

Research Article

Description of Waste Management at Bahteramas General Hospital

Gusti Ayu Kade Budiarti, S.Kep., Ns¹, Muharni¹, Syamsiah Saing¹, Sri Asia¹, Ramadhan Tosepu*¹

¹Department of Magister of Public Health, Postgraduate Halu Oleo University Indonesia

²Komite PPI RSU Bahteramas Southeast Sulawesi Province

Abstract.

General Hospital South East Sulawesi Province is classified as a Class B hospital and medical services generate medical waste from inpatients, outpatients and emergency rooms daily. This study aims to determine the waste management's description at Bahteramas General Hospital Southeast Sulawesi Province. The nature of this study is descriptive, using qualitative methods. Data were collected through in-depth interviews and observations. This study used an interview and observational tool, in which researchers prepared questions and a checklist test. Data analysis is based on Minister of Environment and Forestry Regulation No. 56 of 2015, which stipulates procedures and technical requirements for treating hazardous and toxic waste from health facilities. The management of waste at Bahteramas General Hospital depends on the type of waste. Liquid infectious waste from all wards and installation rooms is dumped into the septic tank, which is connected directly to hospital's IPAL. For the management of sharp waste/syringe, they are put into safety boxes. There is also cytotoxic waste (chemotherapy waste) which is put into a purple trash bag, and radiotherapy waste from the radiology room, which is put into a red trash bag, while the pharmaceutical waste is put into a brown trash bag. So it can be concluded that waste management in the treatment room of Bahteramas General Hospital Southeast Sulawesi Province reached 91.98% in July to September. In the assessment item of waste of sharp objects, it is put into a safety box, and the infectious liquid waste dumped into the canal connected to IPAL has reached 100%.

Keywords: Waste Management, Bahteramas General Hospital Southeast Sulawesi Province

1. Introduction

In addition to having positive impacts as a health facility, hospitals also have a negative impact, namely producing waste, so they need to get attention.[2] Direct contact with sharp objects in the form of syringe can cause Hepatitis B and C infection, as well as HIV. Several health problems have something to do with improper disposal of hospital waste such as typhoid, cholera, malaria, skin diseases, intestinal parasitosis, and hepatitis.[3]

According to the Ministry of Health's Decree No. 7 of 2019 on Environmental Hygiene in Hospitals, hospitals as health care institutions must protect their staff, patients, visitors

Corresponding Author:
Ramadhan Tosepu; email:
tosepu@uho.ac.id

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and the communities surrounding them from environmental risk factors. Hospitals are classified as generating waste from medical and non-medical activities that are highly contagious and have a large environmental impact.[4] Government Regulation No. 101 of 2014 Hazardous Waste Based on its disposal, solid medical waste can pose risks to health, working environment and disease transmission. This ordinance requires hospitals, as places providing medical services to the community, to dispose of medical waste appropriately and in accordance with relevant regulations.[5]

According to Article 59 of Law Number 32 of 2009 concerning Environmental Protection and Management, hospitals that produce hazardous and toxic waste are required to manage the waste they produce independently or their management is handed over to other parties that have permission in accordance with the provisions of laws and regulations.[6] According to the United States Environmental Protection Agency (US-EPA), solid medical waste is solid waste that can cause disease. Infectious waste, toxic waste and chemical waste are part of solid waste and can endanger human health and the environment. The US EPA solid waste composition is 22% medical waste, 1% pharmaceutical waste, and 77% household waste.[7]

The production of medical waste in hospitals in Indonesia nationally is estimated at 376,089 tonnes/day. This amount of waste has the potential to pollute the environment and possibly cause work accidents and disease transmission.[8] The management of medical and non-medical waste in hospitals is extremely needed for the comfort and cleanliness of the hospital because it can break the chain of transmission of infectious diseases, especially nosocomial infections.[9]

Based on conformity with RI Ministerial Regulation Number 340 of 2010, Bahteramas General Hospital Southeast Sulawesi Province is classified as a class B hospital where healthcare service produces medical waste every day coming from inpatient rooms, outpatient rooms, emergency rooms and so on.[10] Meanwhile, based on conformity with RI Law Number 44 of 2009 Bahteramas Hospital Southeast Sulawesi Province is classified as general hospital based on type of hospital service and as government hospital based on its management.[11]

Waste that can be categorized as medical solid waste in hospitals is infectious, pharmaceutical & B3, cytotoxic and sharp objects that have the potential to cause a risk of work accidents and disease transmission.

Based on the literature studies above, the researcher will discuss about "**Description of Waste Management at Bahteramas General Hospital.**"

2. Research Methodology

The design of this study is descriptive study by using qualitative method. With Cross Sectional Approach where independent variable (hospital waste) meanwhile dependent variable (waste management) data was obtained by using in-depth interview and observation. In this research, the researcher interviewed several people, namely room attendants and sanitation officers, waste management officers, cleaning service officers. This research used interview and observation instruments, the researcher prepared questions and checklist test.

3. Result

Waste Management at Bahteramas General Hospital Southeast Sulawesi Province

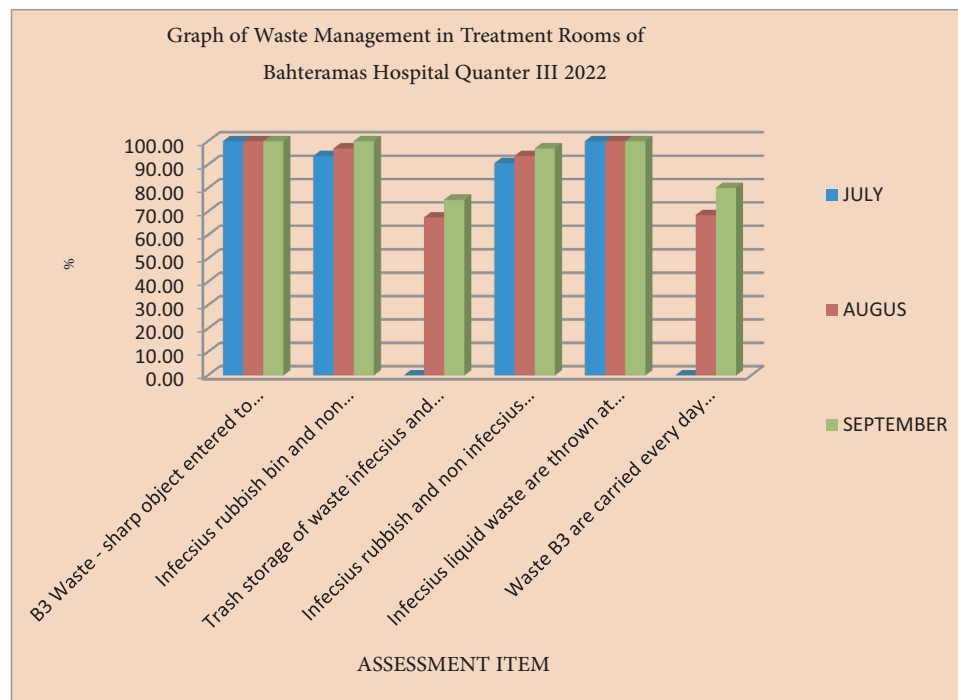


Figure 1

TABLE OF OBSERVATION OF WASTE MANAGEMENT AT BAHTERAMAS GENERAL HOSPITAL QUARTER III 2022

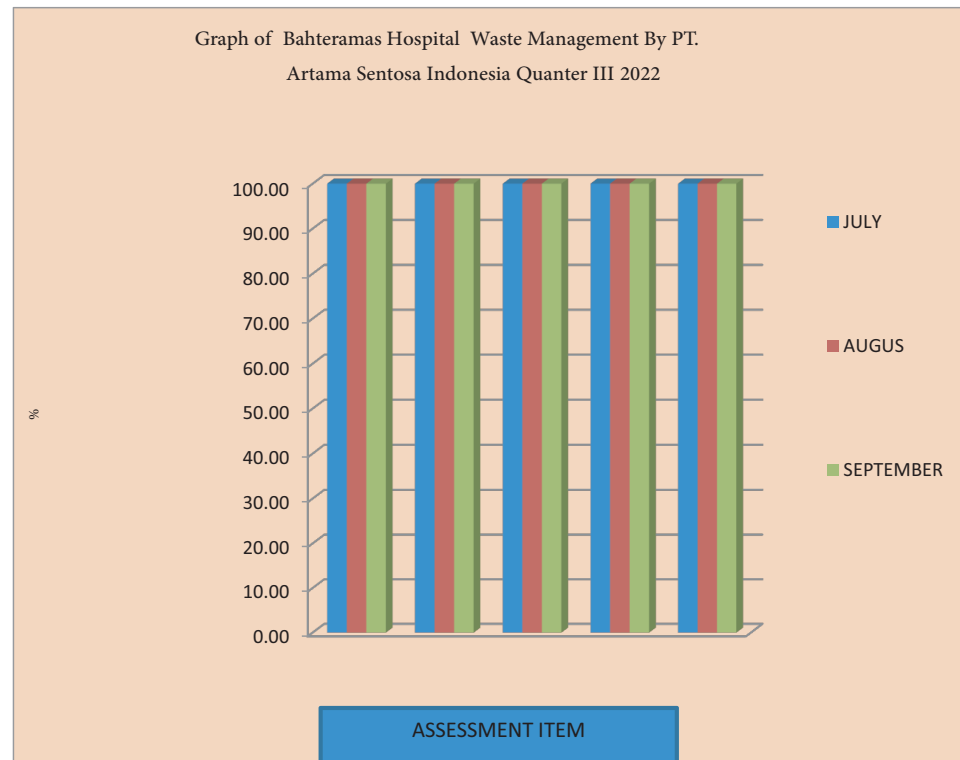


Figure 2

4. Discussion

Based on the observation, waste management at wards at Bahteramas General Hospital Southeast Sulawesi Province reached 91.98% in July to September. On assessment items, waste sharp object is put into a safety box and infectious liquid waste which is dumped into the canal connected to IPAL has reached 100%. Those that have not yet met the criteria according to the Ministry of Health Decree of the Republic of Indonesia No. 7 of 2019 on Environmental Hygiene are related to the temporary storage of infectious waste and B3 waste, with a storage temperature of 3-8⁰ C for 1 week. Please keep it. The result of observation on infectious waste storage and B3 waste at Bahteramas General Hospital in July 2022 has not fulfilled the standard (0,00%) because it is not in accordance with legislation which is standard 3-8⁰ C where in July Bahteramas General Hospital did not have cool stroge that can accommodate waste with that temperature. In August 2022, Bahteramas General Hospital has cool storage with a capacity of 250 Kg, so that it contains waste with a standard value of 67.50%, and in September with a standard value of 75.00%. This has not yet reached the minimum value of SPM standard that has been determined from the Ministry of Health, which is 85%, because there is

still no compatibility between the total capacity of cool stroge 250 kg and the amount of waste generated by Bahteramas General Hospital every week.

Based on the observation, waste management at wards at Bahteramas General Hospital Southeast Sulawesi Province has reached 100% in July to September. All points on the assessment items have been fulfilled.

5. Conclusion

Based on the observation, waste management at wards at Bahteramas General Hospital Southeast Sulawesi Province reached 91,98% in July to September. In the assessment item, waste of sharp objects is put into the safety box and the infectious liquid waste which is dumped into canal connected to the IPAL has reached 100%.

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