PARLIAMENTARY ASSEMBLY OF TURKIC STATES

COMMISSION ON ENVIRONMENT, NATURAL RESOURCES AND HEALTH PROTECTION

NINTH MEETING

May 27, 2024

Online

REPORT

"MEDICAL WASTE MANAGEMENT IN TURKPA MEMBER STATES"

INTRODUCTION

In accordance with the Plan of Activities for 2024 of the Secretariat adopted during the 12th TURKPA Plenary Session held in Ankara, Republic of Türkiye and the Strategic Roadmap of the TURKPA for 2023-2028, it was decided to take up subject "Medical Waste Management in TURKPA Member States" for the ninth meeting as a main item of agenda.

Medical waste management is a serious global problem. In countries with high level of economic development, high public investment in health and high life expectancy, health Institutions generate more medical waste. In contrast, in economically less developed countries suffering from the spread of infectious diseases, such waste may either not be accumulated or not properly accounted for. TURKPA member states also attached particular significance to this issue.

In today's world, with the increase in the number of medical facilities and the volume of medical care, the issue of the management and disposal of medical waste is becoming more relevant and important. In this connection, the regulatory framework in the field of healthcare waste management is of

particular importance. Addressing this issue and finding an appropriate solution would contribute to all crucial outstanding matters in TURKPA member states.

The right to a healthy environment is most demonstrably violated through poor medical waste management. World Health Organization (WHO) recognized medical waste as a hazard category for the first time in 1979 and called for specialized services for its treatment and management. In more recent times, in 1992, the Basel Convention passed an important stage in the management of medical waste, identifying 45 different types of waste, among which clinical waste ranked first. These measures were important steps in protecting the environment and public health, emphasizing the importance of proper treatment and management of medical waste to prevent negative impacts on the environment and human health, taking into account that the direct potential threat to the environment and human health increases year by year with the increase in the volume of medical waste containing infections, chemical, radioactive and other materials that pose a threat to the health, ecological and sanitary conditions of the population, taking necessary measures in this field is one of the important issues to solve. To date, the main challenge facing the health system remains the provision of high-quality and affordable health care medical services. The availability of modern medical equipment, combined with the introduction of advanced medical technology, has a positive impact on improving the quality of service.

According to the WHO, approximately 15% of biomedical waste generated from healthcare practices poses a risk to both human health and the environment. Such wastes include infectious, chemical or radioactive materials that have the potential to cause mass poisoning among the population and contribute to long-term environmental pollution.

In May 1995, the Governing Council of the UN Environment Programme initiated an international and inter-organizational assessment process of a list of chemicals which, six years later, resulted in the adoption of the Stockholm Convention on Persistent Organic Pollutants (POPs). This convention, which entered into force in 2004 and has been repeatedly revised since, aimed at eliminating or restricting the production and distribution of listed chemicals. Annex C declared incinerators of medical waste as one source of persistent pollutants, and, among its suggestions for best environmental practices in part V, it urged: *When considering proposals to construct new waste disposal facilities, consideration should be given to alternatives such as activities to minimize the generation of municipal and medical waste, including resource recovery, reuse, recycling, waste separation and promoting products that generate less waste. Under this approach, public health concerns should be carefully considered (UNEP, 2017, p.63)*

Improper management of medical waste exposes the population to the risk of infection. Due to violations of the disinfection regime for disposable syringes, droppers, and dressings, often undisinfected waste material is thrown into the trash containers of medical institutions, which subsequently creates a threat of the occurrence and spread of various infections.

The Report focuses on the areas of concern in the member states and on priorities for future cooperation in the field of improvement of Medical Waste Management among TURKPA member states. Work in this direction should be carried out continuously because science is developing, new technologies are coming, and the situation is changing. And decision-makers must see and understand the priority of this problem.

AZERBAIJAN

In Azerbaijan Medical waste is controlled according to the Law of the Republic of Azerbaijan "On Waste", "Requirements for the management of medical waste" approved by the decision of the Cabinet of Ministers of the Republic of Azerbaijan dated December 28, 2007 No. 213 and "Rules for cleaning the territory of cities and other residential areas in accordance with sanitary, hygienic and ecological regulations, temporary storage, regular transportation and neutralization of household waste" approved by the Resolution No. 74 of the Cabinet of Ministers of the Republic of Azerbaijan dated April 21, 2005.

According to the legislation, medical waste is divided into 4 classes - A, B, C and D, of which classes B (waste in contact with potentially infectious patients) and C (materials in contact with particularly dangerous infectious patients) are more dangerous waste.

According to the monitoring carried out in the period before the corona virus (COVID-19) infection, there were deficiencies in the fulfillment of requirements related to the management of medical waste in both public and private medical institutions. Thus, in accordance with the requirements, special colored containers for hazardous medical waste were not placed in most institutions, and the person responsible for this area was not appointed. Monitoring carried out in the regions showed that hazardous medical waste generated in medical institutions is transported to household waste landfills together with general waste. In a number of cases, special containers for the separate collection of medical waste were not provided in medical institutions, and waste accounting was not carried out. As a result of the joint action of the

ministries of Ecology and Natural Resources and Health, measures have been initiated to eliminate these deficiencies.

Taking into account the above, representatives of private and state medical institutions, local statistics offices, health departments, responsible structures of local executive authorities in Baku, Sumgait, Gazakh, Mingachevir, Guba, Shirvan and other regional centers in order to implement educational measures on medical waste management seminars and educational monitoring were held with the participation of individuals and municipalities.

In the current socio-economic development conditions, the increase in the number of medical institutions, the expansion of the application of new types of medical services, methods and tools has led to a dynamic increase in the volume of medical waste. Thus, the improvement of medical waste management has become one of the priority areas of health care in Azerbaijan.

In this regard, to develop the management and neutralization of medical waste in Azerbaijan, a working group consisting of representatives of state institutions (bodies) participating in the management of medical waste in the country and carrying out control in this field was established by the joint order of the Ministry of Ecology and Natural Resources and the Ministry of Health of the Republic of Azerbaijan.

In order to increase the efficiency and quality of the working group activities to study the problems in the field of medical waste management formed in the country in detail and implement the necessary measures for their solution, it is planned to develop a medical waste management control mechanism, improve legislation in this area, increase the knowledge and skills of medical personnel, strengthen the necessary infrastructure, organize accounting and accountability, increase public awareness and set goals in other areas, and prepare and implement a joint action plan for this purpose.

Together with the Ministry of Ecology and Natural Resources, the Ministry of Health and TABIB, a joint Monitoring Plans was approved regarding the study of the current situation in the field of medical waste management in medical institutions in Baku and the regions.

In connection with the study of the current situation in medical institutions in the system of medical waste management (waste collection, temporary storage and transportation) of the country, on the initiative of UNICEF, in October and December 2022, 24 medical institutions and based on the monitoring plans, the Ministry of Ecology and Natural Resources, the Ministry of Health and the relevant employees of TABIB in August and September 2023, 37 medical institutions and in January 2024, 60 medical institutions were

monitored and evaluated by international experts and by the relevant employees of the Ministry of Ecology and Natural Resources, Ministry of Health and TABIB (The Administration of the Regional Medical Divisions).

According to the results of the assessment, several deficiencies and shortcomings were identified in the correct sorting of medical waste, the organization and transportation of medical waste collection rooms, the level of awareness of the medical staff in the field of medical waste management, and the registration and reporting of medical waste in many of the medical institutions located in Baku city and regions. To eliminate the mentioned problems, several measures were implemented by the Working group, including with the support of UNICEF.

Thus, in order to obtain information on modern technologies used in the treatment of medical waste, the members of the Working Group visited Uzbekistan, and within the frame of the visit, information was obtained on measures implemented in the field of safe management of medical waste, as well as on state policy. Several online meeting was organized by UNICEF to obtain information on modern medical waste disposal facilities used in international practice. In addition, a sub-working group consisting of relevant members of the working group was created to revise and improve the existing legal framework for medical waste management.

At the same time, the Resolution No. 213 of the Cabinet of Ministers of the Republic of Azerbaijan dated December 28, 2007, on the approval of "Requirements for the management of medical waste" was revised by the Ministry of Health and a new draft decision prepared in accordance with modern requirements is currently in the stage of agreement with the relevant institutions.

To effectively sort the waste at the source of its initial generation, informative posters on medical waste management have been prepared per the current legislation and placed in medical institutions. Also, in this direction, it was prepared a training program to increase the knowledge and skills of medical personnel on medical waste management in medical institutions and trainings are planned to be held in a short period of time. In addition, it is planned to provide methodical assistance to medical workers during the next monitoring.

At the level of institutions and healthcare facilities responsible for medical waste management an eletronic database prepared by the Ministry of Health for waste tracking, accurate monitoring of the amount and composition of waste, and ensuring electronic accountability is being tested as a pilot project in several medical institutions.

Azerbaijan joined the Basel Convention on the Control of Transboundary Movement and Relocation of Hazardous Wastes of the United Nations in 2001, and the Ministry of Ecology and Natural Resources of the Republic of Azerbaijan was designated as authorized Body by the Basel Convention. In order to fulfill the obligations under the Convention, the Regulation on "The Passing of Hazardous Wastes" and the "State Strategy for Hazardous Waste Management in the Republic of Azerbaijan" have been approved.

The Stockholm Convention on Persistent Organic Pollutants was ratified by the Republic of Azerbaijan in 2003. The Ministry of Ecology and Natural Resources of the Republic of Azerbaijan has been designated as the Convention Authorized Body. The Ministry has received extensive information on the Convention, a working group of experts from relevant organizations has been established and a relevant proposal plan has been prepared.

The Republic of Azerbaijan has ratified the Montreal Protocol on Substances that Deplete the Ozone Layer and the relevant amendments to the Protocol in 1996.

KAZAKHSTAN

It should be noted that there is a stable legal framework governing medical waste management in Kazakhstan. Over the years, the country has improved this framework. Sanitation and reporting rules for medical waste have also proven to be important steps to ensure safe and efficient management of medical waste. However, despite significant improvements, some aspects require further improvement. It is important to continue monitoring and updating the legal framework to ensure compliance with international standards and best practices. It is also important to provide more information and training to personnel involved in medical waste management to ensure strict compliance with rules and regulations.

Along with that, there is a need for more widespread adoption of modern technologies and techniques for the treatment and disposal of medical waste to minimize potential risks to the environment and ensure security for all citizens.

Under the provisions of the Basel Convention, the Supreme Council of the Republic of Kazakhstan adopted a resolution of 8 July 1994. Further, the Law of the Republic of Kazakhstan of 4 December 2002 «On sanitary-epidemiological well-being of the population» was adopted, which was lost due to the introduction of the Code of the Republic of Kazakhstan of 18 September 2009 «On the health of the people and the health system», which also became

invalid by the Code of the Republic of Kazakhstan of 7 July 2020 «On the health of the people and the health system». Legal regulation in the field of medical waste management is currently made by the Code of the Republic of Kazakhstan «On the health of the people and the health system».

The management of medical waste is regarded as an important component of the epidemiological and ecological safety of the population of Kazakhstan. The collection, transport and disposal of medical waste requires special attention, as they pose a risk to humans and the environment due to the presence of various infectious diseases in their composition, toxic and radioactive substances. The amount of waste «produced» by medical institutions tends to increase rapidly, and as a result increasing the range of the means used, and also to the variability of the composition. A system for collecting, temporarily storing, processing and transporting waste according to the risk class of medical waste must be established in each medical organization.

In accordance with Appendix C of the Law of the Republic of Kazakhstan "On ratification Stockholm Convention on Persistent Organic Pollutants" waste incineration plants are classified as sources of unintentional formation and release of POPs, including dibenzo-p-dioxins and dibenzofurans, hexachlorobenzene and polychlorinated biphenyls.

According to reports from territorial departments of the Committee for Sanitary and Epidemiological Control of the Ministry of Healthcare of the Republic of Kazakhstan, in 2022 compared to 2021, the amount of medical waste decreased by 8.6 times. In comparison with 2021, the number of medical organizations in the Republic increased by 1426 objects. In parallel with the increase in the number of medical operations and the increase in medical organizations by 1,426 facilities, there has been an 8.6-fold reduction in the amount of medical waste generated. This, confirms the inaccuracy of the reports submitted by the medical institutions and the Committee’s departments. To date, there is no information base to analyze the volume of medical instruments purchased and the volume of medical waste generated. Lack of up-to-date information systems and electronic databases to monitor the volume of medical instruments purchased and generated medical waste is a major obstacle to the effective management of the process. In fact, such an analytical database is crucial for optimizing the procurement and disposal of medical waste, enabling better understanding and prediction of the needs of health facilities

It is clear that without proper disposal, biological and medical waste carry environmental, toxic and epidemic hazards. There are different ways of recycling medical waste: thermal, chemical, thermochemical. In Kazakhstan,

the combustion method is mainly used, which pollutes the environment and exposes the population to the risk of contracting dangerous infections.

In total, 122 organizations for the disposal of medical waste operate on the territory of the Republic, 108 of them have their own bases (88,5%),14 (11,5%) objects are leased.

Moreover, a unique method for disposal of medical waste developed by Kazakhstan scientists. Scientists of the Al-Farabi Kazakh National University have developed an innovative method of biomedical waste (such as medical masks, gloves, shoe covers, etc.) management, which has no analog in the world. Plasma waste treatment technology and plasma chemical reactor, designed by domestic researchers, are unique as they enable the complete thermal decontamination of biomedical waste and result in increased efficiency of processing and reduced energy consumption. Compared to the traditional plasma recycling method, biomedical waste can be recycled without sorting.

Requirements for waste disposal facilities, including medical ones, are determined by the sanitary rules “Sanitary and epidemiological requirements for the collection, use, application, neutralization, transportation, storage and disposal of production and consumption waste” (approved by order of the Acting Minister of Health dated 25 December 2020)

In addition, the sanitary rules “Sanitary and epidemiological requirements for healthcare facilities” (approved by order of the Minister of Health dated August 11, 2020) streamline the procedure for the collection and storage of medical waste, define the types of containers used for collection and transportation, processing stages, depending on the class of medical waste.

According to the Ministry of Healthcare, 16,943 medical organizations are under control, including cosmetology centers that use medical devices and medicines, subject to further disposal.

The Ministry of Healthcare of the Republic of Kazakhstan has developed qualification requirements for individuals and legal entities engaged in collection, transportation, storage, neutralization, burial and use of medical waste. This issue is under the control of the Government.

KYRGYZSTAN

Today, the problem of disinfection and disposal of medical waste is extremely acute for all countries of the world, and Kyrgyzstan is no exception. For nearly 20 years of work in this area in Kyrgyzstan, many issues have been resolved. The process of waste separation has been established, protocols

have been developed for each class, the practice of disinfection with toxic chlorine is no longer used, and many hospitals use modern techniques for disinfecting plastic and send it not to a landfill, to poison the environment, but for recycling. But so far there is no clear, well-established system for the disposal of chemical waste and serious risks that are caused by interaction with mercury-containing material have not been prevented.

The process of implementing a good healthcare waste management system is complex. It entails not only an assessment of the waste categories and existing practices that have already been implemented in Kyrgyzstan, but also the selection of waste management options, the development of a waste management plan, the adoption of institutional policies and guidelines, the creation of a waste management organization, the allocation of human and financial resources, implementation of plans in accordance with established timelines, and implementation of a program of periodic training, monitoring, evaluation and continuous improvement of the system.

The Kyrgyz Republic has signed all important conventions, including the Montreal Protocol, with the exception of the Minamata Convention. Kyrgyzstan ratified the Stockholm Convention on Persistent Organic Pollutants (POPs) on 17 July 2005, and approved the National Implementation Plan for this convention on 3 July 2006. The Rotterdam Convention was signed on 11 August 1999, and the Vienna Convention with the Montreal Protocol was signed on 31 May 2000. In 1996, the Kyrgyz Republic ratified the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal, the list of which opens with medical waste. Realizing the importance of environmental safety issues for the health of the population, the Kyrgyz Republic adopted a law called the “On Production and Consumption Waste” (2001). According to Article 8 of this law, unauthorized placement of waste is prohibited if it can be a source of environmental pollution or is subject to burning on the immediate vicinity of enterprises, institutions, organizations and settlements.

The issues of medical waste management are reflected in the Kyrgyz Republic’s law “On protection of health of citizens in the Kyrgyz Republic” (2005). According to this law, the scope of authority of local state administrations and local governments in the field of health protection includes ensuring the destruction of biological materials and medical waste. Article 39 states that the use and storage of biological material and medical waste must carried out in accordance with the procedure determined by the authorized body of the Kyrgyz Republic in the field of health care, which is the Ministry of Health and Social Development of the Kyrgyz Republic. Decree of the Government of the Kyrgyz Republic No. 396 dated 03.07.2013 “On

Amendments and Additions to the Decree of the Government of the Kyrgyz Republic on Sanitary and Epidemiological Control to Ensure Sanitary and Epidemiological Welfare of the Population by Sanitary and Epidemiological Service of the Kyrgyz Republic" renewed the registration of potentially toxic chemicals imported into the Kyrgyz Republic.

Management of potentially infectious medical waste in health care organizations is regulated by the order of the Ministry of Health of the Kyrgyz Republic No. 59 dated 18.02.2013, at the level of departmental control and does not regulate the rules for handling other categories of medical waste.

Management of pharmaceutical waste is regulated by the Decree of the Government of the Kyrgyz Republic on the approval of "Regulations on the order of destruction (processing) of products (goods) recognized as unfit for sale" No.407 dated 09.07.1997, and on the approval of technical regulations "On the safety of medicines for medical use" No.137 dated 06.04.2011.

Radioactive waste management is regulated by the Laws of the Kyrgyz Republic: "On Radiation Safety of Population" (1999; 2014), Technical Regulations "On Radiation Safety" (2011), "On Licensing and Permitting Activities in the Kyrgyz Republic" (2013), as well as the "Code of rules to ensure radiation safety during radionuclide diagnostics with radiopharmaceuticals" (Orders of the Ministry of Health of the Kyrgyz Republic No. 227 dated 30.04.2015 and the Center for Standardization and Metrology under the Ministry of Economy of the Kyrgyz Republic No. 15 dated 22.05.2015. "Program of the Government of the Kyrgyz Republic for the Proper Management of Chemicals in the Kyrgyz Republic for 2015-2017" was adopted in 2015 by Decree No. 91 of the Government of the Kyrgyz Republic in order to ensure minimization of chemicals' harmful effects on the environment and public health.

The Program of the Government of the Kyrgyz Republic, on the protection of public health and development of the health care system for 2019-2030 "Healthy person –prosperous country", planned the following: the development and implementation of modern, effective standards and criteria in ensuring the safety of medical procedures, control of nosocomial infections, and utilization of technologies for the disposal of medical waste in health care organizations. Government Decree No. 719 dated 30.12.19 "On the issues of medical waste management and handling of mercury-containing products in health care organizations of the Kyrgyz Republic" approved the following: "Procedure for Handling Medical Waste" and "Procedure for Work and Handling of Mercury-containing Products". An important feature of this document is the obligation of all health care organizations to implement it, regardless of ownership. The document also introduces a ban on the use of

medical waste incineration technology due to its environmental hazards and harmful effects on the environment and human health, which is in accordance with the Stockholm and Basel Conventions.

Order of the Ministry of Health of the Kyrgyz Republic No. 526 dated 17.07.20 "On approval of the 2nd edition of the temporary standard operating procedures for health care organizations of the Republic during the COVID-19 pandemic", Appendix No.8 "Compendium of standard operating procedures for medical waste management" classifies all waste from COVID-19 patients as extremely epidemiologically hazardous waste of class "B". It describes the requirements for equipping inpatient and mobile teams, as well as the separation, identification, packaging, labeling, collection, and transportation of medical waste to the place of treatment (decontamination) and disposal.

In developing countries, to which, again, Kyrgyzstan belongs, additional hazards arise due to the fact that people rummage through garbage at waste disposal sites, that is, in garbage dumps (the so-called miners). Waste handlers are at immediate risk of injury from needle pricks and exposure to toxic and infectious materials.

In order to improve the safe medical waste management system, a series of trainings "Safe medical waste management system at the level of paramedic and obstetric station" were conducted in 100 first aid stations in the Chui and western parts of the Issyk-Kul regions. Trainings for medical workers of POSs were held at family medicine centers in Issyk-Kul (Karakol) and Chui regions. The trainings were conducted with the support of the GEF-UNDP project "Protecting human health and the environment from unintentional releases of persistent organic pollutants and mercury as a result of improper management of medical waste in Kyrgyzstan."

The existing legislation on Healthcare Waste Management (HWM) was revised and approved by the Government in February 2018 with the Decree on the "Instruction on the Management of Healthcare Waste in the Territory of the Kyrgyz Republic". The Governmental Decree "Instruction on the management of healthcare waste in the territory of the Kyrgyz Republic" covers all medical institutions regardless of ownership and allows to move away from the traditional approach to waste hazards and facilitates introduction of institutional concept of healthcare waste and application of strict requirements for collection, temporary storage, storage, transportation and disposal at the legislative level.

Kyrgyzstan ratified the Stockholm Convention on Persistent Organic Pollutants (POPs) in July 2005 and with GEF funding and UNEP support developed its National Implementation Plan (NIP) including a National Action

Plan (NAP) on POPs. The NIP was approved by the Kyrgyzstan Presidential Decree and transmitted to the Stockholm Convention in the year 2009. The project is directly linked and highly relevant to the implementation of the Stockholm Convention in Kyrgyzstan.

Since a joint project between the Ministry of Health and the Swiss Red Cross in 2005 demonstrated that proper healthcare waste management in hospitals greatly reduced nosocomial infections, HCWM has been a top priority for the Ministry of Health.

Since 2012, the Green Cross in partnership with the NGO ‘Ekois’ have implemented a project entitled, ‘Reducing Adverse Effects of Medical Waste on Health and Security in Kyrgyzstan by Improving Health Care Waste Management’. The project provided the gynaecological hospital in Bishkek with autoclave and other HCWM supplies (needle cutters, infectious waste containers, etc.). The hospital made savings by switching from chemical disinfection to autoclaving.

Target program for the management of medical waste and control of nosocomial infections in the Kyrgyz Republic, implemented by the Ministry of Health. As part of this program pilot projects were carried out in the Naryn region with the support of the Swiss Red Cross for the development and testing of autoclave technologies for the treatment of HCW intended for hospitals in rural areas.

Since 2011, the "Naryn model" was replicated/introduced in other parts of the country (rural areas) within the framework of the Kyrgyz- Swiss project on HCWM.

In 2019, the Government of the country issued a decree No. 719 "On the management of medical waste and mercury-containing products in health care organizations of the Kyrgyz Republic."

A practical guide "Infection control" was approved by the Ministry in 2018. And the guide "Water supply, sanitation and hygiene in health care organizations of the Kyrgyz Republic within the framework of infection control" appeared in June 2021.

TÜRKİYE

The principles related to the safe management of medical wastes in Türkiye have been determined by the Regulation on the Control of Medical Waste, which entered into force through publication in the Official Gazette dated January 25, 2017 and numbered 29959. The regulation covers the

principles regarding the medical waste generated as a result of the activities of healthcare institutions and the separate collection of these wastes at the places where they are produced, transportation within the healthcare facility, temporary storage, transportation to the medical waste processing facility and disposal. Infectious, pathological and sharp waste are defined as medical waste in the regulation. In addition, all individuals, institutions and organizations listed in Annex-1 of the Regulation that produce medical waste as a result of their activities are defined as healthcare institutions.

With the Regulation on the Control of Medical Wastes, municipal responsibilities related to the management of medical wastes are regulated in technical detail.

According to the regulation, the responsibility for separate collection of medical waste at its source, transportation and temporary storage within the health institution belongs to health institutions.

The responsibilities regarding the transportation / transportation of wastes from the temporary warehouses / containers of medical waste to the medical waste processing facility, sterilization and/or disposal, establishment / establishment, operation / operation of medical waste processing facilities for this purpose belong to metropolitan municipalities in metropolitan cities, municipalities in other places or to the persons and organizations whose powers they have delegated.

According to the regulation, medical waste can be disposed of by incineration. It is mandatory to dispose of pathological wastes treated with any chemical by incineration.

However, body parts and organs, including blood bags and blood reserves that have not been treated with any chemicals, can be processed in a sterilization facility. Only pathological wastes such as arms, legs, fetuses that are recognizable and do not pose a risk of infection can be buried. Pathological wastes that are requested to be buried are delivered to the patient or relatives of the patient who request it with a document to be issued by the health organization.

In the implementation of the burial procedure, the provisions of the Regulation on the Construction of Cemetery Sites and Funeral Transportation and Burial Procedures published in the Official Gazette dated 19/1/2010 and numbered 27467 are applied.

In the disposal of medical wastes by incineration, the provisions of the Regulation on the Incineration of Wastes published in the Official Gazette dated 6/10/2010 and numbered 27721 shall be complied with.

On the other hand, infectious wastes and cutting-penetrating wastes can be made harmless by undergoing a sterilization process. Wastes that have been rendered harmless and have lost their medical waste character can be disposed of in Class 2 landfills defined in the Regulation on Regular Storage of Wastes published in the Official Gazette dated 26/3/2010 and numbered 27533.

Health institutions are obliged to pay the expenses required for the collection, transportation, sterilization, and disposal of the wastes they produce to the municipality or the institutition to which it delegates its authority.

Subject to compliance with the provisions of the regulation, the medical waste fee, which will be the basis for collection, transportation, sterilization and disposal expenses, is determined and announced by the Local Environmental Board of the province where the medical waste occurs and notified to the Ministry every year. In determining the medical waste disposal fee, the transportation distance to the sterilization and/or disposal facility where the generated waste will go, as well as the sterilization and/or disposal costs, are taken into account.

The first sterilization facilities in Türkiye were established in 2008. As of September 2023, a total of 68 sterilization facilities and 3 incineration facilities provide medical waste management in 81 provinces.

Türkiye signed the Stockholm Convention on Persistent Organic Pollutants on May 23, 2001. The Convention was ratified by Law No. 5871, dated April 2, 2009 (Official Gazette No. 27200, dated April 14, 2009), and its approval was granted by the Council of Ministers Decision No. 2009/15272 (Official Gazette No. 27304, dated July 30, 2009). Türkiye became a party to the Convention on January 12, 2010. Türkiye developed National Implementation Plan) NIP on POPs.

On September 10, 1998, Türkiye signed the Rotterdam Convention on Prior Informed Consent in International Trade in Certain Hazardous Chemicals and Pesticides.

The ratification of the Convention was approved by Law No. 6988, dated March 9, 2017 (Official Gazette No. 30027, dated April 3, 2017), and its approval was decided by the Council of Ministers Decision No. 2017/10427 (Official Gazette No. 30141, dated August 1, 2017). Türkiye became a party to the Convention on December 20, 2017.

The accession of Türkiye to the Montreal Protocol on Substances that Deplete the Ozone Layer was approved by Law No. 3655, dated June 6, 1990 (Official Gazette No. 20554, dated June 20, 1990), and the accession was

decided by the Council of Ministers Decision No. 90/733 (Official Gazette No. 20629, dated September 8, 1990). Türkiye became a party to the Montreal Protocol on Substances that Deplete the Ozone Layer on December 19, 1991.

Türkiye has also ratified Minamata Convention.

CONCLUSION

Risks associated with hazardous medical waste exist at all stages of the medical waste management system. Healthcare workers and support staff working with this type of waste are at greatest risk of infection during transportation and handling. The following main risks are identified when handling medical waste: Infectious hazards, injuries associated with sharps/cutting waste, toxic and carcinogenic effects, environmental pollution, penetration through the injection site, wounds of the skin (during injections, operations, etc.), absorption through mucous membranes, less commonly, penetration through the respiratory system and digestive system.

Each country in the TURKPA region has a different background and characteristics of medical waste management policy. However, they should have common targets of implementing safe and environmentally healthy practices in the healthcare sector. The main goal must be the protection of human health and the environment from the hazardous effects of medical waste to further minimize the risks. It is significant to develop core principles for sustainable management of medical waste in Turkic states. Medical facilities need to use new technologies in waste disposal to reduce environmental pollution. TURKPA member states can cooperate in the relevant fields within the framework of international organizations that are members and in the framework of international agreements in which they are partners.

At the same time, biomedical waste disposal companies play a crucial role in healthcare. They ensure the safe and efficient management of biomedical waste. They collect and transport waste, employ effective treatment and disinfection processes, and comply with regulatory standards. They also provide training and education to healthcare facilities. These companies are committed to environmental sustainability. They implement waste reduction measures to minimize the impact on the environment. By partnering with biomedical waste disposal companies, healthcare facilities can focus on delivering quality care. They can leave the responsibility of waste management to the experts, knowing that it is being handled safely and efficiently. However, according to the Regulation on the Control of Medical Waste in force in Türkiye, municipalities are responsible for the collection, transportation, processing and disposal of medical waste from health institutions. Municipalities can transfer

these responsibilities by making a protocol with a company engaged in medical waste processing.

Sharing information and best practices regarding medical waste management between member states may include sharing successful policies, regulations, and technologies for medical waste management. Development of standards and regulations for the disposal, neutralization and processing of medical waste, organization of training and capacity building programs for health officials and waste management officials of member states, facilitating the transfer of environmentally friendly and cost-effective technologies for medical waste management among member states are important issues. This may include waste-to-energy technologies and advanced sterilization methods. Joint awareness campaigns and educational programs can inform the public, healthcare professionals, and waste management officers about the importance of proper medical waste management.

Cooperation within TURKPA on medical waste management can lead to more efficient, cost-effective and environmentally friendly practices by contributing to global sustainability goals.