

# INFLUENCE OF AN EFFECTIVE CONTRACT ON THE QUALITY OF RENDERING MEDICAL SERVICES IN THE RUSSIAN FEDERATION

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## Abstract

The article highlights the basic concepts and provisions of an employment contract with medical workers of state healthcare institutions in the Russian Federation. The results of the correlation analysis of the influence of certain criteria for assessing the effectiveness of the labor activity of medical workers on the quality of the provision of medical services in medical organizations are shown.

## Keywords:

labor motivation, healthcare, effective contract, labor contract, material incentives, employee performance, remuneration, incentive payments, quality of medical care, medical services.

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## CONFLICT OF INTERESTS

The authors declare no conflict of interest.

## INTRODUCTION.

Changes in the labor motivation system for medical workers by implementing the effective contract into the day-to-day activity of the state healthcare institution of the Russian Federation require mandatory compliance with the labor legislation. In the course of implementation of the effective contract, the work function, performance assessment indicators and criteria should be clearly stated, the amount of remuneration, procedure and amount of incentives for complex work results should be determined with regard to each medical worker of the healthcare institution [1]. The quality of medical services such a worker provides to a patient should be considered as the mandatory criterion or a group of criteria.

## PURPOSE:

On the basis of the analysis of the practical use of the effective contract with medical workers of state healthcare institutions in the Russian Federation, to assess the relation of the recommended examples of the performance assessment indicators and criteria on the basis of work functions of the medical staff as the quality of the provided health care.

## MATERIALS AND METHODS:

Printed materials on the issue of motivation of the labor activity of medical workers, elibrary and pubmed search systems, as well as the statistics methods of archive materials on monitoring of medical and economic activities of healthcare institutions in the Russian Federation were used in the work.

## RESULTS AND DISCUSSION:

The procedural framework for implementation of the effective contract into the activity of the modern healthcare institutions is much related to the already existing experience of the commercial entities on workers' incentives that requires adaptation to the specific healthcare institutions. In this regard, such performance indicators system development techniques can be defined as the Balance Score Card (BSC) and Key Performance Indicators (KPI) [9]; FMEA (Failure Modes and Effects Analysis) providing for identification of a process part where the errors are possible using the proactive methods [10], etc.

The model form of the labor contract with an employee of the state institution is recommended by the Government of the Russian Federation [2]. Among the most critical components of the effective contract to be established, the performance criteria and indicators of the medical staff whose attainments are determined by the amount of their salary should be identified. Considering the practical implementation of the effective contracts [3, 4, 5], the team of authors advise to develop the following recommendations on establishing the performance criteria and indicators to be provided by the labor contract [6, 7, 8] as the main focus for determining the quality of works performed by the medical staff:

1. The criteria and indicators of the effective contract (to be documented as the supplement to the labor contract with medical worker) should be selected on the basis of the following principles:
  - interrelation of the performance indicators system of the healthcare institution - director of the institution - medical workers;
  - objectivity supposing that the amount of payments is related to the objective data;
  - measurability according to which the values of the performance criteria and indicators should be measurable;
  - individualization meaning that the criteria and indicators

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are established according to the particular specialization of the medical staff; openness and explicitness meaning the necessity in formation of all levels of indicators being understandable for employees.

2. The performance and work quality criteria and indicators of employees are formed both for the medical and non-medical staff of the healthcare institutions.
3. The performance indicators of particular staff categories and assessment criteria used in practice can be divided into the following groups:

Group 1 - economic performance indicators of the medical staff (ratio of actual-to-planned revenue of an institution / department for the medical services provided for a certain period; financial working hours of a medical worker per rate in the staff schedule of the institution, etc.).

Group 2 punitive sanctions applied by the insurance companies with regard to the healthcare institution. It is recommended to use the ratio of specific weight of penalty sums to the sum of income (insurance benefits) for the medical services provided to patients as the main criterion. At this, the notion "penalty" also should be included into the sums of non-payment or incomplete payment or the medical services provided.

Group 3 indicators of the patients' satisfaction with the quality of services of the healthcare institution / its department / particular medical worker. As the criteria (the quality assessment level of the provided services as determined by the attended citizens (by interview); validated complaints (according to the internal and departmental control results); satisfaction with the quality of the medical care provided (according to the social research results; % of the number of the interviewed persons), etc. ).

Group 4 - specialized quality indicators of the medical care formed with due regard to the specific nature and functions of the labor activity of particular medical staff categories, for example:

- Indicators for the Head of Department-Physician-Specialist: deficiencies of organizational (diagnostic, consulting, treatment, preventive) work in the department identified on the basis of the work results of the medical board, as well as the inspections of the higher-level and regulatory bodies.
- Indicators of the physician (paramedic) of the mobile team of the Emergency Call service or Rescue Emergency unit for children and adults: difference in diagnosis established by the physician (paramedic) and diagnosis established at the admission department of the healthcare institution;
- Indicators of the specialist in therapeutics: right diagnosis, compliance with examination and treatment standard, right (reasonable) treatment choice and prescriptions, difference in clinical and pathologic diagnosis;
- Indicators of the specialist in surgery: facts of iatrogenic complications related to violation of the procedure techniques; facts of violation of the hospital hygiene and infection control (including the facts of pyoinflammatory diseases occurred after invasive interventions), complications after invasive interventions, including purulent-septic; difference in clinical and pathologic diagnosis;
- Indicators of the care staff: facts of iatrogenic complications related to violation of the procedure techniques; facts of violation of the hospital hygiene and infection control (including the facts of pyoinflammatory diseases occurred after invasive interventions, as well as facts of positive bacterial management results of quality of sterilization of the instruments); etc.

Quality indicators of documentation management of the healthcare institution (deficiencies in execution of the medical documentation, full-scope maintenance of electronic medical cards in information systems, etc.) are also recommended to be considered as components of quality of the medical care and include into this group.

Group 5 - qualification and self-training intensity of specialists of the healthcare institution (participation in scientific conferences, work of professional societies, associations, printed works, implementation of the mentorship practice, work in commissions, etc.);

To assess the influence of the implemented effective contract in the state healthcare institutions on the quality of provision of the medical services, the correlation analysis of the work quality rating, as well as performance and efficiency indicators of the medical staff in the organization has been used. The data was collected in 2020 from the state city multi-faceted healthcare institutions in the territory of Moscow. The 1.5-year (18-month) interval of activity of 26 state healthcare institutions was analysed in the study for 2 periods: the 12-month effective contract implementation period and the 6-month effective contract post-implementation period. The performance assessment results of the studied healthcare institutions summarized with the use of the mathematical and statistical method in Microsoft Excel 2010 were processed using the statistical data processing software SPSS Statistics 22.0. and are given in Table 1.

The correlation analysis results of the performance indicators of healthcare institutions for the assessment period are shown in Figure 1.

According to the views established in the statistics, the obtained values of correlation can be interpreted as follows:

- the labor activity assessment results of the medical staff in dynamics and the rate of the income growth of the healthcare institution show the direct dependence (0.893);
- the labor activity assessment results of the medical staff in dynamics and the work performance in the healthcare institution show the middle direct dependence (0.689);
- the labor activity assessment results of the medical staff in dynamics and the patients' complaints in dynamics show high inverse relationship (-0.806);
- the labor activity assessment results of the medical staff in dynamics and the scope of punitive sanctions of the Compulsory Health Insurance show very high inverse relationship (0.917).

Therefore, the correlation analysis of results of implementation of the effective contract into activity of the state healthcare institution has proven the strong inverse correlation relationships of the labor activity assessment results of the medical staff with the quality of the provided medical care and patients' satisfaction.

### **CONCLUSION:**

The labor motivation of employees of the medical institutions that is based on the "effective contract" has a considerable influence on the quality of provision of the medical services and level of the patients' satisfaction.

Therefore, the implementation of the effective contract into the activity of the state healthcare institution in the Russian Federation, with due regard to the defined fundamental provisions, requires building a system of quality criteria and indicators that correspond to the general purposes and objectives of the healthcare institution; as well as individualization of criteria and indicators according to the specialization and functions of particular specialists.

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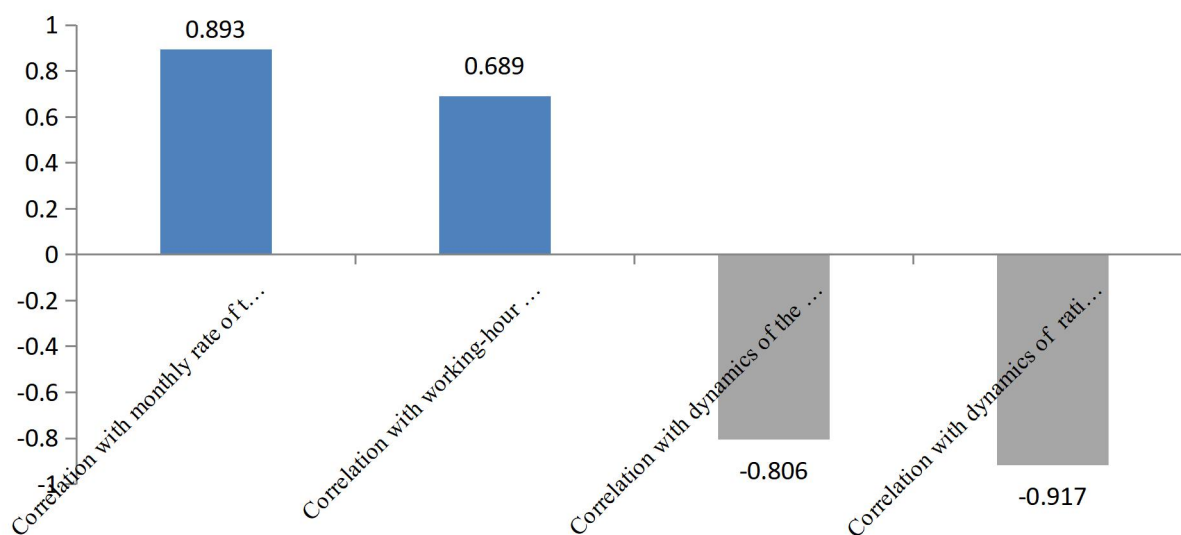
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**Table 1.** Input values of scores of the medical staff work quality and performance indicators for correlation analysis in the healthcare institutions for the 18-month period (p< 0.05).

Assessment period	Average share of employees with maximum work score, %	Monthly rate of the medical services income growth, %	Dynamics of working-hour indicator of medical services per rate, %	Dynamics of the ratio of the number of validated complaints to the number of treated patients, %	Monthly specific weight of penalty in the sum of revenue for medical services, %
Effective contract implementation period					
1st month	67	2.3	3.1	2.2	5.9

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Assessment period	Average share of employees with maximum work score, %	Monthly rate of the medical services income growth, %	Dynamics of working-hour indicator of medical services per rate, %	Dynamics of the ratio of the number of validated complaints to the number of treated patients, %	Monthly specific weight of penalty in the sum of revenue for medical services, %
2nd month	69	3.1	4.3	2.3	5.4
3rd month	73	3.1	3.7	2.1	4.7
4th month	75	3.4	3.5	2	4.2
5th month	78	4.5	3.6	1.6	3.6
6th month	81	5.8	3.4	1.1	4.3
7th month	82	8.6	4.5	-1.2	4.2
8th month	83	9.8	4.9	0.5	3.8
9th month	84	10.1	4.4	-1.4	3.5
10th month	83	12.8	5.1	-3.3	3.0
11th month	86	12.7	5.2	-3.4	2.6
12th month	87	12.9	5.2	-3.5	2.8
Effective contract post-implementation period					
1st month	87	12.9	5.2	-3.5	2.8
2nd month	89	13.1	5.4	-3.7	2.6
3rd month	90	13.1	5.7	-3.1	2.5
4th month	88	12.8	5.2	-3.5	2.7
5th month	90	13.4	5.6	-3.6	2.3
6th month	90	13.6	5.8	-3.7	2.1



**Figure 1.** Correlation of change in the average percent from the maximum score on the quality of the labor activity assessment of the medical staff with the performance indicators.