

Analysis of the Solid Medical Waste Management System Personal Protective Equipment (PPE) at the Special Covid-19 Isolation Facility in Suryah Khairudin Regional General Hospital

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ABSTRACT

Background: The generation of solid medical waste Personal Protective Equipment (PPE) generated in special facilities for Covid-19 isolation is increasing and is an infectious waste that poses a risk of transmitting Covid-19 to the environment. The occupancy rate (BOR) in the Covid-19 special isolation room at Suryah Khairudin Hospital in 2020 was 14.75% of 51 beds, with an average number of inpatients 13 people/month, the total amount of solid medical waste PPE produced reached 60.69 kg/month.

Subjects and Method: This was a descriptive qualitative study. The study informants were waste management officers. The data were obtained from interviews and observation. The data were extracted and analyzed using SWOT analysis.

Results: The PPE solid medical waste management system at the Suryah Khairudin Hospital as a special Covid-19 facility in West Tanjung Jabung Regency is quite good in terms of sorting, transportation is carried out less than 24 hours after being collected, and processing is carried out using incinerator. This is in accordance with KMK No. HK 01.07/MEN-KES/537/2020. Meanwhile, what has not been fulfilled is the labeling of plastic bags containing PPE waste because the use of black bags is still found but it is not labeled "biohazard" or a description of COVID-19 waste, there are no TPS that meet the requirements in accordance with PermenLHK No. 56 of 2015 for storing Covid-19 medical waste before processing it using an incinerator and the lack of awareness of waste transport officers in the use of PPE in carrying out their duties.

Conclusion: The importance of providing biohazard symbols or information on Covid-19 waste, socializing officers on the importance of using PPE, accelerating the implementation of making TPS that meet standards and building collaboration with surrounding companies to get support in the form of assistance for activities related to the management of PPE solid medical waste in special Covid-19 facilities. 19 can be done well.

Keywords: Covid-19, PPE solid medical waste, waste management system

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BACKGROUND

The SARS-CoV-2 (COVID-19) virus pandemic, which was first discovered in the Chinese city of Wuhan at the end of 2019,

has now spread to 210 countries. The total number of confirmed global novel coronavirus (nCov) cases as of January 23, 2020 was 581 cases, 574 of which were reported

from China. Of the 574 confirmed cases in China, 375 cases were reported from the city of Wuhan (Hubei Province) and 17 of them died, until January 24, 2020 there were 60 health workers who were reported to be infected (Ministry of Health, 2020).

Corona virus in Indonesia, in early March 2020 and currently 743,198 positive cases have been found with 22,138 deaths as of December 31, 2020 (Covid-19 Task Force, 2020). Jambi Province had 3,227 Covid-19 cases as of December 31, 2020 while Tanjung Jabung Barat Regency had 331 cases of Covid-19 as of December 31, 2020. (West Tanjab District Health Office, 2020).

In handling Covid-19 cases in Indonesia, the government has established 835 referral hospitals for handling Covid-19, with details of 132 national referral hospitals designated by the Ministry of Health and 703 Provincial/Regency/City referral hospitals that have been designated by the Ministry of Health. Governor. In addition to the designated hospitals, through the Decree of the Minister of Health No. HK.01.07/ Menkes/275/2020 concerning Designation of Referral Hospitals for the Management of Certain Emerging Infectious Diseases. The government also opens space for other hospitals that are able to carry out management and referral health services for patients and specimens of the 2019 Coronavirus Disease (Covid-19).

In activities in handling patients, hospital staff need PPE or equipment that must be used to protect and maintain the safety of workers when doing work that has potential hazards or risks of work accidents. Personal Protective Equipment (PPE) used when handling confirmed Covid-19 patients include: Surgical Masks, N95 Masks, Dresses/Gowns, Gloves, Goggles, Head Protectors (Nurse Cup), Face Shields (Face

Shield), Aprons (Apron), and Protective Shoes. Some use of PPE is only one-time use after that it will become waste which is increasing day by day (Ministry of Health, 2020).

Tanjung Jabung Barat Regency has 2 (two) General Hospitals, namely RSUD KH. Daud Arif and Suryah Khairudin Hospital. RSUD KH.Daud Arif was appointed by the Governor of Jambi to be a referral hospital for handling Covid-19 patients as stipulated in the Decree of the Governor of Jambi Province Number: 292/KEP. GUB/DISKES 4.2/ 2020. Meanwhile, the Suryah Khairudin Regional General Hospital was established through the Decree of the West Tanjung Jabung Regent Number 438/ Kep.Bup/DINKES/2020 as a special facility for COVID-19 isolation in West Tanjung Jabung Regency.

Based on the initial survey conducted at Suryah Khairudin Hospital, Merlung District, Tanjung Jabung Barat Regency, it was known that the medical waste management system at Suryah Khairudin Hospital had implemented solid medical waste management, but the management was felt to be not optimal. Information obtained from the Sanitation Installation shows that there are several factors that become a problem, namely the absence of a garbage disposal site (TPS) that meets the requirements. Other things that were found were that the trash bin at Suryah Khairudin Hospital did not use symbols and colors according to the characteristics of solid medical waste. Waste, which mostly consists of PPE, is collected somewhere in the form of plastic bags before being destroyed. Plastic bags containing solid medical waste that have been disinfected are placed in front of the incinerator. The resulting waste is collected 3 (three) times a week or if there is accumulation in a temporary shelter. Suryah Khairudin

Hospital has not yet provided a temporary waste storage area that meets the requirements used to store solid medical waste before being managed using an incinerator. Seeing the various problems that exist, it is necessary to carry out a Solid Medical Waste Management strategy at Suryah Khairudin Hospital through the SWOT Analysis method to see various factors both internal and external that can be strengths and weaknesses of Suryah Khairudin Hospital.

Based on the description above, the authors are interested in studying further regarding the suitability of PPE Solid Medical Waste Management at the Special Covid-19 Isolation Facility at the Suryah Khairudin Regional General Hospital with KMK No. HK 01.07/MENKES/537/2020 Regarding Guidelines for Medical Waste Management of Health Service Facilities and Waste from Isolation or Independent Quarantine Activities in the Community in Handling Coronavirus Disease 2019 (Covid-19) and the right strategy in the solid medical waste management system. The limitations of this research are the analysis of solid medical waste produced in the form of PPE used by officers in the special isolation room for Covid-19 RSUD Suryah Khairudin from the stages of sorting and storing, transporting, storing and processing.

SUBJECTS AND METHOD

1. Study Design

This research is a descriptive research with a qualitative approach. A qualitative approach is a research method that produces descriptive data in the form of written or spoken words from people and observable behavior (Notoatmodjo, 2005).

2. Population and Sample

The population in this study were 25 (twenty five) employees at the hospital in

accordance with the Decree of the Director of the Suryah Khairudin Hospital, Merlung District, Tanjung Jabung Barat Regency, who were officers in handling Covid-19. Sampling in this study was based on purposive sampling (deliberate), the sampling method was done by selecting subjects based on certain considerations, namely those who understand and are involved in the management of solid medical waste at Suryah Khairudin Hospital.

The sample consists of 2 (two) doctors, 10 (ten) nursing staff, 5 (five) midwifery workers, 1 (one) public health worker, 2 (two) health analysis personnel, and 2 (two) cleaning service personnel. two) people, 2 (two) people for Spraying Disinfectant, 1 (one) Laundry, and 1 (one) Covid-19 Garbage Burner.

3. Study Variables

The dependent variable is the solid medical waste management system (sorting and storage, storage, transportation, human resources, funds/financing, facilities and infrastructure, technical guidelines). The Independent Variable is Personal Protective Equipment (PPE).

4. Operational Definition of Variables

Sorting and Storage is the activity of sorting solid medical waste in the form of hospital PPE waste and then collecting it in the containers that have been provided.

Storage is Hospital PPE Waste Storage Activities.

Processing is an activity of treating hospital PPE waste using an incinerator.

Transportation is a transportation activity that starts from the Covid-19 special isolation room which produces PPE solid medical waste to be transported to TPS using special trolleys.

Human Resources are human resources that carry out sorting and reduction acti-

vities, collection/transportation, storage and processing

Funds/Financing is the ability to meet financing in the reduction and sorting, collection/transportation, storage and processing.

Facilities and Infrastructure are equipment needed in the process of reducing and sorting, collecting/ transporting, storing and processing.

Technical Guidelines are Guidelines in the Process of Treating PPE Solid Medical Waste from the process of reducing and sorting, collecting/transporting, storing, and processing.

5. Study Instruments

The research instrument in this study was interviews, and observations on waste management officers, SWOT analysis.

Table 1. Assessment of Internal Strengths and Weaknesses

ASSESSMENT OF STRENGTH (S)	WEIGHT	SCORE	NT
1. Availability of incinerator facilities in the management of PPE solid medical waste.	21	4	84
2. There is a standard operating procedure (SOP) in waste management	19	4	76
3. Availability of funds/financing for waste management.	21	4	84
4. Sufficient number of waste management personnel	17	3	51
Total	78		295
ASSESSMENT OF WEAKNESSES (W)	WEIGHT	SCORE	NT
1. Awareness of using Personal Protective Equipment (PPE) in managing waste .	17	4	68
2. The absence of a waste disposal site that meets the requirements	17	4	68
3. Level of knowledge of officers	15	4	60
4. Untrained HR	14	3	42
5. There is no room for cleaning tools	17	4	69
6. PPE solid medical waste management is not in accordance with SOP	17	4	68
Total	97		374

The facilities and infrastructure owned by the hospital include the availability of colored waste containers for medical and non-medical waste in each room. For collection activities, trolleys are provided as well as for processing activities,

RESULTS

1. The results of SWOT Analysis

a. Internal Factor Evaluation internal factor evaluation)

Table 4.10 explains that in the Strength Assessment (S), the strength factor for the management of PPE solid medical waste in hospitals is the availability of supporting facilities and infrastructure in the management of PPE solid medical waste in hospitals, which has a major impact on the preparation of waste management strategies. The availability of facilities and infrastructure is an important force in the management of solid medical waste in hospitals.

1 incinerator machine is provided for processing PPE solid medical waste in hospitals, other strengths are the availability of PPE solid medical waste destruction technology, implementing regulations for the management of

hazardous and toxic waste materials, the number of waste management personnel is as much as 4 (four) people were deemed sufficient, the support from the Director of the hospital was seen during the interview where the Director of the hospital Suryah Khairudin attempted to provide training facilities in the form of a comparative study to hospital of Daud Arif Kuala Tungkal to study the management of medical waste in the hospital.

b. External Factor Evaluation

Table 2 explains that in the Opportunity Assessment (O), the opportunity factor for managing hospital PPE solid medical waste is the support from the Health Office related to funding where the Health Office provides flexibility to hospitals to propose the need for facilities and infrastructure in the budget sourced from the APBD.

Table 2. Assessment of External Opportunities and Threats

OPPORTUNITY ASSESSMENT (O)	WEIGHT	SCORE	NT
1. Support from the Health Office	20	4	80
2. Availability of regulations regarding waste management in health facilities	18	3	54
3. Financial support from the government in equipping waste management facilities	21	4	84
4. The location of the hospital is quite spacious and far from Peruvian	20	4	80
5. The hospital is surrounded by companies that are around the hospital area	19	4	76
Total	98		374
THREAT ASSESMENT (T)	WEIGHT	SCORE	NT
1. The old budget filing bureaucracy	28	4	112
2. The number of cases is increasing due to violations of health protocols	28	4	112
3. PPE price increase	22	3	66
4. PPE stock is limited	20	2	40
Total	98		330

This allows the hospital to plan and budget funds for waste management at the Suryah Khairudin Hospital, one of which is by proposing the construction of a TPS that meets the requirements. In addition, support from the Health Office is also expected to facilitate cooperation with third parties.

c. Strategic Position in SWOT

Based on the difference between internal and external factors above, the difference between strengths and weaknesses is -79, while the difference between opportunities and threats is +44 so that the strategic position in the SWOT analysis can be seen in Quadrant Figure 4.13.

Figure 1 explains that the position of the assessment of internal and external factors is in quadrant III (negative, positive). With this position, it means that strength has a negative value and opportunity has a positive value. Therefore, in formulating a policy strategy it is recommended to support a turn around strategy, meaning that Suryah Khairudin Hospital is in a condition of having several very large opportunities but on the other hand, facing several internal obstacles or weaknesses so it is necessary to increase the existing opportunities by minimizing weaknesses. So that the PPE Solid Medical Waste Management Strategy at the Covid-

19 Isolation Special Facility requires an analysis using the SWOT (Strength, Weakness, Opportunity, Threat) method. The SWOT analysis was obtained from the identification of the conditions, potentials

and problems of each component of waste management and aspects of the Internal and External environment of Suryah

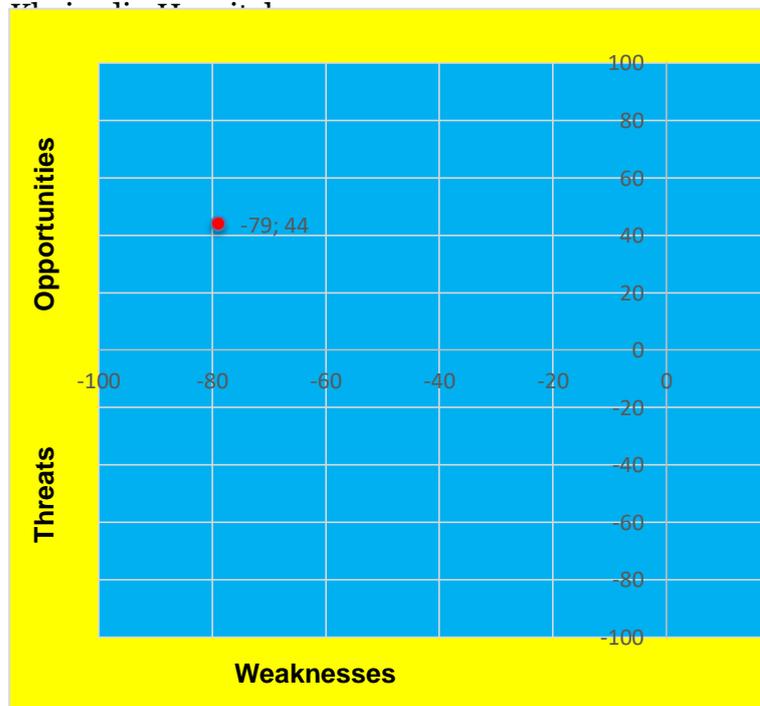


Figure 1. SWOT assessment quadrant

DISCUSSION

1. HUMAN RESOURCES

Suryah Khairudin Hospital is led by a director who serves as the main director as well as the person in charge of the Covid-19 handling team at Suryah Khairudin Hospital. The implementation of the PPE solid medical waste management process at the Suryah Khairudin Hospital is managed by the Environmental Sanitation Hygiene section of the hospital. The internal workforce on the PPE solid medical waste management team in the Covid-19 special isolation room consists of 4 (four) people, each of whom is tasked with collecting from the isolation room to the outside of the room 1 (one) person, transporting from the container to TPS 1 (one)) people, 1 (one) person disinfecting sprayer, and 1 (one) person operating the incinerator.

From the results of interviews with informants, information was obtained that the existing health workers had never received training related to the management of PPE solid medical waste, but a comparative study was carried out at the Daud Arif Kuala Tungkal Hospital as many as 4 (four) people, the Environmental Health team that handles solid medical waste There are 4 (four) people with PPE in the Suryah Khairudin Hospital who have educational qualifications, consisting of 1 person with the latest bachelor's degree in Public Health in the Department of Public Health, 1 (one) person with a bachelor's degree in Environmental Engineering and 2 (two) other people from high school. The current status for the Kesling Team is still honorarium, special training for Healthcare officers has never been included but the

hospital has carried out comparative studies on the Kesling team to learn about the medical waste management system at KH.Daud Arif Kuala Tungkal Hospital for two days, and process supervision. the management of hospital PPE solid medical waste is carried out by the coordinating team for handling Covid-19 but and the person in charge of health care directly.

2. Facilities and Infrastructure

The results of interviews with informants, namely policy makers at Suryah Khairudin Hospital regarding the existing facilities and infrastructure at the hospital for solid medical waste management activities, provided a means of collecting solid medical waste, PPE, special equipment for the transfer/ transportation of solid medical waste, but which is used by officers transporters use angkung which makes it easier for officers to work. For the treatment of solid medical waste, the hospital PPE provides an incinerator in a large capacity.

3. Regulation or Regulation

Suryah Khairudin Hospital is guided by the Regulation of the Minister of Environment and Forestry P.56 of 2015 concerning Procedures and Technical Requirements for the Management of Hazardous and Toxic Waste from Health Service Facilities and uses the latest guidelines in handling Covid-19 waste, namely KMK No. HK.01.07/537/ MENKES/ 2020 concerning Guidelines for Medical Waste Management of Health Service Facilities and Waste from Isolation Activities or Independent Quarantine in the Community in Handling Corona-virus Disease 2019.

From the results of observation and review of documents, information was also obtained that the SOPs owned by Suryah Khairudin Hospital are related to the PPE solid medical waste management system, namely, SOPs for the Use of Personal Pro-

TECTIVE Equipment, SOPs for Accepting Patients at Special Covid-19 Health Facilities, patient visits at Special Isolation Facilities. Covid-19, SOP for the Use of Masks in Special Facilities for Covid-19 Isolation, SOP for Handling Infectious and Non-Infectious Solid Waste.

4. Funding / Financing

The results of interviews with informants, namely the Director of RSUD Suryah Khairudin, showed that the funds used in the management of PPE solid medical waste came from APBD funds.

The budget available for Suryah Khairudin Hospital in service activities, especially the handling of B3 Waste in 2020, is Rp. 11,160,000 and for the 2021 budget specifically for the management of medical waste in hospitals, the amount has increased to Rp. 25,000-000, - (DPA Tanjung Jabung District Health Office West).

5. Waste Personal Protective Equipment

The results of the interview obtained information on the guidelines used in determining the PPE used using the Standard Guidelines for Doctor Protection in the Covid-19 Era 2020. Data on PPE solid medical waste produced by Suryah Khairudin Hospital consisted of: Hazmat, N95 Masks, Surgical Masks, Nurse Cups, Sterile Handscoon, and Non-Sterile Handscoon. Meanwhile, for Google, face shields and boat shoes are used repeatedly through washing and disinfection.

In accordance with the guidelines for the Technical Instructions for Personal Protective Equipment (PPE) in dealing with the Covid-19 outbreak issued by the Ministry of Health in 2020, the PPE used by officers at the Suryah Khairudin Hospital is in accordance with these guidelines. The results of the interview obtained information that the waste

generated by the officers reached 4 to 5 kg per day if the visitation was carried out 3 times a day. If there is an increase in cases, the amount of waste generated will increase. Based on the results of field observations through a document review, data was obtained in the form of solid medical waste generation of PPE in the special isolation room for Covid-19 RSUD Suryah Khairudin from the beginning of treating confirmed Covid-19 patients in April 2020 to March 2021 every day it could reach 5 kg/day. , depending on the number of patients treated. The results of the study show that one officer in charge of caring for confirmed Covid-19 patients can produce an average of 450 to 500 grams of PPE waste.

PPE solid medical waste in the Covid-19 isolation special room at Suryah Khairudin Hospital from April 2020 to April 2021 as much as 789 kg where the most waste was found in November 2020. This is assumed to occur because in November 2020 the most confirmed Covid-19 patients with a total of 53 people, where the number of officers on duty increased from 5 to 9 to 12 officers.

PPE solid medical waste produced reaches 5 kg per day. The average generation of PPE solid medical waste in the Covid-19 isolation room was 60.69 kg/month in 2020. The increase in Covid-19 cases, which is one of the threats in hospitals, poses a risk to the increase in PPE waste produced, so attention needs to be paid to its management. So, environmental pollution does not occur which results in the transmission of Covid-19, both officers and people in the hospital environment.

6. Sorting and Storage

The results of interviews with informants related to the process of sorting and storing PPE solid medical waste at the Suryah

Khairudin Hospital for sorting from the source has been done by separating PPE waste in special containers, but the bags used are still not appropriate because from the interview results obtained information that the bags used are colored yellow bags are in accordance with the guidelines, but the results of field observations of the bags used are black, after being confirmed again, the use of black bags is because the supply of yellow bags has run out and has not been repurchased.

Based on KMK guidelines No.HK 01.07/MENKES/537/2020 concerning Guidelines for Medical Waste Management for Health Service Facilities and Waste from Isolation or Independent Quarantine Activities in the Community in Handling Corona-virus Disease 2019 (Covid-19), it is explained for the process of sorting medical waste B3 is put into a container/bin lined with a yellow plastic bag with the symbol "biohazard". However, in SE No. 2 of the Minister of Environment and Forestry in 2020, it was explained that the use for Covid-19 waste may not use plastic with a yellow color, but it was given information that the bag contained infectious Covid-19 waste.

From the results of the research carried out, it is known that at the stage of sorting and storing PPE solid medical waste at the Covid-19 Special Isolation Facility at Suryah Khairudin Hospital, it was in accordance with KMK No. HK.01.07/MENKES/537/2020 due to the use of plastic bags which, although not yellow, but in the Minister of Environment and Forestry Decree No. 2 of 2020 provides a policy for the use of plastic bags not limited to yellow plastic bags but still provides a "biohazard" or "biohazard" label. information stating that the bag contains Covid-19 waste. If there is no information in the form of symbols or information about Covid-19

waste, it is feared for collectors and transporters because there will be a risk of being confused or at risk for further processing. The risk can also be to the environment.

Another study by Yolarita and Kusuma on the Management of Hospital Medical B3 Waste in West Sumatra During the Covid-19 Pandemic also explained that most hospitals in West Sumatra had made sorting efforts (64.71%). The results of the analysis of sorting and storage activities on PPE solid medical waste at Suryah Khairudin Hospital from field observations it is known that the procedure that meets the sorting and storage component is sorting at the source, namely the PPE used is disposed of or placed in a special place in the form of trash cans that have been previously coated. by plastic bags, sorting is carried out as close as possible to the source of the waste, because officers dispose of PPE waste in containers placed at the PPE release point, for procedures that do not comply, namely sorting is only done during collection not to transport and storage, because all solid waste remains transported and stored in the same place. Then other procedures that do not meet, namely the placement and labeling on the packaging are not carried out so that there is no distinction for PPE solid medical waste.

In the bins used, from the results of field observations, it can be seen that the condition of the trash bins to accommodate PPE solid medical waste at Suryah Khairudin Hospital has met the requirements in terms of rust-resistant materials, waterproof materials, strong materials and materials resistant to sharp objects. The condition of the trash can at Suryah Khairudin Hospital has a lid that is easy to open, but the bag used to coat the garbage does not use a yellow plastic bag according to the infectious waste category. Plastic

bags used during field observations used black plastic bags after confirmation to the supply officer for yellow plastic bags were not available so they used black plastic bags.

The results of the observation can also be seen that a distinction is made for medical and non-medical waste by labeling the trash can. The treatment of trash bins based on the results of interviews and observations obtained information that plastic bags in trash bins were transported according to the patient's visit schedule or when 2/3 parts were filled. However, for trash cans, disinfection is carried out after the waste is transported, while washing is carried out if the trash can looks dirty, if not just sprayed with disinfectant. Washing using a manual washing machine.

Based on KMK No.HK.01.07-/MEN-KES/537/2020 explains that medical waste that has been tied up every 24 hours must be transported, recorded and stored in a temporary storage area for B3 waste or a special place. The plastic bags used are only installed in special PPE trash cans if collection is to be carried out, not installed in the previous trash cans, the color of the bags from the results of previous interviews is said to use yellow plastic bags according to the infectious waste category, but the results of field observations obtained information that when The study used black plastic bags. carried out in accordance with the guidelines because PPE waste which after being used is immediately placed in a special container that has been lined with a yellow plastic bag which is a statement that the waste is infectious waste. There is a discrepancy with the results of field observations, namely the container for PPE solid medical waste using a trash can lined with a yellow plastic bag.

The use of black plastic bags or bags with colors other than yellow can still be

done, but by giving a label or sign stating that the waste packaged in the plastic bag is solid medical waste PPE that is infectious, you can make a label with the words biohazard in accordance with SE MENLHK Number 2 of 2020. This aims to ensure that waste transport officers are not mistaken in transporting waste according to the category and prevent transmission to the environment as well as the safety of officers in waste management.

Transportation

The process of transporting hospital PPE solid medical waste from the PPE changing room where the PPE waste container is placed. Prior to transportation, the plastic bag carrier containing PPE waste is sprayed with a disinfectant with a chlorine solution and then transported using a garbage trolley to transport the waste to a storage area before processing PPE solid medical waste. After field observations, information was obtained that the transportation equipment used by officers to transport PPE solid medical waste that had been previously collected to a temporary storage area prior to processing, the waste was transported using a carrier.

The results of interviews and field observations obtained information that the previous means of transport was a means of transport that met the requirements in accordance with the guidelines that to transport infectious solid medical waste using special transport transport that met the requirements. The results of the researcher's analysis that the waste management system showed that the process of transporting PPE solid medical waste at the Suryah Khairudin Hospital was not in accordance with KMK No. HK.01.07/537/ MENKES-/2020. Among them is the process of transporting PPE solid medical waste which is infectious waste which is carried out not every day,

namely with a schedule of 3 (three) times a week Monday, Wednesday and Saturday or if the volume of waste is full in the holding container. The transportation equipment used to transport PPE solid medical waste that has been packaged and disinfected, even though it is not in accordance with the means of transportation recommended in Permen LHK Number 56 of 2015 but is considered safe enough because it has been sprayed with disinfectant before transportation.

Storage

Storage of PPE solid medical waste resulting from transportation carried out by officers from the Covid-19 isolation room is carried out by placing plastic bags containing PPE solid medical waste next to the incinerator due to the absence of TPS to store solid medical waste, especially the PPE waste. . However, according to the Director of the RSUD Suryah Khairudin, a TPS with a size of 2 x 3 meters has not yet met the requirements according to the LHK Regulation P.56 of 2015. From the results of the interview, information was obtained that the construction of a new TPS will be carried out in 2021 on the budget changes and requirements for the TPS. will adjust to the guidelines of the Minister of Environment and Forestry Regulation P.56 of 2015. The results of the observations made are known that the waste that has been carried out in the transportation process is collected in a place with a size of 2 x 3 meters as stated by one of the previous informants.

Processing

The process of processing PPE solid medical waste at the Suryah Khairudin Hospital is burned using an incinerator after a temporary operational permit was issued in August 2020. But before that, the waste was collected first. The results of the observations made obtained information

that the waste that had been collected at the temporary TPS would be processed using an incinerator if the waste had been collected in the range of 30 kg.

From the results of Sholihah's research (2020) on the Evaluation of Medical Waste Management at Sentra Medika Hospital Cikarang explained that based on SE.2 MENLHK/PSLB3/2020 regarding the management of infectious waste (B3 waste) and household waste from handling Covid-19. B3 waste must be handled specifically and processed in hospital waste incinerator facilities at a minimum temperature of 800 oC. Medical waste management during the Covid-19 pandemic requires a wider infrastructure.

This is in accordance with the results of research conducted at Suryah Khairudin Hospital where solid medical waste PPE produced by the hospital is managed using an incinerator machine owned by the hospital. This is in accordance with KMK guidelines No. HK.01.07/MENKES/537-/2020 concerning Guidelines for Medical Waste Management of Health Service Facilities and Waste from Isolation or Independent Quarantine Activities in the Community in Handling Covid-19.

AUTHOR CONTRIBUTION

Syarifah Aini is the main researcher and data collector and processor; Hutwan Syarifuddin and Ilham played a role in reviewing the article.

CONFLICT OF INTEREST

There is no conflict of interest in this study,

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