Mumps Vaccination Program
Question and Answers

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Questions and Answers

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Adapted from the Immunization Action Coalition (with permission) and the Centers for Disease Control and Prevention (CDC).

The Disease

Overview

1) What causes mumps?
Mumps is an acute viral illness caused by the mumps virus.

2) How do you know if you have mumps?
The most common symptoms are fever, headache, muscle aches, and loss of appetite followed by swelling of the salivary glands under the ears-- on one or both sides (known as parotitis). Symptoms usually appear between 12 and 25 days after exposure to the virus. However, about one-third of infected people do not have symptoms. Parotitis occurs only in 30%-40% of individuals infected with mumps.

Mumps is diagnosed by a combination of symptoms and physical signs and laboratory confirmation of the virus, as not all cases develop characteristic parotitis and not all cases of parotitis are caused by mumps.

3) How serious is mumps, especially to the Armed Forces?
In children, mumps is usually a mild disease. Adult service members may have a more serious form of the disease and more complications.

Serious complications of mumps are more common among adults than among children. Mumps can lead to hearing loss, aseptic meningitis (infection of the covering of the brain and spinal cord) in about 10% of cases, painful, swollen testicles in 20-30% of males who have reached puberty (orchitis) but rarely does this lead to fertility problems, and painful, swollen breasts in about 30% of women who have reached puberty (mastitis), and in a very few cases, inflammation of the ovaries. An increase in spontaneous abortion (miscarriage) has been found among women who developed mumps during the first trimester of pregnancy; however, there is no evidence that mumps causes birth defects. Deafness, in one or both ears, can occur in approximately one per 20,000 reported cases of mumps.

4) Is there a treatment for mumps?
There is no specific treatment for mumps. Supportive care (bed rest, fluids, and fever reduction) Is given as needed.

Rate and Spread

1) How common is mumps in the United States?
Mumps is now rare in the United States because of childhood immunization. An estimated 212,000 cases occurred in 1964, while only 266 cases were reported in 2001. However, mumps virus is still present in the United States and the world, and the number of cases would quickly begin to climb if mumps immunization rates decline. A current outbreak in the Midwest beginning in December 2005 resulted in 605 suspect, probable, or confirmed cases as of April 2006.

2) How does mumps spread from one person to another?
Mumps is spread by mucus or droplets from the nose or throat of infected people, usually by sneezing or coughing. Surfaces of items (such as toys) can also spread the virus if someone who is sick touches the object without washing their hands. If someone else then touches the same surface and then rubs their nose, mouth, eyes, etc. they too may be infected (this is called transmission by fomites).

3) How long does it take to show signs of mumps after being exposed?
The incubation period of mumps is 14-18 days, but can range from 14-25 days

4) Can a person get mumps more than once?
Most people who have mumps are protected (immune) from getting mumps again. There are a small number of people who could be reinfected with mumps and have a milder illness.

5) How long is someone with mumps contagious?
The infectious period lasts approximately seven days. The infectious period is considered to be between three days before symptoms begin and the ninth day following the onset of symptoms.

The Vaccine

Immunization

1) Is there a vaccine to prevent mumps?
Yes. Two doses of mumps containing vaccine usually, given as a combination measles, mumps, and rubella (MMR) vaccine, separated by at least 28 days, are routinely recommended for children. Most adults who have not been immunized should also receive one dose of MMR vaccine. Adults who work in healthcare, schools, or those at high risk of exposure to mumps should receive two doses. There is also a vaccine that protects only against mumps .

The mumps vaccine currently used was licensed in 1967.

The mumps vaccine is a live attenuated (weakened) virus. It is recommended that mumps vaccine be given as part of the MMR vaccine (protecting against measles, mumps, and rubella).

2) Who should get this vaccine?
Mumps vaccine is recommended for all U.S. children and for susceptible adolescents and adults without documented evidence of immunity.

The Centers for Disease Control and Prevention (CDC), the American Academy of Pediatrics (AAP), and the American Academy of Family Physicians (AAFP) have all recommended this vaccine.

3) What side effects have been reported with this vaccine?
Fever is the most common reaction, occurring in 5%-15% of vaccine recipients. About 5% of persons develop a mild rash. About 25% of adult women receiving MMR vaccine develop temporary joint symptoms such as pain, redness, or swelling. More severe reactions, including allergic reactions, are rare.

Mumps is a very safe vaccine. Most side effects are mild and related to the measles or rubella components of the MMR vaccine (fever, rash, temporary joint symptoms).

4) How effective is this vaccine?
Approximately 80% of individuals become immune to mumps after a single dose of vaccine. The second dose of MMR results in 90% of people immunized being immune to mumps.

Administration

1) How is this vaccine given?
This vaccine is given by subcutaneous injection (under the skin). The lyophilized live MMR vaccine (and its component vaccines) should be reconstituted and administered as recommended by the manufacturer. All measles-, rubella-, or mumps-containing vaccines available in the United States should be administered subcutaneously in the recommended standard single-dose volume of 0.5 mL.

2) Can the vaccine cause mumps?
No.

3) How would you know if you were immune to mumps?
People are generally considered to be immune to mumps if they were born before 1957, have laboratory evidence of mumps immunity, have documentation from their health professional of previous mumps disease, or have received appropriate mumps immunization.

4) At what age should my baby get his first mumps shot?
The first dose of MMR should be given on or after the first birthday; the recommended range is from 12-15 months. A dose given before 12 months of age will likely not be "counted" when the child starts school.

5) When should my child get his second MMR shot?
When should my child get his second MMR shot?

6) When is it indicated for adults to get MMR?
Mumps vaccine is recommended for all susceptible adults without documented evidence of immunity. Doses 1 and 2 should be given at least 4 weeks apart.

7) If I think a service member has been exposed to mumps, what should I do as a medic or corpsman?
If a service member has not been immunized against mumps, immunizing after exposure has not been effective at preventing disease. However, if the person was never immunized this is a good time to administer needed immunizations to protect against any future exposures.

Contraindications

1) Who should NOT receive this vaccine?

- People who have had a serious allergic reaction to prior dose or vaccine component.
- Anyone who experiences a severe allergic reaction (e.g., hives, swelling of the mouth or throat, difficulty breathing) following the first dose of MMR should not receive a second dose.
- Diagnosed pregnancy or possibility of pregnancy within 4 weeks (use contraception); must be documented with counseling via SF 600/medical records.
- Mumps Vaccine is contraindicated in people who are immune compromised (cancer, leukemia, lymphoma). Note: Being HIV positive is not a contraindication except for those who are severely immune compromised.
- People using high-dose steroids, antimetabolities, or receiving radiation therapy
- People with moderate or severe acute illness.
- People who received blood products or immune globulin administered during the past 11 months.

2) What about pregnant or breastfeeding women?
While there is no evidence that the mumps vaccine causes fetal damage, women are advised not to receive the MMR vaccine during pregnancy as a safety precaution because of the theoretical possibility of a live vaccine causing disease.