Prevention of Hand, Foot and Mouth Disease and Enterovirus 71 Infection

July 2019
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Hand, foot and mouth disease (HFMD)

- It is a common disease in **children**
- Caused by **enteroviruses** such as coxsackieviruses and enterovirus 71 (EV71)
- The usual peak season for HFMD in Hong Kong is from May to July and a smaller peak may also occur from October to December
Enterovirus 71 infection

- EV71 is a single-stranded RNA virus and is one of the causative agents for HFMD

- It occurs commonly in Southeast Asian areas. Outbreaks have been reported in Australia, Mainland China, Malaysia, Singapore, Taiwan, etc.

- The EV71 infection is of particular concern as it is more likely associated with severe complications (such as viral meningitis, encephalitis, poliomyelitis-like paralysis, myocarditis) and even death
Clinical features

EV71 infection commonly presents with symptoms of HFMD

- Usually begins with fever, poor appetite, tiredness and sore throat
- One to two days after fever onset, painful sores may develop in the mouth
  - begin as small red spots with blisters and then often become ulcers
  - usually on the tongue, gum and inside of the cheeks
- There may also be non-itchy skin rash
  - usually on the palms of the hands and soles of the feet; may also appear on the buttocks and/or genitalia
Clinical features

- A person with HFMD may not have symptoms, or may only have rash or mouth ulcers.

- HFMD will result in immunity to (protection against) the specific virus that has caused the infection. However, subsequent infections with a different virus may result in further episodes of HFMD.
Mode of transmission

- Most contagious during the first week of the illness

- Mainly spreads by contact with an infected person’s nose or throat discharges, saliva, fluid from vesicles or stool, or after touching contaminated objects

- Incubation period of HFMD is about 3 – 7 days while EV71 infection ranges from 3 – 5 days
Management

- Drink plenty of water and take adequate rest
- Receive symptomatic treatment to reduce fever and pain from oral ulcers
- Sick children should stay away from school or gatherings till all vesicles have dried up to avoid spreading the disease
Management

- If infection is caused by EV71, the patient is advised to stay at home for two more weeks after recovery from the disease (i.e. fever and rash have subsided, and vesicles have dried and crusted).

- Parents should monitor the child’s condition closely and seek medical advice immediately if there is persistent high fever, repeated vomiting, persistent sleepiness or drowsiness, myoclonic jerks or sudden limb weakness.
Prevention

- Personal hygiene
- Environmental hygiene
Personal hygiene

- Perform hand hygiene frequently, wash hands with liquid soap and water, and rub for at least 20 seconds. Then rinse with water and dry with a disposable paper towel or hand dryer, especially:
  - before touching eyes, nose or mouth
  - before eating or handling food
  - after touching blister
  - after using the toilet
  - after coughing or sneezing

- If hand washing facilities are not available, or when hands are not visibly soiled, hand hygiene with 70 to 80% alcohol-based handrub is an effective alternative
Personal hygiene

- **Cover your nose and mouth** with tissue paper when sneezing or coughing. Dispose of soiled tissue paper properly into a lidded rubbish bin, and then wash hands thoroughly.

- Do not share towels and personal items with others.

- Avoid close contact (such as kissing, hugging) with infected persons.
Environmental hygiene

- Regularly clean and disinfect frequently touched surfaces such as furniture, toys and commonly shared items with 1:99 diluted household bleach (mixing 1 part of 5.25% bleach with 99 parts of water), leave for 15 - 30 minutes, and then rinse with water and keep dry.

- Use absorbent disposable towels to wipe away obvious contaminants such as respiratory secretions, vomitus or excreta, and then disinfect the surface and neighbouring areas with 1:49 diluted household bleach (mixing 1 part of 5.25% bleach with 49 parts of water), leave for 15 - 30 minutes and then rinse with water and keep dry.

- For metallic surface, disinfect with 70% alcohol.
Avoid group activities when HFMD outbreak occurs in the school or institution. Besides, minimise staff movement and arrange the same group of staff to take care of the same group of children as far as possible.
For more information about HFMD and EV71 infection

- Please visit the Centre for Health Protection website
Thank you