уровне оказания фармацевтической и медицинской помощи и, следовательно,на здоровье пациентов. Провизор не должен заменять медицинского работника, рекомендовать посетителю аптечной организации фармакотерапию при состояниях, требующих консультации врача. В то же время врач должен консультироваться у провизора о современном аптечном ассортименте, знать правила оформления рецептурных бланков. При взаимодействии врача и провизора оба участника коммуникации могут обмениваться своими наблюдениями о переносимости лекарственных препаратов, комплаентности пациентов к определенным лекарственным формам и др. Таким образом, одну из наиболее важных ролей в успешном оказании фармацевтической и медицинской помощи пациенту играет фармацевтическая этика, которая способствует улучшению качества взаимодействия провизора с врачом.

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MODERN FOREIGN APPROACHESTO OPTIMIZING THE MEDICINES QUALITY CONTROL SYSTEM

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Annotation. The article presents the results of systematization of foreign approaches to optimizing the quality control system of medicines. Three approaches were identified.

Key words: falsified, counterfeit and substandard medicines, quality control system, quality of medicines.

Introduction

Falsified, counterfeit and substandard medicines are a real global public health risk. Previously this kind of medicines was thought to be common in low-income countries with weak health care systems and pharmaceutical support. However, the

increasing number of countries reporting falsified and counterfeit products indicate the problem is of pandemic proportions [1, 2].

The purpose of the study – is to systematize foreign approaches to optimizing the system of medicines quality control.

Materials and methods of research

Content analysis of the foreign literature encompassed a search of online databases MEDLINE/PubMed using the keywords "drugs/medicines quality", "counterfeit drugs/medicines", "fake drugs/medicines". Structural and situational analysis of the international systems of medicines' quality control.

Research result and discussion

One of the most important approaches to optimizing the system of medicines' quality control is to create a publicly accessible worldwide database of identified falsified, counterfeit and substandard medicines with a rapid notification system. In order to justify this approach, foreign authors (Mackey T. et al., 2015; Nayyar G. et al., 2012, 2014) state that reporting to existing databases is provided on a voluntary basis, and only 35.2% of countries publish the results of the medicines' quality control and the number of identified falsified, counterfeit and substandard medicines. Therefore, reporting should be mandatory for all countries to ensure completeness and representativeness of the global database of identified falsified, counterfeit and substandard medicines [2, 3, 4].

The second significant approach to preventing the spread of falsified, counterfeit and substandard medicines is to control their entry points into the legal pharmaceutical market. A feature of the pharmaceutical market is the presence of a long commodity distribution chain. The chain includes manufacturers, distributors, pharmacies or medical organizations. Furthermore, the number of wholesalers participating in this chain is not limited. According to foreign researches (Blackstone E. et al., 2014; Mackey T. et al., 2015) the long supply chain, including a large number of intermediaries, is the reason for the prevalence of falsified, counterfeit and substandard medicines in the pharmaceutical market [1, 4, 5].

Large distributors interact with manufacturers, so they are rarely sources of falsified, counterfeit and substandard medicines. Smaller distributors acquire medicines through secondary intermediaries. So, small wholesalers are the most vulnerable place for the penetration of falsified, counterfeit and substandard medicines on the legal pharmaceutical market because of probable interaction with unfair counterparties [1]. Therefore, it is appropriate either to strengthen the internal medicines' quality control in the distribution companies or to introduce an independent accredited outsourcing agent for the medicines' quality control for wholesalers.

According to foreign authors (Pociask S., Fuhr J., 2013; Blackstone E. et al., 2014) online pharmacies are the main source of falsified, counterfeit and substandard medicines [1, 6]. A National Association of Boards of Pharmacy carried out a research of the USA pharmaceutical market and found out that 97% of online pharmacies were not officially registered [6]. This problem is also relevant for Russia, as digitalization of the pharmaceutical market is a trend of recent years. So, the third important approach

to optimizing the system of medicines' quality control is to create an open specialized register of licensed pharmacies that have the right to carry out online trading of medicines.

Conclusion:

Three approaches of foreign researches to optimizing the system of medicines' quality control were identified. The first is to create a publicly accessible worldwide database of identified falsified, counterfeit and substandard medicines. To obtain representative data in this base, reporting should be mandatory for all countries. The second is to strengthening the control of falsified, counterfeit and substandard medicines' entry points in the legal pharmaceutical market. It is appropriate either to strengthen the internal medicines' quality control in the distribution companies or to introduce an independent accredited outsourcing medicines' quality control agent. The third is to provide easy and fast access to pharmaceutical license registers for consumers in order to protect the population against purchasing medicines from illegal online pharmacies.

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