ASSESSMENT OF THE EFFICIENCY OF THE USE OF THE MATERIAL RESOURCES INVOLVED IN THE IMPLEMENTATION OF THE INPUT CONTROL OF THE SUBSTANCE

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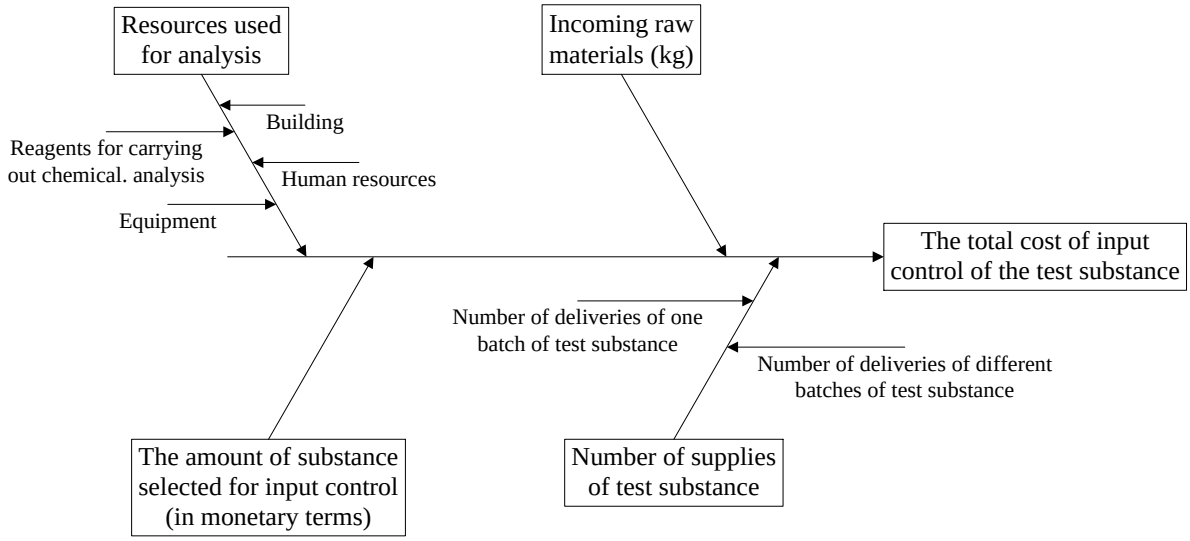
Introduction. The results of business activities are meeting the needs of consumers, economic stability in the country, job creation and many other important economic processes that contribute to improving the standard of living of the population in the country. Pharmaceutical companies are special, which must maintain the level of quality of their products and conduct business. Therefore, it is important for them to safe balance and be able to develop constantly. The principles of the concept of economical production can give them this opportunity due to a number of reasons, the main ones being: the development of management systems, the development of the most effective business management techniques; the focus of lean production principles on reducing losses that do not require additional investment; increasing the level of consumer compliance with product quality; cost minimization opens the way to modernization not only of equipment, but also of institutions (organizational business technologies), which in turn guarantees the improvement of the quality of the manufactured products.

Lean Manufacturing is a system of organizing and managing product development, production, relationships with suppliers and consumers, when the products are manufacture in exact accordance with customer requirements and with fewer losses. The goal is to eliminate time-consuming activities that consume resources but do not create value. The goal is to maximize resource efficiency through the continuous and incessant improvement of all the organization's business processes aimed at improving customer satisfaction.

Aim. Based on the urgency of the issue, the purpose of our work is to investigate the efficiency of the use of material resources in the analysis of inputs to improve the functioning of the quality control process at the pharmaceutical enterprise by reducing the cost of it.

Materials and methods. In the basis of the work used the analysis of the costs of material resources of the pharmaceutical enterprise for the input control of the substance of the active substance for the planned period.

Results and discussion. The analysis of any process requires setting its estimated parameters. Using the Ishikawa cause-and-effect diagram, we have identified and structured the basic parameters that affect the cost of an input control of a substance. The main ones include: resources used, amount of raw materials received (kg), number of supplies of test substance, amount of substance selected for input control (in monetary terms).



The analysis of the substance received to the entity was carried out by the method of statistical sampling of the substance of the active substance was received and used to create the medicinal product in 2019.

The next stage was the creation of a matrix of expenditure of cash resources used for the input control of the test substance, important that the cost of analysis, in a broader sense, should be guided not only by the cost of reagents (which can change) used for the analysis of chemical substance, but also the use of precision measuring instruments, the use of electricity, manpower, the cost of operating the premises, the permit to import products.

Table 1. Matrix of expenditure of cash resources

Number of deliveries of one series	*Number of received substance*	*Price per kg*	*The cost of the substance received by the enterprise*	*Cost of 30 g of substance*	*Cost of 16 g of substance*	*Price of analysis costs*	*Cost of microbial purity's analysis*	*Total number of series*	*The name of the substance*
1	2	3	4	5	6	7	8	9	10
The series under study 1									
The series under study 1 (1)	2,00	32403	64806	972	519	N	N_1		
The series under study 1 (2)	5,11	32403	165660	972	519	N	N_1		
The series under study 1 (3)	5,80	32403	187970	972	519	N	N_1		
The series under study 1 (4)	0,86	32403	27931,39	972	519	N	N_1	5	
The series under study 2									
The series under study 2	7.00	29710	207970	891,3	475,36	N	N_1		
The series under study 3									
The series under study 3	0,91	29380,45	26863	881,4	470,1	N	N_1		
The series under study 4									
The series under study 4	21,50	27631,69	602605	829	442	N	N_1		
The series under study 5									
The series under study 5/ 1	25,00	28521,36	713034	855,60	456,30	N	N_1	5	
The series under study 5/ 2	3,00	29803	89409	855,60	456,30	N	N_1		

For example, by examining the cost of research on the substance of the first series (investigated series 1) it was found that for one analysis of reagents worth 3200 UAH.

One hour of the laboratory employee costs 80 UAH. One hour of equipment operation costs 30 UAH, and it takes 5 hours to perform the analysis. Thus, the cost of one analysis is about 3500 UAH, and the analysis of microbiological frequency – about 1500 UAH.

The cost of substance analysis, according to the matrix, is directly proportional to the amount of deliveries of a substance of one series, which came at different intervals, and the supply of substance of different series; which leads to increased use of resources of the enterprise and in turn leads to an increase in economic costs. For example, the number 1 research series shows that the cost of raw material analysis alone is about 5%. It is worth noting that the total cost is influence by other factors that usually lead to an increase.

This can be avoid by using a one-time substance delivery method calculated according to the annual drug-production plan, since this method results in the use of only a single substance analysis in a larger sample, which will be significantly less costly.

Conclusions. Using the method of multiple delivery of a chemical substance, the enterprise spends a considerable amount of resources on control of each supply of raw materials, which is of economic costs of the enterprise. Based on the principle of lean manufacturing – cost minimization, the method of one-time supply of the required amount of raw material, pre-calculated according to the annual production plan of the medicinal product, reduces the total amount of resources used for the input control of the substance.

DEVELOPMENT OF PROPOSALS FOR IMPROVING THE QUALITY OF WORKING OF A PHARMACY

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Introduction. Changes in the external environment, the emergence of new legal and economic norms, the growing needs of the population to receive quality service services, are relevant to our research. It is important to find new approaches to improving the quality of pharmacy facilities. The competitive market requires decisive action from entities providing pharmaceutical services in Ukraine. Increasingly, pharmacy executives are deciding whether to expand their operations, comply with regulations, and, as a consequence, increase their profit margins.

Aim. The purpose of the study is to develop a program to improve the quality of service to consumers pharmacy institution. To achieve this, we must fulfill the following tasks: to analyze the regulatory framework governing pharmacies; to investigate the current state of work of pharmacy establishments and to propose a set of measures to improve the quality of the provision of pharmaceutical services in accordance with the principles of Good Pharmacy Practice.

Materials and methods. The basis of the work was the results of the analysis of the regulatory framework for the subjects of the pharmaceutical market and the experience of leading pharmacy networks.

Results and discussion. The organization of pharmacy activities and rules for the provision of pharmaceutical services are governed by a number of legal acts and regulations.

An important influence on the activity of the pharmacy institution in organizing, conducting and evaluating the work is provided by the following regulatory requirements, which are contained in: Law of Ukraine "On Amendments to the Tax Code of Ukraine and some other legislative acts of Ukraine on improving the administration and revision of the rates of individual taxes and fees"; Laws of Ukraine “On the use of registrars of settlement transactions in the sphere of trade, catering and services”; Laws of Ukraine "On Consumer Protection".

To date, our pharmacy establishments operate under the requirements of the License Terms of Ukraine and carry out business activities within the framework of legal relations "pharmacy-consumer".

According to our research, it is not enough for the average citizen to receive only quality medicines and appropriate advice on them. The consumer wants to have full confidence in the safety of the pharmaceutical services they receive and the qualified advice they have given to the standards of pharmaceutical care. Therefore, it is quite important to implement the following requirements:

- on patient well-being;
- influence decision-making on the use of medicines;
- building relationships with other healthcare professionals;