

## **CHAPTER I**

### **INTRODUCTION**

#### **1.1 Background of Research**

Health is one of the human rights that all human beings must obtain. The Universal Declaration of Human Rights regulates the right to health on December 10, 1948. The Indonesian government also promises the above to its citizens as stated in the 1945 Constitution article 28H paragraph 1. Based on this, the right to health is considered the basis in the application of human rights because when a person does not get the right to health, that person will get sick which causes his activities to be hampered..

Article 34(3) of the 1945 Constitution states: The state is responsible for the provision of proper health care facilities and public service facilities. Legal protection of the right to obtain health services is contained in Law Number 17 of 2023 concerning Health. The right and opportunity to obtain health services applies to all people, and the community can utilize health resources provided by the government and / or local governments.

Hospitals as a means of health efforts that organize health service efforts which include outpatient services, inpatient care, emergency services, medical and non-medical services which in carrying out the process of these activities will have a positive and negative impact.<sup>1</sup>

Based on the Decree of the Minister of Environment of the Republic of Indonesia No. KEP-58/MENLH/12/1995, every hospital is required to provide liquid waste and solid waste management facilities to allow all communities to enter. The waste must meet the quality standards set for liquid waste. Indiscriminate disposal of medical waste causes various infections as it contains pathogens that cause various infections such as respiratory tract infections (tuberculosis and Streptococcus pneumonia) and measles virus. In addition, medical waste increases the risk of contracting

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<sup>1</sup> Sumisih. Studi Pengelolaan Limbah Berbahaya Beracun (B3) di Rumah Sakit Islam Sultan Agung Semarang tahun 2010. Faculty of Sports Science, Unnes. Semarang.

diseases such as hepatitis A, B, or C, as well as HIV and AIDS, which can be spread through items contaminated with blood or body fluids.

Based on Minister of Health Regulation (Permenkes) Number 07 of 2019, B3 medical waste generated by hospitals can cause environmental pollution and health problems. Several groups of people are at risk of health problems, namely patients who come to the hospital, hospital employees, visitors/deliverers of sick patients, and people who live in the hospital area.

In this case, the medical waste may have been contaminated by blood, body fluids, or other potentially infectious materials. If not managed appropriately, medical waste can be harmful to humans and other living things.<sup>2</sup> Allah says in surah Al-Baqarah verse 195:

وَأَنْفِقُوا فِي سَبِيلِ اللَّهِ وَلَا تُلْقُوا بِأَيْدِيكُمْ إِلَى التَّهْلُكَةِ وَأَحْسِنُوا إِنَّ اللَّهَ يُحِبُّ

الْمُحْسِنِينَ

*Spend in the way of Allah and do not put yourselves into destruction, and do good. Of course, Allah loves those who do good. (Al Baqarah: 195).*<sup>3</sup>

In the context of organizing Environmental Health, the process of managing medical waste originating from Health Care Facilities must meet the technical requirements set by the Minister.<sup>4</sup>

To reduce environmental hazards, it is important to manage medical waste effectively. Various hazardous waste management laws and regulations have been established, including Law Number 17 Year 2023 on Health in Chapter 12: Extraordinary Events and Outbreaks. Hazardous waste management is also regulated in the Regulation of the Minister of Health of the Republic of Indonesia Number 18 of 2020 on the Management of Medical Waste of Area-Based Health Care Facilities. Efforts to maintain

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<sup>2</sup> Mita Defitri, "Begini Cara Memilah Limbah Medis B3 menurut Klasifikasi." <https://waste4change.com/blog/begini-cara-pemilahan-sampah-medis-b3-sesuai-klasifikasinya/> (accessed on February 13, 2024)

<sup>3</sup> Al Quran, Al baqarah: 195

<sup>4</sup> Pasal 106 Undang-Undang No. 17 Tahun 2023 tentang Kesehatan

environmental health are carried out by regulating and managing medical waste in health facilities.

Provisions regarding the management of hazardous waste are based on Law No. 32/2009 on Environmental Protection and Management (UUPLH). Effective regulation and management of medical waste can help prevent environmental pollution, minimize the spread of infectious diseases, and prevent improper waste disposal, thus ensuring the protection of environmental health.

Given the magnitude of the negative impact of hazardous medical waste, the handling of hazardous medical waste must be done properly, starting from containerization, transportation, temporary storage and processing. Good hazardous medical waste management must also be supported by the use of appropriate personal protective equipment (PPE) to carry out hazardous waste management tasks.

The negative impact of the generation of B3 medical waste can lead to potential health risks, the work environment and disease transmission between patients and hospital employees or visitors. So it is necessary to manage B3 waste properly in accordance with established laws and regulations so that these negative impacts do not occur.

Yasyfin Darussalam Gontor Hospital is one of the health resources available in Ponorogo Regency. The hospital is located at Jl. Dukuh Gontor II, Gontor Village, Mlarak District. RS Yasyfin Darussalam Gontor is a development of the Student and Community Health Center. RS Yasyfin Darussalam Gontor obtained an operational permit with PPK Code 3502157 since November 2021 and was inaugurated on February 21, 2022.<sup>5</sup>

The hospital, which is under the auspices of the Darussalam Gontor Modern Waqf Maintenance and Expansion Foundation, is an educational foundation that presents a model of health care that combines clinical functions with educational missions. The main uniqueness of this hospital

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<sup>5</sup> Interview with Rafif Maulana, Staff of Yasyfin Darussalam Gontor Hospital, on February 5, 2024

is its relationship with educational institutions. By being under an educational foundation, the hospital not only focuses on providing quality healthcare services but also acts as an educational laboratory where students can gain hands-on experience and guidance from experienced professionals.

Hospitals, as health facilities that organize health services and as a place of education for health workers and research, are one of the sources of infectious, pathological, chemical, sharps, pharmaceutical waste, cytotoxic waste, and radioactive waste, which are hazardous and toxic medical waste. Several incidents were found that medical waste disposal at Yasyfin Hospital has not been carried out properly and correctly.

Based on the data above and the incidence of B3 waste, the researcher analyzed the management of B3 waste at Yasyfin Darussalam Gontor Hospital in accordance with applicable law. Until now, there has been no research on the management of Hazardous and Toxic Medical Waste (B3) at Yasyfin Darussalam Gontor Hospital.

Based on the background that has been explained, proper management of hazardous and toxic waste is very important so it is necessary to conduct research on the process of hazardous and toxic medical waste management in accordance with applicable Indonesian law.

Thus, researchers will examine the legal analysis and implementation of hazardous and toxic waste management at Yasyfin Darussalam Gontor Hospital in Ponorogo.

## **1.2 Problem Formulation**

From the above background, the researcher raises the problem formulation in this study as follows:

1. How is Hazardous and Toxic Waste managed by Yasyfin Darussalam Gontor Hospital?
2. How is analysis of the compliance of Hazardous and Toxic Waste Management at Yasyfin Darussalam Gontor Hospital in Ponorogo with applicable laws and regulations?

## **1.3 Purposes and Benefits of Research**

## 1. Purposes of Research

1. To find out about the management of Hazardous and Toxic Waste that applies at Yasyfin Darussalam Gontor Hospital.
2. To find out if the waste management at the hospital complies with applicable laws and regulations.

## 2. Benefits of Research

### a. Theoretical Benefits

The theoretical benefits, namely the research results, are expected to provide input and ideas for hospitals and the community in the management of hazardous and toxic waste. In addition, to prevent medical waste pollution in the Yasyfin Darussalam Gontor Hospital environment.

### b. Practical Benefits

Practical benefits, namely the results of research are expected to provide understanding to hospitals, communities or certain agencies regarding the management of B3 waste.

## 1.4 Literature Review

From the observation of researchers, there are several studies related to waste treatment in hospitals, this research is expected to complement previous research studies and some of these studies are:

1. Ayu Annisa's thesis, a student from the Faculty of Science and Technology at Ar-Raniry State Islamic University in Banda Aceh in 2020 with the title "Evaluasi Pengelolaan Limbah Medis Bahan Berbahaya Beracun (B3) Di Rumah Sakit Umum Daerah Cut Meutia Kabupaten Aceh Utara." The purpose of this study is evaluation of the B3 medical waste management system at the CM Hospital in North Aceh Regency there are still several criteria that are not in accordance with the criteria of Kepmenkes Number 1204 of 2019 and Permen LHK Number 56 of 2015. The evaluation of B3 medical waste management reveals several non-compliance issues, including: the personal protective equipment (PPE) used by hazardous waste management

personnel and cleaning staff does not meet the standards set by Permen LHK Number 56 of 2015. During the waste sorting process, there remains a mix of B3 medical and non-medical waste that has not been properly separated according to type, group, and characteristics. Additionally, the transportation of B3 medical waste lacks a designated route, which can disrupt hospital operations. Furthermore, the storage area for B3 medical waste does not comply with the established requirements for waste storage facilities.<sup>6</sup> This research has differences in the object of research, the research conducted by Ayu Annisa was conducted at the Cut Meutia Regional General Hospital while the author's research was conducted at the Yasyfin Darussalam Gontor Hospital.

2. Journal of Environmental Health Vol. 10, No.3, July 2018. "Pengelolaan Limbah Padat Bahan Berbahaya Dan Beracun (B3) Rumah Sakit Di Rsud Dr.Soetomo Surabaya" by Alvionita Ajeng Purwanti, Department of Environmental Health, Faculty of Public Health, Universitas Airlangga. From the research, Solid Waste Management of Hazardous and Toxic Materials (B3) Hospitals carried out at RSUD Dr.Soetomo Surabaya is in accordance with the requirements listed in the Regulation of the Minister of Environment and Forestry of the Republic of Indonesia Number P.56 of 2015 starting from the reduction and sorting of B3 waste, storage of B3 waste, transportation of B3 waste and processing of B3 waste.<sup>7</sup> From the journal, there are differences in the object of research, the research conducted by Alvionita Ajeng Purwanti was conducted at Dr. Soetomo Regional General Hospital while the author's research was conducted at Yasyfin Darussalam Gontor Hospital.

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<sup>6</sup> Ayu Annisa, 'Evaluasi Pengelolaan Limbah Medis Bahan Berbahaya Beracun (B3) Di Rumah Sakit Umum Daerah Cut Meutia Kabupaten Aceh Utara', *Universitas Islam Negeri Ar-Raniry Banda Aceh*, 2020, pp. 1–61.

<sup>7</sup> B Beracun and others, 'Pengelolaan Limbah Padat Bahan Berbahaya Dan Beracun (B3) Rumah Sakit Di Rsud Dr.Soetomo Surabaya', 2015.



3. Journal of Hazardous and Toxic Waste Management “Analisis Pengelolaan Limbah Bahan Berbahaya Dan Beracun (B3) Di Indonesia” by Yurnalisdel, Atma Jaya Indonesian Catholic University, Jakarta, Indonesia. Based on the research conducted, it can be concluded that the management of hazardous and toxic waste in the stages of collection, separation, storage, transportation, processing and waste disposal must be carried out properly and safely in accordance with applicable laws and regulations. This is done to minimize as much as possible the impact that will occur if hazardous and toxic waste management is not carried out properly.<sup>8</sup> The journal has differences with the author's research, namely at this journal uses library research methods while the author uses field research methods.
4. Journal of Public Health Nutrition Media, Vol 11, No 02 December 2022. “Analisis Pengelolaan Limbah Medis B3 Rumah Sakit Umum Daerah Dr. R. Sosodoro Djatikoesoemo Bojonegoro”, by Rusyda Sheffani Abbad and Khuliiyah Candraning Diyanah, Department of Environmental Health, Faculty of Public Health, Universitas Airlangga, Campus C Mulyorejo, 60115, Surabaya, East Java, Indonesia. Produced that the process of B3 medical waste management at the Dr. R. Sosodoro Djatikoeso Regional General Hospital. Sosodoro Djatikoesoemo Regional General Hospital is still not carried out in accordance with Permen LHK No. 56 of 2015, there are still many management processes that are not carried out by B3 medical waste management officers which include: reduction and sorting of waste in an orderly manner, storage of waste is not separated based on its type and characteristics, symbols and labels are not installed to distinguish the characteristics of B3 waste, there is no orderly in-situ transportation of B3 waste from its source, periodic recording and weighing of B3 waste is not carried out, operating procedures and delivery of

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<sup>8</sup> Yurnalisdel Yurnalisdel, ‘Analisis Pengelolaan Limbah Bahan Berbahaya Dan Beracun (B3) Di Indonesia’, *Jurnal Syntax Admiration*, 4.2 (2023), pp. 201–8, doi:10.46799/jsa.v4i2.562.

incinerator ash are not carried out in an orderly manner, recording of incinerator temperature is not carried out periodically by B3 medical waste management officers and officers do not use PPE completely so that there are B3 medical waste management officers who are pricked by needles and infectious sharp objects.<sup>9</sup> From the journal, there are differences in the object of research, the research conducted by Rusyda Sheffani Abbad and Khuliyah Candraning Diyanah was conducted at the Dr. R. Sosodoro Djatikoesoemo Regional General Hospital while the author's research was conducted at the Yasyfin Darussalam Gontor Hospital.

5. Journal of Environmental Science (2024), 22 (2): 365-374, ISSN 1829-8907. "Pengelolaan Limbah Medis Rumah Sakit yang Berkelanjutan: Eksplorasi Strategi Ekonomis dan Ramah Lingkungan" by Yenni Ciawi, Ni Made Utami Dwipayanti, and A.T. Wouters. The journal found that 3R efforts can be applied in hospital medical waste management. Hospital solid waste sorting is best done at the source by applying more detailed waste bins so that further processing can be done more easily and the amount of medical waste that must be sent to the incinerator can be reduced. Processing at the source can also reduce the risk of transportation and reduce management costs because the treated medical waste can be considered as ordinary waste that does not require special requirements in transportation and further processing. The habit of sorting medical waste at the source and integrated waste management must be carried out routinely involving all levels of the hospital from the hospital director, doctors, nurses, to cleaning staff. The commitment of all management with a reasonable allocation of funding for medical waste management facilities/ infrastructure will greatly support the success of management which will ultimately reduce

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<sup>9</sup> Rusyda Sheffani Abbad; Khuliyah Candraning Diyanah, 'Analisis Pengelolaan Limbah Medis B3 Rumah Sakit Umum Daerah Dr . R . Sosodoro Djatikoesoemo Bojonegoro', *Media Gizi Kesmas*, 11.56 (2022), pp. 494–99.



the generation of medical waste and will reduce management costs and reduce environmental health risks.<sup>10</sup> This study provides a program for managing waste, while the author conducted field research on the implementation of hazardous waste management practices that have been running in hospitals.

6. Indonesian Journal of Social Technology, Vol. 4, No. 2, February 2023. “Perkembangan Pengaturan Hukum Limbah Berbahaya dan Beracun (Limbah B3) di Indonesia.” By Farida Nur Hidayah, Kalimantan Institute of Technology. According to the journal, waste is defined by Government Regulation Number 101 of 2014 on Hazardous and Toxic Waste Management as the byproduct of a business and/or activity. Hazardous and Toxic Substances, abbreviated as B3, are defined as materials, energy, and/or other components that, due to their characteristics, concentration, and/or quantity, can directly or indirectly pollute and/or harm the environment, as well as pose risks to the health and survival of humans and other living organisms. Hazardous and Toxic Waste, referred to as B3 Waste, is the byproduct of a business and/or activity that contains B3 substances. In contrast to the regulation in Law No. 32 of 2009 concerning Environmental Protection and Management, namely hazardous and toxic waste, hereinafter referred to as B3 Waste, is the residue of a business and / or activity containing B3. The first regulation on hazardous and toxic waste was the Loodwit Ordonnantie concerning the Ordination of Lead Carbonate and then developed until now, where the last regulation governing hazardous and toxic waste is Government Regulation Number 101 of 2014 concerning Hazardous and Toxic Waste Management.<sup>11</sup> The work provides an explanation of developments that apply from time to time, while the

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<sup>10</sup> Yenni Ciawi, Ni Made Utami Dwipayanti, and Ardhan Tiestian Wouters, ‘Pengelolaan Limbah Medis Rumah Sakit Yang Berkelanjutan: Eksplorasi Strategi Ekonomis Dan Ramah Lingkungan’, *Jurnal Ilmu Lingkungan*, 22.2 (2024), pp. 365–74, doi:10.14710/jil.22.2.365-374.

<sup>11</sup> Farida Nur Hidayah, 'Perkembangan Peraturan Hukum Limbah Berbahaya dan Beracun (Limbah B3) di Indonesia', *Jurnal Teknologi Sosial Indonesia*, 4.02 (2023), pp. 211-25, doi:10.59141/jist.v4i02.579.

research conducted by the author is research by going to the field and analyzing the management of b3 waste that has been running.

## **1.5 Research Methods**

### **1.5.1 Type of Research**

In this research, the author uses a research method characterized by normative juridical research. The normative juridical research method is a library legal research conducted by examining library materials or secondary data only.<sup>12</sup> Normative juridical research, which is research focused on examining the application or rules or norms in positive law.<sup>13</sup>

By its nature, this research is descriptive in nature which aims to describe how hazardous and toxic medical waste management applies at Yasyfin Darussalam Gontor Hospital. In it, there are also efforts to describe, analyze and interpret the object of the problem. In this case, it explains how hazardous and toxic medical waste management occurs at Yasyfin Darussalam Gontor Hospital.

### **1.5.2 Data Type**

Primary Data: The first data that will be used by the author is sourced from primary data obtained through observation, interviews and questions and answers to the relevant parts of B3 waste management officers at Yasyfin Darussalam Gontor Hospital.

Secondary Data: Secondary data are laws, ministerial regulations, government regulations, or legal sources that regulate waste management regulations in Indonesia. In addition, there is a collection of literature that explains and discusses primary data in the form of articles, journals, books and previous theses related to

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<sup>12</sup> Soerjono Soekanto dan Sri Mahmudji, *Penelitian Hukum Normatif, Suatu Tinjauan Singkat*, (Jakarta: Raja Grafindo Persada, 2003), hlm. 13

<sup>13</sup> Soerjono Soekanto & Sri Mamudji, *Penelitian Hukum Normatif Suatu Tinjauan Singkat*(Jakarta: Rajawali Pers, 2001), hlm.51.

the management of B3 medical waste. The primary legal materials used in this research are:

1. Law Number 17 of 2023
2. Minister of Health Regulation Number 18 of 2020
3. Permen LHK Number 6 of 2021 concerning Procedures and Requirements for Toxic Hazardous Waste Management
4. Government Regulation No. 22 Year 2022 on the Implementation of Environmental Protection and Management
5. Government Regulation Number 101 Year 2014 Hazardous Waste Management

### **1.5.3 Data Collection Methods**

This research looks at the effectiveness of a Law, Government Regulation and Ministerial Regulation and Research that wants to find a relationship (correlation) between various symptoms or variables as a data collection tool consists of document study, observation, and interviews.<sup>14</sup> The data collection methods include document analysis or library research, as well as interviews.<sup>15</sup> The Data's is collected by:

#### **1. Observation**

Observation is carried out by conducting direct observation of the work environment to obtain data on how B3 medical waste is processed at Yasyfin Darussalam Gontor Hospital.

#### **2. Interview**

The interview technique was carried out by holding a dialogue or question and answer with the relevant parts, namely the B3 waste management officer as a consideration and the

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<sup>14</sup> Amiruddin, Pengantar Metode Penelitian Hukum, Jakarta: PT Raja Grafindo Persada

<sup>15</sup> Amiruddin, Pengantar Metode Penelitian Hukum, Jakarta: PT Raja Grafindo Persada, 2012, p. 34.

Director of Yasyfin Darussalam Gontor Hospital, Dr. Muchlas Hamidy as resource person and the person in charge of B3 waste, Novika Dwi Cahyanti, A.Md.Kes.

### 3. Documentation

Documentation is done by collecting data and studying hospital documents and records related to the treatment of hospital petological medical waste.

#### 1.5.4 Data Analysis Method

The method of data analysis in normative juridical research combines legal and normative approaches. The data that has been obtained is then analyzed through a qualitative analysis approach, namely by observing the data obtained and connecting each data obtained with the provisions and legal principles related to the problem under study. After the data is collected, it is then processed by classifying it based on what is related to the management of B3 medical waste. The analysis method used in this research is a qualitative method.

Qualitative research methods are research that uses methods, steps, and procedures that involve more data and information obtained through respondents as subjects who can devote their own answers and feelings to get a holistic overview of the matter under study.<sup>16</sup>

This research uses qualitative methods, namely observation, interviews, or document review. This qualitative method is used because of several considerations. First, adjusting qualitative methods is easier when dealing with multiple realities. Second, this method presents directly the nature of the relationship between researchers and respondents. Third, this method is more sensitive

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<sup>16</sup> Aan Komariah, Djam'an Satori. Metode Penelitian Kualitatif. Bandung, Alfabeta. (2017)

and more able to adjust to many sharpening joint influences on the value patterns encountered.<sup>17</sup>

## 1.6 Systematization of Writing

To provide ease of understanding and provide a comprehensive outline, the thesis systematics is divided into three parts. The systematics are:

1. The First Part of the Thesis, including the front cover page, title page, abstract, ratification page, motto and dedication, preface, table of contents, list of figures, list of tables, and list of attachments..
2. The main of the thesis, containing four (4) chapters, namely,
  - CHAPTER I INTRODUCTION, contains background, identification and limitation of problems, problem formulation, objectives, benefits, and writing systematics.
  - CHAPTER II LITERATURE REVIEW, contains theories that strengthen research such as the theory of evidence, the theory of sworn evidence, the theory of proof, and matters relating to it. contains research locations, tools and materials used, research variables, data collection methods, data analysis methods and data processing.
  - CHAPTER III RESULTS AND DISCUSSION, discusses the management of hazardous and toxic waste applied at Yasyfin Darussalam Gontor Hospital. In addition, a table of conformity between the applicable law in Indonesia and the waste management applied in the hospital is presented.
  - CHAPTER IV CLOSING THE DECISION, which contains conclusions and suggestions from the discussion described above.

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<sup>17</sup> Adhi Kusumaastuti and Ahmad Mustamil Khoiron, *Metode Penelitian Kualitatif*, (Semarang: Institut Pendidikan Soekarno Pressindo, 2019), hlm. 10-11

3. The final part of the thesis contains a bibliography and appendices. The contents of the bibliography are information on the sources of literature used in the preparation of the thesis. The appendix is used to obtain data and information that complements the thesis description

