Abstract

Emergency department (ED) establishment is crucial, particularly concerning the overpopulated healthcare centers. One of the major factors which have contributed to prolonged waiting time in the ED is triage. The responsibility of the ED is to accept a patient, triage, stabilize and execute treatment with different conditions which could require immediate, urgent or semi-urgent attention. Triage is the prioritization of patient considering sickness/harm, seriousness, diagnosis, and service accessibility. The project aim was to determine the effect on waiting time after implementing a new triage system. In 2017, the hospital ED started a new triage system; Emergency Severity Index (ESI). The five-level system categorizes ED patients by acuity, and resource needs (AHRQ, 2012). The expectation with this quality improvement project was to improve the effectiveness of triage process. The study design is a quantitative, retrospective, comparative study which used electronic health record data of a pre-implementation period from July through September 2016, and a post-implementation period from July through September 2017 after implementing ESI triage system. MANOVA has the power to detect significant group variances along a mixture of dependent variables. The tests of between- subjects' effects output indicate acuity level has a significant effect on the dependent variable of total time with a df = 4, F= 4.9, *p*= .001. The output also indicates significance in the corrected model source, a df =8, F= 4.8, *p*= .000, and intercept show a df =8, F=234.1, *p*=.000. Minimizing the time spent by patients in the ED sustain that ESI five-level acuity system improved the efficiency of triage process as well as enhanced patient's overall experience in the ED.

Keywords: Emergency Department, Emergency Severity Index, Triage