



ENVIRONMENT AND MEDICAL WASTE

Sherko'zieva G. F.
Tashkent Medical Academy

Abstract:

Treatment depends not only on the environmental conditions of preventive institutions and the quick recovery of patients, but also on the specific characteristics of medical waste generated in them, attention to hygienic standards in storage and disposal, and the correct organization of preventive measures. We analyzed the composition and amount of medical waste generated in DPMs in the period of 6 months in 2022 and obtained the following results: the amount of syringes - 441.2 kg, systems - 638.8 kg, and B-class medical waste - 640.6 kg

Keywords: Health, syringe, medical waste, prevention, hygienic standards, external environment, toxicological, radiation risk

Introduction

Dolzarlighi Now, the danger of not only household, but also medical waste to the environment is increasing. Pollution of water, air, soil, and food products due to their influence causes the spread of infectious and non-infectious diseases among the population. Especially, due to the coronavirus pandemic, the generation of medical waste has increased in the countries of the world. According to the analysis, in recent years, 26 percent of agricultural waste, more than 100 million tons of industrial waste, and about 35 million tons of household waste have been generated in our republic. The fact that about 2 billion tons of industrial, construction and domestic waste are stored in landfills and waste storage facilities and that they occupy an area of 12,000 hectares is not a positive indicator either. In the factors protecting human health, the treatment preventive institutions and the specific conditions of the spread of diseases that occur in them, their inherent dependence on the ecological situation of the DPM, at the same time, the specific characteristics of the medical waste generated in them, attention to hygienic standards in storage and disinfection, and preventive measures It is the correct organization of measures [6]. If the treatment and prevention institutions do not properly fulfill the hygienic requirements in planning and operation, if the norms are violated, they themselves cause the spread of diseases in the hospital [2, 4, 5, 7, 9, 10]. Violation of the system of collection, storage and removal of waste from DPMs, violation of the methods of decontamination has a negative impact on the environment and public health. Globally, the problem of waste is





becoming one of the most urgent environmental issues. According to the State Committee for Ecology and Environmental Protection of the Republic of Uzbekistan, 20-30 percent of waste is processed in Uzbekistan. The rest is taken to landfills. Collection, storage and removal of medical waste is carried out in accordance with the provisions of the sanitary law [1, 3, 8, 11, 12]. UNICEF and GAVI (International Association for Vaccines and Immunization) organizations have allocated 2.4 million dollars to the healthcare system of the Republic of Uzbekistan. With these funds, medical waste disposal points are being built and equipped in several regions of our country, and as a result, the environment is being improved. pollution with waste is reduced.

Inspection methods and object. We evaluated medical waste from hospitals based on SanQvaN document No. 0317-15 "Sanitary rules and norms of waste collection, storage and disposal in medical and preventive institutions". The object of inspection was the Republican Center for Specialized Oncology and Radiology Scientific and Practical Medicine (RIOvaRM).

Inspection results. Based on the regulatory document, DPM divides waste according to the level of hazard, depending on the work activity, regardless of the specialization of all waste. All DPM wastes are divided into the following categories according to their epidemiological, toxicological and radiation status: A-class DPM wastes are safe for external environment; Class B DPM wastes are hazardous to the environment; Class V DPM emissions are extremely dangerous to the environment; G-class DPM waste is closer to enterprise waste; Class D DPM waste is considered to be radioactive waste.

The method of organizing waste collection, temporary storage and removal of treatment and prevention facilities (DPM) on the premises consists of the following steps: Collection of waste generated inside the rooms of treatment and prevention facilities; transportation and loading of containers between hulls; Temporary storage of waste on the grounds of treatment and prevention facilities; transporting containers between hulls to decontamination areas.

RO and RITM derived tAnalyzing the data on medical waste, in 2021, the following amounts were generated and removed: the number of containers for syringes - 258, the amount of syringes - 1413 kg, systems - 1651 kg, and medical waste of class B - 1475 kg (Fig. 1) .

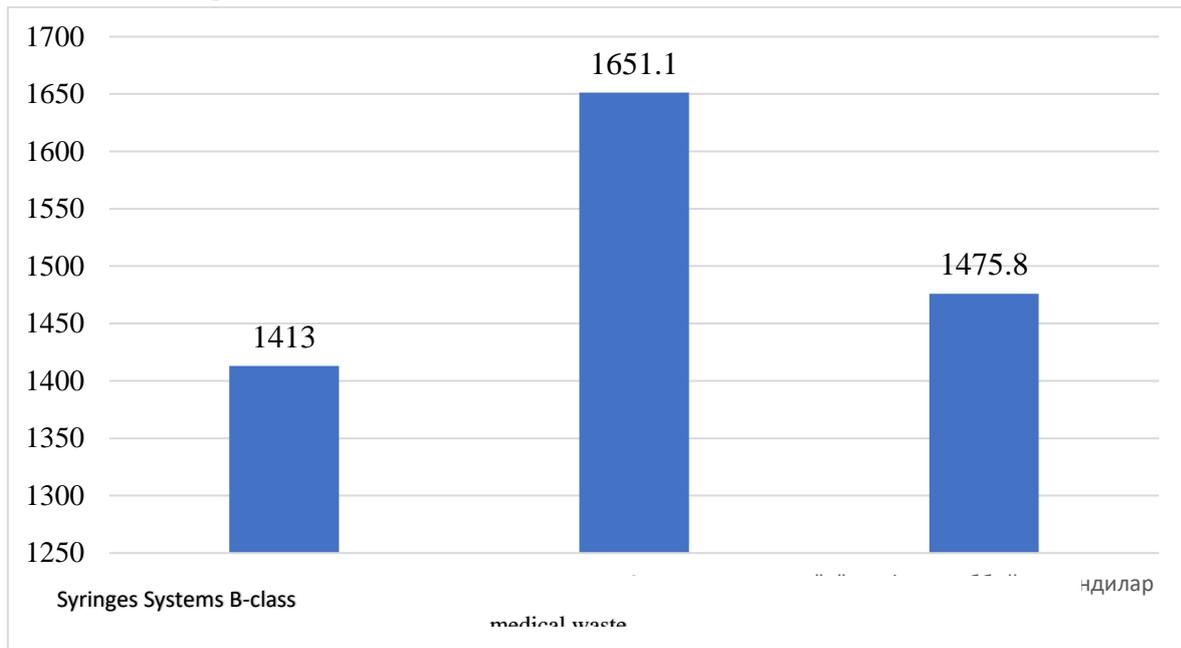


Figure 1. Amount of medical waste generated in RO and RITM in 2021

In case of emergency, waste and vehicles are quickly disinfected on the spot. The area to be disinfected should be flat and the waste water outlet should be identified.

Based on the above, we analyzed the composition and amount of medical waste generated in the period of 6 months in 2021 and obtained the following results: the number of containers for needles - 408, the amount of syringes - 1753 kg, systems - 246.8 kg and B-class medical waste was 191.6 kg (Fig. 2).

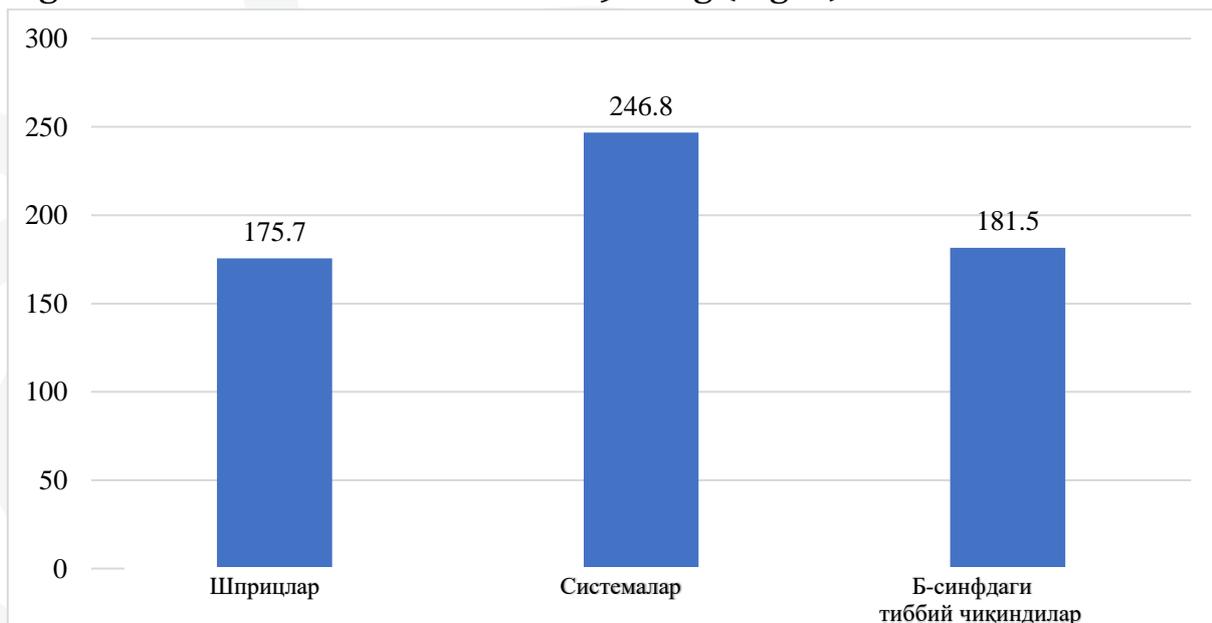


Figure 2. Amount of medical waste generated in RO and RITM during 6 months of 2021



The following requirements are imposed on the condition of storage and removal of waste. Class A, V and G wastes must be stored and transported in closed containers. It is recommended that all waste containers be changed regularly and food waste be stored in refrigerators. A-class waste is neutralized in landfills. Class B and V wastes are disposed of in special places. Decontamination is recommended in the same manner as G-class toxic substances. The DPM waste collection point should be equipped with personal hygiene equipment.

We analyzed the composition and amount of medical waste generated in the period of 6 months in 2022 and obtained the following results: the number of containers for syringes - 412, the amount of syringes - 441.2 kg, systems - 638.8 kg, and medical waste of class B - 640 was .6 kg (Fig. 3).

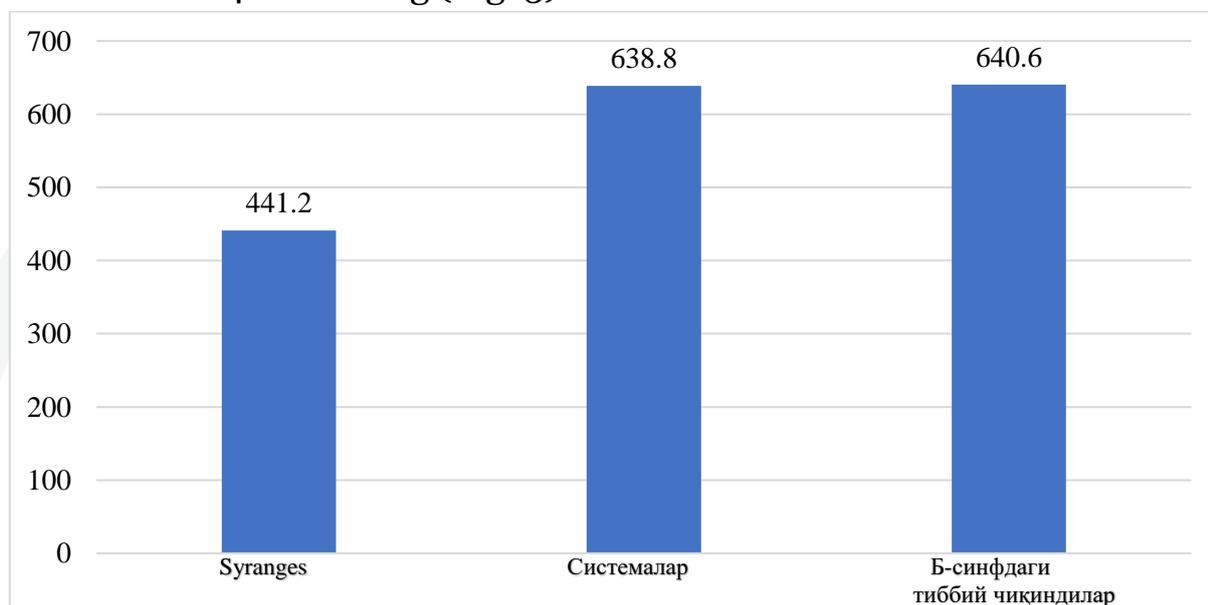


Figure 3. Amount of medical waste produced in RO and RITM during 6 months of 2022

Summary

If we analyze the dynamics of the years in terms of the composition and amount of medical waste generated in DPM, in all the years of observation, the systems used for administering drugs through blood vessels were the most productive. In the next place, B-class medical waste was produced a lot. It should be noted that all types of medical waste collection containers, storage and disposal are properly organized and do not have a negative impact on the environment.



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