Measuring the efficiency of beds operation in the hospital: an applied study using the Barber scheme

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Abstract

The aim of the study is to measure the efficiency of the hospital's operation of its resources by focusing on bed as one of its most important resources by applying the Bary Barber model ,which proposes four indicators together (bed occupancy rate, average hospital stay rate, bed free rate and bed rotation rate) One point on a representative diagram showing how close or far away it is from the ideal efficiency area as assumed and defined in the following indicators: bed occupancy rate (75%) and (1 to 3 day bed free rate). The study was applied to the Department of Internal Diseases in several hospitals within the city of Damascus based on data collected for 2013 and 2014 according to the internal records and reports of each hospital

The following conclusions have been reached:

-Maintaining the stability of the bed-free rate only over a specified period of time (month or year) leads to an increase in the average duration of the patient's stay, an increase in bed turnover and a decrease in the bed occupancy rate.

-Maintaining the stability of the average length of stay of the patient only, within a specified period of time (month or year), leads to an increase in bed-free rate, bed turnover rate and bed occupancy rate.

-Maintaining the stability of the bed occupancy rate only during a specified period of time (month or year) leads to an increase in the average duration of the patient's stay, bed-free rate and bed turnover.

-Determining the pre-value of bed rotation as a goal to be reached within a specified time period of one month or a year enhances the possibility of concentrating hospital or departmental resources in a balanced manner towards achieving appropriate values for bed occupancy rate, bed-free rate, the patient's stay.