



SMALLPOX

Agent information:	Smallpox is caused by an orthopoxvirus called the variola virus. There are two principal forms of disease: variola major and a milder form, variola minor. Case fatality rate for variola major is greater than or equal to 30% among unvaccinated individuals. Flat and hemorrhagic smallpox are variations of variola major. The last natural outbreak of smallpox occurred in 1949. Smallpox was declared eradicated in 1980.
Transmission:	Smallpox spreads by person-to-person transmission, primarily via droplets from the oropharynx. Those within six feet appear to be at greatest risk. Contaminated clothing or bed linens can also spread the virus. There are no known animal or insect reservoirs or vectors. Incubation period is usually seven to 17 days.
Signs and symptoms:	<ul style="list-style-type: none">• Prodrome: Duration two to four days; contagious. Fever (101 degrees F to 104 degrees F), malaise, myalgia, headache, difficulty carrying on normal activities.• Early Rash: Duration four days; most contagious. Rash emerges in the oropharynx and spreads to the face and then to the extremities, and to all parts of the body usually within 24 hours. Highly contagious at this time. Fever subsides. Rash is centrifugal; lesions evolve at the same rate and at the same stage of development; spread to palms and soles is common.• Day 3: lesions become raised bumps.• Day 4: lesions become fluid-filled and umbilicated. Fever may rise.• Day 5: pustular rash; sharply raised, round and firm. Pustules then begin to crust over and scab.• Day 6: resolving scabs; begin to separate and leave scars. Most scabs separate within three weeks after rash appears.• Person is no longer contagious after all scabs have separated. Dry scabs contain live virus.
Protective measures:	<p>Persons treating patients with confirmed or suspect smallpox should be vaccinated. In the setting of an early outbreak, care can be provided immediately after vaccination.</p> <p>Follow appropriate Body Substance Isolation (BSI) precautions, with use of Personal Protective Equipment (PPE). Standard PPE is not sufficient protection. Include leg and shoe coverings, face shields, dedicated medical equipment and restricted access of nonessential staff.</p>

Emergency Medical Services and Preparedness Section
24/7 Emergency Contact Number: 1-888-295-5156
Contact Number: 302-223-2999



Standard Precautions: Hand washing before and after all patient contacts and contact with patient care equipment.

Contact Precautions: Use of gloves, gown, and eye protection.

Airborne Precautions: Initiate droplet precautions, including wearing masks (fit tested, NIOSH approved N-95 respirator) when in contact with patient.

Airborne Precautions: A surgical mask should be placed on the patient. If equipment is visibly soiled or significant contact has been made with the patient, REMOVE the protective clothing BEFORE entering areas that are NOT contaminated to prevent transmission of material. The patient is contagious until all scabs have separated.

Decontamination of PPE and equipment:

Equipment can be decontaminated using soap, water, and 0.5% hypochlorite solution (one part household bleach to 10 parts water). This solution can be used as appropriate or if gear had any visible contamination. Note that bleach may damage some types of firefighter turnout gear (one reason why it should not be used for biological agent response actions). After taking off gear, response workers should shower using copious quantities of soap and water.

Prophylaxis:

Post-exposure Vaccination: Persons exposed to the initial release of the virus; household and face-to-face contacts; personnel who may provide direct health care or public health evaluation; laboratory workers responsible for collection or processing specimens; other persons who may be in contact with infectious material (housekeeping, mortuary workers, etc.); other response personnel (law enforcement, EMS, etc.); all individuals present at a hospital during the time that a smallpox patient is present and not properly isolated.

Treatment:

No antivirals have proven effectiveness for smallpox treatment. Vaccination administered within three to four days of first exposure has been shown to offer some protection against acquiring infection and is significant protection against a fatal outcome.

Reporting:

Immediately report any suspect cases to the Division of Public Health, Office of Infectious Disease Epidemiology:
1-888-295-5156.

Additional information:

Visit the Centers for Disease Control and Prevention website:
www.cdc.gov/smallpox.

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