

SMALLPOX

Case definition

CONFIRMED CASE

Laboratory confirmation of infection:

- isolation of *variola* virus from an appropriate clinical specimen

OR

- detection of *variola* virus nucleic acid

PROBABLE CASE

Clinical evidence of illness in a person who is epidemiologically linked to a laboratory-confirmed case or to a probable case

OR

Laboratory evidence of infection:

- negative stain electron microscopic identification of variola virus in an appropriate clinical specimen

SUSPECT CASE

Clinical evidence of illness in a person who is not epidemiologically linked to a laboratory-confirmed case or to a probable case of smallpox

OR

Atypical lesion known to be associated with the variola virus on a person who is epidemiologically linked to a laboratory-confirmed or probable case

Causative agent

Variola virus.

Source

Officially, only in designated freezers—potential for bioterrorism.

Incubation

7-19 days. Commonly 10-14 days to onset of illness and 2-4 days more to onset of rash.

Transmission

Person-to-person. If used in bio warfare, the agent would most likely be disseminated in an aerosol cloud.

Communicability

From the time of development of the earliest lesions to disappearance of all scabs, about 3 weeks. The person is most contagious during the pre-eruptive period by aerosol droplets.

Symptoms

Fever, malaise, headache, prostration, occasional abdominal pain and vomiting. The skin eruptions progress through stages of macules, pustules, vesicles, and pustules. The lesions start on the face and extremities and subsequently on the trunk—the so-called centrifugal rash.

Diagnostic testing

Consult your local laboratory.

Treatment

Supportive – antibiotics for secondary infections.

PUBLIC HEALTH MANAGEMENT & RESPONSE

Case management

Initiate case follow-up immediately.

Refer to Health Canada and Provincial Smallpox Guidelines.

Education

In 1980, the World Health Organization confirmed the global eradication of smallpox.

Prophylaxis

- Under epidemic circumstances, widespread immunization would be indicated. Smallpox vaccine has been successfully administered to persons of all ages in the past. However, there are certain groups of peoples for whom elective immunization has not been recommended because of the risk of complications.
- Under epidemic conditions, however, such contraindications will have to be weighed against the grave risks posed by smallpox. Vaccinia immune globulin [VIG] can be administered concomitantly with vaccine to minimize the risk of complications in these people. VIG is also recommended for the treatment of severe cutaneous reaction occurring as a complication of immunization.

Surveillance forms

novascotia.ca/dhw/populationhealth/surveillanceguidelines/Vaccine_Preventable_Case_Report_Form.pdf