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Legal Aspects of Hospital Waste Management based on Law Number 17 of 2023 Concerning Health

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A B S T R A C T

The abstract of this article discusses medical waste management in Indonesian hospitals with a focus on the implementation of related regulations and regulations, especially after the enactment of Law Number 17 of 2023 concerning Health. Medical waste, which contains potential dangers to the environment and public health, is a major concern in the context of safe and standardized management. This article uses a normative legal approach to analyze the laws and regulations governing medical waste management in hospitals. The research results show that even though there are regulations such as the Republic of Indonesia Minister of Health Regulation no. 18 of 2020, its implementation still faces challenges such as low compliance with procedures, lack of effective socialization, and the need for training for health workers. The recommendations put forward include increasing outreach, training health workers, using technology in medical waste management, regular audits, inter-agency cooperation, strict implementation of laws, as well as further research to increase the effectiveness of medical waste management. It is hoped that this article can contribute to efforts to improve medical waste management in Indonesian hospitals in order to better protect the environment and public health.

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INTRODUCTION

"Every person has the right to live in physical and spiritual prosperity, to have a place to live, and to have a good and healthy living environment and the right to receive health services," this is as regulated in the 1945 Constitution, Stake 28H paragraph 1. A healthy environment is the right of every Indonesian citizen. Environmental problems are getting more serious day by day, especially the medical waste that has piled up after the Covid-19 pandemic took place. Waste is a big problem in the current era of globalization, especially in big cities. Many efforts have been made to deal with it, both by local governments, the private sector and independently by the community, by reducing, recycling or destroying it. However, it can only be used for household waste. This is different with waste originating from medical facilities such as hospitals. This waste is included in the biohazard waste category, which is very dangerous for the environment because it contains viruses, bacteria and other dangerous substances. Therefore, this waste must be destroyed by burning it at a temperature of 800 degrees Celsius (Maxpelltechnology, 2015).

Environmental health efforts, which are defined as efforts to maintain the quality of the physical, chemical, biological and social environment in a health facility (hospital) to prevent disease and/or health problems caused by environmental risk factors (Permenkes RI, 2019). A hospital is a type of health facility that provides health services to individuals in whole or in part (Permenkes RI, 2010). Hospitals are divided into general hospitals and special hospitals based on their classification. General hospitals are hospitals that provide medical care for all types of illnesses, such as Regional General Hospitals (RSUD) which are differentiated based on their facilities and service capacity. A specialist hospital is a hospital that provides primary services in certain fields or types of disease based on scientific discipline, age group, organ, or type of disease (Diwanti, 2016). Most hospital waste consists of medical and non-medical waste, and both have different processing methods (Permadi, 2011). Developing hospital environmental management capabilities so that they are useful both consumptively and in a series of hospital management cycles and strategies. Today's hospital environmental management is no longer a partial, consumptive part. Hospital environmental management has developed from a partial consumptive component to a series of hospital management cycles and strategies. The aim is to improve the ability to manage the hospital environment so that it is beneficial as a whole. both directly and indirectly from improving the quality of extensive hospital services. Managing the hospital environment has many complex issues. One of the problems is hospital waste, which is very sensitive to government policy. Hospitals are one of the largest waste producers,

which can cause contamination of the surrounding environment, endangering residents and the hospital itself (Nurul et al, 2018).

Handling of B3 hospital waste that does not comply with regulations often results in environmental contamination and criminal acts. The effect on the hospital is a legal liability. What is related to the application of waste is the Republic of Indonesia Minister of Health regulation number 18 of 2020, namely regarding "medical waste management for area-based health service facilities". In article (2), it states "every health service facility is obliged to minimize the risk of environmental pollution and impact on health, misuse medical waste from health service facilities, and optimize the management of medical waste from health service facilities in an area, management of medical waste from health service facilities in an area is carried out. . This was regulated in 2020, but in 2023 a new law regarding health was issued, namely law no. 17 of 2023. This article discusses whether there is a connection between the implementation of medical waste management and law no. 17 of 2023 concerning health.

LITERATURE REVIEW

Hospital Waste Management

A hospital is a hospital complex or space used to accommodate, care for patients, provide and organize health services ranging from simple to specialist as well as specialist clinical branches such as laboratories, radiology and pharmacy. Hospitals are also waste disposal sites (Estiningtyas, 2010).

Liquid waste is all wastewater (including feces from medical and non-medical activities) and solid, liquid and gas waste generated by hospitals. hospitals, where there are microorganisms, toxic chemicals and radioactivity that can harm health. Waste gas is all gas produced by combustion in hospitals, such as incinerators, kitchens, generators, anesthetics and cytotoxic drugs. Hospital solid waste is all solid waste produced by hospital operations, such as B3 medical solid waste (Kepmenkes RI, 2004).

Health service facilities must manage their medical waste, whether in solid, liquid or gas form, in accordance with Minister of Environment and Forestry Regulation No. 56 of 2015 (PMLH 56/2015). This management includes six main stages, namely **Waste Reduction and Sorting, where Medical Waste Reduction** This is done by avoiding the use of materials containing hazardous and toxic substances (B3) if there are other safer alternatives, as well as implementing good governance in the procurement of B3 materials. **Sorting Medical Waste by means** Medical waste is sorted based on type, group and/or characteristics. B3 waste is placed in containers appropriate to its group, and periodic prevention and maintenance is carried out. Then, Medical waste is stored in temporary storage facilities such as B3 waste temporary shelters (TPS

B3), in containers appropriate to the waste group. Waste transportation is carried out by a licensed transporter from the waste generating location to the storage place (transfer depot) or to a waste processor who has a waste management permit. Waste is processed by waste producers or waste processors who have a B3 waste processing permit. Pathological waste and/or sharp objects are buried by the medical waste generator if there is no processing facility with an incinerator at that location. Burials are carried out by paying attention to the location, list of buried waste, maintenance of the burial site, and location permits. Fly ash and incinerator bottom ash (slag) are landfilled in sanitary landfill facilities after encapsulation and/or inertization. The storage location must meet the requirements stipulated in the laws and regulations regarding the implementation of household infrastructure and facilities. Management of medical waste in accordance with regulations is very important to protect public health and the environment from the negative impacts of B3 waste (Dwita & zamroni, 2021).

According to data from the Central Statistics Agency (BPS), every day, hospitals produce a lot of medical waste which is often toxic, especially solid waste, both medical and non-medical. The number of hospitals in Indonesia reached 3,112 units, an increase of 5.17% from 2,959 units in According to a study of hospitals in Indonesia, the average production of medical waste reached 18,460 tons. Further analysis shows that this medical waste comes from various health service facilities, including emergency hospitals, self-quarantine, detection tests, and vaccination activities. B3 medical waste includes used infusions, masks, vaccine bottles, syringes, face shields, bandages, hazmat, personal protective equipment (PPE), medical clothing, gloves, PCR and antigen tools, as well as swab cleaning alcohol. Monitoring results by the Directorate General of Waste, Waste and B3 Management show that the total amount of waste produced reached 55,063,993.82 tons, of which 55,060,917.97 tons were managed well, while 3,075.84 tons of waste were not managed by the Central Agency. Statistics, 2022). Medical waste and poor management problems harm the environment. First, medical waste degrades environmental quality, causing health problems for communities around hospitals. Second, occupational diseases caused by sharp medical waste, infectious substances or chemicals appear. Third, non-medical waste bins and trolleys are not washed every day, but once every three days, so that waste is spilled when transported, and medical trolleys also do not use buckets, so blood is spilled (Arifin 2018).

Legal Aspects of Law Number 17 of 2023

Several community groups are at risk of being affected by hospital waste disposal. First, patients who come to hospitals for treatment are a very vulnerable group. Second, hospital employees who interact with patients every day may be

the source of disease. Third, patient deliverers and visitors are also at risk of experiencing health problems. Fourth, residents who live around the hospital, especially if the hospital does not dispose of its waste properly into the surrounding environment. This can reduce the quality of the environment and the health of local residents. Therefore, hospitals must manage their waste properly and correctly through proper sanitation practices. Management of B3 waste from hospitals often causes environmental contamination, which can lead to criminal action. This occurs because waste handling is not in accordance with applicable legal provisions. As a result, hospitals must be legally responsible for these violations (Afiyah, 2023). Currently, Indonesia has issued a new law, namely Law number 17 of 2023. What is related to the problem of hospital medical waste is Law number 17 of 2023 article 106 paragraph 1 which reads "In the context of implementing environmental health, the process of managing medical waste originates from service facilities health must meet the technical requirements set by the minister." Then in law number 17 of 2023 article 106 paragraph 2 reads "the process of managing medical waste services originating from health service facilities as intended in paragraph (1) can be carried out by health service facilities as intended in paragraph 1 can be carried out by health service facilities that meet technical requirements or collaborate with other parties in accordance with statutory provisions. Then the responsibility for the answer is regulated in Law No. 17 of 2023, namely in article 383 which reads "the central government, regional government, and/or health service facilities are responsible for managing waste from outbreak and epidemic prevention activities.

METHODOLOGY

The author uses a normative legal approach in this article. This approach utilizes statutory and conceptual approaches. The legal materials used in this article come from primary and secondary legal materials. Primary legal materials include statutory regulations, official records or minutes in making laws, as well as judges' decisions. Meanwhile, secondary legal materials provide explanations of primary legal materials in the form of books, articles, legal journals, the internet, papers and other data that supports the writing of this article. The method for collecting legal materials in normative law is carried out through library research on legal materials. Data sources were obtained from primary and secondary data. Next, the author analyzes existing laws and conceptual analysis related to the title of the article to compare with other regulations.

RESEARCH RESULT

"Medical Waste Management for Regional-Based Health Service Facilities is an effort to manage medical waste in which all stages are carried out in a region according to regional needs and capabilities." Hospitals that manage their medical waste must meet established standards. Although there are hospitals that have incinerators, some are not operating because they have not received permits. Health service facilities, which produce medical waste with the potential to transmit disease and other health problems and pollute the environment, are required to manage medical waste. The results of the author's analysis show that the implementation of the Decree of the Minister of Health of the Republic of Indonesia no. 18 of 2020 is still less than optimal. This is because there are still many hospitals that do not meet good waste processing standards, as evidenced by the presence of medical waste in rubbish dumps (TPS) and final disposal sites (TPA) (Purwanti, 2018).

Based on WHO criteria, hospital waste management is good if the percentage of medical waste is 15%, but in reality in Indonesia it reaches 23.3%, with 20.5% for storage and 72.7% for transportation. 53.4% of hospitals have managed liquid waste and 51.1% have managed it with IPAL or septic tank (Arifin, 2018). This research is in line with the results of research conducted by Widayati (2017) which shows that there is a significant relationship between knowledge and attitudes towards medical waste disposal ($p = 0.001$). The supporting factors are the higher education of health workers with Diploma and Bachelor degrees so that they have good knowledge in terms of medical waste management (Widiyawati, 2017). Based on data obtained from Waste Management at Dr. Central General Hospital. Mohammad Hoesin, South Sumatra Province, data obtained from Waste Management in 2020 the waste achievement was 414,324 tons, in 2021 the waste achievement was 588,408 tons and in 2022 the waste achievement was 1657,392 tons, while the data obtained from Waste Management at Dr General Hospital . H. Mohamad Rabain regarding medical waste management in 2020, the achievement of infectious medical waste was 29,948 tons and non-infectious medical waste was 92,565 tons, in 2021 the achievement of infectious medical waste was 44,455 tons and non-infectious was 78,047 tons, then in 2022 the achievement of infectious medical waste was 78,047 tons. 44,627 tons and non-infectious 74,188 tons. What is related to the problem of hospital medical waste is that in Law number 17 of 2023 article 106 paragraph, law number 17 of 2023 article 106 paragraph 2 states "the process of managing medical waste services originating from health service facilities as intended in paragraph (1) can carried out by health service facilities as intended in paragraph 1 can be carried out by health service facilities that meet technical requirements or collaborate with other parties in accordance with the provisions

of statutory regulations. Then the responsibility for the answer is regulated in Law No. 17 of 2023, namely Article 383.

DISCUSSION

According to the Regulation of the Minister of Health of the Republic of Indonesia Number 18 of 2020 concerning "Medical Waste Management in Regional-Based Health Service Facilities", medical waste is the result of waste from medical activities in health service places. Health service facilities include all equipment and locations used to provide various types of health services, including those that are promotive, preventive, curative and rehabilitative, which can be provided by the central, regional or community government. Implementation of Regulation of the Minister of Health of the Republic of Indonesia Number 18 of 2020 in the management of medical waste in hospitals faces several obstacles as follows: management of medical waste is not in accordance with applicable procedures, especially in terms of transporting and sorting hazardous medical waste (B3), which can cause contamination, socialization which is minimal regarding medical waste management. Socialization is often only carried out after a discovery or problem occurs, even though it should be carried out earlier as a preventive measure to avoid negative impacts on affected residents and the environment, and a mismatch of Human Resources (HR) with their duties and responsibilities. Many human resources need further guidance and training so as not to repeat mistakes that can cause harm to the environment or hospital. This is caused by a lack of understanding or sense of responsibility regarding their role in medical waste management (Afiyah, 2023). The emergence of new regulations in Indonesia, namely Law number 17 of 2023. This law stipulates that the government must be responsible for managing medical waste from health services

CONCLUSIONS AND RECOMMENDATIONS

Based on the analysis that has been carried out on the management of medical waste in Indonesian hospitals, even though regulations such as the Republic of Indonesia Minister of Health Regulation No. 18/2020 already exist, the implementation of medical waste management still faces big challenges. These include a lack of compliance with established management procedures, a lack of effective outreach, and the need for better training for health workers to minimize the risk of environmental contamination. Medical waste, especially those containing hazardous materials such as viruses and chemicals, has great potential to pollute the environment if not managed properly. This can threaten the health of local communities and reduce the overall quality of the environment. The new law on health, namely Law no. 17 of 2023, emphasizes the government's responsibility in managing medical waste from health service

facilities. This provides a stronger legal framework to ensure that medical waste management is carried out in accordance with established technical standards. To increase the effectiveness of medical waste management, collaborative efforts are needed between the government, hospitals, and the community. Intensive outreach, increased training of health workers, and stricter law enforcement against waste management violations can be effective steps in overcoming this problem. Thus, awareness of the importance of good medical waste management needs to be increased comprehensively at all levels, starting from the government, health service facilities, to the community, to maintain the health of the environment and society as a whole in accordance with the mandate of the 1945 Constitution Article 28H paragraph 1.

Recommendations that can be considered to increase the effectiveness and sustainability of medical waste management, namely carrying out intensive outreach to all related parties, including health workers, hospital staff, and the general public, regarding the importance of safe and standardized medical waste management. This education must include proper methods for collecting, sorting, and managing medical waste, increasing training, and providing resources for health workers in terms of medical waste management. This includes training on the proper use of PPE, hazardous medical waste management techniques, and maintenance of waste processing equipment such as incinerators, Using the latest technology and innovations in medical waste management, such as more efficient liquid waste processing systems, the use of environmentally friendly incinerator technology, or using environmentally friendly materials in processing medical waste, carrying out routine audits and monitoring of the medical waste management process in hospitals. This aims to ensure compliance with established procedures and standards as well as detect potential improvements that are needed. Encourage cooperation between hospitals, local governments, and the private sector in managing medical waste. These partnerships may include the use of shared waste management facilities or community-based medical waste management programs, ensuring strict enforcement of laws against medical waste management violations. This includes strict sanctions for hospitals or parties who violate medical waste management regulations and encourages further research in medical waste management, including research on more environmentally friendly processing technologies, studies of the environmental health impacts of medical waste, and innovation in the reduction of medical waste. By implementing these recommendations comprehensively, it is hoped that we can improve the efficiency and safety of medical waste management in Indonesian hospitals, thereby better protecting the environment and public health.

FURTHER STUDY

For further study on the topic of medical waste management in Indonesian hospitals, several avenues can be explored to deepen understanding and propose innovative solutions, such as conduct comparative studies between different regions or countries with successful medical waste management practices. This could involve examining regulatory frameworks, technological solutions, and cultural factors that contribute to effective waste management, Perform comprehensive environmental and health impact assessments of current medical waste management practices in Indonesian hospitals. This would help identify specific areas of concern and quantify the benefits of improved waste management practices, Research and develop new technologies or adapt existing ones that are more sustainable and efficient for medical waste treatment. This could include advancements in sterilization methods, recycling technologies for certain types of medical waste, or innovations in waste segregation, Analyze the effectiveness of existing policies and regulations related to medical waste management in Indonesia. Evaluate their implementation challenges, gaps, and potential revisions needed to enhance compliance and effectiveness, Explore strategies for enhancing community engagement and awareness regarding medical waste management. This could involve educational campaigns, public consultations, or participatory approaches to foster sustainable practices at both institutional and community levels, Investigate the economic feasibility and cost-effectiveness of different medical waste management strategies. Assess the financial implications of adopting new technologies or improving existing infrastructure to manage medical waste more sustainably, Conduct detailed case studies of individual hospitals or healthcare facilities that have implemented successful medical waste management practices. Document their experiences, challenges faced, and lessons learned to provide practical insights for replication in other settings, Engage in advocacy efforts to influence policymakers and stakeholders to prioritize sustainable medical waste management practices. This could involve lobbying for stronger regulations, incentives for innovation, or support for capacity-building initiatives. By exploring these avenues for further study, researchers can contribute to the development of evidence-based strategies and solutions that promote safer, more sustainable medical waste management practices in Indonesian hospitals and beyond.

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