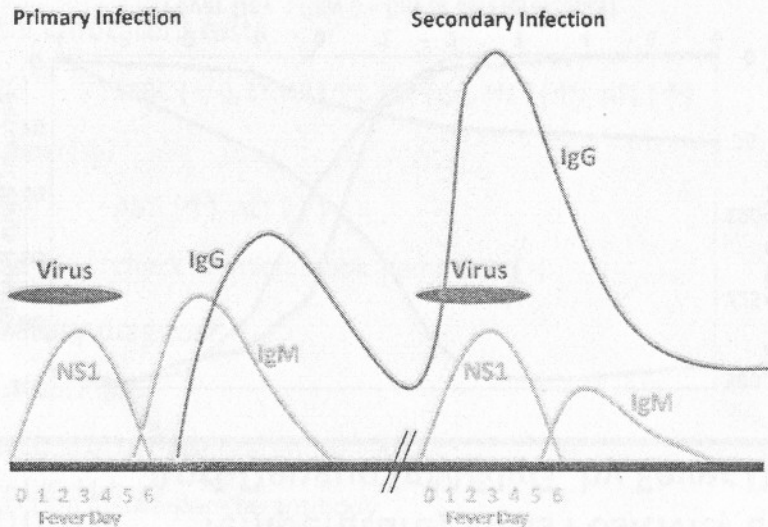




Dengue Infection & Immune Response

Antibody and Antigen Levels



Laboratory Diagnosis

Assay	Time	Advantage (+) / Disadvantage (-)
Virus Isolation (Cell culture)	7-21 days	+ Allows storage of virus for follow-up studies/genotyping - Time consuming - Required good specimen collection / handling / test to confirm the infection
NS1 Assay (Lateral Flow) BioRad / Pan Bio	15 min	+ Rapid / provide a presumptive diagnosis - Can not distinguish 1 ^o and 2 ^o infection
RT-PCR	6-7 hours	- Can detect the small amount of target nucleic acid - Can not distinguish 1 ^o and 2 ^o infection
qRT-PCR	2 hours	+ Quantitative assay - Required specific equipment / Expensive - Can not distinguish 1 ^o and 2 ^o infection
Capture ELISA (MAC-ELISA)	1-2 days	+ Most commonly used/Simple to perform + MAC ELISA provides evidence of recent dengue infection + IgM/IgG ratio can be used to distinguish 1 ^o and 2 ^o - Cross react with other flaviviruses - Required paired sample
Indirect IgG	5-20 min	+ Rapid / provide a presumptive diagnosis - Cross react with other flaviviruses / Less specificity