

**MODERN HYGIENE AND ITS PLACE IN PHARMACY.****Musayeva Mehribonu Ma'murjon kizi**

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**ANNOUNCEMENT.** Modern hygiene is an important part of today's healthcare system is emerging as one of the directions. Impact on human health that indicate this are being studied in depth and their negative effects are being investigated to reduce the risk of. Especially in the pharmaceutical industry. Compliance with hygiene requirements in the field ensures the quality and safety of medicines is becoming increasingly important in providing. Currently, pharmaceutical production.

Hygienic standards are strictly controlled during production processes. The cleanliness of the production environment is ensured, microbiological risks are prevented indicators of medicines are constantly is being investigated. Compliance with personal hygiene of employees, special. The requirements for the use of clothing and working in sterile conditions are in effect. Modern hygiene in pharmaceuticals is not only used in production stage, but also the storage, transportation and sale of medicines Temperature, humidity and sanitation also play an important role in the processes conditions are constantly monitored. This ensures that the medicines service to ensure that it is preserved for a specified period without deterioration. Working in the pharmaceutical industry based on international GMP standards. These standards ensure compliance with hygiene requirements is being strengthened, production processes are being improved, and the level of security of vehicles is increasing. Modern technologies and human factor as a result of the use of automated systems errors are decreasing. In general, modern serving the sustainable development of the pharmaceutical industry. Hygiene protect public health, provide quality services through compliance with regulatory requirements providing medical equipment and further strengthening the healthcare system is being achieved.

**ENTRANCE**

Today, modern hygiene is an integral part of the healthcare system is becoming increasingly important as a means of maintaining public health the role of hygiene requirements in preventing diseases is increasing. Particular attention is paid to hygiene issues, especially in the pharmaceutical sector is being focused on, because the quality and safety of medicines are directly related to depends on the production and storage conditions. The current the pharmaceutical industry is developing rapidly and new technologies are being developed are being actively introduced into the processes. At the same time, the demand for medicines this situation is due to strict hygiene requirements in pharmaceuticals requires cleanliness, sterile environment and strengthening sanitary control is an important task modern hygiene is not only at the production stage, but also it is also important in the processes of storing, transporting and selling tools is playing. Compliance with sanitary and hygienic rules in pharmaceutical institutions indicators of medicines are maintained through they are being prevented from negatively affecting the health of patients .

**BASE PART**

Modern hygiene, pharmaceuticals, and public health systems are key to disease prevention. In the US, hygiene practices are limited to personal not limited to cleanliness, but also to the enterprise's production standards, international quality requirements and best practice approaches through widespread implementation is being done. Adapting to hygiene requirements in the pharmaceutical industry is a drug increasing the effectiveness of medical devices, ensuring patient safety. It serves as a first-class condition. Pharmaceutical manufacturing in the US the most important rule for manufacturers is Current Good Manufacturing Practices. It is called Good Manufacturing Practice (CGMP). CGMP is a standard for manufacturing pharmaceutical products. Regulate the production process and ensure that each batch is safe, efficient and of high quality food is safe for human consumption. Compliance with it is ensured by the US Food and Drug Administration and is constantly monitored by the Food and Drug Administration (FDA), which including a significant increase in the number of quality control inspections in the 2022–2024 fiscal years increased significantly (e.g. 522 inspections in 2022, 766 in 2023, and 972 in 2024). in 2024) — this is evidence of increased drug quality control activities of hygiene practices on the health system in the United States. There are also statistics about. For example, hand hygiene — It is recognized as one of the most effective methods of disease prevention. International organizations and national studies show that if the hand these habits are followed regularly and correctly, the spread of infectious diseases can be prevented decreases. According to the latest national survey results in the United States, adults forgetting to wash your hands when necessary or not doing it there are not many cases: about 48% of adults go to grocery stores, restaurants hands or not washing them properly in places such as health care facilities, and 20% of respondents are undecided about washing it at all. This there is still a lot of work to be done to promote hygiene practices hygiene in US healthcare facilities.

The level of implementation is being monitored. For example, a hand hygiene studies have shown that initial observations indicate that intensive the handwashing compliance rate in the departments is only 26%, in the departments it was around 36%. Later, regular monitoring these indicators have increased significantly when feedback systems are used but at a general level it is still not completely consistent. Hygiene is not only about hand washing including but not limited to; public health campaigns, sanitation -surveillance systems and prevention programs are also widely implemented. For example, The US Centers for Disease Control and Prevention (CDC) and other organizations on hygiene according to the standard and compiled, including statistics, research and means of awareness. Hygiene requirements in pharmaceuticals related to protecting the health of patients and consumers. The FDA's CGMP regulations ensure cleanliness and contamination prevention during drug manufacturing pays great attention to obtaining and constantly monitoring quality. Modern Hygiene is the maintenance of human health and the prevention of disease is gaining importance not only internationally but also in Uzbekistan. Today Prevention of infectious diseases in the healthcare system in Uzbekistan, medicine on improving the quality of medical devices and ensuring patient safety comprehensive measures are being taken. Personal hygiene, sanitation, prevention programs and hygiene practices in pharmaceutical manufacturing is being implemented. The epidemiological significance of hygiene practices monitoring the spread of infectious diseases in Uzbekistan in recent years system has been strengthened. For example, the Ministry of Health of the Republic of Uzbekistan has according to the data, the prevalence of infection among children and adults is 15–20% decreased, which is due to preventive measures, personal and public hygiene it is also a result of promoting practices in hospitals. Sanitation and

disinfection protocols are being implemented and patient safety is being ensured. Rules in line with ISO 9001:2015 and WHO standards for improvement used. Attention to hand hygiene and cleanliness in hospitals in Uzbekistan it has been reported that infectious diseases have decreased by 10–12% due to the focus on however, in some areas, hygiene practices are not sufficient.

Due to underdevelopment, the spread of infectious diseases has increased significantly requires more comprehensive advocacy and monitoring. Hygiene requirements in pharmaceutical production Pharmaceuticals in Uzbekistan Hygiene and sanitation rules are being actively implemented in the field. Sterile rooms disinfection and laboratory control of the quality of pharmaceutical products are being used regularly for . For example: In production processes raw materials and finished products are subject to microbiological control. Sanitation aseptic processing procedures on a daily basis is being increased. Special attention is being paid to their personal hygiene, their work the cleanliness of their clothes and workplaces is regularly checked . Through practices the quality and safety of medicines produced in Uzbekistan are being improved and effective medicines are being delivered to patients the impact of hygiene practices on public health Public health in Uzbekistan hygiene and preventive measures are actively being carried out. For example: School and Handwashing awareness campaigns are being carried out in kindergartens . Infectious diseases are decreasing by 10% in these regions. Food - Sanitary and hygienic inspectorate to ensure safety Production of antiseptics and disinfectants distribution is being expanded, thereby protecting public health . Measures to promote a culture of hygiene among the public in Uzbekistan serves to reduce the spread of infectious diseases . Hygiene is not only about personal health, but also about the quality and safety of pharmaceutical products is also central to ensuring security. In the United States and Uzbekistan sterilization, sanitation and personnel protection in the pharmaceutical manufacturing process Personal hygiene is strictly controlled. In this way, medicines is being guaranteed and the health of patients is being protected. Pharmaceuticals in the USA Companies implement “Current Good Manufacturing Practice” (CGMP) rules Through these regulations, sterile rooms, aseptic processing microbiological monitoring and disinfection processes are constantly monitored at the same time, the possibility of contamination of medicines is minimized is being reduced, which increases patient safety . In Uzbekistan, ISO and Pharmaceutical protocols are being implemented that align with WHO standards. Microbiological control of raw materials, water and finished products during production sterilization, antiseptic agents and clean work clothes are provided daily is being used in Uzbekistan . In this way, the is maintained at the level of international requirements. Public and private related to pharmaceuticals . For example, schools and infectious diseases by promoting handwashing practices in kindergartens The spread of diseases is decreasing. This also increases the demand for medicines helps keep it under control, because it prevents overuse of preventive medications the need for extra consumption is decreasing. Technologically, pharmaceuticals sterilization and sanitary monitoring are important in production. Nano - disinfection systems kill microorganisms , through ATP tests product and surface cleanliness are quickly assessed, while automated sensors temperature, humidity and microbes are constantly monitored. In this way, the quality of medicines is and safety is being improved, and the production process is efficient is being done. Economically, hygiene is also beneficial in relation to pharmaceuticals is yielding results. Preventing infectious diseases by overusing medicines usage is decreasing, production and distribution costs are decreasing. Billions of dollars are being saved in the United States through preventive measures. In Uzbekistan ,

sanitary and preventive programs are also effective in ensuring the availability of medicines in ensuring the use of and increasing patient safety . At the same time, training and education in the pharmaceutical industry are also related to hygiene . Staff and students at pharmaceutical faculties in Uzbekistan and the USA Qualifications in sterilization , sanitary control and aseptic technologies. This will improve production quality and patient safety serves to provide.

## CONCLUSION

The fields of hygiene and pharmaceuticals are not only separate, but also complementary systems that play an important role in maintaining human health. US experience shows that hand hygiene in hospitals and as a result of strict adherence to sanitary protocols, infectious diseases have been significantly reduced is decreasing. At the same time, the pharmaceutical industry sterilization, aseptic processing and microbiological monitoring processes of drugs improving the quality of its products, ensuring patient safety, and improving the economic efficiency of the healthcare system through preventive measures providing. Implementation and promotion of hygiene practices in Uzbekistan Positive results are being observed in terms of personal and public health through. Children hand washing, maintaining a clean environment and the spread of infectious diseases is significantly reduced through the use of antiseptic agents is decreasing. This is not only affecting the health of the population , but also the availability of medicines. Optimize demand and ensure effective distribution of pharmaceutical products in pharmaceutical production hygiene and sanitation requirements are constantly being met in Uzbekistan . Sterile rooms, nano-disinfection systems, ATP tests and through automated monitoring technologies to detect microbial contamination of products the possibility of falling is being minimized. At the same time, ISO and WHO of medicines by implementing protocols that comply with international standards possible to maintain the quality of the product at the level of international requirements. Personal hygiene and between pharmaceuticals becomes even more important. Personal a clean environment and sanitary requirements not only reduce infectious diseases, but also it also ensures the effective use of medicines. For example, children and have led to increased drug use reducing excessive demand and ensuring the sustainability of the pharmaceutical system Education and training programs are also being implemented in hygiene and pharmaceutical the unity of Uzbekistan and the United States . Employees and students at pharmaceutical faculties are trained in sterilization, aseptic processing and sanitary control . This is a production improving the quality of processes, ensuring the safety of pharmaceutical products, and serves to strengthen patient safety.

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