

striking inverse correlation between the prevalence of DENV-1 and DENV-4 in the patients attending QSNICH in Bangkok, DENV-1 tends to peak in prevalence when DENV-4 is at low levels. More striking observation is that genetic diversity within DENV-1 peaks at times of high prevalence, and that clade extinction and replacement are associated with periods of low prevalence. No specific sequence pattern in E gene correlated with disease severity was observed.

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DENGUE DIAGNOSIS IN NON-BLOOD SPECIMENS

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Dengue infection has become a worldwide problem in the past few decades, with worrisome figures of severe cases and mortality. Laboratory diagnosis relies on serologic and/or virologic tests performed on the patient's serum or plasma. We studied the feasibility of using urine and/or saliva in place of blood specimens. Samples of urine and saliva were obtained from patients admitted to the pediatric and adult wards in the late febrile or early convalescent period. Serologic results in serum/plasma were used as a gold standard. RT-nested PCR using primers targetting conserved sequences in the 5' untranslated region of the virus was done on urine specimens. MAC-ELISA detecting denguespecific IgG was performed in saliva and urine. Acute febrile patients with negative dengue serology in acute and convalescent sera served as negative controls.

Specimen type	Number tested	Test performed	# positive (%)	# +ve in controls (%)
Urine	48	RT-nestedPCR	40 (83.3)	0/18 (0)
Urine	22	ELISA	22 (100)	0/12 (0)
Saliva	31	ELISA	27 (87.1)	0/15 (0)

Our data indicate that RT-PCR and ELISA in urine and saliva are attractive candidates as dengue diagnostics in place of blood specimens. This would be highly applicable for pediatric cases who would unquestionably prefer 'noninvasive' specimens, or for epidemiologic studies in certain rural settings in developing countries, where blood drawing facilities might not always be available.

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