

**Title:** A Study To Optimize The Resource Allocation Of Emergency Department Using Queuing Theory

**Authors:** Preetia, Neetuguptab

**Abstract:** This Paper Aims To Study The Problems Occurring In Emergency Departments Of Various Private And Public Hospitals. Because Of Adverse Environment Conditions, Health Problems Are Increasing Day By Day With Increasing Population. Patients Arriving In Emergency Department Needs Timely Care But It Is Usually Seen That Patients Needs To Wait For Long Times. Admitting A Patient Anyhow In Emergency Department Is The Main Motive Of The Hospital. A Survey Was Conducted To Know The Patient's Satisfaction Rate In Various Emergency Departments. The Main Problem Faced By The Patients Is Delay In Getting Service Because Of Non Availability Of Idle Resources To Operate. Improving The Service Of Quality Provided By Of Emergency Department And Reducing Waiting Time Will Require Some Extra Investment. Optimizing The Resource Allocation And Minimizing The Service Cost Is The Main Motive Of This Work. This Paper Will Help The Hospital Management Teams To Improve The Quality Service Of Emergency Departments.

**Keywords:** Queuing Theory, Healthcare Management, Emergency Department.