
DISEASES : Smallpox

This fact sheet provides basic information only. It must not take the place of medical advice, diagnosis or treatment. Always talk to a healthcare professional about any health concerns you have, and before you make any changes to your diet, lifestyle or treatment.

Smallpox is caused by the variola virus. This virus is spread from person to person in much the same way that chickenpox is spread, that is, through contact or inhalation of saliva droplets from an infected person. The last known case of smallpox in the world occurred in 1977.

Symptoms

Smallpox first appears as flu-like symptoms (high fever, fatigue, headaches and backaches). Abdominal pain and vomiting may also occur. These symptoms usually start between seven to 19 days following exposure to the virus. When the fever comes down (about two to four days after these initial symptoms) a rash appears, beginning on the face, arms and legs, and then spreading to the chest and abdomen.

The rash starts with flat red spots that gradually become raised and pus-filled, and start to crust over early in the second week of the illness. The scabs then separate and fall off after about three to four weeks, leaving a light spot and eventually a scar on the skin.

This rash may look like chickenpox, but unlike chickenpox the spots caused by smallpox do not start on the chest and abdomen, are not present in the armpit area, and only one stage of the rash is seen at one time (for example, you do not see early red bumps occurring at the same time as scabs).

Exposure

Persons with smallpox are most infectious during the first week of illness. However the risk of catching this disease is still present until the scabs from the rash have fallen off (usually in about three weeks).

Treatment*

The majority of patients with smallpox recover, but death occurs in up to 30 per cent of cases. There is no proven treatment for smallpox. Research to evaluate new drugs is ongoing. Management of smallpox patients would include supportive therapy in the form of intravenous fluids, drugs to reduce fever, and antibiotics for any secondary bacterial infections that may occur.

Vaccine

There is a vaccine against smallpox that only people born before 1972 received. However the degree of protection is uncertain for those vaccinated more than 20 years ago, so everyone is assumed to be susceptible to this disease.

Vaccinating people with smallpox vaccine within four days of exposure may lessen the severity of or even prevent illness.

Some vaccine is being held by the federal government as a contingency and for the purpose of immunizing laboratory workers

who may be exposed to the virus, and persons considered essential for emergency preparedness to protect the interests and lives of Canadians. The federal government has contracted a local manufacturer to secure additional quantities of vaccine for emergency purposes.

However, **vaccination of the general population against smallpox in advance of the threat of an exposure to the virus is not recommended at this time.** Smallpox vaccine is therefore not available to the medical community or to the general public for this purpose.

Further Information

Anyone with concerns or questions about smallpox : please contact your physician or the staff of your local public health unit.

References

The information provided is subject to change. The information was collated from the following three sources :

1. Chin, J. "Control of Communicable Diseases Manual". 17th Edition. 2000. American Public Health Association: Washington D.C.
2. Health Canada website
3. Centers for Disease Control and Prevention website

*Advice on the most up-to-date treatment should be sought from a clinical expert.

Government of Ontario

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www.health.gov.on.ca

For consumer-friendly health tips and information :
www.HealthyOntario.com

INFOline: 1-877-234-4343;
TTY: 1-800-387-5559

Telehealth Ontario:
1-866-797-0000; TTY 1-866-797-0007

INFOline is open during business hours and can provide general information on healthcare.

Telehealth Ontario is a 24/7 service which uses nurse practitioners to answer your immediate health concerns.