WAITING TIME STUDIES TO IMPROVE SERVICE EFFICIENCY

AT

NATIONAL HOSPITAL OF SRI LANKA

The Dissertation submitted for the Degree of
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In OPERATIONAL RESEARCH

Department of Mathematics
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DECLARATION

I certify that the dissertation entitled "THE WAITING TIME STUDIES TO IMPROVE SERVICE EFFICIENCY AT NATIONAL HOSPITAL OF SRI LANKA" is entirely my own work. It has not been accepted for any degree and it is not being submitted for any other degree.

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ABSTRACT

The National Hospital of Sri Lanka is the main teaching hospital and the final referral center of this country. This hospital provides number of patient services and it is mainly responsible for delivering a comprehensive range of secondary and tertiary specialist care. This research was conducted to analyse current situation of waiting and overcrowding at National Hospital and to find out ways to provide efficient service to patients. This research is mainly focused on two areas, out patient management and inpatient management.

Out Patient Department of National Hospital comprises of General OPD section, Admission section and Emergency Treatment Unit (ETU). In this study, only the General OPD section was considered. Data collection was done through hospital records, observations and a questionnaire survey. Descriptive techniques, queuing theory techniques and simulation techniques were used in data analysis. Using GPSS/PC simulation language, existing queuing situation at General OPD was simulated. Long queues and high waiting times were found at Entry Counter, Room 15, Room 2 and Room 5. OPD is overcrowded due to increased demand, unnecessary arrivals, lack of resources and ignorance of patients on OPD procedures. Most of the facilities for staff and patients are inadequate. To avoid unnecessary visits to OPD, a referral system should be enforced. To reduce queueing at some rooms alternative options were suggested. Proper inquiry counter should be implemented and proper directions should be given to patients in order to have efficient management at General OPD.

Inpatient section of National Hospital, also provides a large number of patient services. Patient admissions were high for Medical, Surgical, Accidents, Cardiology and Orthopaedic wards. The bed capacity of National Hospital is around 2900. This hospital has high bed occupancy rate, high throughput and very low bed emptiness. In some wards a considerable number of floor patients can be seen. These wards are overcrowded due to unnecessary admissions, lack of resources and improper utilization of available resources. By providing more resources, avoiding unnecessary arrivals and irregularities of staff and using computerization, services can be much improved at National Hospital of Sri Lanka.
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For the Loving Memory of my Mother & my Father

and

to My Husband