

## **Overview of medical waste management in RSUD Kabupaten Kediri. Script. Faculty of Society's Health**

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### **ABSTRACT**

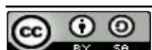
The Kediri Regency General Hospital is a health institution that has many installations and is never separated from the generation of medical waste. The impact of less than optimal waste management from the time the waste is produced to final disposal is very detrimental to public health and can reduce environmental quality and cause health problems, pollution of air, soil and water, and low aesthetic value. This study aims to determine the Medical Waste Management System in the Emergency Installation of the Kediri Regency General Hospital based on the Minister of Health Regulation Number 7 of 2019. This research was conducted in the Emergency Installation of the Regional General Hospital of Kediri Regency. This study used descriptive qualitative method. The study was conducted in April 2022 at the Emergency Installation of the Kediri Regency General Hospital. The research sample is 6 people. Research variables are Sorting, Storage, Transportation, Temporary Shelter, Destruction. The research instrument is the researcher, interview guide, checklist sheet, and documentation. Data analysis using three main activity lines, namely data reduction, data presentation, and drawing conclusions. The results showed that the management of medical solid waste starting from the stages of sorting, storing, transporting, Temporary Shelter and Destruction at the Kediri Regency General Hospital was in accordance with the requirements of the Indonesian Minister of Health Regulation No. 7 of 2019. It is recommended to the Kediri Regency Regional General Hospital. carry out routine socialization related to medical waste management SOPs, monitor and evaluate medical waste bins, transport should use special routes, as well as monitor and evaluate the safety of Temporary Shelters.

**Keywords:** Sorting, Storage, Transportation, Temporary Shelter.

### **INTRODUCTION**

Hospital is a health service institution that provides complete individual health services that provide inpatient, outpatient and emergency services (Permenkes 2010). Hospital is a means of health efforts in carrying out health service activities and is a complex service provider institution that needs to be managed professionally with respect to its human resources, education and medical research are carried out (Aulia, 2012). Health service waste includes all waste products originating from health installations, research facilities and laboratories. Hospital waste is waste that includes all waste originating from hospital activities in the form of solid, liquid, paste (gel) or gas that can contain pathogenic microorganisms that are infectious, toxic chemicals and some are radioactive (Wulandari, 2012).

Based on a preliminary survey conducted by researchers in September 2021, it was found that in the Emergency Installation of the Kediri Regency General Hospital there was an increase in the volume of medical waste. Medical waste generated in July 741 kg, August 749 kg and September 997 kg. It was also found that there was medical waste in non-medical waste bins, and the transportation of medical waste by the cleaning service to the TPS was still using the public route because there was no special route for medical waste.



Based on the above background, the formulation of the problem in this research is as follows "How is the Medical Waste Management System in the Emergency Installation of the Kediri Regency General Hospital Based on the Minister of Health Regulation Number 7 of 2019". The purpose of this study was to explore the Medical Waste Management System in the Emergency Installation of the Kediri Regency General Hospital with reference to the Minister of Health Regulation Number 7 of 2019.

## **METHOD**

This study uses a qualitative method. Data collection methods used in this study were interviews, observation, and documentation. Through interviews, it is hoped that the data obtained will be more in-depth but still on the same topic. And strengthened by data from observation and documentation. The informants who became the subject of this study consisted of 6 people consisting of technical implementing staff, 2 emergency room nurses, and 3 cleaning services at the emergency department of the Kediri District Hospital.

The steps that the researcher takes in processing the first data are data reduction or data sorting, then the data is presented in charts and narratives, the last step is drawing conclusions. For the validity of the data, the researchers used source triangulation from the management of the Kediri Regency General Hospital who was considered to know about waste management.

## **RESULTS**

### **Research result**

Implementation of the Medical Waste Management Process in the Emergency Installation of the Kediri Regency General Hospital

#### **Medical Solid Waste Segregation**

Based on the results of interviews with informants about the sorting of hospital medical waste. The results have been sorted, with labels affixed to each hospital trash can. Based on the Minister of Health Regulation Number 7 of 2019 concerning Hospital Environmental Health, the types of medical waste waste consist of infectious waste, sharp object waste and cytotoxic waste. The Emergency Installation of the Kediri Regency General Hospital has separated the waste bins between glass medical waste, sharp medical waste, soft medical waste, and plastic medical waste. This is in accordance with the Hospital SOP, a more specific sorting is carried out to facilitate waste management according to its type. The results of general observations that the medical personnel of the Emergency Installation at the Kediri District Hospital have sorted medical waste according to the label, it's just that there is still a different sorting with the label in the medical waste bin, namely the handscoon should go into the soft medical waste bin but go into the trash bin. plastic mixed with urobag (urine bag)

#### **Medical Waste Container**

Based on the results of interviews with informants related to storage, it was found that the containers were separated between soft medical waste, plastic medical waste, glass medical waste and sharp medical waste, and all medical waste bins were closed. This is in accordance with the Regulation of the Minister of Health of the Republic of Indonesia No. 7 of 2019.

#### **Medical Solid Waste Transport**

The transportation of medical solid waste in the Emergency Installation of the Kediri Regency General Hospital is carried out by the Cleaning Service by taking the waste in a plastic bag in the trash according to its type, then the plastic bag is tied and then put into a trolley and taken to the TPS. Trolley made of water-resistant, easy to clean, equipped with a cover, resistant to rust and leaks. Every time medical solid waste is transported, cleaning service personnel use complete PPE such as masks, gloves, aprons, hats, boots. This is in accordance with PERMENKES No. 7 of 2019.

#### **Medical Waste Temporary Shelter**

Based on the results of interviews with informants related to TPS. There is conformity with the results of field evaluation observations, namely that the process at TPS is in accordance with the applicable SPO and in accordance with the criteria of PP Number 101 of 2014.

#### **Medical Waste Disposal or Final Handling Process**

Limited hospital facilities, destruction or final disposal of medical waste is left to other parties who have a license to manage the destruction of medical waste. The interview stage was conducted on March 31, 2022.

I1 : "For the disposal of medical waste here we cooperate with third parties. There are 2 managers working with the hospital at the moment."

I2: "We are managing or destroying it in cooperation with a third party, there are 2 vendors, namely PT Pria and Pt Anak Lanang."

I3 : "if PT. MEN and PT Anak Lanang"

**I4 : "if the handling process is finally carried out by a third party" Lanang"**

## DISCUSSION

### Hospital Medical Waste Management

1. Waste segregation must be carried out starting from the source that produces the waste
2. Medical waste containers must meet the requirements with the use of containers
3. Collection of medical waste from each waste-generating room using a special closed trolley
4. Storage of medical waste must be in accordance with the tropical climate, namely in the rainy season for a maximum of 48 hours and the dry season for a maximum of 24 hours
5. Waste transportation outside the hospital using a special vehicle.

### Medical Waste Segregation

In the emergency room, medical waste is divided into 4 types, including:

1. Soft medical waste labels for gauze/bandages, underpads, sanitary napkins, tissue scraps, medicine packs, handscoons,
2. Glass medical waste labels for glass vials, vials and flashes,
3. Plastic medical waste labels for used infusions, infusion sets, catheters, urine bags, blood bags, transfusion sets,
4. Sharp medical waste labels for needles and other sharp objects.

In general, the medical personnel of the Emergency Installation of the Kediri District Hospital have sorted medical waste according to the label, it's just that different sorting is still found with the existing label. This is due to the lack of awareness of medical personnel in sorting medical waste. This research complements Risty's research on solid waste treatment at Dr. Hospital. Soedirman Kebumen that there is no segregation between medical waste and non-medical waste.

### Medical Waste Container

Based on the results of research on the storage of medical waste in the Emergency Installation of the Regional General Hospital of Kediri Regency, it is divided into 4, namely 1. Glass medical waste, 2. Sharp medical waste, 3. Soft medical waste, and 4. Plastic medical waste. The container has also used a trash can in accordance with the requirements set by the Minister of Health of the Republic of Indonesia No. 7 of 2019 which is strong and anti-rust and waterproof, made of materials that are easy to clean, equipped with a cover and covered by a yellow plastic bag. This research is also in line with Risty regarding solid waste treatment at Dr. Hospital. Soedirman Kebumen that the container has been separated between medical and non-medical waste is appropriate to be covered with yellow plastic bags for medical waste, non-medical for black plastic bags

### Medical Waste Transport

Based on the results of the research, the transportation process that occurs from the room to the Temporary Shelter is still using the public route, not using a special route for transporting waste. This is not in accordance with the Regulation of the Minister of Health of the Republic of Indonesia No. 7 of 2019, which states that hospitals should have a special route for the process of transporting hospital waste. This research is also in line with Risty regarding the transportation of medical waste at Dr. Sudirman Hospital, Kebumen that the transportation of medical waste still passes through the patient route and does not yet have a special route.

### Medical Waste TPS

Based on the research results, the temporary storage facility for B3 waste, hereinafter referred to as TPS for B3 Waste, is located at the coordinates of S: 07° 48' 32.49" and E: 112° 10' 33.54". The B3 Waste TPS for the Kediri Regency General Hospital has 4 rooms: a. TPS for Toxic and

Combustible materials b. TPS for combustible materials c. TPS for Corrosive Materials d. TPS for Infectious Waste To temporarily store infectious waste for the time being which is then transported and destroyed by a third party. Building area : 7 m x 7 m = 49 m<sup>2</sup> TPS is equipped with fire extinguisher, adequate lighting, closed place, has drainage and ventilation, has drainage channel and reservoir. This research complements Risty's research on temporary storage of medical waste at Dr. Hospital. Soedirman Kebumen that medical waste storage is carried out in Temporary Shelters (TPS), with buildings that have rooms made of cement equipped with fire extinguishers and lighting, but TPS does not have a door, the TPS yard often floods.

## CONCLUSION

The segregation of medical waste at the Emergency Installation of the Kediri Regency General Hospital is in accordance with the Minister of Health Regulation No. 7 of 2019. Waste storage in the Emergency Installation of the Kediri Regency General Hospital is in accordance with the requirements of the RI Minister of Health No. 7 of 2019. Waste transportation in the Emergency Installation of the Kediri Regency General Hospital does not yet have a special route.

The requirements for building TPS for the Kediri Regency General Hospital are in accordance with PP No. 101 of 2014. The process of exterminating or final handling of medical waste at the Kediri Regency General Hospital to comply with existing standards, appointments are made with third parties to collect and destroy medical waste .

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