

## Te Marae Ora Cook Islands Ministry of Health Protocol

DENGUE CASE CLASSIFICATION	
<b>Suspected</b>	A clinically compatible case of dengue or severe dengue as defined below.
<b>Probable</b>	A clinically compatible case of dengue or severe dengue <b>AND</b> laboratory results indicative of probable infection as defined below <b>OR</b> epidemiologic link to a confirmed or probable case as defined below.
<b>Confirmed</b>	A clinically compatible case of dengue or severe dengue <b>WITH</b> confirmatory laboratory results as defined below.

### 1. Clinical description

**Dengue** - is defined by fever as reported by the patient or healthcare provider **AND** the presence of one or more of the following signs and symptoms:

- Nausea/vomiting
- Rash
- Aches and pains (e.g., headache, retro-orbital pain, joint pain, myalgia, arthralgia)
- Tourniquet test positive
- Leukopenia (a total white blood cell count of  $<5,000/\text{mm}^3$ ), **or**
- Any warning sign for severe dengue:
  - Abdominal pain or tenderness
  - Persistent vomiting
  - Extravascular fluid accumulation (e.g., pleural or pericardial effusion, ascites)
  - Mucosal bleeding at any site
  - Liver enlargement  $>2$  centimeters
  - Increasing hematocrit concurrent with rapid decrease in platelet count

**Severe dengue** - is defined as dengue with any one or more of the following scenarios:

- Severe plasma leakage evidenced by hypovolemic shock and/or extravascular fluid accumulation (e.g., pleural or pericardial effusion, ascites) with respiratory distress. A high hematocrit value for patient age and sex offers further evidence of plasma leakage.
- Severe bleeding from the gastrointestinal tract (e.g., hematemesis, melena) or vagina (menorrhagia) as defined by requirement for medical intervention including intravenous fluid resuscitation or blood transfusion.
- Severe organ involvement, including any of the following:
  - Elevated liver transaminases: aspartate aminotransferase (AST) or alanine aminotransferase (ALT)  $\geq 1,000$  per liter (U/L)
  - Impaired level of consciousness and/or diagnosis of encephalitis, encephalopathy, or meningitis
  - Heart or other organ involvement including myocarditis, cholecystitis, and pancreatitis

### 2. Laboratory Criteria for Diagnosis

- Confirmatory:
  - Detection in serum or plasma of DENV NS1 antigen by immunoassay; or
  - Detection of DENV nucleic acid in serum, plasma, or peripheral blood mononuclear cells (white cells), by reverse transcriptase-polymerase chain reaction (RT-PCR) collected  $\leq 5$  days after illness onset, or
  - IgM anti-DENV seroconversion in acute (i.e., collected  $\leq 5$  days of illness onset) and convalescent (i.e., collected  $>5$  days after illness onset) serum specimens; or
  - IgG anti-DENV seroconversion (primary infection) or  $\geq 4$ -fold rise in titer in serum specimens collected at least 7 days apart (secondary infection)
- Probable:
  - Detection of NS1 antigen in serum (preferred), or plasma, by rapid test
  - Detection of dengue virus-specific IgG/IgM in serum or plasma, by rapid test

### 3. Epidemiological Link

- Association in time and place (e.g., household, family or school member, or neighbor) with a confirmed or probable dengue case.