

## Hand foot and mouth disease (HFMD) surveillance guideline

HFMD is commonly seen globally in children less than 10 years of age. It is caused by picornaviruses, usually enterovirus 71, coxsackie virus A6 or A16. The virus is a nonenveloped RNA virus that can remain viable on surfaces for a long period of time. The incubation period is short, usually 3-7 days and recovery within 7-10 days.

Diagnosis is mostly based on clinical presentation. However, laboratory testing can confirm clinical diagnosis in severe cases. Laboratory testing will be qualitative real-time PCR for enterovirus and typing using sequencing methods.

Sampling for laboratory tests include, blood, stool and throat swabs in universal transport medium (UTM) if possible.

1. Complete the NHLS/private lab request form (*include mandatory information*)
2. Place laboratory request form into a Ziploc plastic specimen bag
3. Label the sample tube with the patient's name, date of birth and sample type.

### Specimen collection

#### 1. Blood

- Specimens are to be collected in an EDTA (purple top) and SST (yellow top) tubes
- On the specimen submission form, clearly request **'Enterovirus PCR testing- HFMD'**

#### 2. Stool

- Unscrew the lid from the specimen bottle. Set aside.
- Prepare the collection container (clean shallow pan, plastic bag or clear plastic wrap) in which you will collect the sample.
- Collect the sample. If possible, do not collect stool that has been mixed with water or urine.
- Transfer enough of the selected stool to the specimen bottle. **Do not overfill.**
- Screw the lid back on the container. Make sure it is closed tightly.

#### or Rectal Swab

- Insert swab gently into the rectal sphincter (2 to 3cm) and rotate. Remove swab and check for visible faecal matter.
- Place swab in a specimen bottle.
- Break off and discard the top portion of the swab-stick.

#### 3. Throat Swab

- Open a sterile flocked or spun swab at the plastic shaft
- Ask the person to tilt their head back slightly, and to open their mouth as wide as possible.
- Depress the person's tongue and ask them to say, "Ahh."
- Collect the throat specimen by rubbing the sterile swab tip on the surface of one or both tonsils, the tonsillar pillars, or the posterior pharyngeal wall.
- After collection of the specimen, slowly withdraw the swab, break the plastic shaft at the break point line and place into the UTM. Tightly close the tube.

### Sample shipping to the Laboratory

Samples should be shipped to the National Institute for Communicable Diseases (NICD ) labelled:

Attention : **Dr Nishi Prabdhial-Sing, (011 3866 347)**




**Centre for Vaccines and Immunology (CVI), NICD.**

Ref:

<https://wwwnc.cdc.gov/travel/yellowbook/2024/infections-diseases/hand-foot-and-mouth-disease#>.

<https://www.nicd.ac.za/diseases-a-z-index/hand-foot-and-mouth-disease/>

### Recommended Specimen Equipment

	EDTA (PCR) 2x2 ml tubes (Paeds) 1x5 ml tubes (adolescent)
	Specimen bottle
	Flocked or spun swab and tube containing UTM