

Dengue Case Management:

Sharing good practice as observed in Government and Private Facilities

The state has taken challenges to keep the Dengue incidence and fatal outcome to a minimal this year through continuous and rigorous monitoring and involvement of all the stake holders for environment management, vector control, awareness generation, early case detection as well as prompt and efficient case management.

In tune with this effort, the expert team from Health & Family Welfare Department, Govt. of West Bengal has conducted monitoring and supportive visit in some Medical Colleges, other State Govt. hospitals and a few private health facilities in & around Kolkata recently. The objective was to observe the management protocol followed for Dengue cases both in Govt. as well as private hospitals to find out the good practices and to share it for the benefit of the patients.

Many good practices have been observed in the Govt. Hospitals as well as in the Private Hospitals, e.g. restriction of use of antibiotics in dengue fever, detailed documentation of Intake and Output, recording of body weight in some of them, assessment of the fluid depletion status through latest methods in some of the private hospitals, avoidance of unrealistic Platelet transfusion, very good practices in emergency observation ward with primary triaging of the patients and many more. Many of the institutions visited have saved several critical patients admitted there. Still there remain some scopes of further improvement which have been identified by the teams in regards to the protocol based management of dengue which are briefed below.

A notable observation is the variation of practices followed by the treating physicians, even among those attached to the same organization in relation to the assessment of the risk factors and detection of the early signs of complications of Dengue fever. Most of the RMOs treating the patients and are expected to be the first one to detect the deterioration of the patient require some updated knowledge. Arrangement for exchanges among the physicians and promulgation of a uniform management protocol at the organizational level if considered by the private corporate bodies will prove to be very beneficial.

The following general recommendations for assessment of the patient and protocol formulation may be thought of for fine tuning of the Dengue Case management:-

- a) DHF grading (I to IV) in case of hypovolemia in dengue and administration of specific quantity of IV fluid at specific rate according to the grade & clinical condition, including the step-down as well.
- b) Tailor-made IV fluid therapy based on body weight (and also height in obese persons) instead of an ad-hoc bolus dose.
- c) Avoidance of IV fluid during the course of illness if there is no suspicion of hypovolemia and oral intake is good.
- d) Withdrawal of IV fluid as early as possible after the critical phase is over and the patient is stable.
- e) In addition to platelet count and other lab parameters, monitoring of PCV (haematocrit value) twice daily (at least) in admitted dengue cases is suggested, since it can give an early clue of plasma leakage through capillaries.

- f) Capacity building of RMO-s, junior physicians and the referring private practitioners through in-house programmes will ensure uniformity of knowledge and practice.

“Medical Officers’ Handbook for Clinical Management of Dengue & Malaria” brought out by the Dept. of Health & FW, Govt. of West Bengal, that is available in the IDSP Section of the departmental website (www.wbhealth.gov.in) may be referred to.

Apart from the commonly known warning signs for dengue, the following can serve as early signs of developing shock/ deterioration in a patient of dengue:

- Sudden drop of body temperature
- Severe/ increasing pain in abdomen
- Abdominal distension
- Nausea turned into vomiting, specially > 3 times
- Narrowing of Pulse pressure
- Increasing tachycardia
- Extreme prostration or lethargy
- Appearance of drowsiness / loss of eye-to-eye contact/ irritability
- Very little urine output in last 6 hours / High Coloured Urine
- Shortness of breath
- Rising haematocrit (PCV)

We need to be alert and keep maintaining uniform good practice to save the life of the critically ill Dengue patients in our State.