

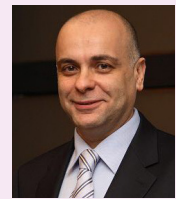


## The Importance of Bed Occupancy Rate in Evaluate the Utilization of Hospitals

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Hospitals are the most important component of the health system in developing countries and accounts for about 50%-80% of total health costs (1,2). It plays an important role in the health sector to have an effective, responsive promotion and improving public health. Hospitals are of great importance to analyze the efficient usage of valuable resources and prevent of fund loss (3). In recent decades, the efforts for reducing bed numbers and increasing the usage by patients along with reducing the length of stay and improving the admission process can have an impact on improving hospital performance, which result in lower cost for hospital by rising hospital bed occupancy rate, although that can lead to ascending hospital efficiency and tighter control of cost, but also to complications (4). Recent studies have shown that there is a direct correlation between overcrowding and over-occupancy of bed numbers and scaling hospital infections up because of less hand hygiene, the more frequent transport of staff between the wards, the less care for the isolation and hospitalization of the patient in the unlinked segment leading to failure of maintenance of patient's safety against hospital infections (5). Also, a study by Kaier et al in 2012 showed that there is a direct relationship between hospital bed occupancy rate and the incidence of hospital infection (6). Some investigation proved that bed occupancy causes more than 85% mental illness in hospital staff thus increases the usage of antidepressants (7). In hospitals that are managed scientifically, bed occupancy rates range from 84% to 85% according to international standards, meaning the proper use of hospital facilities, hospital resources and success of its management. Fifteen to 16% consider the rest of the beds for medical emergencies (i.e. utilization of resources) have been optimal. According to the Ministry of Health and Medical Education, ward occupancy rate of more than 70% is desirable, between 60 and 70 is moderate and less than 60% is recommended (8). Hospital bed is an important and cost effective resource for all health systems. Some hospitals report that there are some bed

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occupancy rate that is about 100% or higher (9, 10) which are duo to following reasons: 1- Having a customer and an applicant to receive a great deal of service so sub-specialist are immediately occupied by another patient (i.e. using active beds in hospital wards frequently); 2- The probable calculation of recovery beds, emergency rooms and healthy infants in the hospital counts; and 3- Having specialized equipments and sub-specialist personal. But some series of failures and incomplete functions in admission to patients, wards, function and par-clinics will increase the unnecessary occupancy rate of the bed (11), some of reasons are as follows: 1- Not ready for performing routine patient tests before admission. 2- Longer time to send physician instruction to the laboratories and receive their results. 3- Longer time of discharge and settlement of patients account for any reason. 4- Failure to coordinate the provision of necessary equipment or surgical procedures. 5- Cancellation of the operating rooms for any reason. 6- Admission of patients with diseases that are not curable in terms of medical science

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(12). studies done by Vahidi et al who demonstrated that length of stay should be reduced in elderly and thereby home care and acute-care hospitals must be taken in to account (13). Also investigation confirmed that Prolonged hospitalization was associated with problems such as lack of discharge planning or awaiting placement and physician decision (14,15). Therefore, hospitals are facilities with appropriate strategies that can provide recommendations and practical solutions as well as optimal use of hospital resources and prevention of wasted costs thus improving hospital performance of improving the quality of services and promoting community health.

### Conflict of Interests

The authors declare that they have no conflicts of interest.

### Ethical Issues

Not applicable.

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