance

911 CENTER (IF CONTACTED)

- Complete dispatch form
- Send EMS, fire and/or law enforcement per policy
- Inform responding staff of possible case of smallpox to take appropriate precautions

EMS

- Respond to scene
- Utilize appropriate standard, airborne and contact precautions
- Communicate with medical control as to whether and where to transport patient based on assessment
- Decontamination after exposure to smallpox is not indicated
- Place mask on patient if possible

FIRE

- Assist other first responders, hospitals and/or shelters as needed
- Utilize appropriate standard, airborne and contact precautions

LAW ENFORCEMENT

- Assist other first responders, hospital and/or shelters as needed
- Utilize appropriate standard, airborne and contact precautions
- Contact FBI if confirmed case – otherwise, open case report

HOSPITAL

- Utilize appropriate standard, airborne and contact precautions
- Immediately contact the local health department and the State Department for Public Health at 1-888-973-7678(24/7) to report possible case of smallpox
- Decontamination after exposure to smallpox is not indicated; however vaccination ASAP following exposure is indicated. Those vaccinated post-exposure will require isolation for several days. State and local health department will advise on isolation measures following post-exposure vaccination.
- Conduct triage and medical screening examination
- Consult with the local and state health departments to obtain and administer smallpox vaccine following CDC guidelines. Note: vaccine is most effective if given within 4 days of exposure
- Patient disposition – treat and admit to an isolation bed or transfer as appropriate given patient condition, isolation bed availability, volume of patients, availability of transportation, directions of public health, etc.

PUBLIC HEALTH DEPARTMENT

- Initiate pre-planned smallpox response plan
- Utilize appropriate standard, airborne and contact precautions
- Institute isolation and quarantine where appropriate

- Attempt to locate source and contacts to be vaccinated, including those who have been in the same household or who have been in face to face contact (up to 6.5 feet) with the patient after the onset of fever
- Consult State Department for Public Health to obtain vaccine and distribute as appropriate
- Conduct vaccination program following CDC guidelines

HIGHEST RANKING ELECTED OFFICIAL IN AREA

- Designate official spokesperson
- Execute requests for assistance from state and others
- **Integrate all activities with the local health department, the State Department for Public Health and the Kentucky Emergency Management EOC**

EMERGENCY MANAGEMENT OFFICIAL

- Recommend to highest elected official in area the need for state and other assistance as needed
- Prepare appropriate forms for signature and send them accordingly
- **Integrate all activities with the local health department, the State Department for Public Health and the Kentucky Emergency Management EOC**

SPOKESPERSON

- Work with the local health department to determine appropriate spokesperson
- Handle media requests in cooperation with state and federal officials
- Inform and educate the public as appropriate or as directed by state and federal officials

PATIENT DISPOSITION

Follow pre-determined smallpox plans. If no plan exists:

- First few patients – admitted to hospital based on number of available and staffed isolation beds
- Next patients – transferred to designated smallpox facility if beds available and staffed
- Rest of patients – isolated in home if medical condition allows and a caregiver is available
- Rest of patients – transferred to another location to be determined

HOME HEALTH AGENCY

- Report any suspected case to the local health department and state health department immediately.
- Work with local health department to identify individuals to be vaccinated in the event of mass vaccination.
- Provide in home patient treatment/support
- Utilize appropriate standard, airborne and contact precautions

CORONER

- Utilize appropriate standard, airborne and contact precautions
- Rent refrigerated semi-trailers for temporary morgue if mass casualties expected

- Report any suspected case not previously identified to the local health department immediately.

STANDARD PRECAUTIONS

- Standard precautions prevent direct contact with all body fluids (including blood), secretions, excretions, nonintact skin (including rashes), and mucous membranes. Standard precautions routinely practiced by healthcare providers include:
 - Handwashing – Hands are washed after touching blood, body fluids, excretions, secretions, or items contaminated with such body fluids, whether or not gloves are worn. Hands are washed immediately after gloves are removed, between patient contacts, and as appropriate to avoid transfer of microorganisms to other patients and the environment. Either plain or antimicrobial-containing soaps may be used according to policy.
 - Gloves – Clean, non-sterile gloves are worn when touching blood, body fluids, excretions, secretions, or items contaminated with such body fluids. Clean gloves are put on just before touching mucous membranes and nonintact skin. Gloves are changed between tasks and between procedures on the same patient if contact occurs with contaminated material. Hands are washed promptly after removing gloves and before leaving a patient care area.
 - Masks/Eye Protection or Face Shields – a mask and eye protection (or face shield) are worn to protect mucous membranes of the eyes, nose, and mouth while performing procedures and patient care activities that may cause splashes of blood, body fluids, excretions or secretions.
 - Gowns – A gown is worn to protect skin and prevent soiling of clothing during procedures and patient-care activities that are likely to generate splashes or sprays of blood, body fluids, excretions or secretions. Selection of gowns and gown materials should be suitable for the activity and amount of body fluid likely to be encountered. Soiled gowns are removed promptly and hands are washed to avoid transfer of microorganisms to other patients and environments.

AIRBORNE AND CONTACT PRECAUTIONS

- For patients with suspected or confirmed smallpox, both airborne and contact precautions should be used in addition to standard precautions.
 - Airborne precautions are used for patients known or suspected to be infected with microorganisms transmitted by airborne droplet nuclei of evaporated droplets containing microorganisms that can remain suspended in air and can be widely dispersed by air currents.
 - Airborne precautions require healthcare providers and others to wear respiratory protection when entering the patient room. (Appropriate respiratory protection is based on facility selection policy; must meet the minimal NIOSH standard for particulate respirators, N95).
 - Contact precautions are used for patients known or suspected to be infected or colonized with epidemiologically important organisms that can be transmitted by direct contact with the patient or indirect contact with potentially contaminated surfaces in the patient care area.
 - Contact precautions require healthcare providers and others to:
 - Wear clean gloves upon entry into patient room.

- Wear gown for all patient contact and for all contact with the patient's environment. Based on local policy, some healthcare facilities require a gown be worn to enter the room of a patient on contact precautions. Gown must be removed before leaving the patient's room.
- Wash hands using an antimicrobial agent.

POST EXPOSURE MANAGEMENT

- Items potentially contaminated by infectious lesions should be handled using contact precautions.
- All laundry and bedding should be placed in biological bags and autoclaved or laundered in hot water to which bleach has been added.
- All waste should be placed in biohazard bags and autoclaved before being incinerated. Disinfectants used for standard hospital infection control, such as hypochlorite and quaternary ammonia, are effective for cleaning surfaces possibly contaminated with virus.

FIRST RESPONDERS, HOSPITAL AND MORTUARY WORKERS AND THEIR IMMEDIATE FAMILIES

- First priority for vaccinations

NOTE: Administration of the smallpox vaccination within 4 days of exposure is very effective in protecting emergency medical personnel, emergency management personnel, medical personnel and others who have been in contact with a case of smallpox from developing clinical illness.

3/13/03