Introduction
The Triage waiting time, i.e. registration to triage time, should be within 10 minutes for 90% of cases (HAHO triage guideline 2012). To achieve the goal and to prevent occurrence of suboptimal situations, efficient and effective triage assessment is required.

Objectives
To increase safety threshold, Lean Six Sigma tools had been applied to identify all the steps in the value stream and eliminate those non-value adding steps in daily practice with an aim to reduce 50% of outlier cases (i.e. patients with triage waiting time >15 min.)

Methodology
This project reviewed all the attendances in September 2014. The triage waiting time performance: 10,845 (98.19%) met the pledge of starting triage assessment within 10 minutes after registration. For outliners, 11-15mins=151(1.36%), 16-20mins=34 (0.33%) and more than 21mins=14 (0.12%). Based on this situation, we used Lean Six Sigma toolkits to define the problem and to find out the leakages. DPMO, (5Whys) Analysis, Fish Bone diagram and Value added/ Waste Analysis were applied to assist team members to understand the limitations and eliminated non-value/ waste procedures. Initiatives focused on improving existing processes, maintaining a smooth workflow followed a DMAIC principle had been executed.

Result
Improvement actions like minimized unnecessary enquiry to triage nurses; labeled the color lines on the floor for destination instructions implemented at the beginning of October 2014. Although the attendance of our AED was slightly increased from 11044
(Sept) to 11623 (Oct), only 19 cases needed waiting triage assessment for more than 15 minutes, one case waited for more than 21 minutes. DPMO was from 18,018.8 to 15,744.6, Yield was 98.198% to 98.426%, Sigma level increased from 3.60 to 3.65. We achieved 50% reduction of cases with triage waiting time more than 15 minutes. Conclusion & implication: Continuous enhancement via patient workflow programs are recommended to increase patient and staff satisfaction. Matching resources to service demand is a critical component of successful flow.