

Analysis of Solid Medical Waste Management at Uptd Regional General Hospital Datu Beru, Central Aceh Regency

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Abstract. *The purpose of this study was to analyze the management of solid medical waste at a Regional Public Hospital. which includes minimization, sorting, separation, storage, transportation, destruction/final disposal of waste. The results of the study are that the management of solid medical waste in a Regional Public Hospital in general does not meet the requirements of the Minister of Health Regulation No. 7 of 2019 concerning Hospital Environmental Health, but there are several things that are already optimal, so it needs to be further improved. Lack of concern for waste producers, both health service providers, visitors and patients, which can trigger the mixing of solid medical waste with non-medical waste. It is recommended that waste management officers need to increase supervision and good cooperation with nurses and cleaners in separating medical and non-medical waste. Management pays more attention to facilities and infrastructure both regarding procurement and in the implementation process and pays attention to the availability of its human resources.*

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INTRODUCTION

Public service is one of the basic fulfillment activities, in accordance with the civil rights of every citizen, for goods and services as well as administrative services provided by public service providers. Health services, one of which is a hospital, is part of public services. In carrying out health services, of course, it will have the potential to produce waste, both from the community and from the service provider itself, in the form of ordinary waste and hazardous waste, toxic because the nature of its concentration and volume is very dangerous for health and the environment. Therefore, waste and waste must be managed, because everyone has the right to a healthy environment for achieving health status (Article 28 H paragraph 1 of the 1945 Constitution).

Medical waste management is different from that generated by domestic waste or household waste. Placement of medical waste is carried out in containers that are in

accordance with the characteristics of the chemical, radioactive and volume. Medical waste that has been collected is not allowed to be directly disposed of in a domestic waste disposal site but must go through a management process first.

Medical waste in the form of gas is equipped with a gas and dust emission reduction device in the disposal process. In addition, efforts to minimize waste need to be made, namely by reducing materials (Reduce). Reuse and recycle. Reforestation is also good to do to reduce pollution from waste (Permenkes No: 27 of 2017)

In the health profile of Indonesia, the Ministry of Health in 2019, hospitals in Indonesia totaled 2,344 consisting of 315,152 beds, the results of studies from several hospitals both on the island of Java or on the island of Sumatra, showed that the average waste production was 3.2 kg/ Beds/day. The results of the analysis show that the average production of domestic waste is 76.8% and waste containing infectious waste is 23.2%. Source of Indonesian health profile 2019.

It is estimated that nationally, hospital waste production is 376,089 tons/day. Hospital waste can pollute the environment and possibly cause accidents and disease transmission (3). Almost 80% of the waste produced by hospitals is in the form of non-medical waste. 15% is hospital waste which is classified as infectious waste and body tissue waste, 1% is sharp object waste, 3% is chemical and pharmaceutical waste, and 1% is genotoxic and radioactive waste (WHO 2005)

In health care facilities, anywhere, health care workers and cleaning personnel are the main group at risk of injury and contamination from waste and hospital waste, and can even infect due to injection needles, punctured sharp objects, and contamination from waste generated by patients. infectious nature, as well as toxic waste and other chemical substances (PMK.RI.NUMBER: 7 of 2019 concerning Hospital Environmental Health)

Health service units have an obligation to maintain the environment and public health, and have special responsibilities related to the waste and waste produced. The obligations that must be owned by the health service unit, among others, are to ensure that the handling, processing and disposal of waste that they carry out will not cause adverse health impacts for public health service providers and the environment. The diversity of waste and hospital waste requires good handling, before the disposal process. Most of the management of hospital medical waste is still below environmental standards, because it is generally disposed of in a landfill, waste using an open dumping system or disposed of in any place. If waste management is not carried out in a sanitary manner, it will cause disturbance to the community around the hospital and medical waste users. Hospital waste disease agents enter humans through water, air, food, tools or objects. Disease agents can be transmitted to the surrounding community, medical waste users and sick people, the aspect of waste disposal has developed very rapidly, the environmental management system is a way of managing waste as a byproduct (output). Which also minimizes waste.

Based on an initial survey conducted on March 15, 2021 at the UPTD of the Central Aceh District Hospital, it is known that there are still some treatment rooms that have not carried out medical and non-medical waste management according to the procedures for handling at the Central Aceh District General Hospital, among others, still the presence of merging of waste in one container between medical and non-medical waste, lack of compliance by officers and other service providers in sorting waste, ineffectiveness of waste and waste incinerators, so that they are still collaborating with third parties on

waste and waste handling problems, the (medical) waste management system, UPTD RSUD Datu Beru, Central Aceh Regency itself has not been managed properly and correctly. So from the problems described above, the researchers were interested in knowing the attitude of health service providers in managing medical waste at the UPTD RSUD Datu Beru, Central Aceh Regency. This is because hospital waste is mostly contaminated by microorganisms, toxins and radioactivity which are harmful to humans and other creatures around the environment and can contain various microorganisms that cause disease in humans, including typhoid fever, dengue, morbus hasen, dysentery, hepatitis

METHODS

This research is a descriptive research using a qualitative approach. The qualitative approach is to analyze several variables studied, including the characteristics of medical waste (type and source), waste management from the stage of storage, transportation to final disposal of medical waste, at the UPTD of the Datu Beru Regional General Hospital, Central Aceh Regency. The tools used in the data collection process were writing instruments, note books, digital cameras and cell phone recording devices. Data from observations and interviews were directly written at the research site in the form of short writings. These short writings are then developed into a more detailed and complete flyer. The first primary data we want to know is the (medical) waste management process at the UPTD RSUD Datu Beru, Central Aceh Regency (but do not rule out other data). The method used is by preparing a number of attached questions guided by interviews related to the waste management process (medical solid).

RESULTS AND DISCUSSION

Based on the results of observations and interviews with researchers at the UPTD RSUD Datu Beru, Central Aceh Regency during service activities, 14.3% of solid medical waste came from health service activities, all objects were contaminated with blood or patient body fluids, body tissues, blood, Sputum, disfosable devices for expired drugs, sanitary napkins, linen clothes, paper, plastic which are contaminated with infectious agents and the remaining 85.7% is solid non-medical waste.

Various kinds of medical waste based on their nature, the type of waste produced by the UPTD RSUD Datu Beru, Central Aceh Regency, there are two categories, namely solid medical waste and solid non-medical waste. The two solid wastes are separated and placed in different places which are then transported and placed in a temporary disposal site (TPS) (RI DK, 1997).

Solid medical waste is all waste generated from activities / actions and patient care that is suspected to be contaminated with the patient's blood and body fluids so that it is infectious including the rest of expired drugs, UPTD RSUD Datu Beru, Central Aceh Regency does not have an incinerator, currently replaced with a machine Counters (Ecodas) and coolers (Cold-Storage) are better used for hospitals in mountainous areas to reduce the effectiveness of CO₂ levels in the air properly. (Report on the implementation of monitoring RKL-RPL 2020 UPTD RSUD Datu Beru, Central Aceh Regency 1-4)

The following are excerpts of observations, interviews of researchers with informants. The informants involved in this study were 9 informants, namely 1 medical support management person, 2 inpatient care workers, 2 nurses, 1 health care head, 1 health coordinator, 2 waste managers.

The results of the interview concluded that the rooms that produce solid medical waste are all inpatient and outpatient rooms and medical support rooms. Cytotoxic waste in the form of materials contaminated with cytotoxic drugs such as chemotherapy drugs was not found in the UPTD RSUD Datu Beru, Central Aceh Regency because it did not have a chemotherapy room. Likewise, radiological waste was not found because it was already using a film washing system with computed radiology.

The results of observations, in all inpatient rooms, outpatient rooms and medical support rooms there are still mixed solid medical waste with domestic waste, the UPTD Datu Beru Hospital, Central Aceh Regency does not have a chemotherapy room, for the radiology room there is no radiological waste, in the form of fixer fluid and developer for film washing.

Amount of Waste

The amount of waste generated by the hospital comes from officers, outpatients and inpatients as well as visitors. The amount of waste by volume produced by UPTD RSUD Datu Beru, Central Aceh Regency is an average of 154 kg/day (4620 kg/month) with details of medical waste 20.5 kg/day or 14.3% and non-medical waste of 133.5 kg/day or 85.7%.

UPTD Waste Management Resources Datu Beru Central Aceh Regency

Managing power

Waste management at the UPTD RSUD Datu Beru, Central Aceh Regency is handled by environmental health officers who are under the responsibility of the medical support sector. Environmental health workers are responsible for maintaining cleanliness throughout the hospital area. The staff on duty at the UPTD of the Datu Beru Hospital, Central Aceh Regency, amounted to 14 people.

Waste separation is carried out by health workers, the process of transporting waste is carried out by cleaners under the responsibility of the environmental health installation, hospital waste management supervisors are carried out by the medical support sector. The task of the environmental health officer is to carry out operational activities related to cleanliness at the UPTD RSUD Datu Beru, Central Aceh Regency, including daily work such as cleaning floors, sweeping and mopping carried out by janitors as well as collecting and transporting medical and non-medical waste, work regularly periodic and general cleaning. The field of medical support and environmental health as a monitor is tasked with evaluating and supervising the cleanliness of the entire UPTD area of the Datu Beru Hospital, Central Aceh Regency.

Management facilities and infrastructure

Datu Beru Hospital has provided supporting equipment and facilities for hospital waste management. The equipment for the safety of the officers prepared is personal protective equipment (PPE) in the form of masks, gloves, boots, head protection, ear protection (when on duty in the waste counting room), apron, goggles. Waste management equipment has also been prepared by the UPTD of the Datu Beru Hospital, Central Aceh Regency

Table 4.2.4 List of facilities and infrastructure for waste management of UPTD RSUD
Datu Beru Central Aceh Regency

TOOL NAME	NUMBER (UNIT)
Ecodas	1
Cold-Storage	1
Medical waste TPS	120
Non-medical waste TPS	160
TPS sharp objects (septibox)	60
Non-medical waste container	60

Management costs

The budget for the cleanliness of the UPTD RSUD Datu Beru, Central Aceh Regency, is provided around Rp. 765,420,360/year. The funds are used for hospital waste management. The cost required to carry out waste management activities in the hospital is Rp. 63,785,030/month which includes a levy for transporting waste, spending on cleaning facilities and infrastructure.

UPTD Waste Management of Datu Beru Hospital, Central Aceh Regency

In planning the procedure for implementing waste management, solid medical waste is collected in a closed waste container and using a pedal, made of medium-sized yellow plastic, is placed at the medical procedure site. Medical waste is picked up every day and collected in a temporary disposal site and then put into the Ecodas machine for enumeration after that it is put into the Preezer Cold-Storage at low temperature (15oC) while waiting for further management carried out by a third party. The temporary storage of the solid waste is no less than 29 days based on the B3 waste management permit No.660/688/DLH/2018 issued by the district head of Central Aceh and the recommendation of the Central Aceh environmental service No.660/1220/IPSL B3/DLH/ 2018.

Shelter

Waste Sorting

Based on observations, waste sorting activities have been carried out at the source. Each unit that is a source of medical waste is provided with three containers to accommodate solid medical waste, solid non-medical waste and sharp object waste. Waste bins that have been coated with yellow plastic are used to accommodate medical waste, waste bins lined with black plastic bags for non-medical waste and for sharp objects are placed in a safety box. microorganisms present in the waste.

The results of interviews conducted in the field, the waste bin is made of fiber glass or plastic of good quality, waterproof and free of pests. Although separate containers and labeling have been provided, the results of interviews with several informants sometimes occur that sorting is not in place, also the capacity of the waste bin at night often occurs on the floor. This is because officers still lack awareness and concern for health workers and waste officers in handling solid medical waste even though socialization and education are often carried out by the PPI team.

The results of observations in fact show that in solid medical waste bins in several waste-generating sources, misplaced sorting is still found, such as needles that have been or have not been recaptured (re-closed after use) and medicine boxes are in yellow plastic bags, gloves and masks are in plastic bags. black.

The results of field observations show that non-medical waste is in yellow plastic bags such as paper, cardboard, bottles, drink cans. On the other hand, syringes, gloves, masks were also found in black plastic bags. And the control over the patient's family is still not optimal, causing domestic waste to be mixed into medical and non-medical waste. Meanwhile, domestic waste disposal has been provided outside each room.

The results of field observations show that the accumulation of waste often occurs, especially in the inpatient room at night, due to the coordination between the waste manager and the cleaning service that does not always run smoothly, the effectiveness of transporting waste runs only twice a day.

Transporting Waste

The transportation stage is transporting medical waste that has been collected by the waste management officer at a temporary collection point to be taken to a Temporary Shelter (TPS). The results of interviews with waste management officers and the Head of Health and Safety and part of medical support management, hospital waste transportation using large barrels using wheels, made of fiber glass. officers who transport waste from each waste-producing room to the TPS no more than once a day, the corridor used is still on the public lane. The results of the observation that waste disposal to TPS is sometimes more than once per day where waste transportation is made of fiber glass, waterproof and closed, transporting waste from the waste-producing room to TPS for solid medical waste is sometimes more than once a day.

Culling and final disposal

UPTD RSU Datu Beru Central Aceh Regency has an incinerator replacement machine (Ecodas) to chop solid medical waste. it is very appropriate to be operationalized for hospitals in mountainous areas because it is very effective in maintaining the oxygen balance in the atmosphere. UPTD RSU Datu Beru, Central Aceh Regency, the only hospital in Aceh province, especially in mountainous areas, has used machines (Ecodas) instead of incinerators. The results of the enumeration from the machine are then packaged in a prezeer (Cold-storage) with a temperature of 150 C. Then in collaboration with a third party with PT. Cahaya Tanjung Tiram Perkasa is in the process of shipping by land which is then processed by PT wastek Internasional which is engaged in the processing and utilization of B3 waste which already has a permit from the State Ministry of the Environment, this condition has met the standards of the Regulation of the Minister of Health of the Republic of Indonesia NUMBER .7 of 2019 concerning Hospital Environmental Health.

Based on the results of interviews, the waste management officer and the safety coordinator, every day transport waste from the waste-producing room to be burned or chopped so that the material can be minimized. The results of observations in the prezeer storage area (cold-Storage) before being transported by a third party, solid medical waste destruction machines are very effective and efficient for destroying or enumerating, besides the sound is not too noisy, it is able to maintain the balance of oxygen in the atmosphere.

The results of the interview with the waste destruction officer and the safety coordinator in carrying out the burning / destruction of waste, before solid medical waste is entered into the Ecodas machine, the officers first sort out solid medical waste. Not all solid medical waste is segregated, only medical waste containing liquid such as infusion plabot and other solid medical waste containing water, such as from inpatient and

outpatient wards that produce large amounts of infusion plabot. This sorting is carried out to remove water content on waste that still contains a lot of liquid, so that the chopper can be maintained and not easily damaged. The process of sorting waste before pollination must also pay attention to waste sharps and infusion bottles.

Results of interviews with waste disposal officers, during burning, destruction and enumeration of waste. officers use complete PPE such as masks, gloves, coveralls, boots, helmets, goggles. To avoid contamination of B3 waste, infectious and sharp objects that can injure and cause disease. The results of observations do not always wear full PPE when burning and destroying waste using complete PPE, sometimes officers do not use complete PPE.

The results of interviews with the person in charge of medical support management and the head of the health study that the final disposal of medical and non-medical solid waste at the UPTD RSUD Datu Beru uses cooperation with a third party. For medical solid waste in collaboration with PT. Wastek Internasional which is engaged in the processing and utilization of B3 waste which already has a permit from the State Ministry of the Environment and for non-medical solid waste in collaboration with the Regency Environment, Cleanliness and Landscaping Service.

The results of observations, although in solid medical and non-medical solid waste management, have collaborated with third parties, but once in a while they have encountered problems in terms of delivery time and financing. These obstacles are one of the perceived obstacles, the delivery target can exceed the specified time, it should not be more than 90 days delivery for medical waste with third parties, it can even be more, as well as for non-medical waste, it should not be more than once a day for transportation in take it to the landfill, it can even be more than the agreed estimate.

Solid medical waste collection activities at the UPTD RSUD Datu Beru, Central Aceh Regency were observed based on the Regulation of the Minister of Health of the Republic of Indonesia NUMBER. 7 of 2019 which is measured based on the number of category scores. The results of the observations showed that the waste collection activity of the UPTD RSUD Datu Beru, Central Aceh Regency, received a score of 70%. This figure does not meet the requirements for shelter activities.

The stages of waste transportation, solid medical waste transportation activities in the UPTD of RSUD Datu Beru, Central Aceh Regency are observed based on the Regulation of the Minister of Health of the Republic of Indonesia NUMBER. 7 of 2019 as measured by the number of scores and categories.

The results of the category show that the waste transportation activities of the UPTD RSUD Datu Beru, Central Aceh Regency, obtained a score of 80%, did not meet the requirements for the activities, but not all activities were carried out based on the Regulation of the Minister of Health of the Republic of Indonesia NUMBER. 7. Year 2019.

Process for final disposal of waste. This process is observed based on the Regulation of the Minister of Health of the Republic of Indonesia NUMBER. 7. Year 2019 . Which is measured by score and category. Based on observations from the final stage of the UPTD waste management process at RSUD Datu Beru, Central Aceh Regency, namely waste destruction, obtaining a score of 90%. This figure has met the requirements for waste destruction activities based on the Regulation of the Minister of Health of the Republic of Indonesia NUMBER. 7. Year 2019.

Uptd waste management results of RSU Datu Beru Central Aceh Regency

Variables supporting hospital management such as personnel, budget provided, facilities and infrastructure to support hospital waste treatment activities. The assessment of the waste management process is carried out based on an environmental health inspection assessment (sanitary inspection) of the Hospital from the Regulation of the Minister of Health of the Republic of Indonesia NUMBER. 7. In 2019. Regarding Hospital Environmental Health, this assessment is carried out from the process of storage, transportation and destruction.

Based on the checklist assessment that has been carried out by the officer, the UPTD Datu Beru Hospital, Central Aceh Regency, obtained a score of 80% of the total assessment, 100%. This score does not meet the hospital's environmental health requirements because the minimum score for medical waste management for Type B Hospitals for education is 90%.

Rules and Policies

UPTD RSUD Datu Beru, Central Aceh Regency, has followed the regulations set by the government regarding hospital waste management. In addition, UPTD RSUD Datu Beru, Central Aceh Regency also has its own policy. The policy is in the form of SOP (standard operating procedure), this guide is made to be carried out by cleaning staff.

During the observation, the overall implementation of solid medical waste management by the cleaning staff complies with the guidelines set by the hospital. Based on the theory, it is stated that one of the efforts to manage hospital waste can be carried out by preparing regulations, guidelines, and policies that regulate the management and improvement of health in the hospital environment.

The Standard Operational Procedure aims as a reference for health workers in managing medical and non-medical waste starting from the separation, collection, transportation and final disposal stages to avoid disease transmission through medical and non-medical waste media. This is the same as Hospital X in Jakarta which enforces hospital waste management regulations so that it can be seen that solid medical waste management has minimal risk to environmental health.

UPTD Waste Datu Beru Hospital Central Aceh Regency

UPTD waste at Datu Beru Hospital, Central Aceh Regency, has distinguished based on the results, namely solid medical waste and solid non-medical waste. In the guidelines for hospital sanitation in Indonesia, it is stated that hospital waste can be classified, among others, by the type of generating unit and by the design of its disposal. However, in general, it is divided into medical and non-medical waste. The management of each hospital is different, adjusted to the purpose and ability of its management.

Waste Source

UPTD RSUD Datu Beru, Central Aceh Regency, is a type B regional public hospital owned by the government. Service activities include 8 types of services, each hospital produces different types of waste, namely: 1. Emergency services (IGD). 2. Outpatient services. 3. Inpatient services. 4. Medical support services. 5. Diagnostics and medical tests. 6. Operating room service (Operation). 7. Intensive care unit service. 8. Public Service.

Waste Type

UPTD RSUD Datu Beru, Central Aceh Regency, differentiates its waste based on the waste-generating unit. One of the wastes is solid medical waste, UPTD RSUD Datu Beru, Central Aceh Regency, which has followed the existing theory. The theory states that the type of hospital waste needs to be known for proper and correct solid medical waste management.

The results of the research in the province of NTB showed that in general the types of medical waste that were found the most were syringes, used bandages, cotton and infusion hoses. Meanwhile, the most non-medical waste found was leftover food (rice), drink bottles and plastic wrappers.

Solid medical waste generated by UPTD RSUD Datu Beru, Central Aceh Regency is 14.3%. The solid medical waste comes from the activities of health workers and all objects that have been contaminated with the patient's blood or body fluids. Medical waste is in the form of body fluids, blood, sputum, disposable devices, expired medicines, linen dressings, and plastic paper contaminated with infectious agents. Based on the World Health Organization (WHO) about 10-25% of health service waste is classified as hazardous waste originating from health service activities.

Amount of Waste

The amount of waste generated by the UPTD RSUD Datu Beru, Central Aceh Regency is influenced by several factors such as the number of beds, the number of employees, the number of visits and the number of days of patient care. This is as stated by the theory that the amount of waste generated in a hospital depends on various factors such as the number of beds, hospital capacity, number of staff health workers, type of health services provided, socioeconomic status and culture of the patient.

Based on direct observation, it can be seen that the volume of solid medical waste production in the UPTD RSUD Datu Beru, Central Aceh Regency is 20.5 kg / day or 14.3% for solid medical waste. By knowing the amount of waste, it will determine the number of local storage facilities that will have to be provided, the selection of the destruction machine (Ecodas) and its capacity and if it is projected to estimate financing and others, the determination of the amount of waste can use weight or volume measurements (Yanis, 2020).

UPTD waste management Resources Datu Beru Hospital Central Aceh Regency

Managing Power

Waste management UPTD Datu Beru Hospital, Central Aceh Regency has compiled an organizational structure, medical and non-medical waste management documents UPTD Datu Beru Hospital Central Aceh Regency which is an important element in waste management, where all officers related to sanitation and cleanliness of the hospital environment are under responsibility for medical support and environmental health installations. The number of UPTD cleaners at the Datu Beru Hospital, Central Aceh Regency, is 14 people.

SPO regarding waste treatment at UPTD RSUD Datu Beru, Central Aceh Regency, the latest is 2020, namely SPO for Hospital Waste Management for Covid-19 Handling with Document No. 56/02-A/SPO/2020 No revision A Page 1/9 date of issue 02 April 2020, Stipulated by the Director of the Datu Beru Hospital, Central Aceh Regency. From the results of the study, it was found that there was an increase in the amount of medical

waste, this was because all the waste produced by Covid-19 patients was considered medical waste, for example, patient food scraps, patient food wrappers and others that used to be included in non-medical waste.

According to the Regulation of the Minister of Health of the Republic of Indonesia NUMBER. 7 of 2019, that the hospital waste management process is part of the hospital's environmental sanitation, which aims to protect the public from the dangers of environmental pollution originating from hospital waste itself. For comparison, the research of RSUD dr. H. Slamet pointed out that the completeness of waste management documents can provide improved services. For this reason, it is hoped that the UPTD of the Datu Beru Hospital, Central Aceh Regency, can complete the medical and non-medical waste management documents so that it can be used as a reference in the implementation of waste management in this hospital

Management Facilities and Infrastructure

Based on observations, one of the important supporting facilities in hospital waste management is the occurrence of facilities and equipment to manage waste. With the availability of various equipment to carry out the waste management process, it will create waste quality that is in accordance with the hospital's environmental health requirements. The types of materials used for medical and non-medical waste management tools at the UPTD RSUD Datu Beru, Central Aceh Regency follow the Hospital Sanitation guidelines in Indonesia issued by the Ministry of Health of the Republic of Indonesia.

UPTD RSUD Datu Beru, Central Aceh Regency, provides a large waste bin with wheels to transport waste. Using Freezer (Cold-Storage) as a stage of final storage before being handed over to third parties and waste management officers equipped with PPE (Personal Protective Equipment). For final disposal, the waste manager is provided with personal protective equipment such as masks, gloves, boots, head protection, aprons, goggles.

However, in addition to the equipment needed to handle it, it is necessary to pay attention to the use of personal protective equipment. Cleaning officers, waste management officers and operators of waste destruction machines at the UPTD Datu Beru Hospital, Central Aceh Regency, are still not perfect in the use of PPE. The problem is the same as other hospital problems in general.

This can be overcome by routine education from the PPI, systematic and periodic waste management in order to increase awareness and knowledge, so that it is hoped that customers in the waste management stage can be maximized for use and there is an increase in discipline in using PPE for waste management officers, cleaners and operators. waste disposal machine.

Cost

All costs needed for the purposes of implementing waste management at the UPTD RSUD Datu Beru are entirely using the budget originating from the UPTD RSUD Datu Beru itself.

Hospital Waste Management

UPTD RSUD Datu Beru, Central Aceh Regency, waste management procedures have followed the Decree of the Minister of Health of the Republic of Indonesia NUMBER. 7. In 2019. The management of medical and non-medical waste UPTD Datu Beru Hospital,

Central Aceh Regency includes storage, transportation and final disposal. Waste management is adjusted to the condition of the waste and the hospital's ability to manage it. As in the discussion in the Indonesian Hospital Sanitation manual, management activities usually include storage, transportation and final disposal.

Shelter

Based on the results of interviews with waste management officers, the results of the officer's examination with the Environmental Health Team showed that the waste collection activity of the UPTD RSUD Datu Beru, Central Aceh Regency received a score of 70% out of 100% of the total score obtained from the statement that the waste bin must be lined with plastic bags to wrap waste. with colors and labels that match the waste category, namely yellow for medical waste and black for non-medical waste the plastic bag is transported when the 2/3 part is full.

Based on the regulations, the amount and volume are adjusted to the estimated volume of waste generated from each activity. A minimum of one place is provided for every 10 meter radius in the waiting room and 20 meters in the open space.

The assessment of temporary waste collection and storage sites being disinfected after being emptied with a score of 100%. UPTD RSU Datu Beru did not get the maximum score in terms of disinfection of waste bins, the score was 70%. Waste bins are washed with detergent, often not done. It is recommended that the waste bins be disinfected after the waste bins are emptied at least every day as stipulated in the government regulation on Hospital Sanitation Guidelines.

Disposal and temporary waste storage areas are important to be disinfected to avoid the occurrence of disease transmission through solid medical waste media. Hospitals produce medical and non-medical waste that has the potential to pose a risk of disease transmission.

Another study on the solid waste management system at the dr.H.Muhammad Ansari Saleh Hospital Banjarmasin showed that there were 176 solid waste containers in this hospital and 4,405 m²/H solid waste. The number of solid waste storage tanks is not balanced with the number of hospital rooms, so it is necessary to add more solid waste tanks. So that handling and transportation and destruction will be easier. In addition, it also prevents the occurrence of diseases due to medical solid waste (infectious and cytotoxic) for managers and other people (Yunizar & Fauzan, 2014).

Transport

Based on the results of interviews with waste management officers, the results of inspections by officers with the environmental health team at the waste transportation stage, UPTD RSUD Datu Beru, Central Aceh Regency, obtained a score of 80% of the minimum score of 90%. UPTD RSUD Datu Beru, Central Aceh Regency, has not followed the stipulated requirements because waste is transported from TPS to TPA more than once per day.

UPTD RSUD Datu Beru does not have a special route for waste transportation, the transportation route uses the same route as visitors or public road routes, so it can disturb the comfort of visitors.

Final disposal

In the final stage, namely transportation and final disposal, UPTD RSUD Datu Beru, Central Aceh Regency, received a score of 90%. This stage is for solid medical waste by using a waste destruction machine to minimize waste, then put it in a Cold-Storage refrigerated storage area with a temperature of 150 C. before being transported by a third party, and the storage time is not more than 90 days.

The UPTD of RSUD Datu Beru, Central Aceh Regency already has a permit to operate a waste destruction machine (Ecoda) because the chopped solid medical waste includes B3 waste, the handling of which requires a permit from the Ministry of the environment (26)

Meanwhile, the disposal of non-medical waste is carried out by the Environmental Service of Central Aceh Regency. Non-medical waste is transported to the TPA (Final Disposal Site) in Genting Gate village, Silih Nara sub-district. This is the same as the regulations set by the Local Government.

Hospital waste management results

The hospital waste management system can be supported if the hospital has the resources, namely waste management personnel, management funds, facilities and infrastructure. With a hospital waste management system, it can protect the health of the surrounding community and the environment.

UPTD RSUD Datu Beru, Central Aceh Regency, has complied with the requirements for waste management, however, there are still waste management officers who have not carried out disinfection after the waste bin has been emptied. Waste transported to TPS should be no less than three times/day. Based on hospital regulations, it can meet the requirements if it gets a minimum score of 90%

CONCLUSION

The character of solid medical waste and non-medical solid produced by the UPTD of RSUD Datu Beru, Central Aceh Regency is in accordance with hospital sanitation guidelines. The waste is managed by the presence of waste management resources by the Medical Support Division and the Environmental Health Installation as the person in charge and the cleaning officer as the technical implementer in the field. With the presence of medical and non-medical waste management officers, the division of waste management responsibilities becomes clear, the waste management personnel have complied with the requirements. However, the discipline of using PPE (Personal Protective Equipment) is still not well considered. Waste collection (medical solid and non-medical solid) begins with the process of collecting waste that is not in accordance with the Regulation of the Minister of Health of the Republic of Indonesia NUMBER. 7. Year 2019. Because chemical and pharmaceutical waste is stored in yellow plastic bags and labeling only includes details of medical waste. Recapping syringes is still being carried out before being disposed of in the safety box, so that health workers are vulnerable to being stabbed by needles. The transportation of solid medical waste is not in accordance with the Regulation of the Minister of Health of the Republic of Indonesia NUMBER. 7 of 2019, the large waste bins used already use pedals and covers, only the routes used are still joined to the general route, also the waste capacity is often not weighed by the cleaning staff. Destruction of medical waste by using a waste destruction machine / (Ecodas) in accordance with the Regulation of the Minister of Health of the Republic of Indonesia NUMBER. 7 of 2019, Since Aceh is in the middle of a mountainous

area, it is very good to use a machine (Ecodas) to reduce the smoke and ash released from the machine, so that the surrounding ecosystem is still well maintained, only maintenance must be maximized and the sensitivity of the machine needs to be considered in his care. 3. Aspects of Out put (Results of Solid Medical Waste Management) Based on the assessment carried out by the UPTD officer at RSUD Datu Beru, Central Aceh Regency. The minimum score for solid medical waste management for type B hospitals is 90%. The results of the enumeration produced by the waste destruction machine (Ecodas) are stored in a cold storage (Cold-Storage) with a temperature of 150 C. a maximum of 90 days before being transported by a third party.

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