
CHAPTER 7

Primary health care

DF and DHF are often, though not exclusively, associated with poor environmental sanitation, inferior housing and inadequate water supplies. Where such conditions prevail, communities need to be instructed in what steps they can take to prevent and control the disease. The diagnosis and management of DHF, as well as the control of outbreaks, may be a problem that can be addressed by primary health care workers. The disease tends to spread from large cities to smaller ones and to villages infested by vector mosquitos. Transmission of the disease can be reduced by community participation in vector control. In addition, the case fatality rate of DHF can be considerably decreased if appropriate fluid replacement therapy is given early in the course of the disease. Referral to a well equipped hospital is not always possible; therefore, health care workers, particularly in rural areas, should be instructed in the early diagnosis and effective management of patients suspected of having DHF.

Recognizing cases of dengue haemorrhagic fever

An outbreak of DHF in the community should be suspected when:

- Children are suffering from an undiagnosed febrile illness characterized by a continuous high or saddle-backed fever of 2–7 days' duration.
- Patients have petechiae, bleeding from the nose or gums, haematemesis or melaena.
- Patients remain ill despite a drop in temperature, and their clinical condition deteriorates with the development of clammy skin, cold and sweaty extremities, drowsiness or restlessness.
- Unexplained deaths due to shock, with or without haemorrhage, occur within 1 week after the onset of an acute febrile illness.

The first step towards community involvement in DHF control is for parents to learn that seeking early medical care for their children may prevent serious illness or death. To encourage parents promptly to take their children for treatment, they should be taught to recognize symptoms suggestive of DHF, in particular a high fever lasting 2–7 days that may be accompanied by anorexia, nausea, vomiting, abdominal pain and subsequent evidence of bleeding (per-

sistent red spots on the skin or in the nose, bleeding gums, “coffee-ground” vomit or dark stools). Most importantly, they should be able to recognize early signs of shock—their child remains ill despite a fall in temperature and develops cold, clammy skin, restlessness or drowsiness.

Management of dengue haemorrhagic fever patients

Chapter 3 provides detailed information on the treatment of DHF; but for the purposes of primary health care, the following principles of treatment can be applied:

- High fever should be treated by sponging and the appropriate use of paracetamol. (Acetylsalicylic acid (aspirin) and other salicylates should not be given because they can lead to bleeding and cause gastric irritation and acidosis.)
- Oral rehydration therapy should be administered in the early stages of fever.
- The patient should be referred immediately to a hospital if there is any evidence of bleeding.
- Prompt referral to a hospital or suitable health centre is necessary for the administration of intravenous fluid if the body temperature drops, the extremities become cold or the patient becomes restless. If referral is not possible, oral rehydration should be continued until the patient has a normal urine output and the skin becomes warm.

Collection of specimens for laboratory examination

Proof that an outbreak of illness is caused by dengue virus must be obtained as soon as possible after the first suspected cases. As indicated in Chapter 4, blood specimens should be collected and sent with clinical data to a laboratory that is equipped to diagnose dengue virus infections.

The recognition of cases and collection of specimens can be facilitated if a member of the community has been designated as the “health communicator” who is responsible for providing liaison between the community and the national committee responsible for supervision and management of dengue clinical care.

Vector control

Vectors of the dengue virus breed in and around houses and, in principle, can be controlled through individual and community action. A preventive approach should be adopted in extending vector control efforts to communities that do not routinely benefit from organized vector control. It may be assumed that the vector is *Ae. aegypti*, which feeds during the day, rests indoors and lays its eggs in artificial water containers. As previously discussed (see Chapter 5), local

residents may play a key role in the effective control of vector mosquitos by eliminating larval habitats, using insect repellents and indoor space-spray insecticides, placing screens on their windows and doors, and using bednets if they sleep during the day.