

# The concept of the lean system in the medical and pharmaceutical organizations of the Caucasian Mineral waters

Adzhienko VL<sup>(1)</sup>, Reys VF<sup>(1)</sup>, Krivenko SV<sup>(1)</sup>, Kodonidi MI<sup>(1)</sup>, Kishchenko IUM<sup>(1)</sup>

<sup>(1)</sup>Pyatigorsk Medical and Pharmaceutical Institute of Volgograd Medical State University of the Ministry of Health Care of Russia  
v.l.adzhienko@pmedpharm.ru

More than 215 years Caucasian Mineral Waters take patients from Russia and the world to rest and treatment. Today, about 300 resort organizations serve over 1,000,000 people each year. Such a huge potential and the presence of a medical-pharmaceutical institute in the region make it possible to introduce new methods and improve the quality of medical services and services in general. Competition in the medical tourism market stimulates the entire industry to use modern approaches to process management with an emphasis on customer focus. One such path may be the concept of lean manufacturing.

The aim of this study was to check the possibility of applying lean production methods in various medical and pharmaceutical organizations in the region in order to integrate into a single lean system.

Currently, the national project “Creating a new model of a medical organization providing primary health care” is being implemented in the Russian Federation. This state program of changes in the work of a clinic, pharmacy or sanatorium that is familiar to the patient sets the main purpose - increasing customer and employee satisfaction. To this end, the leadership of the Russian healthcare system studied the materials and international experience of the founders of the philosophy of lean manufacturing, the Toyota production system, and developed recommendations adapted for the country.

For several months, the institute staff conducted practical experiments on the introduction of lean production methods in the processes of several organizations: an institute, a pharmacy, two hospitals and two sanatoriums. The methods of value stream mapping, questionnaires, open surveys using sheets of problems and suggestions, visualization, timekeeping, etc. were applied.

When analyzing the results of the experiment, losses that did not create value for the consumer were identified, requests for information about some processes from customers and employees of organizations, ways to solve certain problems, and also

showed increasing interest of customers and employees in improving the conditions of service and labor.

The findings lead to the conclusion about the possibility and necessity of introducing the principles of lean production into the medicine and balneology sphere, as well as the relevance of creating a single lean system at all stages of training (for staff), treatment and rehabilitation (for patients), especially in Caucasian Mineral Waters.