

APPENDIX 7

World Health Organization Classification of DF and DHF (1997) ³

CASE DEFINITION FOR DENGUE FEVER

Given the variability in the clinical illness associated with dengue infection, it is not appropriate to adopt a detailed clinical definition of dengue fever. Rather, the need for laboratory confirmation is emphasized.

The following classifications are proposed:

- **Probable**

– An acute febrile illness with two or more of the following manifestations:

- Headache
- retro-orbital pain
- Myalgia
- arthralgia
- Rash
- hemorrhagic manifestations
- Leucopenia

AND

- Supportive serology (a reciprocal haemagglutination-inhibition antibody titre = 1280, a comparable IgG enzyme-linked immunosorbent assay (ELISA) titre or a positive IgM antibody test on a late acute or convalescent-phase serum specimen)

OR

- Occurrence at the same location and time as other confirmed cases of dengue fever

- **Confirmed** – a case confirmed by laboratory criteria (see below).
- **Reportable** – any probable or confirmed case should be reported.

Laboratory criteria for confirmation of dengue fever are

- Isolation of the dengue virus from serum or autopsy samples: **or**
- Demonstration of a fourfold or greater change in reciprocal IgG or IgM antibody titres to one or more dengue virus antigens in paired serum samples; **or**
- Demonstration of dengue virus antigen in autopsy tissue, serum or cerebrospinal fluid samples by immunohistochemistry, immunofluorescence **or** ELISA;

OR

- Detection of dengue virus genomic sequences in autopsy tissue serum or cerebrospinal fluid samples by polymerase chain reaction (PCR).

CASE DEFINITION FOR DENGUE HEMORRHAGIC FEVER

The following must **ALL** be present:

1. **Fever, or history of acute fever, lasting 2–7 days**, occasionally biphasic.
2. **Hemorrhagic tendencies**, evidenced by at least one of the following :
 - a. A positive tourniquet test
 - b. Petechiae, ecchymoses or purpura
 - c. Bleeding from the mucosa, gastrointestinal tract, injection sites or other locations
 - d. Hematemesis or melena.
3. **Thrombocytopenia** (100,000 cells per mm³ or less).
4. **Evidence of plasma leakage** due to increased vascular permeability, manifested by at least one of the following:
 - a. A rise in the HCT equal to or greater than 20% above average for age, sex and population;
 - b. A drop in the HCT following volume-replacement treatment equal to or greater than 20% or baseline;
 - c. Signs of plasma leakage such as pleural effusion, ascites and hypoproteinaemia.

CASE DEFINITION FOR DENGUE SHOCK SYNDROME

All of the above four criteria for DHF must be present, plus evidence of circulatory failure manifested by:

- Rapid and weak pulse, and
- Narrow pulse pressure [$<20\text{mmHg}$ (2.7 kPa)]

Or manifested by:

- Hypotension for age, and
- Cold, clammy skin and restlessness.

Grade I : Fever accompanied by non-specific constitutional symptoms; the only hemorrhagic manifestation is a positive tourniquet test and / or easy bruising.

Grade II: Spontaneous bleeding, in addition to the manifestations of Grade I patients, usually in the form of skin or other hemorrhages.

***Grade III**: Circulatory Failure manifested by a rapid, weak pulse and narrowing of pulse pressure or hypotension with the presence of cold, clammy skin and restlessness.

***Grade IV**: Profound shock with undetectable blood pressure or pulse.

Note: *

- i. Grades III and IV are classified as Dengue Shock Syndrome
- ii. The WHO classification is being reviewed and revised.