Evaluation of Hospital Phone Booking System with Simulation Technique and Design of Experiments

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Abstract

Patient satisfaction is a key determinant of quality of care and an important component of pay-

for-performance metrics. Under the CMS Hospital Inpatient Value-Based Purchasing (HIVBP)

program, Medicare reimbursements are linked to patient satisfaction and surveys completed by

patients.

Satisfied with your appointment system? Are your patients satisfied? Do you often gets

disappointed with long queues at your Hospital's reception desk? Long list of appointments on

holidays. Difficulty in rescheduling of booked appointments. Blockage of telephone lines due to

excessive incoming calls. Unordered appointment schedules due to lack of coordination between

various sources of appointment booking. Receiving untimely calls in your home phone or mobile

phone seeking appointments

It will give you absolute control over the time you see your patients, the time you spend with

them and the time you wish to finish your day's work. It will be easily accessible for you to

change appointment slot anytime if you need to. It is easily accessible for your patients too to

book appointments with you. It provides proper coordination between various sources of

appointment booking. For patients, it serves as a multi-faceted Appointment Scheduling System

The objective of this paper is the evaluation of Hospital Phone Booking System

First with the understanding most important problems In call center units, the simulation model

of this system is designed and then validity of this model for adapting it with real system is

analyzed. At the end some solutions are presented for improving the performance of system by

using design of experiments. The proposed scenarios are simulated and improved model is

introduced.

Keywords: Interactive voice response, Simulation, Hospital phone booking system, call center