

Federal Department of Foreign Affairs

Enterovirus 71

Information regarding the enterovirus 71 (Hand, Foot and Mouth Disease HFMD)

Latest update April 2009

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The Swiss representations in China want to inform the Swiss community in China about the above mentioned disease.

A serious outbreak of hand, foot and mouth disease due to the enterovirus 71 is underway in various Provinces in China. A further spread is to be expected. The Chinese competent authorities have started an emergency plan due to reinforce the medical staff, to create an expert group with the purpose of investigate the situation and to improve the hygiene of local schools, kindergartens and villages in an attempt to prevent further spread of the disease. Various schools and kindergartens have steped-up precautions measures.

The HFMD infects mostly infants and children. It has an incubation period of 3-7 days. The symptoms are fever, painful ulcers in the mouth, and a non-itchy rash that causes small blisters to appear on the hands, feet and buttocks.

The HFMD is spread from person-to-person via contact with infected secretions such as saliva, fluid from blisters or stool. For the time being there is no vaccine and no treatment.

Prevention: Strict hygiene measures must be followed to prevent the infection from spreading, i.e. wash hands frequently and thoroughly with soap and water, don't share food, drinks or eating utensils, avoid close contact such as kissing and hugging, think about a good ventilation of the living environment and disinfect the objects touched by children by washing them with water and soap, cleaning products and alcohol.

If your child develops symptoms, keep it at home, maintain adequate fluid intake, seek medical attention if there is persistent high fever or vomiting.

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Infectious agent: Enterovirus 71 is one of the more than 90 enterovirus serotypes that have been identified up to date. It belongs to the family of the Picornaviridae, genus Enteroviridae. Poliovirus belongs to the same family and genus.

Reservoir: Humans function as the reservoir. Clinical presentation: After an incubation period of 3 to 7 days, symptoms start with fever, and general malaise. After 2 days, this is followed by the development of sores (blisters, ulcers) on the tongue, gums and inside the cheeks and a skin rash on the palms of the hands and the soles of the feet. Symptoms usually disappear after a week to 10 days. Young children are the most

affected. A large proportion, more than two thirds of enterovirus 71 infected cases remain asymptomatic.

While enterovirus 71 infections are most frequently self-limited febrile diseases, they may cause severe neurological disease, including viral (aseptic) meningitis, encephalitis or acute flaccid paralysis. As illustrated during a recent large outbreak in Taiwan, death may occur, mainly in children below three years, as well as long-term neurological sequelae.

Transmission modes: Enterovirus 71 is mainly transmitted through direct contact with nose and throat discharges, fluid from the blisters, saliva or through faeco-oral route. In case of respiratory illness, transmission through droplets may also occur. There is no evidence of food- or water-borne transmission.

Epidemiology: Enterovirus 71 was first isolated in the United States in 1969, and is distributed worldwide. Related outbreaks may be small, with occasional fatalities, or more severe with a high case-fatality ratio. In Europe, such severe outbreaks have been reported in Bulgaria in 1975 with 44 deaths and in Hungary in 1978 with 45 deaths. More recently, severe outbreaks were reported from Malaysia (1997), Taiwan (1998, 1999, 2001) and Singapore (2000). In the 1998 outbreak in Taiwan, at least 130,000 cases were reported, with 78 deaths.

It is not known why the virulence and communicability of enterovirus 71 infections vary. It may be linked to decreased population immunity or mutations affecting the virus' virulence.

Treatment: There is no antiviral treatment or vaccine for enterovirus 71. Only supportive treatment is possible in case of severe complications.

Prevention and control: Sanitation and personal hygiene are the most important and effective preventive measures, in particular when in direct contact with infected cases. These measures include hand washing, especially after going to the toilet or changing babies' nappies. Contaminated surfaces and soiled clothing should also be disinfected.

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