Introduction:
In this study, we analyzed the hematological abnormalities of dengue patients by Thromboelastography (TEG) at initial and 1-hour of fluid resuscitation.

Methods:
This is a cross-sectional study evaluating TEG readings of dengue patients with different severities presenting to the emergency department. Laboratory confirmed dengue patient (positive NS1 antigen or IgG/IgM) was consecutively sampled. TEG readings were taken at presentation and after 1-hour of fluid resuscitation.

Results:
Twenty dengue patients with varying severity had a median Reaction time (R), α-angle, K time, Maximum Amplitude (MA) and Lysis 30% (Ly30) of 0.495 min, 68.74°, 3.58 min, 44.64 mm and 0.54% respectively. Mean fibrinogen was normal before and after fluid infusion. There is a non-significant reduction in MA with prolongation of other TEG parameters between different dengue severities. There is a statistically significant reduction of α-angle and MA between pre and post 1-hour fluid resuscitation (p=0.019 and p=0.040).

Conclusion:
Normal fibrinogen with low MA, which signifies a weak clot strength, may indicate either a platelet reduction, platelet dysfunction or both. Reduction in MA and α-angle post fluid resuscitation is an alarming finding. This is in contrast with previous TEG studies although none of it used normal saline exclusively, studied initial fluid resuscitation in emergency department settings or studied a subject with dengue. A bigger study, especially in severe dengue is needed to validate our findings.