

# Dengue Case Management

## **Operational aspects**

# Operational issues.....1

- All dengue cases and suspected dengue cases: Arrange PCV (also called Haematocrit) and Platelet Count reports at least twice a day – one morning sample and another sample in evening/ late afternoon.
- C.B.C. test for the fever cases in O.P.D. – as suggested in the Fever Approach Algorithm. Utilize cell counter if available.
- Dengue Test Report and PCV & Platelet Report must reach the I.P.D. early after test is done. Improvise as necessary.
  - Fast tracking of dengue patient samples (urgent).

# Operational issues.....2

- A stocking taking is very important now for:
  - ELISA machines (both reader & washer) for dengue testing
  - Dengue test kits (both NS-1 & IgM)
  - Cell counter(s).
- Stock taking to be done by the Superintendent/BMOH and Dy. CMOH-II & CMOH and issues need to be resolved early (positively within June).
- Cell counters may have such problems:
  - No stock of reagents
  - No supply of calibration fluid
  - Machine problem
  - Status unknown since not in use for long.

# Operational issues.....3

- Top Sheet to be maintained in I.P.D. for every dengue case and suspected dengue case.
- Urine output to be recorded (not eye estimation) in each shift and finally totaled for 24 hours.
  - Use improvised means to measure, e.g. mineral water bottle.
- MO, Staff Nurse and Sister in Charge to sign the Top Sheets.
- Utilize Top Sheet to
  - monitor the cases
  - identify cases at risk
  - to generate alert (call the Doctor).

# Guideline issued by DHS & DME reg. indication of tests for Dengue & Malaria

Government of West Bengal  
Directorate of Health Services, IBD Branch,  
Swasthya Bhawan, Salt Lake, GN-29, Sector-V, Kolkata - 700091.

Memo. No.- HPH/1D-01/2020/ 189

Dated- Kolkata, <sup>5<sup>th</sup></sup> May, 2022

**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 Services  
Govt. of West Bengal**  
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The essence is: advise tests widely, not restrictively, to detect/rule out malaria or dengue.

## 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, may be tested to rule out dengue if fever persists beyond 3 days where test for malaria and other common causes of acute fever (e.g. resp. tract infection) have been clinically ruled out.

# 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.

# Operational issues.....4

- Hospitals not having dengue testing facility will send daily samples (serum) to identified labs by messenger.
- An Excel line list of samples to be sent to the lab in e-mail.
- Lab will perform tests and report back within 24 hrs to the sample referring hospital.
  - Results to be entered in line list and sent back in e-mail.
- Lab to upload details of positive cases in the State portal.
- Fund support for sample carrier and for lab data entry.
  - NVBDCP or IDSP fund to be utilized.



# Operational issues.....5

- Use the guidelines to differentiate among Covid-19, Dengue & other AFI-s as far as possible.
- If there is also suspicion of covid-19, keep in Isolation until test is done. Do not refer outright as far as practicable.
- Get the tests done as indicated. Co-infection may be there.

# Operational issues.....6

- If death occurs in a dengue patient, inform the Hospital in charge immediately.
- Hospital in charge to inform Dy. CMOH-II who will in turn inform SSO / OSD-Dengue over phone/whatsapp (983600 46212/ 98308 00231).
- Preliminary information to be followed by scanned treatment record in email at an early date.
- Mail to: [idsb.wb@gmail.com](mailto:idsb.wb@gmail.com)

**Discuss the points in these slides with all concerned Doctors & Staff of your institution.**