THE INTELLIGENT INFORMATION SYSTEM OF THE MANAGEMENT OF PHARMACEUTICAL ENTERPRISE ACTIVITY

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In modern conditions of Ukraine transition to a market economy in each sector of the economy is made the search for new approaches and methods of production management and service rendering, the analysis of the current state is made, future prospects are described. Such approaches are typical for the institutions that render services in the distribution of medicines and medical products in pharmacies, wholesale pharmaceutical warehouses, pharmacy kiosks. In the conditions of market economy, the efficiency of pharmaceutical companies in the long term, high rates of their development, increasing of competitiveness and quality of drugs are largely determined by the level of management of material resources. The massive use of information technologies opens the possibility of creating unique services for the population and participants of the pharmaceutical market. An important principle of this work is a comprehensive automation and economic independence of pharmaceutical companies. Drugs as goods, through their high consumer value and for what they are element of the system of medical care, have a number of features. Disposing of medicines, pharmacies carry on their production and trading activities. To do this, they purchase the goods at wholesale prices on pharmaceutical warehouses and sell them at retail prices, obtaining the appropriate trade allowances, which cover all costs of the pharmacy. The recoupment and interest of pharmacy institutions in profit makes these institutions to spend economically their means, increase productivity, improve the organization of production processes at all stages from the receipt of medicines for sale to the population. Each pharmacy must cover all of its costs associated with activities of payment to suppliers, maintenance of premises, payment of salary and other expenses due to the profit from the realization of medicines and products of medical purpose. Economic activity includes not only full coverage of revenues over all costs, but the net profit of the pharmaceutical companies. In a market economy, the efficiency of pharmaceutical companies in the long term, high rates of development, competitiveness and quality of drugs largely are determined by the level of resource management of pharmaceutical enterprises. Currently the management of material resources is not optimal, which negatively affects the efficiency of pharmaceutical companies. Important reserves of improvement of this activity is a parallel implementation of a logistics approach, international rules and standards in pharmaceutical companies that will allow to optimize costs and increase the quality of medicines.

The topicality of this subject is due to the high dependence of the final results of a pharmaceutical company from efficient management of resources, lack of readiness of software tools for managing and optimizing their flows; choice of suppliers of substances and materials; management and inventory control of substances, materials and medicines; optimization of the production program; formation of information flows taking into consideration the specificity to pharmaceutical production.

A systematic approach to solving problems is also implemented for electronic system of wholesale orders of medications, medical products, information about the availability of products in retail and wholesale enterprises. The peculiarity of the wholesale market, taking into account the best technical solutions, allows companies and companies with intelligent automated orders systems to work more effectively. Collaboration of retail and wholesale orders in conjunction with the electronic document management system to create a system of simple and affordable services to ensure clients with medical and pharmaceutical preparations. All such intellectual information systems possibilities become available to pharmacies and pharmaceutical companies that implement such approaches.

Intelligent information system analyzes the existing approaches to the management of material resources, evaluates the condition of the material management and processes of control in the pharmaceutical enterprise. During the process of software development were investigated features of the implementation of logistic approach in the management of material resources of pharmaceutical enterprises, and are developed methodological and practical foundations of an complex approach to the selection of suppliers, substances and materials. Conceptual model of management of a pharmaceutical company, formed a logistics approach to inventory management and requirements regarding the terms and conditions of storage of medicines, materials and an algorithm for optimal movement. The model of optimal regional pharmaceutical sales policy of the enterprise and the calculation of the optimal suppliers is developed. The methodology of a complex estimation of efficiency of resource management in the pharmaceutical company is created. When

developing the system, a systematic analysis is made, conceptual model of a pharmaceutical company is presented, the main processes of the system are detalized, the main aim of system and the main objectives of system are defined on the basis of which pharmaceutical company acts. The expected effects of the implementation of the system is the reduction of management personnel, a significant simplification of the work of pharmacists and accountants, increasing speed of service for customers and suppliers, and therefore the increase in turnover, increase in profit, increase of customer confidence by reducing the probability of errors in connection with the automation of the processes of pharmaceutical activity.

The article describes the method of data collection, analysis and processing of information by subject area of pharmaceutical enterprise. The scheme of functioning of the algorithm and data processing methods in a given subject area are developed.

Keywords - information systems, intelligent information systems, collection and analysis of information, data processing methods, pharmaceutical enterprise.