

CONTROL OF DENGUE FEVER AND ITS COMPLICATIONS: CRITICAL NEED FOR UNIFORM IMPLEMENTATION OF “W.H.O GUIDELINES”

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Dengue fever is the most common vector borne viral infection prevailing for last couple of centuries. Epidemics of dengue fever, DHF and Dengue shock syndrome has been widened immensely and now reported in more than hundred countries as compared to only nine countries four decades ago. World Health Report 2009 shows the estimated incidence of 50 million dengue infections worldwide with case fatality rate of 2.5 per cent per year.

Substantial global efforts had been started two decades ago but as such lack in their effectiveness. Therefore recently comprehensive guidelines have been developed by World Health Organization in 2011 for prevention and control of Dengue or DHF. There, in addition to natural course of disease, the key roles of Ministries of Health as well as the non-health sectors have been highlighted in order to guarantee effective implementation. Moreover, emphasis has also been placed on community involvement particularly of students and teaching institutions, welfare and civic organizations and NGOs.

The guidelines encompass not only complete diagnostic process, treatment at hospital and discharge protocols but also provide vital information relating to role of Primary health care centers and primary prevention of the disease.

The WHO guidelines on case definition, have divided laboratory investigations into ‘disease monitoring laboratory tests and diagnostic tests’. In the disease monitoring laboratory tests, the WHO recommends complete blood count (CBC) during the first visit of every suspected patient with white blood cell count (WBC), Hematocrit (HCT), Thrombocytopenia and liver function test (LFTs). While for the diagnostic tests, antibody detection (IgM, IgG & RDT), virus isolation, a most definitive test for

dengue infection, polymerase chain reaction (PCR) and non-structural protein-1 (NSI antigen) are to be done. If dengue IgM is negative before 7 days with negative IgG tested at less than 7 days, dengue IgG is recommended for diagnostic confirmation. The guidelines categorically say that NSI may be useful in the early phase of dengue infection. It is not useful in the convalescence phase.

According to the guidelines, monitoring of dengue should be governed by different phases of the disease. As the critical phase (plasma leakage) may last for 24-48 hours, monitoring needs to be intensified and frequent adjustments in the fluid regime may be required. According to the WHO, obese patients with dengue have less respiratory reserves and care should be taken to avoid excessive intravenous fluid infusions. Infants also have less respiratory reserves and have a shorter duration of plasma leakage and usually respond quickly to fluid resuscitation. They should be evaluated more frequently for oral fluid intake and urine output, the guidelines say. Non-glucose containing crystalloids are recommended for the dengue patients with diabetes. It is also emphasized that precautions are to be taken in pregnant suspects and lower segment caesarean section and induction of labor to be avoided in critical phase of plasma leakage.

An entire gamut of public health activities such as health promotion, community participation, intersectoral cooperation and service coverage is required to prevent and control dengue. A change in human behavior and lifestyle is, therefore, a pressing and felt need. This has been referred as COMBI (communication behavior impact). At the community level, the task to increase people’s awareness and develop necessary skills for the desired environmental and sanitation changes can be effectively shifted

to the women's groups, self-help groups, NGOs including faith-based organizations, formal and informal community leaders, community health volunteers, school students/teachers, and the like. Many programs usually manage to increase awareness and inform, educate and convince individuals about what needs to be done (the HIC phase that is hearing, informing and convincing). Whereas prompting people to take the necessary steps towards adopting and maintaining an effective and feasible new behavior (the DARM phase that is Deciding, Acting, Reconfirming and Maintaining the behavior) remains a challenge.

It is extremely important that the government should adopt community participation as an integral

component to the national policy for promoting health development in general by including non health departments namely social works, education, development sector and private NGOs.

Lastly, as far as surveillance is concerned, community health volunteers, students or community leaders should visit their respective catchments and engage themselves in reinforcement until a sense of ownership is developed in the society towards a cleaner environment and thus control of the disease.

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