



WEEKLY EPIDEMIOLOGICAL REPORT

A publication of the Epidemiology Unit
Ministry of Health, Nutrition & Indigenous Medicine

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Hand-foot-and-mouth disease (HFMD)

Hand-foot-and-mouth disease (HFMD) is mainly an illness in infants and children. It is caused by a group of enteroviruses. It is different to hoof-and-mouth disease in cattle, sheep and swine mainly due to the causative agent.

Infectious Agent

Several different viruses act as a causative agents for Hand-foot-and-mouth disease. The main aetiological agent is Coxsackie Group A type 16. Coxsackievirus is a subgroup of the enteroviruses and is a member of the family Picornaviridae. Coxsackievirus A types 4, 5, 9 and 10 are also known to cause Hand-foot-and-mouth disease occasionally. Enterovirus 71 and Coxsackie virus types 2 and 5 have also been implicated in cases as well as outbreaks of Hand-foot-and-mouth disease.

Reservoir

Humans are the only known reservoir for the Coxsackie virus.

Occurrence

The disease occurs worldwide both sporadically and in epidemics. It is seen mainly

among children under 10 years of age. However, adult cases are not unusual and young adults also are affected.

Mode of Transmission

Hand-foot-and-mouth disease is moderately contagious. The disease spreads through direct contact with aerosol droplets, nasal discharge, throat secretions, faeces and vesicular fluids of infected persons. It can also spread through indirect contact with articles contaminated by the secretions of infected patients. Reliable evidence of spread via pets, insects, water and food is not available.

Incubation Period

The incubation period of Hand-foot-and-mouth disease usually ranges from 3-5 days.

Period of Communicability

An infected person is most contagious during the first week or the acute phase of the illness. However, this period of communicability may be longer, since the virus persists in stools for several weeks.

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Immunity

Infection results in immunity to the specific virus that caused the infection, but a second infection is possible from a different strain of the virus of the same enterovirus family.

Clinical Features

Hand-foot-and-mouth disease is an acute self-limiting disease characterized by fever, diffuse oral lesions and a vesicular skin rash. The disease begins with a mild fever, loss of appetite, malaise and frequently a sore throat. One or two days after the onset of fever, small red spots occur in the mouth, which develops into blisters and then often becomes ulcers. These lesions are usually found on the buccal surface of the cheeks, gums and sides of the tongue. Simultaneously, a non-pruritic vesicular rash develops over a day or two. This rash occurs mainly on the palms, fingers and soles of the feet. Occasionally, lesions may appear on the back of the elbows, front of the knees and the buttocks. This may be the reason for the nomenclature 'Hand-foot-mouth-butt disease'. The papulovesicular lesions may persist from 7 to 10 days. A person with Hand-foot-and-mouth disease may have only a rash or only mouth ulcers. The illness is typically mild and it usually resolves in 7-10 days.

Complications

Complications are rare. They include aseptic meningitis, encephalitis, paralytic disease and viral myocarditis. The dangerous symptoms and signs are neck pain, drowsiness, vomiting, persistently high fever and difficulty in breathing and signs of dehydration. Deaths from Hand-foot-and-mouth disease have been reported. The victims were mainly young children.

Diagnosis

The diagnosis is mainly clinically based on the appearance of the vesicular rash on the hands, feet and mouth in a child with a mild febrile illness. However oral lesions should be differentiated from stomatitis caused by the herpes simplex virus, which is deeper, larger and more

painful ulcerative lesions and commonly located in the anterior part of the mouth.

Laboratory Diagnosis

Specific laboratory tests are available to confirm the diagnosis. Stools are the most important specimen for virus isolation, as the virus content in stools is high and the period of viral excretion is long. Other specimens such as CSF and swabs from oral ulcers or vesicular skin lesions sent in an appropriate transport medium (Hank's virus transport medium) can also be used for virus isolation.

Treatment

There is no specific treatment for Hand-foot-and-mouth disease. Symptomatic treatment is given to provide relief from fever and pain from mouth ulcers. Salt water mouth rinses (half-teaspoon of salt to one glass of warm water) may be soothing if the child can rinse without swallowing. Although swallowing may be painful, the child should be encouraged to take adequate quantities of fluids to avoid dehydration.

Methods of Control

(1) General Preventive Measures Person-to-person contact should be restricted if possible and ventilation should be improved. Hand washing and other general personal hygienic measures should be promoted.

(2) Control of Infected Persons and Contacts Infected children should be kept away from childcare centres, schools and other crowded public places during the first few days of the illness. Nose and throat discharges of infected persons should be disinfected. Careful attention should be paid to prompt hand washing, especially after diaper changes and when handling discharges, faeces and soiled articles. Quarantine is not recommended. Specific immunization against the disease is not available

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Table 1: Selected notifiable diseases reported by Medical Officers of Health 28th- 03rd Jun 2022 (22nd Week)

RDHS	Dengue Fever		Dysentery		Encephaliti		Enteric Fever		Food Poi-		Leptospirosis		Typhus		Viral Hep-		Human		Chickenpox		Meningitis		Leishmania-		WRCD		
	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	T*	C**	
Colombo	29	3754	0	2	0	2	0	0	0	5	53	0	0	0	0	2	0	0	0	0	15	0	4	1	2	13	97
Gampaha	90	2604	0	4	0	1	0	0	12	6	51	0	0	0	4	0	2	2	1	15	0	13	0	8	6	67	
Kalutara	97	1478	0	4	0	1	0	1	6	7	140	0	2	0	1	0	2	2	0	27	0	13	0	1	4	45	
Kandy	11	1080	0	10	0	0	0	1	4	10	59	1	17	1	6	0	0	0	0	26	0	4	0	5	10	95	
Matale	36	251	0	1	0	0	0	0	0	0	6	45	0	3	0	1	0	0	0	9	0	1	1	166	100		
NuwareEliya	1	80	0	13	0	0	0	0	0	2	22	1	10	0	0	0	0	0	1	13	0	2	0	0	16	99	
Galle	12	1433	1	5	0	0	0	0	0	10	178	0	9	0	2	0	0	0	1	30	0	11	0	0	10	99	
Hambantota	19	445	0	24	0	0	0	0	2	8	85	0	19	0	3	0	0	0	0	14	0	6	12	218	15	98	
Matara	55	533	0	8	0	0	0	0	0	11	108	0	5	0	1	0	0	0	1	16	0	5	6	142	26	100	
Jaiffna	11	1812	2	19	0	2	2	42	1	21	18	8	381	0	5	0	4	4	0	60	2	8	0	0	61	88	
Kilinochchi	2	73	0	4	0	0	0	0	2	16	11	0	8	0	0	0	0	0	0	4	0	0	0	1	33	99	
Mannar	5	154	0	1	0	0	0	0	0	0	12	0	2	0	1	0	0	0	0	4	0	15	0	0	22	80	
Vavuniya	0	47	0	0	0	1	0	2	0	0	10	0	1	0	0	0	0	0	0	5	0	0	1	2	3	73	
Mullaitivu	1	33	0	3	0	0	0	2	0	3	20	0	4	0	0	0	0	0	0	4	0	0	0	1	26	99	
Batticaloa	43	764	1	43	0	5	0	0	17	1	26	0	0	0	1	0	1	0	1	7	2	20	0	1	35	100	
Ampara	3	74	0	6	0	1	0	0	17	3	55	0	1	0	1	0	0	0	1	32	0	11	0	11	9	100	
Trincomalee	21	792	0	22	0	0	0	1	0	2	14	0	3	0	4	0	0	0	9	26	0	4	0	0	18	89	
Kurunegala	60	1248	2	8	0	1	0	0	4	6	66	1	17	0	0	1	1	1	1	32	2	18	13	235	8	99	
Puttalam	28	1010	1	3	0	0	0	0	0	1	10	2	5	0	0	0	0	0	0	5	1	15	0	4	14	90	
Anuradhapur	12	184	0	8	0	0	0	1	0	5	98	0	14	0	2	0	1	2	2	23	0	21	8	206	8	89	
Polonnaruwa	2	53	0	3	0	0	0	0	1	2	52	0	0	0	1	0	0	0	1	7	0	3	21	199	16	86	
Badulla	24	460	0	9	0	0	0	0	5	3	106	0	26	4	66	0	0	0	1	26	0	7	1	11	11	100	
Monaragala	10	163	0	5	0	0	0	4	0	2	176	0	14	0	23	0	0	0	2	35	0	20	1	73	8	100	
Ratnapura	76	1100	1	22	0	5	0	2	0	18	392	0	11	0	13	0	0	0	1	36	0	20	1	109	11	95	
Kegalle	44	743	0	7	0	5	0	1	0	5	212	1	10	0	3	0	0	0	5	50	3	20	0	11	7	100	
Kalmune	21	467	1	22	0	0	0	0	4	0	12	0	1	0	0	0	0	0	2	26	0	14	0	0	28	100	
SRILANKA	12	20835	9	256	0	24	2	57	3	149	15	2031	14	563	5	14	1	11	29	547	10	255	66	1406	16	94	

Source: Weekly Returns of Communicable Diseases (esurveillance.epid.gov.lk). T=Timeliness refers to returns received on or before 03rd June, 2022 Total number of reporting units 361 Number of reporting units data provided for the current week: 307 C**-

Table 2: Vaccine-Preventable Diseases & AFP

28th – 03rd Jun 2022 (22nd Week)

Disease	No. of Cases by Province									Number of cases during current week in 2022	Number of cases during same week in 2021	Total number of cases to date in 2022	Total number of cases to date in 2021	Difference between the number of cases to date in 2022 & 2021
	W	C	S	N	E	NW	NC	U	Sab					
AFP*	00	00	00	00	00	00	01	00	00	01	02	36	23	56.5 %
Diphtheria	00	00	00	00	00	00	00	00	00	00	00	00	00	0 %
Mumps	01	00	01	00	01	00	00	00	00	03	01	27	43	- 37.2 %
Measles	00	00	00	00	00	00	00	00	00	00	00	12	09	33.3 %
Rubella	00	00	00	00	00	00	00	00	00	00	00	00	00	0 %
CRS**	00	00	00	00	00	00	00	00	00	00	00	00	00	0 %
Tetanus	00	00	00	00	00	00	00	00	00	00	00	05	02	150 %
Neonatal Tetanus	00	00	00	00	00	00	00	00	00	00	00	00	00	0 %
Japanese Encephalitis	00	00	00	00	00	00	00	00	00	00	00	01	00	0 %
Whooping Cough	00	00	00	00	00	00	00	00	00	00	00	01	00	0 %
Tuberculosis	00	14	01	09	04	11	00	00	08	47	N / A	2807	2580	8.7 %

Key to Table 1 & 2

Provinces: W: Western, C: Central, S: Southern, N: North, E: East, NC: North Central, NW: North Western, U: Uva, Sab: Sabaragamuwa.
RDHS Divisions: CB: Colombo, GM: Gampaha, KL: Kalutara, KD: Kandy, ML: Matale, NE: Nuwara Eliya, GL: Galle, HB: Hambantota, MT: Matara, JF: Jaffna, KN: Killinochchi, MN: Mannar, VA: Vavuniya, MU: Mullaitivu, BT: Batticaloa, AM: Ampara, TR: Trincomalee, KM: Kalmunai, KR: Kurunegala, PU: Puttalam, AP: Anuradhapura, PO: Polonnaruwa, BD: Badulla, MO: Moneragala, RP: Ratnapura, KG: Kegalle.
Data Sources: Weekly Return of Communicable Diseases: Diphtheria, Measles, Tetanus, Neonatal Tetanus, Whooping Cough, Chickenpox, Meningitis, Mumps., Rubella, CRS, Special Surveillance: AFP* (Acute Flaccid Paralysis), Japanese Encephalitis
CRS** =Congenital Rubella Syndrome
NA = Not Available

Covid-19 Prevention & Control

For everyone's health & safety, maintain physical distance, often wash hands, wear a face mask and stay home.

Comments and contributions for publication in the WER Sri Lanka are welcome. However, the editor reserves the right to accept or reject items for publication. All correspondence should be mailed to The Editor, WER Sri Lanka, Epidemiological Unit, P.O. Box 1567, Colombo or sent by E-mail to chepid@sltnet.lk. **Prior approval should be obtained from the Epidemiology Unit before publishing data in this publication**

ON STATE SERVICE

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