

IDRS Infectious Disease Reporting System

Disease Reporting 24 Hours a Day

Columbus Public Health and Franklin County Public Health

SMALL POX

Smallpox is a serious, contagious, and sometimes fatal disease caused by a virus called variola. The *pox* part of *smallpox* is derived from the Latin word for “spotted” and refers to the raised bumps that appear on the face and body of an infected person. The disease is now eradicated after a successful worldwide vaccination program. The last naturally occurring case in the world was in Somalia in 1977. The virus still exists in laboratory stockpiles, so it is possible that it could be used as a bioterrorism agent.

Symptoms

Within 7 to 17 days of exposure to the virus, the following symptoms may develop:

- Fever (101 to 104F), general bad feeling, head and body aches, vomiting. These last 2 to 4 days.
- Next, small red spots in the mouth appear, which develop into sores that break open. After this, the rash from the mouth spreads, starting with the face, and then to the rest of the body.
- By the third day of the rash, the rash becomes raised bumps. By the fourth day, the bumps fill with a thick, fluid and often have a depression in the center. The bumps eventually form a crust and scab over.
- By the end of the second week after the rash appears, most of the sores have scabbed over. The scabs begin to fall off. Most scabs will have fallen off three weeks after the rash appears.
- Most people with smallpox recover, but up to 30% die. Many smallpox survivors have permanent scars over large areas of their body, especially their face. Some are left blind.

Transmission

- Generally, direct and fairly prolonged face-to-face contact is required to spread smallpox from one person to another. Animals do not carry or transmit smallpox.
- Smallpox also can be spread through contact with infected bodily fluids or contaminated objects such as bedding or clothing. Rarely, smallpox has been spread by virus carried in the air in enclosed settings such as buildings, buses, and trains.
- A person with smallpox can sometimes spread the infection during the early symptoms, but smallpox is most contagious after the rash begins. The person is contagious until the last smallpox scab falls off.

Treatment

- For persons exposed to smallpox, vaccine given within 4 days of exposure can lessen the severity of illness or possibly prevent illness altogether.
- There is no proven treatment for smallpox, but research to evaluate new antiviral agents is ongoing. Patients with smallpox can benefit from intravenous fluids and medicine to control fever or pain.

Prevention

- Except for laboratory stockpiles, the variola virus has been eliminated. However, in the aftermath of the events of September and October, 2001, there is heightened concern that the variola virus might be used as an agent of bioterrorism.
- A vaccine exists for smallpox. However, after the disease was eliminated from the world, routine vaccination against smallpox among the general public was stopped because it was no longer necessary. Some lab workers and bioterrorism response teams may need to be vaccinated.

All information is general in nature and is not intended to be used as a substitute for appropriate professional advice.



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