

DYNAMICS OF BASIC PLANNING INDICATORS OF THE SURGICAL WARDS AT FIFTH MULTIPROFILE HOSPITAL FOR ACTIVE TREATMENT-SOFIA AD

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INTRODUCTION

The hospital is the most complex institutions in modern healthcare system. (1) It is a service facility with properties that provide its specific complexity. As such institution, the hospital has a set of resources that are used in various output processes. The efficiency degree is a ratio between the activity results resources expenses. Achieving the optimum level of efficiency, means reaching a certain level of activity with an optimum level of resources (5).

Continuously rising health care funds put to health officials the issue of cost-effective allocation and spending of health resources.

Management of diagnostic and treatment process in the hospital has to ensure efficient use of personnel labour and the medical equipment, available diagnostic and therapeutic methods, and tools of different nature (including future development in this respect), so as to achieve the most favourable outcome of disease in the most rational use of hospital resources (3).

Hospital bed is the main material resources of the hospital. It is necessary a link to established between the actual use of beds and their theoretical maximum use (5).

Whether the beds are more or less used, in terms of effectiveness, the stay can be adequate or not. The stay is a classic intermediate product and as such is used for diagnosis and / or treatment of patients (6).

Bed/day ratio for each patient is determined by the disease and in a direct relation of clinical discretion of the physician. It also depends on external factors, from the foreign medical decision and outcome processes in other units.

The most important indicators for the organization of hospital services are: (St. Gladilov) (2).

Utilization of beds (in days) - shows on average how many days within a year one bed was occupied by patients. Bed/day number for the period is divided by the average number of beds;

Turnover of beds (in number of patients) - shows how many patients were treated on a bed per year. This indicator is inversely proportional to the next - with increase of the

average duration of treatment, turnover of beds is reducing. The number of patients who stayed on a bed is divided to the average number of beds;

Average duration of treatment (in days) - shows how many days one patient has hospitalized an average. The number bed/day for the period is divided by the number of patients which stayed on one bed;

Lethality (percentage) - shows the percentage of treated patients died during the year in the ward (1).

In the Fifth Multiprofile Hospital for Active Treatment-Sofia AD the highest priority is patient care. Top medical professionals, superior medicine and progressive change; ensure that the hospital is one of the leading in the country. It offers dedicated, distinctive, professional medical care and highest level of postgraduate education and training through the creative application of knowledge, skills and technology.

Presentation of Surgical Wards at Fifth Multiprofile Hospital for Active Treatment-Sofia AD:

First Surgery Ward

Structure:

- Inpatient Ward with 35 beds in 12 hospital rooms
- Admission Consulting Office
- Individual operating rooms and beds in resuscitation in Anaesthesia and Intensive Care Ward

Activity:

1. Abdominal surgery; Oncology surgery
 - surgery of the abdominal wall; -gastric; - intestinal; - pancreatic; - hepatobiliary; - colonic and rectal
2. Pelvic Surgery:
 - pelvis evisceration of different diseases: gynecological, urological, rectal: It has been gained significant experience in operating techniques and managing the postoperative period in these cases.
3. Haemorrhoids surgery: it has been introduced an enhanced new and rational operative method: HALL DOPLER has been used for more than 700 operations since its introduction in 2005.
4. Breast surgery: and significant experience in the surgical treatment of breast cancer.
5. Surgery of the thyroid gland: radical surgical techniques for thyroid cancer has been introduced and developed.
6. Conservative and surgical treatment of diabetes complications / diabetic foot /.

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7. Conservative treatment of vascular diseases of lower limbs.

Doctors in the ward - 12

Second Surgery Ward

Structure:

- Inpatient Ward with 35 beds
- Diagnostic - Consultative Cabinet

Activity:

- Consult surgical examinations
- Highly diagnostic methods requiring hospitalization and active surgical monitoring -RSP, puncture biopsies, drainage manipulations.
- Surgical treatment of diseases of the gastrointestinal tract, hepatobiliary system, pancreas, breast, thyroid gland.
- Defects of the anterior abdominal wall and internal hernias with modern, absorbable, high-tech products.
- In the ward is performed radical cancer surgery of the breast, stomach, pancreas, colon.

Surgery department offers laparoscopic devices that allow minimal invasive surgery for gallbladder stones, postoperative hernia, hernia of anterior abdominal wall, diverticulosis of the colon, appendicitis, ovarian cysts, tumours of the colon and others.

The ward has a specialist in endoscopic diagnosis, fibrogastroscopy, RCP, PST, replacement of the bile ducts and with a consultant - a vascular surgeon.

The priority is minimally invasive and endoscopic surgery. Doctors on the ward, 11 in number, provide a daily duty and in case of necessity carry out consultations with specialists from all other profiles.

MATERIAL AND METHODS

This analysis follows the dynamics of basic indicators of Organization at the hospital service of 1st and 2nd surgical wards in the Fifth Multiprofile Hospital for Active Treatment-Sofia AD for 2008-2010. It was used mathematical and statistical method.

RESULTS

Based on the economic and financial crisis and related decrease in the NHIF, Sofia Municipality and the Ministry of Health monitor the following dynamics of main indicators for the organization of hospital services during the three-year period:

For the First Surgery Ward

- Average number of beds (permanent) – 35
- Total Number of patient from 1,909 to 2008 – 1,897 for 2009 – to 1,731 for 2010 (reduction for the period under consideration 9.3%).
- Beds/days from 12,512 in 2008, 12,653 in 2009 (an increase of 1.1%) to 12,410 for 2010 (decrease by 1.9%).
- Utilization in days from 357.5 days for 2008, in 361.5 in 2009 (an increase of 1.1%) to 354.6 for 2010 (decrease by 1.9%).

- Utilization rate (utilization in %) – from 97.9% in 2008, to 99.0% in 2009 (an increase of 1.1%) to 97.1% for 2010 (decrease by 1.9%).
- Turnovers of beds 54.5 in 2008, to 54.2 in 2009 to 49.5 for 2010 (reduction for the period under consideration 9.2%).
- Average stay of 6.5 days for 2008 from 6.7 days for 2009 to 7.2 days for 2010 (increase for 3 year period 10.8%).
- Lethality from 2.0% in 2008 to 2.4% in 2009 to 2.9% in 2010 (increase for 3 year period with 45 %).

For the Second Surgery Ward

- Average number of beds (permanent) – 35
- Total Number of patient from 1,873 to 2008 to 1,902 for 2009 (increase by 1.5%) to 1,626 in 2010 (decrease by 14.5%).
- Beds/days from 10,805 in 2008 to 11,410 for 2009 (an increase of 5.6%) to 10,189 for 2010 (decrease by 10.7%).
- Utilization in days from 308.7 days for 2008, in 325.0 in 2009 (an increase of 5.6%) to 291.1 for 2010 (decrease by 10.7%).
- Utilization rate (utilization in %) – from 84.6% in 2008 , to 89.3% in 2009 (an increase of 5.6%) to 79.7 % for 2010 (decrease by 10.8%).
- Turnovers of beds 53.5 in 2008, to 54.3 in 2009 (increase by 1.5%) to 46.5 in 2010 (decrease by 14.4%).
- Average stay of 5.8 days for 2008 from 6.0 days for 2009 to 6.3 days for 2010 (increase for 3 year period 8.6 %)
- Lethality from 0,7% in 2008 to 1.2% in 2009 to 1.8% in 2010 (increase for 3 year period 157.1%)

The total number of patients in surgical wards decreased by 11.2% - from 3,782 for 2008 to 3,357 in 2010. There is a decrease of 0.8% of beds/days for I-st surgical ward and with 5.7% for the II-nd. Reduction is observed in the three-year period under consideration and the turnover of beds, more obvious in II-nd Surgery - 13.1%, as well as utilization of beds in % , namely the difference is 5.8%. Impressed by the gradual increase in the average stay of 6.5 to 7.2 days for I-st surgical ward from 5.8 to 6.3 days for II-nd surgical ward.

DISCUSSION

Dynamics of the basic planning indicators for the wards concerned in Fifth Multiprofile Hospital for Active Treatment-Sofia AD coincides with the trend observed in the other urban hospitals. An exception is the increase in the average hospital stay. This is an indicator used to measure the effectiveness of the use of hospital beds.

The average hospital stay is common information that is provided when presenting data on the activities of a hospital. It is also used when comparing the activity of various hospitals and in analyzing development of a hospital over the years (5).

It should be noted that the assessment of the indicator of the average stay is a complex task and can not be simplified. In

our country, it has been established a trend of declining the average stay is considered as a positive indicator of hospital activity. This one-sided approach may pose some risks.(4) It is considered that the optimal utilization of beds is 85%, as it allows having a number of vacant beds that ensures flexibility in the adoption of both emergency and planned cases (5).

As it becomes clear from the data, utilization of beds in the II-nd surgical ward at Fifth Multiprofile Hospital for Active Treatment-Sofia AD is close to optimal, while I-st surgical ward has maximum values.

CONCLUSION

For achieving a favorable outcome of the disease in the rational use of hospital resources, it is necessary diagnostic and treatment process in the wards to ensure their effective use. There is a need for a close relationship between available resources and the volume of activity: more resources - more activity and vice versa. Thus, for identifying resource needs of a specific unit, first the volume of undertaken activity has to be known .

Professional use of the rich information related to diagnostic and treatment process, assists its planning, organizing, financing, monitoring, evaluation as well as forecasting and the impact on the overall activities of the wards.

In order to minimize the deficit in the system of hospital care, it is necessary to shift the focus of the scarcity of financial resources to efficient use of available resources. It should be noted that economic and financial crisis presents serious challenges to effective management of hospitals. With limited resources that are available, through its activity and striving for efficient use, management of the Fifth Hospital for Active Treatment-Sofia AD takes all necessary actions to maintain the quality of the product.

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