

LABLINK MEDICAL LABORATORY TESTING GUIDELINE FOR THE DIAGNOSIS OF DENGUE

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DENGUE TESTS AT LABLINK MEDICAL LABORATORY; 1st DECEMBER 2015

No.	Test / Objective	Specimen	Container	Transportation Requirement	Method	Note
1.	<p>Test:</p> <p>Dengue NS1 Antigen</p> <p>Objective:</p> <p>Serological detection of dengue virus NS1 antigen in human serum, plasma or whole blood.</p> <p>Note:</p> <p>The NS1 Ag is expected to be detected 1 day after the onset of fever and persist up to 9 days in both primary and secondary dengue.</p>	Venous Blood (Serum and Plasma)	<p>Plain Tube or</p> <p>Plain Tube with Serum Separator.</p> <p>OR</p> <p>Li-heparin tube</p> <p>OR</p> <p>EDTA tube</p> <p>OR</p> <p>Li- heparin with plasma separator</p>	<p>Plasma and Serum</p> <p>4 weeks at 2–8 °C</p> <p>7 days at 25 °C</p> <p>3 month at -20°C (frozen 5 times only)</p>	Immuno-chromatographic Assay	<p>Limitations of the test</p> <p>Note 1:</p> <p>A negative result can occur if the quantity of Dengue virus NS1 antigen present in the specimen is below the detection limits of the assay, or the antigens that are detected are not present during the stage of disease in which a sample is collected.</p> <p>Note 2:</p> <p>A negative test result cannot exclude a recent infection.</p> <p>Note 3:</p> <p>The presence of detectable Dengue NS1 Ag may mean positive for early Dengue infection. As with all diagnostic tests, all results must be considered with other clinical information available to the physician.</p>

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No.	Test	Specimen	Container	Transportation Requirement	Method	Note
2.	<p>Test:</p> <p>Dengue IgG/IgM</p> <p>Objective:</p> <p>Serological detection of IgM and IgG antibodies to dengue virus in human serum and plasma.</p> <p>Note:</p> <p>Primary dengue is characterized by the presence of detectable IgM 3-5 days after the onset of infection.</p> <p>Secondary dengue is characterized by the elevation of specific IgG 1-2 days after the onset of infection.</p>	Venous Blood (Serum and Plasma)	<p>Plain Tube or</p> <p>Plain Tube with Serum Separator.</p> <p>OR</p> <p>EDTA Tube</p> <p>OR</p> <p>Citrate tube</p> <p>OR</p> <p>Heparin tube</p>	<p>Plasma or Serum</p> <p>7 days at 2-8 °C</p> <p>>7 days at -20°C (frozen and thaw 3 times only)</p>	Immuno-chromatographic Assay	<p>Limitation of the test</p> <p>Note 1:</p> <p>This test detects the presence of antibodies to dengue virus in the specimen and should not be used as the sole criterion for the diagnosis of dengue virus infection. A negative results does not preclude the possibility of an early infection.</p> <p>Note 2:</p> <p>In early infections and some secondary infections, detectable levels of IgM antibodies may be low. Some patients may not produce detectable levels of antibody within the first seven to ten days after infection.</p> <p>Note 3:</p> <p>Serological cross-reactivity across the flavi virus group is common eg. St. Louis encephalitis, Japanese encephalitis, West Nile and yellow fever virus.</p> <p>Note 4:</p> <p>As with all diagnostic tests, all results must be considered with other clinical information available to the physician.</p>

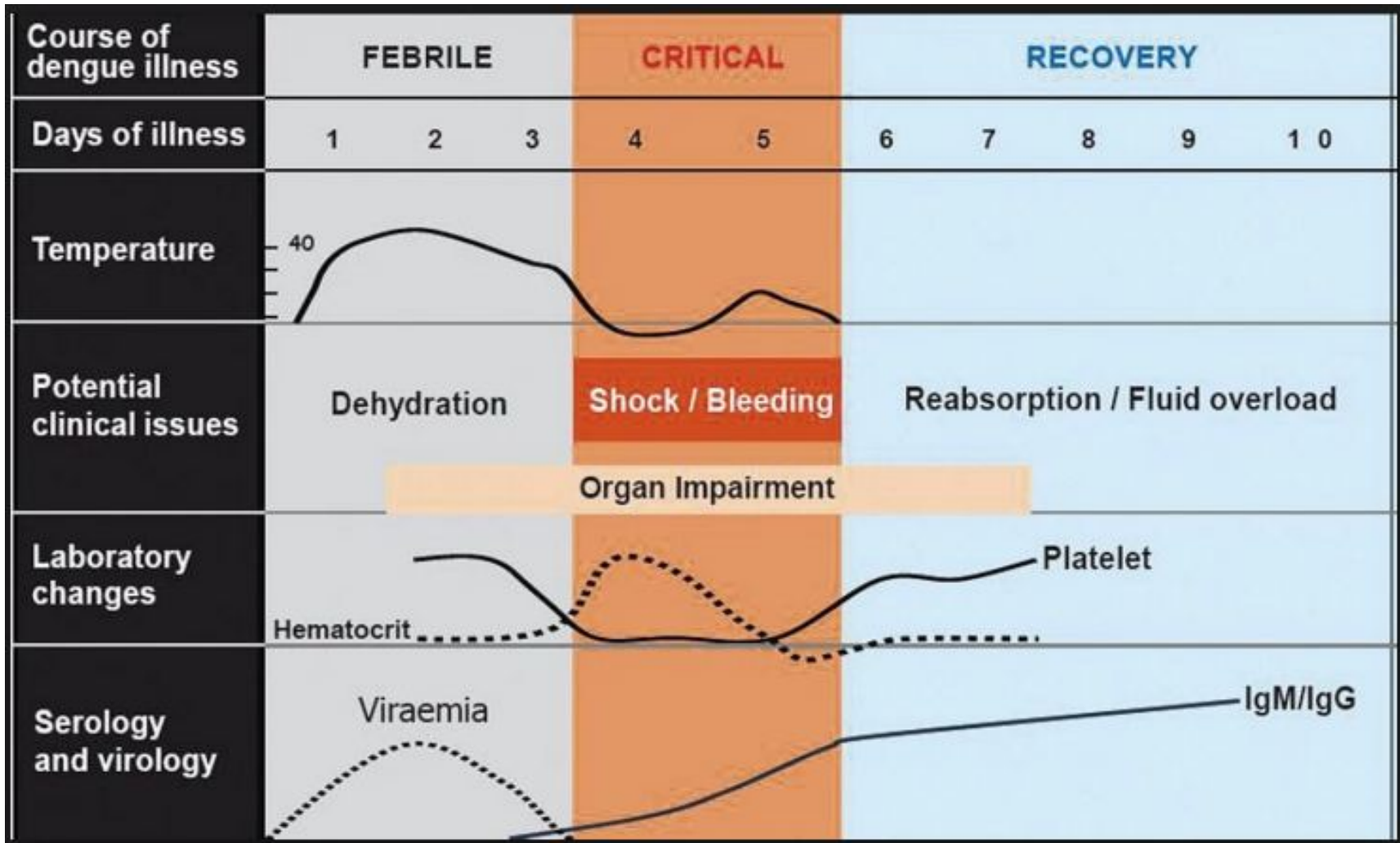
DENGUE TESTS AT LABLINK MEDICAL LABORATORY; 1st DECEMBER 2015

No.	Test	Specimen	Container	Transportation Requirement	Method	Note
3.	<p>Test:</p> <p>Dengue PCR</p> <p>Objective:</p> <p>Screening of four serotypes of Dengue virus, Den 1, 2, 3 & 4.</p>	Whole Blood, Plasma, serum & CSF.	<p>EDTA Tube or</p> <p>EDTA Tube with Plasma Separator or</p> <p>Plain Tube with Serum Separator.</p>	2 – 8 °C	Multiplex Real-Time PCR	<p>Note 1:</p> <p>A positive result is a definitive proof of current infection and it usually confirms the infecting serotypes as well.</p> <p>Note 2:</p> <p>Negative results do not preclude infection and could potentially occur when the concentration of organisms in the specimen is below the limit of detection.</p> <p>Note 3:</p> <p>The use of additional laboratory testing and clinical presentation must be taken into consideration in order to obtain the final diagnosis of infective agents.</p> <p>Note 4:</p> <p>If PCR results are negative, Dengue IgM/IgG/NS1 antigen should be considered, especially 5 days or more after the onset of symptoms.</p>

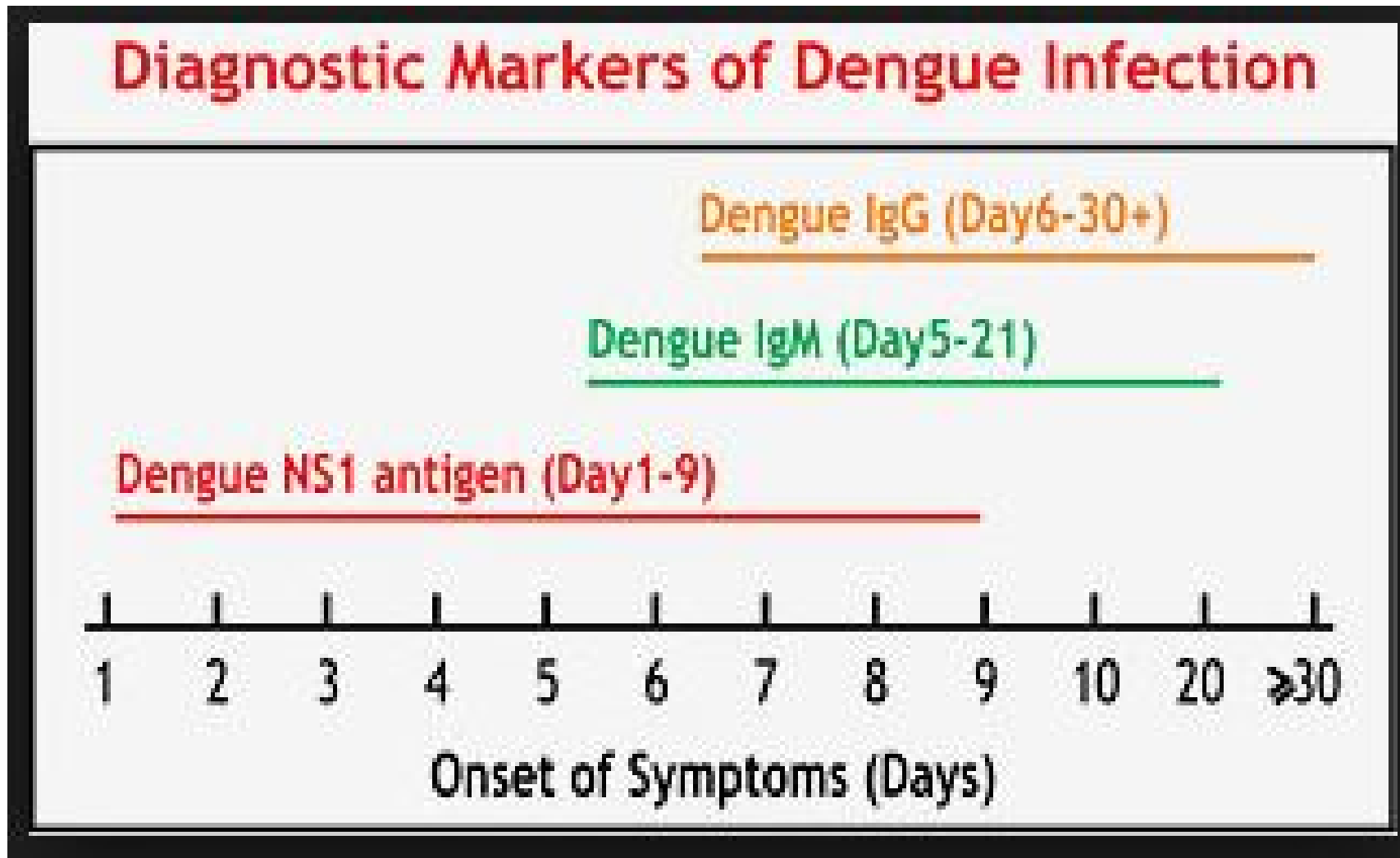
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No.	Test	Specimen	Container	Transportation Requirement	Method	Note
4.	<p>Test:</p> <p>PCR for Tropical Pathogen Panel 1</p> <p>Objective:</p> <p>Multiplex real-time PCR test for the qualitative detection of Dengue Virus RNA, Chikungunya Virus RNA, West Nile Virus RNA, Leptospiral spp. DNA, Rickettsia spp. DNA, Salmonella spp. DNA & Plasmodium spp. DNA.</p>	<p>Whole Blood or Plasma or Early Morning First Void Urine.</p> <p>Note 1: Combine WB/Plasma with Urine for extraction.</p>	<p>EDTA Tube or CITRATE Tube and Urine Container</p> <p>Note: Heparin tube not recommended</p>	2 – 8 °C	Real Time PCR	<p>Note 1</p> <p>The positive result does not distinguish between latent and active pathogen infection.</p> <p>Note 2:</p> <p>Negative results do not preclude infection and could potentially occur when the concentration of organisms in the specimen is below the limit of detection.</p> <p>Note 3:</p> <p>The use of additional laboratory testing and clinical presentation must be taken into consideration in order to obtain the final diagnosis of infectious agents.</p>

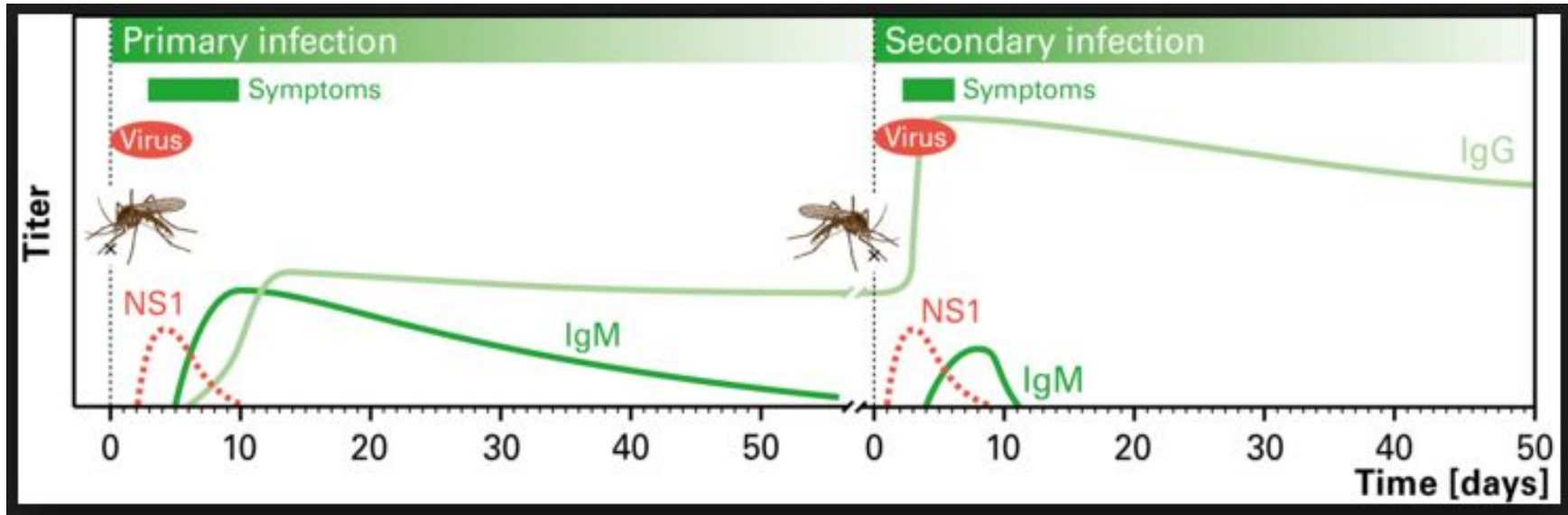
ATTACHMENT 1 : COURSE OF DENGUE ILLNESS



ATTACHMENT 2: DIAGNOSTIC MARKERS OF DENGUE INFECTION; NS1 ANTIGEN, DENGUE IgG & DENGUE IgM.



ATTACHMENT 3: MOLECULAR AND SEROLOGICAL MARKERS OF PRIMARY AND SECONDARY DENGUE INFECTION



REFERENCES:

1. SD Dengue NS1 Ag: One step dengue NS1 Ag Test; Date Issued: 2013.09. 11FK50-01-En-0.
2. SD Dengue IgG/IgM: One Step IgG and IgM antibodies to Dengue Virus Rapid test; Date Issued: 2012,12. 11FK20-02-4.
3. Dengue Molecular Testing Methods; www.kpilablink.com