

**Government of West Bengal**  
**Directorate of Health Services, PH&CD Branch**  
Swasthya Bhawan, Salt Lake, GN-29, Sector-V, Kolkata — 700091.

Memo. No.- HPH/ 1D-01/2020/ 399

Dated- Kolkata, 28<sup>th</sup> July, 2023

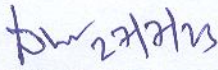
**To**  
**The Principal (All Medical Education Institutions)/**  
**The Chief Medical Officer of Health (All Districts).**

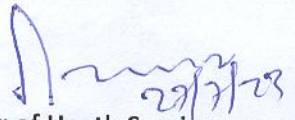
Attaching herewith (Annexure 1 & 2) guidelines on indications of test for malaria and dengue. You are requested to circulate the guidelines in such ways that it reaches every concerned Doctor in the system.

The following points may please be emphasized.

- (1) Diagnostic tests should be widely advised/ done so that no case of malaria or dengue is missed, nor is the diagnosis delayed. Health facilities not having the dengue ELISA facility should regularly send samples to a tagged laboratory for testing.
- (2) All Hospitals and Bedded Health Centres have to enter the fever case data daily into DKPI Portal (even on Sundays & Holidays).
- (3) Hospitals having a dengue testing lab must also enter the testing performance data into DKPI along with details of test positive cases. Details of confirmed malaria cases have also to be sent to the Dy. CMOH-II (CMHO in case of Kolkata) on Weekly basis.

Please extend your help and guidance.


  
**Director of Medical Education**  
**Govt. of West Bengal**

  
**Director of Health Service**  
**Govt. of West Bengal**

Memo. No.- HPH/1D-01/2020/ 399/1(12)  
Copy forwarded for information and necessary action to:-

Dated- Kolkata, 28<sup>th</sup> July, 2023

- 1 . The Secretary (PHP) and MD, NHM, Govt. of West Bengal.
- 2 . The Director of Hospital Administration, Govt. of West Bengal.
- 3 . The Director, Public Health, Govt. of West Bengal.
- 4 . The MSVP \_\_\_\_\_ (All Medical Education Hospitals)
- 5 . The DDHS (HA), Govt. of West Bengal.
- 6 . The DDHS(Malaria) & SPO(NVBDCP), Govt. of West Bengal.
- 7, The DDHS (Admin), Govt. of West Bengal.
- 8 . The Dy. Director (ME), Govt. of West Bengal.
- 9 . The State Nodal Officer, IDSP, Govt. of West Bengal.
10. The CMHO, Kolkata Municipal Corporation.
11. The Dy. CMOH-II \_\_\_\_\_ (all Districts)
12. The State IT cell, DOH&FW for web posting.

  
**Jt. DHS (PH & CD),**  
**Govt. of West Bengal**  
27/07/23

## Indications of test for Malaria

All cases with fever and no other obvious cause should be considered by an MO/Doctor as suspected cases of malaria. Test for malaria should be advised for all such cases (ref.- Training Module for Trainers on Malariology, NVBDCP, 2014),

### Which test to be done

- Microscopy i.e. blood slide examinations is considered as the gold standard for malaria diagnosis. Hence microscopy should be advised when & where trained Lab Technician is available. Beyond the working hours of the laboratory Rapid Diagnostic Kit (RDK) may be used, e.g. in the ER/IPD in odd hours of the day; or if patient is in very serious condition and immediate exclusion of malaria is necessitated.
- Microscopy includes examination of both thick & thin films. Thick film is a very sensitive method (up to as low as 10 parasites per microlitre of blood). Also it is necessary to assess the parasitaemia and subsequently the effect of therapy. Thin film is useful for identification of species, gametocytes and the type of pigments in RBC.

### When both the tests to be done

- If the patient had another attack of malaria in last 3 weeks, RDT may be positive even now due to the past infection (remaining HRP-II molecules). Hence microscopy would be needed for the present diagnosis.
- If RDT is positive and there is suspicion (even slightest) of severe malaria, blood slide should also be taken, so that baseline parasitaemia can be compared later.
- In severe/complicated malaria, serial microscopy to be done at least twice a day in order to monitor the change of parasitaemia.
- In some cases of complicated malaria, microscopy may be negative due to sequestration of parasites or due to effect of past dose of anti-malarial (very low parasitaemia). RDT would be needed there.
- False negative microscopy result may come also due to —
  - Poorly prepared smear
- Poor staining
  - Poor quality microscope
  - Examination of only thin film or few number of fields
  - Lack of skill of the technician.
- So, if clinical suspicion is there, both tests i.e. microscopy & RDT should be done. Also, blood slides may be repeated more than once a day and on successive days if need be.

## Indications of test for Dengue

As per the National & State Case Management Guidelines, the case definition of suspected dengue includes the following :-

- (i) An acute febrile illness of 2-7 days duration
  - (ii) Along with two or more from below:
    - Headache
    - Myalgia
    - Arthralgia
    - Retro-orbital pain
    - Rash
    - Haemorrhagic manifestation.
- So, any case fitting into the above clinical case definition must be tested for dengue.
  - Nowadays, E D S (expanded dengue syndrome) is not an infrequent phenomenon. Therefore, any case of fever presenting with vital organ dysfunction, should have a test for dengue.
  - A case of acute fever, although not fitting to the above case definition, should be tested to rule out dengue if fever persists beyond 2 days where test for malaria and other common causes of acute fever (e.g. resp. treat infection) have been clinically ruled out.

### Tests to be advised

Rapid tests for dengue vary widely in sensitivity & specificity from brand to brand. No shortlisting of reliable brands has yet been indicated from the end of MOHFW or ICMR. Hence these tests cannot be recommended for screening/diagnosis of dengue.

- Recommended tests are .
  1. NS-I ELISA — for fever up to 5 days.
  2. IGM ELISA - for fever more than 5 days.

Either of the above tests is considered as confirmatory for practical purposes.

Micro Elisa test may also be used where available (in private sector). However, cost factor should be considered.

While advising a dengue test, the particular test type (NS-I ELISA/ IgM ELISA/ both in marginal cases) need to be indicated; or the fever duration should be mentioned by the clinician so that the Lab can decide the type of test required.

Dr