

Draft Infection Control Guidelines for Smallpox-(The epidemiology of a smallpox release will determine the need for updates of these guidelines including where and how vaccine will be distributed)

Disease	Route of Transmission	Time of Infectivity	Prevention- Isolation Measures	Prevention-Prophylactic Measures	Decontamination
Smallpox	<p>Person to person-droplet nuclei or aerosols expelled from oropharynx and by direct contact. Increased with a coughing individual.</p> <p>Indirect contact from handling linens or clothing has occurred.</p> <p>Bioterrorist event likely result of aerosol</p>	<p>Onset of exanthem (3-6 days p fever) - until all scabs separate</p> <p>See decontamination</p>	<p>Airborne and Contact Precautions should be used in addition to standard precautions. (i.e. gowns, gloves, protective eye wear, masks (must meet minimal NIOSH standard for particulate respirators, N95) and shoe covers should be used. Dispose of properly prior to leaving area.)</p> <p>The above precautions should be used when transporting a patient with smallpox or suspected smallpox. If patient is to be transported minimize dispersal of droplets by placing a mask on patient.</p> <p>Use dedicated patient equipment when possible.</p> <p>All laundry and waste in biohazard bags and autoclave or hot water and bleach.</p> <p>1) Isolate suspected cases at home or in hospital (see below).</p> <p>1a) <u>Limited outbreak</u>- May admit patients to hospital. Confine to rooms under negative pressure and equipped with HEPA filtration.</p> <p>1b) <u>Larger outbreak</u> - confine to home isolation, when possible. MSDH will likely designate a specific smallpox hospital. Cohort patients if necessary.</p> <p>2) Household contacts and those with face to face contact after patient developed fever should be monitored daily for fever for 17 days post last exposure. Isolate if temperature > 101°F (38°C).</p> <p>This should apply to any employees or patients in the hospital that might have been exposed prior to isolation of a case.</p>	<p>In a BT event or outbreak limited vaccination supplies will require identifying recipients that will benefit from treatment. Specific recommendations will be given for vaccine and the use of vaccinia immune globulin (VIG) if a case or cases are identified by CDC and MSDH.</p> <p>Vaccinate all hospital employees and patients in the hospital when smallpox case identified. Send home anyone for whom vaccine is contraindicated. (See below) Vaccinate health care providers if they were at the point of the aerosol release.</p> <p>Vaccinate household contacts and those with face to face contact after patient developed fever.</p> <p>Vaccinate new cases, particularly if a smallpox hospital is designated. This is to prevent smallpox in inappropriately diagnosed cases.</p> <p>The vaccine is not considered contraindicated in anyone who has had a true exposure. Patients at greatest risk for adverse reactions include those with history or presence of eczema, pregnant women, immuno-compromised individuals, vaccine component allergy. If VIG is available these patients should receive VIG concurrent with vaccine.</p> <p>While awaiting vaccine attempt to have care givers for patients as those with a prior vaccine history. When vaccine does arrive they should respond quickly with immunity. Vaccine given within four days of exposure should prevent or mitigate the consequences of disease.</p> <p>(See Postexposure prophylaxis guidelines)</p>	<p>Environment Virus released as aerosol and not exposed to UV light may persist 24 hours or a little longer. The Vaccinia virus is almost completely destroyed within 6 hours in high temperature and humidity. In cooler temperatures and lower humidity nearly 2/3s survives 24 hours. Variola (Smallpox) probably acts similarly.</p> <p>Hypoclorite and quaternary ammonia effective for cleaning surfaces.</p> <p>Post Mortem Airborne and contact precautions should be used for post mortem care. Once FBI and MSDH have released bodies cremate whenever possible.</p>

Draft Infection Control Guidelines for Anthrax-(The epidemiology of an anthrax release will determine the need for updates of these guidelines including where and how prophylactic antibiotics will be distributed)10/12/01

Disease	Route of Transmission	Time of Infectivity	Prevention- Isolation Measures	Prevention-Prophylactic Measures	Decontamination
Anthrax	<p>No person to person transmission of inhalational anthrax has been documented.</p> <p>Other routes of infection include cutaneous contact with spores or spore-contaminated materials or ingestion of contaminated food. This would result in cutaneous anthrax or gastrointestinal anthrax, respectively.</p> <p>BT event would likely be the result of aerosolized spores that would result in inhalational anthrax.</p>	<p>No person to person transmission has been documented.</p> <p>Direct contact with skin lesions may result in cutaneous infection.</p> <p>See decontamination</p>	<p>Standard precautions are indicated for care of patients with inhalational anthrax. This includes the use of gloves for contact with non intact skin, including rashes and skin lesions. No masks required.</p> <p>Standard precautions for transport of patients.</p> <p>No isolation of contacts is required.</p>	<p>No indication to treat patient contacts or healthcare providers unless they are part of the original exposure to the agent.</p> <p>If a person comes into direct physical contact with anthrax, the exposed skin and articles of clothing should be washed with soap and water and receive postexposure prophylaxis. (See post exposure prophylaxis guidelines)</p>	<p>Environmental</p> <p>If spores are released as an aerosol, under maximum survival and persistence the aerosol would be fully dispersed within hours to 1 day at most. Secondary aerosolization seems to be unlikely.</p> <p>Standard hospital disinfectants such as hypochlorite are effective in cleaning environmental surfaces contaminated with infected body fluids.</p> <p>Post-Mortem</p> <p>Proper burial of humans and animals necessary to prevent future transmission. Standard precautions should be used for post-mortem care. This includes the use of appropriate personal protective equipment, including masks and eye protection, <u>when</u> generation of aerosols or splatter of body fluids is anticipated. When bodies are released by the FBI and MSDH cremate if possible. Post autopsy all instruments should be autoclaved or incinerated.</p>

Draft Hospital Infection Control Guidelines for Plague (The epidemiology of a plague release will determine the need for updates of these guidelines including where and how prophylactic antibiotics) 10/12/01

Disease	Route of Transmission	Time of Infectivity	Prevention- Isolation Measures	Prevention-Prophylactic Measures	Decontamination
Plague	<p>Transmission of pneumonic plague occurs via respiratory droplets i.e. only infects person who have direct and close (within 6 feet) exposures to the ill patient.</p> <p>Animals such as cats are susceptible to aerosolized plague and could also transmit the disease through respiratory droplets</p> <p>Direct contact with infected tissues or fluids from handling sick or dead animals</p> <p>BT event would likely be aerosolization</p>	<p>From time of illness until 48 hours after antibiotics have been started. (Prior standards have listed 72 hours)</p> <p>See decontamination.</p>	<p>Pneumonic plague- Standard precautions and droplet precautions with gowns, gloves, disposable surgical masks until 48 hours after antibiotics started. Then standard precautions. Use this guide when transporting patients.</p> <p>Patients with pneumonic plague may be cohorted if necessary if all are being treated.</p> <p>Patients should also wear masks when being transported.</p> <p>Bubonic plague - Standard precautions plus contact precautions. Gloves if touching blood, body fluids, secretions, excretions and contaminated items. Mask, eye protection, gown only if expect generation of aerosols or to prevent soiling of clothes with blood or body fluids. Standard precautions after 48 hours.</p> <p>Close contacts refusing antibiotic prophylaxis should be watched for the development of cough or fever during the first seven days after exposure and treated immediately if these symptoms occur. Isolation prior to symptoms is not necessary.</p>	<p>Healthcare providers who are observing recommended isolation procedures do not require prophylactic therapy, nor do contacts of patients with bubonic plague.</p> <p>Health care workers who have had face to face contact with a patient with pneumonic plague prior to the institution of respiratory isolation should receive prophylaxis.</p> <p>If hospital personnel were at the point source of the original aerosol release prophylaxis would be as for anyone that was exposed. (See post exposure prophylaxis sheet.)</p> <p>Vaccinated persons should receive prophylactic antibiotics if they have been exposed to a plague aerosol.</p> <p>Vaccine is not available and does not protect or ameliorate symptoms of inhalational plague.</p>	<p>Environmental <i>Y. pestis</i> very susceptible to action of sunlight and heating and does not survive long outside the host. Disinfectants (2-5% hypochlorite) renders bacteria harmless.</p> <p>Analysis have suggested that in a worst case scenario a plague aerosol would be infectious only as long as one hour after its release</p> <p>Post Mortem Bodies of patients should be handled with standard and droplet precautions similar to the isolation of live patients.</p> <p>Fleas and rodents If rodents or other animals must be killed, Insecticide to kill fleas must always be used first.</p>

Draft Infection Control Guidelines for Tularemia (The epidemiology of a tularemia release will determine the need for updates of these guidelines including where and how post exposure prophylaxis will be distributed)10/12/01

Disease	Route of Transmission	Time of Infectivity	Prevention- Isolation Measures	Prevention-Prophylactic Measures	Decontamination
Tularemia	<p>No person to person transmission has been documented.</p> <p>Other routes of infection include gastrointestinal and cutaneous, including bites by infected arthropods and direct contact with infected animals, water, food, or soil.</p> <p>BT event would likely be the result of aerosol.</p>	<p>No person to person transmission has been documented.</p> <p>See decontamination</p>	<p>Standard precautions are recommended.</p> <p>This includes the use of gloves for contact with non intact skin including rashes and skin lesions. No masks required.</p> <p>Standard precautions for transport of patients.</p> <p>No isolation of contacts is required.</p>	<p>No indication to treat patient contacts or healthcare providers unless they are part of the original exposure to the agent.</p> <p>If a person comes into direct physical contact with tularemia, the exposed skin and articles of clothing should be washed with soap and water. Persons at the site of the original release should receive postexposure prophylaxis. (See post exposure prophylaxis guidelines)</p>	<p>Environmental</p> <p>Agent may survive for extended periods in a cold moist environment. Limited information is available. If an aerosol release occurred a short half life is anticipated due to desiccation, solar radiation, oxidation and other environmental factors.</p> <p>Surfaces can be decontaminated with a 10% bleach solution (1 part household bleach to nine parts water). After 10 minutes , a 70% solution of alcohol can be used to further clean the area and reduce corrosive action of the bleach.</p> <p>Post Mortem</p> <p>Persons with direct exposure to powder or liquid aerosols from a deceased patient should wash body surfaces and clothing with soap water.</p>

Disease	Route of Transmission	Time of Infectivity	Prevention- Isolation Measures	Prevention-Prophylactic Measures	Decontamination
Botulism	<p>No person to person transmission.</p> <p>Four ways people become infected; food-borne, wound, intestinal, and inhalational (which would only occur as the result of a bioterrorist event). All routes of infection result in the same clinical picture.</p>	No person to person transmission	<p>Standard precautions</p> <p>If the differential diagnosis for a patient includes botulism and meningitis, Droplet precautions would be required until meningitis is ruled out.</p>	<p>Health care providers with simple direct contact require no intervention.</p> <p>Prevention by presence of neutralizing antibodies induced by administration of equine botulinum antitoxin or specific human hyperimmune globulin.</p> <p>Equine Antitoxin available but scarce, and adverse reactions reported.</p> <p>Asymptomatic persons exposed to original release of toxin should remain under close medical observation and, if feasible near critical care services.</p> <p>Investigational pentavalent botulinum toxoid made by CDC used in lab workers and military. Only induces immunity over several months, therefore not effective as post-exposure prophylaxis.</p>	<p>Persistence of aerosolized toxin at site of deliberate release is determined by atmospheric conditions and the particle size. Extremes of temperature and humidity will degrade the toxin, and fine aerosols will eventually dissipate. Substantial inactivation occurs by 2 days after aerosolization.</p> <p>After exposure to toxin, clothing and skin should be washed with soap and water. Contaminated objects or surfaces should be cleaned with a 0.1% hypochlorite bleach solution if they cannot be avoided for the hours to days required for natural degradation.</p> <p>Heating contaminated items, and food or drink to an internal temperature of 85°C for at least 5 minutes will detoxify items as the toxin is easily destroyed. Sterilize contaminated items by boiling or by chlorine disinfection.</p>