Measles, Mumps and Rubella (MMR) Vaccine

Measles

Measles is caused by the measles virus and spreads through the air by droplet or direct contact with nasal or throat secretions of infected persons, and less commonly, by articles soiled with nasal and throat secretions. Affected persons will present initially with tiredness, fever, cough, runny nose, red eyes and white spots inside the mouth. This is followed by a red blotchy skin rash 3-7 days later. The rash usually spreads from the face down to the rest of the body. In severe cases, lungs, guts and brain can get involved and lead to serious consequences or even death.

Mumps

Mumps is caused by the mumps virus which affects the salivary glands and sometimes the nerve tissue. It is spread by droplet and direct contact with the saliva of an infected person. The disease is characterised by painful swelling of the salivary glands, usually at the cheek(s). Sometimes, there may be complications like deafness, or infection of the brain, pancreas, testicles or ovaries.

Rubella

Rubella, also known as "German Measles", is caused by rubella virus. It can be transmitted by contact with secretions from nose and throat of infected persons through droplet spread or direct contact with patients. Children usually present with fever, headache, malaise, diffuse rash, enlargement of lymph nodes, upper respiratory symptoms and conjunctivitis. Some patients may not have rash at all. Complications include arthritis, thrombocytopenia and encephalitis.

Rubella infection can cause anomalies in the developing foetus. Congenital rubella syndrome (CRS) is likely to occur in infants born to women who got infected during the first 3 months of pregnancy. CRS is characterised by deafness, cataract, heart malformations and mental retardation.

Measles, Mumps and Rubella (MMR) Vaccine

MMR vaccine can effectively prevent the above 3 infectious diseases. In Hong Kong, MMR vaccine is included in the Hong Kong Childhood Immunisation Programme.

Children should receive two doses of measles-containing vaccines. Women of childbearing age who are not previously immunised with rubella-containing vaccine should check their immune status before planning for pregnancy and receive MMR vaccination if necessary.

A. The following individuals should NOT receive MMR or should wait

1. serious allergic reaction to a previous dose of MMR vaccine
2. known history of severe allergy to gelatine or certain antibiotics
3. individuals with severe immunosuppression from diseases or treatment, e.g.:
   - immunodeficiency
   - on current cancer treatment, such as chemotherapy and radiotherapy
   - taking immunosuppressive medicines, such as high dose corticosteroid
4. pregnancy*

5. has received immunoglobulin or other blood products (e.g. blood transfusion) within the past 11 months
6. has received other live vaccines in the past four weeks

*In general, women should avoid pregnancy for three months after receipt of MMR vaccine and take appropriate contraceptive measure.

B. What are the side effects?

- Some children may develop fever 5-12 days after vaccination, but the fever will usually subside within 2-5 days. Parents can use anti-fever medication to relieve the symptoms. A small number of children may also develop a rash 1-2 weeks after vaccination, but it will usually disappear after a few days. A minority of children may develop transient swelling of salivary glands behind the cheeks or swelling of lymph glands (in the head or neck).
- Rarely, nervous system disorders, for example encephalitis or meningitis, may develop after MMR vaccination.

If you have any query, please contact Maternal & Child Health Centre of the Department of Health.