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Smallpox Questions and Answers

THE DISEASE

1. What is smallpox?

Smallpox is a contagious viral disease that usually causes a severe whole body rash. The rash starts out as red spots that enlarge, become pus-filled and then scab. Other symptoms include fever, lack of energy, headache, backache, and vomiting. Smallpox is caused by Variola virus.

2. How is smallpox spread?

In most cases, smallpox is spread from one person to another by face-to-face contact for several hours. During close contact, a “healthy” person can breathe respiratory droplets from a sick person. Individuals with smallpox are most infectious during the first week of illness.

3. If someone comes in contact with smallpox, how long does it take to show symptoms?

Following exposure, the incubation period is about 12 days, but can range from 7 to 17 days.

4. Is smallpox fatal?

The majority of patients with smallpox recover, but death may occur in as many as three out of every 10 individuals who become sick with the disease.

5. Is there any treatment for smallpox?

There is currently no proven treatment for smallpox. Patients with smallpox may feel better from therapy such as intravenous fluids, medicine to control fever or pain, and antibiotics for any secondary infections that may occur.

6. Is there a vaccine for smallpox?

There is an effective vaccine to prevent smallpox (see VACCINATION).

7. If someone is exposed to smallpox, is it too late to get a vaccination?

If the vaccine is given within four days after exposure to smallpox, it can prevent illness or lessen its severity.



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SMALLPOX REALITIES IN 2002

8. When was the last case of smallpox?

The last naturally acquired case of smallpox occurred in Somalia in 1977. In the United States, routine vaccination against smallpox ended in 1972.

9. Are we expecting a smallpox attack?

Concerns over the potential use of biological agents as weapons have heightened our awareness of the possibility of such an attack.

10. Is there an immediate smallpox threat?

At this time we have no information that suggests an imminent smallpox threat.

11. What should people do if they suspect a patient has smallpox?

Any suspected cases of smallpox should be immediately reported to your local health department, which is responsible for notifying the state health department, the FBI, and local law enforcement. The state health department will notify the federal Centers for Disease Control and Prevention (CDC).

12. How can we stop the spread of smallpox after someone comes down with it?

Patients with symptoms of smallpox are capable of spreading the virus. Patients should be isolated so that they will not continue to spread the virus. In addition, individuals who have come into close contact with smallpox patients should be vaccinated immediately and closely watched for symptoms of smallpox. Vaccination and isolation of contacts are the most effective strategies for stopping the spread of smallpox.

13. Does the DHS have a smallpox plan?

The CDC has been preparing for the remote possibility of an outbreak of smallpox as an act of terror. Those preparations have intensified since the terrorist attacks of September 11, 2001. Although we are planning for this possibility in order to protect public health, we have no indication that there is an imminent threat. As part of the ongoing effort to increase preparedness, CDC has distributed a draft smallpox preparedness plan. The State of California and local health departments have developed a comprehensive state plan. Federal, state, and local health officials, working with health care providers, will continue to improve this plan and our readiness to respond to the possible reintroduction of smallpox.

VACCINATION

14. Should I get vaccinated against smallpox?

Vaccination is not recommended at this time and the vaccine is not available to the public. Routine smallpox vaccination was terminated in the U.S. in 1972 because the risk of complications outweighed the threat of the disease. In the absence of a confirmed case of smallpox anywhere in the world, there is no need for the general public to be vaccinated against smallpox. The CDC maintains an emergency supply of

vaccine that can be released if necessary, since vaccination is still effective after exposure has occurred.

15. What are the side effects of the smallpox vaccines?

Side effects from successful vaccination, particularly in those receiving their first dose of vaccine, include tenderness, redness, swelling, and a lesion at the vaccination site. In addition, the vaccination may cause fever for a few days and the lymph nodes in the vaccinated arm may become enlarged and tender.

16. What are the risks of the smallpox vaccines?

The overall risks of serious complications of smallpox vaccination occur more frequently in those receiving their first dose of vaccine and among young children. An estimated one to two deaths occur for every million persons vaccinated. One of the most frequent serious complications is encephalitis (brain inflammation), which occurs in about one in 300,000 children who are vaccinated, and one in 200,000 vaccinated adults. Other vaccine-related adverse events include generalized rash due to the vaccine virus itself.

17. How much smallpox vaccine is available in case of a bioterrorism attack using smallpox?

The government currently has 15 million doses which can be diluted to 75 million doses and still retain its potency. The drug company Aventis Pasteur has donated an additional 80 million doses that could be used in an emergency. The government is also buying 220 million doses which are being made by a new technique. Delivery of the new doses is expected by the end of 2003.

18. If people got the vaccination in the past when it was used routinely, will they be immune?

Not necessarily. Routine vaccination against smallpox ended in 1972. The level of immunity, if any, among persons who were vaccinated before 1972 is uncertain; therefore, these persons are assumed to be susceptible. For those who were vaccinated, it is not known how long immunity lasts. Most estimates suggest immunity from the vaccination lasts 3 to 5 years. This means that nearly the entire U.S. population has partial immunity at best. Immunity can be boosted effectively with a single revaccination. Prior infection with the disease grants lifelong immunity.

19. Who will decide who should be vaccinated and when? Will vaccinations begin before a smallpox attack or after?

The CDC and the U.S. Department of Health and Human Services are considering various options for smallpox vaccination. These possibilities include recommending that some or all Americans be vaccinated before a bioterrorist attack of smallpox occurs, or waiting until such an attack actually takes place. Getting the vaccine within four days of exposure to the virus can prevent illness or reduce its severity.

OTHER QUESTIONS

20. Who should not get the smallpox vaccine?

Smallpox vaccine should not be given to individuals with a history or presence of eczema or other skin conditions, pregnant women, or persons with immunodeficiency diseases and among those with suppressed immune systems as occurs with leukemia, lymphoma, generalized malignancy, or solid organ transplantation.

21. Will antibiotics like ciprofloxacin protect me against smallpox?

No. Because smallpox is a virus, antibiotics such as ciprofloxacin will not fight the infection.

22. Where can I get more information about smallpox?

[CDC website: www.bt.cdc.gov](http://www.bt.cdc.gov)