

**Название публикации:**

Assessment of hospital resources based on patient flow simulation modeling

**Авторы:**

Tikhomirov, N.P., Tikhomirova, T.M.

Plekhanov Russian Economic University, Stremyanny Lane, 36, Moscow, 115093, Russian Federation

**Наименование журнала:**

International Journal of Civil Engineering and Technology  
Volume 9, Issue 13, December 2018, Pages 1174-1184

**Аннотация:**

The article considers methodological approaches to solving the urgent problem — how to use available staff, material and technical support of a hospital more productively, i.e. to increase their efficiency with due regard to the time-based patterns of demand for their services (which are estimated using simulation models of admitted patient flows and allocations to wards of a hospital in the course of treatment), and standards of labor costs and capacity load. Further, certain principles are presented, which are focused on grouping the current patient flows subject to the class and severity of diseases, the duration and amount of medical care, and some other important factors when assessing the number and structure of medical and other services rendered in the hospital and paraclinical wards. The procedures for simulation experiments for assessing the workload of different types of wards within the target period using the initial information about the intensity of patient admission and transfers within a hospital are also described. On the basis of hospital information for 2016, the applied approaches and methods for assessing the current needs for medical staff and technological support (required to provide their medical services properly in accordance with current labor and equipment standards) are verified, and certain proposals for rationalizing the personnel support throughout the year are given. © IAEME Publication.

**Ключевые слова:**

Capacity to pay, Hospital resources, Patient flow, Service standards, Simulation modeling