Abstract

Objectives The main goal in this research was comparing two hospitals’ maintenance service quality. One of them had a contract service; the other one had an in-house maintenance service. Materials and methods The authors followed the next stages when conducting this research: domain understanding, data characterisation and sample reduction, insight characterisation and building the TAT predictor. Multiple linear regression and clustering techniques were used for improving the efficiency of corrective maintenance tasks in a clinical engineering department (CED). The indicator being studied was turnaround time (TAT). Results The institution having an in-house maintenance service had better quality indicators than the contract maintenance service. Conclusions There was linear dependence between availability and service productivity.

Keywords

Maintenance and engineering, hospital, regression analysis, biomedical technology, decision support system, management.