

## Seropositive status of dengue virus infection among blood donors in North Malaysia

Sir,

Dengue virus (DENV) infection is a tropical disease causing morbidity and mortality. It is endemic in certain regions of Malaysia causing major public health problems.<sup>[1]</sup> It is transmitted largely through vector mosquito *Aedes aegypti*. The viremia among blood donors was reported from the endemic area of South American region.<sup>[2]</sup> In order to assess the magnitude of viremia among our blood donors, we screened serum samples from 360 random donors selected in a consecutive manner from blood donations during an outbreak of the disease from December 2009 to January 2010. Sample size was determined using online software sample size calculator for prevalence studies.<sup>[3]</sup> Commercial kits (PanBio, Australia) were used for detection of anti-DENV.

Among 166 seropositive donors, 141 donors had Immunoglobulin G (IgG) anti-DENV while 15 donors had Immunoglobulin M (IgM) antibody and 10 donors displayed the dual specificities of IgG and IgM antibody [Table 1].

Presence of IgG may indicate the previous exposure of the DENV while IgM may point to the current ongoing infection suggesting that the donor is in a carrier stage of the virus. It is conceivable that blood from such donor may potentially transmit the infection to the recipients.

**Table 1: Immunoglobulin specificities of anti-DENV among Malaysian blood donors**

n. tested	n. seropositive (%)	Immunoglobulin specificity of antibody		
		IgM only (%)	IgG + IgM (%)	IgG only (%)
360	166 (46.1)	15 (4.2)	10 (2.8)	141 (39.16)

IgM = Immunoglobulin M, IgG = Immunoglobulin G, DENV = Dengue virus

Transfusion transmitted DENV has been documented,<sup>[4]</sup> yet the infection is not considered as transfusion transmitted disease (TTD). As blood units are not routinely screened for DENV, seropositive units may possibly transmit DENV to prospective recipients. Such reports bring an attention to the stake holders in blood transfusion practice to consider DENV as a potential threat to transfusion safety. The data presented with seropositive status among blood donors is during peak seasons of DENV infection. However, there is no data available during the lean season as control/ cohort study to assign its strategic significance in testing the donor units in routine.

Reported study is based on expensive technology to detect viral ribonucleic acid,<sup>[4]</sup> that may not be affordable as a routine screening tool for average blood banks in countries with limited financial resources. However, screening for IgM anti-DENV is feasible through available facility meant for screening other TTDs in blood bank set up. It is worth noting that, although discarding DENV seropositive units would affect blood stock inventory, nonetheless, transfusion safety is of paramount importance for the recipient.

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