

ANALYSIS OF THE PREPAREDNESS OF RSU HAJI MEDAN IN DISASTER MANAGEMENT

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Abstract

Disaster is defined as an event or series of events that endanger and disrupt people's lives and livelihoods, caused by natural, non-natural, or human factors. This research aims to analyze the preparedness of RSU Haji Medan in disaster management. The research method in this study is qualitative with research instruments in the form of interview guidelines and documentation, and secondary data collected from guidelines and official hospital documentation related to disaster preparedness. The results showed that Medan Hajj General Hospital has taken significant steps in disaster preparedness, with a clear structure and command system, as well as an organized disaster management team. Early warning systems have been implemented in the new building, although evaluation is needed in the old building. Infrastructure management shows good preparedness, with backup generators and an organized logistics system.

Keyword : Disaster, Preparedness, Countermeasures, Hospital

Introduction

Hospitals have a vital function as health service providers that must continue to operate and provide maximum services, even in the midst of emergency or disaster situations. Therefore, every hospital must have a high level of preparedness in dealing with various types of disasters, both natural ones such as earthquakes, floods, and tsunamis, as well as man-made disasters such as fires, explosions, and chemical or biological incidents. Disaster management in hospitals has globally become one of the topics of great concern to various world health organizations, including WHO (World Health Organization) and PAHO (Pan American Health Organization), which have issued international guidelines and standards regarding hospital preparedness in the face of disasters.

In the context of disaster management in hospitals, there are several main elements that must be considered, namely infrastructure readiness, evacuation planning, medical staff training, and the availability of facilities and infrastructure that support disaster management. Around the world, hospitals are expected to have a comprehensive disaster risk management system. This includes clear standard operating procedures (SOPs), early detection systems, safe evacuation routes, and disaster management facilities such as sprinkler systems, smoke detectors, and fire extinguishers. These facilities are essential to reduce the risk and impact of disasters in hospitals, which are gathering places for many people, including patients with limited mobility.

In Indonesia, which is known as a disaster-prone country due to its geographical location, hospital preparedness in the face of disasters is becoming increasingly important. Earthquakes, floods, fires and other disasters have repeatedly occurred, so hospitals as vital community facilities must be prepared for any eventuality. One of the hospitals that plays an important role in disaster management

in the North Sumatra region is the Hajj General Hospital (RSU) Medan, which has the status as one of the main referral hospitals in the city of Medan and its surroundings. With its function as a major health facility, RSU Haji Medan is expected to be able to provide a quick and effective response in emergency situations, including natural and non-natural disasters.

However, in reality, the preparedness condition of Medan Hajj General Hospital, especially in Building A, still faces significant obstacles. Building A, which is one of the main buildings in the hospital complex, is the center of attention in terms of disaster management due to the lack of essential facilities and infrastructure to support disaster response. One of the prominent issues is the lack of disaster response facilities, especially related to automatic fire extinguishing systems (sprinklers) and smoke detectors. These facilities are important components in effective fire prevention efforts, but are still unavailable or inadequate in Building A of RSU Haji Medan.

This lack of automatic fire extinguishing systems (sprinklers) and smoke detectors is very risky, especially in the context of fire, which is one of the most common types of non-natural disasters in hospital environments. Sprinklers and smoke detectors function as fire suppression and early detection systems, which can significantly reduce the impact of a fire incident before the fire spreads further. With sprinklers, fires can be extinguished automatically before firefighters arrive on site, while smoke detectors can provide early warning to all building occupants so that the evacuation process can be carried out quickly and precisely. The absence or lack of these facilities slows down the hospital's response to fire incidents, potentially causing greater damage and risk to the safety of patients, medical personnel and visitors.

Furthermore, the lack of these facilities has a direct impact on the evacuation and casualty management process in disaster situations. When a fire breaks out without early detection through smoke detectors, the fire may spread undetected for a long time, leading to delayed evacuation of patients and staff. In addition, without an automatic fire extinguishing system such as sprinklers, manual efforts to extinguish the fire will take longer, which can increase the risk of injury or even death. In hospitals, where many patients may be frail or have limited mobility, a quick response to fire is crucial to prevent loss of life.

In addition to the lack of sprinklers and smoke detectors, Building A also faces limitations in other supporting facilities related to disaster response, such as the absence of an effective emergency communication system to coordinate disaster response throughout the hospital. These issues further deteriorate the ability of RSU Haji Medan, particularly Building A, to handle emergency or disaster situations quickly and efficiently.

Therefore, this study aims to conduct a preparedness analysis of RSU Haji Medan, focusing on Building A which suffers from deficiencies in disaster response facilities and infrastructure. The main focus of this study is to identify infrastructure deficiencies, including the absence of automatic fire extinguishing systems and smoke detectors, and how these deficiencies affect the hospital's ability to respond to emergency situations. In addition, the research will examine the potential impact that the lack of disaster response facilities in Building A could have on the safety of patients, staff and overall hospital operations.

The results of this study are expected to provide a clearer picture of the lack of disaster response facilities in Building A of RSU Haji Medan, as well as produce concrete recommendations to improve the hospital's disaster preparedness. Such recommendations may include upgrading the automatic fire extinguishing system, installing smoke detectors in all areas of the building, and improving the evacuation and emergency communication systems. Thus, RSU Haji Medan can be better prepared and able to provide optimal health services even in emergency conditions, and minimize the risks faced by patients and hospital staff in disaster situations.

Methods

The type of research used in this study is qualitative. The research instruments were interview guidelines and documentation. This research was conducted at the Haji General Hospital Medan in September-October 2024. In this study, the data collected consisted of two types, namely primary data and secondary data. Primary data was obtained through in-depth interviews and observations of informants related to hospital preparedness in the face of disasters. This process aims to gain direct and in-depth insights into the practices and policies implemented at Medan Hajj General Hospital. Meanwhile, secondary data was collected from guidelines and official hospital documentation related to disaster preparedness. These sources provided additional context and necessary information to support a more comprehensive analysis. The combination of these two types of data is expected to provide a more complete picture of the hospital's preparedness for emergency situations, as well as assist in identifying areas for improvement.

In this study researchers used primary data. Primary data was obtained through direct interviews conducted by researchers at RSU Haji Medan. The selected informants consisted of the head of sanitation and OHS and OHS staff. Two informants were chosen because the researcher believed that they had a deep understanding of the disaster management system in the hospital. Thus, it is expected that the information obtained can be clear, accurate, and reliable, including statements, information, and relevant data to help understand the problem under study. After data collection is carried out, the results of the interviews will be presented descriptively, describing the findings obtained from the informants. This approach aims to provide a comprehensive picture of the Disaster Management System at RSU Haji Medan, as well as the challenges faced in its implementation. Thus, the resulting analysis is expected to make a significant contribution to the development of occupational safety and health management systems in hospitals.

Characteristics of Interviewees

No.	Informant	Position
1	Respondent 1	Head of Sanitation and OHS Installation
2	Respondent 2	First Expert Occupational Health Supervisor
3	Respondent 3	Sanitation Field Supervisor

Results

A. Overview of Management Standards

In the Management Standard there are two parameters that will be discussed. Parameter 1 will discuss the Hospital has a management system capable of working in disaster situations. Parameter 2 will discuss the Hospital has a book of disaster management plan documents, strategic plans and insurance.

1. Having a hospital management system that can work in disaster situations.

1) Emergency Command Structure & System.

For the completeness of the structure and command system of the disaster management team at the Medan Hajj Hospital, it meets the standards. This is supported by evidence in the Decree of the Director of the Special UPTD of the Medan Hajj General Hospital, North Sumatra Province Number: 660/04/SK/DIR/RSHM/III/2024 regarding changes in the disaster management team of the Special UPTD of the Medan Hajj General Hospital, North Sumatra Province. This is emphasized by the statement:

"The organizational structure and command system in the hospital have been established in accordance with the needs of disaster management." (Inf 2).

Informant 3 also stated that this organizational structure already exists in the hospital, indicating that the hospital has prepared well for emergency situations.



Figure 4.1 Structure of the Disaster Management Team of the Special UPTD of the Hajj General Hospital Medan, North Sumatra Province

Decree of the Director of UPTD Specialized Hajj General Hospital Medan, North Sumatra Province Number: 660/04/SK/DIR/RSHM/III/2024 concerning changes in the disaster management team of UPTD Specialized Hajj General Hospital Medan, North Sumatra Province.

2) Early Warning System

The early warning system at Medan Hajj Hospital shows some shortcomings. According to the informant, "... if it is for a new building, the early warning is already there, if it is for an old building, it is rather insignificant..." (Inf 1). In addition, there is also a statement regarding the early warning system that includes alarms and fire detection, but "...the early warning system that is owned in the hospital has not been covered in all areas of the hospital " (Inf 2).

Informant 3 added that *"the implementation of the early warning system in the old building needs to be improved to be more effective."* From this information, it can be concluded that although Medan Hajj Hospital has an early warning system in the new building, there is still a need to improve the system, especially in the old building, as well as ensuring wider coverage throughout the hospital area.

In addition, the discussion also showed that for the old building, there was no smoke detector or fire alarm. The informant mentioned that *"as far as I know, there is no alarm here, maybe in the new building there is."* This emphasizes the need for more attention in improving early warning systems in older buildings.

3) Disaster Communication Systems and Tools

The disaster communication system and tools at Hajj Hospital Medan have advantages and disadvantages. Although there is a disaster management guideline, informants emphasized the importance of supplementing the guideline with a "bed name," which includes the main tasks and functions (tupoksi) of the disaster management team members. A respondent explained, *"Actually, basically for everyone to know what to do, it is already in the guidelines... but we also complete it with the bed names of the people appointed as the disaster management team"*.

The informant also mentioned, *"As for the communication tools used in this hospital, we also have a telephone network and internal telephones ... but when a disaster occurs, it is definitely not possible. So when a disaster occurs, the recommended use is HT"*. In the context of communication tools, informant 1 added, *"Nowadays, we can say that our facilities are easier for communication tools... in the past there may still be telephones and cellphones, but now there are cellphones so communication can be fast"*. He also mentioned, *"We also make loudspeakers"*.

4) Infrastructure Management

Infrastructure management at Hajj Hospital Medan has some strengths, but also challenges that need to be overcome. A respondent explained, *"We have a backup generator that will start in the event of an outage in a maximum of 5 seconds"*. This shows the hospital's preparedness in addressing electricity issues during disasters. He also added that infrastructure maintenance planning remains budgeted annually, at least once a year, which shows a commitment to maintaining the condition of the facility.

Regarding the response to infrastructure damage during a disaster, respondents emphasized the importance of following disaster management guidelines: *"The attitude should be to remain calm and always look for plan B to ensure disaster management continues."* This reflects staff awareness and preparedness in dealing with emergency situations. Informant 1 highlighted that safety infrastructure must be well prepared and stated, *"Infrastructure is not only about roads, but also about disaster safety, including supporting tools such as alarms and fire extinguishers (APAR)."* He also noted that some existing infrastructure has not been optimally placed, saying, *"It should not be downstairs, because our tall building is very vulnerable to disasters."*

5) Traffic Management

In traffic management at Hajj Hospital Medan, procedures for managing the movement of patients and staff have been regulated in Standard Operating Procedures (SPO) with specific codes, such as red code and gray code. A respondent explained that *"the movement in the hospital during a disaster is also written in the SPO"* (Respondent 2). This shows that movement management remains structured even in emergency situations. To ensure smooth traffic flow, especially when there are emergency vehicles, the hospital has a disaster team in charge of operations. The respondent added, *"In the disaster team there is an operational section, and in the operational section it is also mentioned that the main tasks and functions are divided"* (Respondent 2). This confirms that the movement remains organized despite the emergency.

6) Human Resource Management Mechanism

At Hajj Hospital Medan, the human resource management mechanism regulates the division of labor or shifting for officers. In an emergency or disaster situation, it is important to maintain effective coordination so that all tasks can be carried out properly. Respondent 2 explained, *"For the shift system in the event of a disaster it falls to the medical advisor... it is the medical advisor who organizes the schedules and availability of our medical personnel."* This shows that the hospital has a clear system in place to ensure sufficient staff availability and responsiveness in the event of a disaster.

7) Victim data collection mechanism

At Hajj Hospital Medan, the mechanism for collecting data on disaster victims is carried out by involving teams from each inpatient room. *"Our victim recording system is first in the inpatient rooms, and the team from there provides data to the disaster management team,"* explained Respondent 2. For visitors, recording is done through existing data from patients. *"Every visitor is also recorded through the patient, and we limit the number of visitors who can accompany the patient,"* he added. Regarding the use of technology, Respondent 2 stated that currently the data collection process is still done manually. *"As far as I know, it is still manual, not using electronic technology,"* he said.

8) Disaster Financial Management Mechanism

At the Medan Hajj Hospital, the financial management mechanism for disasters has been regulated in the disaster management guidelines. According to Respondent 2, *"For the financial management disaster system, it is also contained in the disaster management guidelines in the"*

hospital". Policies related to financial management for emergency response refer to the Disaster Management Law. Respondent 2 added, *"For disaster management policies, we also refer to the law, which provides a little flexibility compared to the use of finances in non-disaster events"*.

9) Disaster Logistics Management Mechanism

At Hajj Hospital Medan, the disaster logistics management mechanism is handled by the logistics department responsible for disaster situations. Respondent 2 stated, *"The logistics department is responsible in the event of a disaster"*. In ensuring logistics availability, the hospital implements SOPs that include routine inventories. Respondent 2 explained, *"The inventory is always updated so that if there are items that are close to zero or running out, it can be followed up for procurement as soon as possible."* OHS also plays a role in preparing the logistics needed during a disaster. Respondent 2 added, *"We help prepare the logistics needed in the event of a disaster, more like that"*.

10) Activity Reporting Mechanism

At Hajj Hospital Medan, the mechanism for reporting activities during disasters has been organized in stages and systematically. The disaster management team is responsible for preparing an accountability report that will be issued and submitted to the hospital for follow-up.

As stated by the informant, *"Reporting after a disaster is done by the disaster management team, and the report will be given to the hospital for follow-up"* (Informant 2). The head of the disaster management team plays an important role in this process, stating that *"the one responsible in the end is the head of the disaster management team"* (Informant 2).

11) Security Management Mechanism

At Hajj Hospital Medan, the security management mechanism during a disaster is managed by the head of the security unit in coordination with the police. The informant explained, *"The security mechanism is returned to the security team, which plays an important role in maintaining security in the hospital"* (Informant 2).

12) Hazardous Hazard Management

At Hajj Hospital Medan, hazardous materials management is carried out with strict procedures to maintain safety. The informant explained, *"In the event of a disaster, hazardous materials are evacuated and placed in a place deemed safe"* (Informant 2). The use and storage of hazardous materials is also restricted and supervised by the security team.

Respondent 3 added, *"Maybe the mitigation of hazardous materials will be done after, for example, in ward A, the patients, documents, assets have been secured. Well, maybe if for example it turns out that next to the treatment room there are those who store various hazardous materials, maybe after everything is secured, then after that the hazardous materials will also be secured. But the priority is still the location where the fire started."*

2. Have a Hospital Disaster Management Plan, Strategic Plan and Insurance Document Book.

1) Hospital Disaster Management Plan Document

At Hajj Hospital Medan, disaster management plan documents have been well developed to deal with various possible emergency situations. The informant stated, *"The hospital has a disaster management guideline that covers the necessary aspects"* (Informant 2). In addition, there are specific guidelines detailing the steps to be taken, as explained by another informant: *"There is a disaster management guideline, which is already included in OHS risk management"* (Informant 1).

2) Strategic Plan

At Hajj Hospital Medan, the strategic plan related to disaster management has not been fully structured. One informant stated, *"The hospital has a strategic plan, but I don't know if it is*

related to disasters, I don't think it exists" (Informant 2). However, the informant added that disaster risks have been taken into account: *"By registration, disasters are also included in the risks that the hospital has"* (Informant 2).

3) Insurance

At Hajj Hospital Medan, information related to insurance seems to be less clear. One informant stated, *"Actually, I personally do not know whether the hospital has insurance or not in the event of a disaster"* (Informant 2). The informant further explained about insurance related to COVID-19, *"In case of occupational diseases, the insurance uses BPJS"* (Informant 2).

B. Hospital Preparedness Facilities and Infrastructure in the Face of Disasters

Based on the results of observations regarding the facilities and infrastructure of hospital preparedness in the face of disasters, obtained:

No.	Facilities and Infrastructure	Checklist
Main		
1	Evacuation route signage	<input type="checkbox"/>
2	Gathering place	<input type="checkbox"/>
3	Backup logistics warehouse	<input type="checkbox"/>
4	Emergency exit	<input type="checkbox"/>
5	Ramp	<input type="checkbox"/>
6	Networking with neighboring buildings	-
7	Early Warning System	-
General		
8	Command post	-
9	Information data center PR	-
	Ht	-
	Radio	-
10	Public kitchen	-
11	Logistics warehouse	-
Victim Handling		
12	Triage area	<input type="checkbox"/>
13	Emergency action room	<input type="checkbox"/>
14	Emergency operation room	<input type="checkbox"/>
Support		
15	Electrical (Genset and UPS)	<input type="checkbox"/>
16	Communication system	<input type="checkbox"/>
17	Medical gas	<input type="checkbox"/>
18	CSSD (Central Sterile Supply Department)	<input type="checkbox"/>
19	Water supply system	<input type="checkbox"/>
20	Sewage treatment	<input type="checkbox"/>
21	Air system in critical areas	-
21	Air system in critical areas	-

Discussion

A. Overview of Management Standards

1. Hospital Disaster Preparedness.

1) Command Structure & System

Haji Hospital Medan has established a clear command structure for disaster management. With good organization in place, coordination between teams and rapid response to emergency situations can be done more efficiently. This facilitates task assignment and communication flow during a crisis. This is in accordance with the Decree of the Minister of Health Number 1087 of 2010 in research (Pratamaningtyas et al., 2016) regarding occupational health and safety standards in hospitals. One of the hospital's occupational safety and health programs is the establishment of a disaster awareness organization.

2) Early Warning System

Depkes RI, (2001) that the early warning system is also an early subsystem in preparedness activities, so that the community and health ranks, especially in potential disaster areas, can better prepare themselves for possible disasters.

Based on the results of the research at Haji General Hospital Medan, the early warning system in the new building has been implemented, but there are significant shortcomings in the old building. Therefore, it is necessary to conduct a thorough evaluation and strengthening of the warning system in all areas of the hospital to ensure all parts are prepared for disasters.

3) Disaster Communication Systems and Tools

The hospital has disaster management guidelines and uses communication tools such as HT (Handy Talkie) to communicate during emergency situations. However, there needs to be improvement in the clarity of the guidelines as well as the reliability of the communication tools so that they can function properly when a disaster occurs.

This is in line with research (Yennizar et al., 2015) which states that communication in disaster management the first thing to do is to determine the place of the command center known to everyone.

4) Infrastructure Management

Haji Hospital Medan has demonstrated significant readiness in infrastructure management, especially with the presence of backup generators that can function within a maximum of five seconds in the event of a power outage. This is an important step in ensuring continuity of healthcare services, especially in emergency situations where dependency on electricity is very high.

However, despite these advantages, there are still challenges that need to be overcome. The placement of safety infrastructure, such as fire extinguishers and fire alarms, needs to be optimized. Currently, some safety infrastructure has not been strategically placed, which could jeopardize the safety of patients and staff during a disaster. For example, fire extinguishers should not be placed in hard-to-access or high-risk areas.

5) Traffic Management

Haji Hospital Medan has established effective traffic management procedures to maintain order during disaster situations. These procedures are designed to ensure the smooth movement of patients and staff, even during emergencies.

HR Management Mechanism The shift arrangement for medical personnel at Haji Hospital Medan has been well implemented, ensuring the availability of medical personnel during disaster situations. This system allows the hospital to maintain the quality of health services, even in emergency conditions. With effective scheduling in place, each officer can perform their duties optimally without experiencing excessive fatigue. It also supports rapid response to patient needs that may increase during a disaster. The availability of organized and

coordinated medical personnel is crucial to reducing the risk of mishandling and ensuring that all patients receive the necessary care. The implementation of good shift arrangements also demonstrates the hospital's commitment to prioritizing public safety and health amidst the challenges faced.

6) Victim data collection mechanism

The data collection of victims at Medan Hajj Hospital is currently still done manually, which has the potential to cause delays and errors in recording. This manual process can be a major obstacle during a disaster, where time and accuracy are crucial. By adopting technology, such as digital systems for data collection, hospitals can improve efficiency and accuracy in recording casualties. Digital systems enable faster data collection and processing, reduce the risk of human error, and provide real-time access to disaster management teams. In addition, this technology can facilitate integration with other existing systems, making coordination and collaboration between teams easier. The use of digital systems can also increase transparency and accountability in data management, which is important for future evaluation and improvement of the disaster management system.

7) Financial Management Mechanism

Based on the results of research at the Medan Hajj Hospital, financial management follows clear disaster management guidelines, referring to the Disaster Management Law to provide flexibility in the use of funds. In disaster situations that are considered city or provincial level, hospitals can access assistance from BNPB, strengthening resource support. All financial expenditures are regulated in SOPs that every officer must understand, ensuring transparency and adherence to existing procedures.

8) Logistics Management Mechanism

Based on the results of the research at Hajj Hospital Medan, the disaster logistics management mechanism has a dedicated team responsible for managing equipment and resource needs, with regular inventories ensuring the availability of goods. Cooperation with the OHS team is also strengthened to ensure safety in logistics procurement.

9) Activity Reporting Mechanism

The systematic reporting system at Hajj Hospital Medan allows for accurate documentation of all activities during disaster situations. With clear procedures in place, every step taken can be recorded and evaluated, ensuring that important information is not missed and can be used for post-disaster analysis. This not only helps in improving future responses, but also increases transparency and accountability in disaster management.

10) Security Reporting Mechanism

Good security management in hospitals provides a sense of security for patients and staff. Well-trained security teams and a solid coordination system with authorities help ensure that all individuals within the hospital are protected from threats during a disaster. By creating a safe and secure environment, hospitals can focus more on patient care and recovery, improving the overall quality of healthcare provided. Both, a good reporting system and effective security management, are integral parts of a hospital's disaster preparedness.

11) Hazardous Materials Management

The management of hazardous materials at Medan Hajj Hospital is very strict, with clear and structured evacuation procedures. This step is crucial to prevent greater risks during disaster situations, given the potential hazards that such materials can pose. With proper protocols in place, the hospital can ensure that hazardous materials are safely evacuated and placed in a secure location, reducing the chances of leakage or exposure that is harmful to patients, staff and the surrounding environment. This rigor in management not only protects individuals within the hospital, but also contributes to the safety of the wider community during a disaster,

creating a safer environment overall.

2. Disaster Management Plan, Strategic Plan, and Insurance Document Book.

1) Disaster management plan document

The disaster management plan document at Hajj Hospital Medan is well organized, providing clear guidelines for staff in carrying out the necessary steps when facing a disaster. It includes procedures and roles of each team member.

2) Strategic Plan

While disaster risk awareness is already in place, hospitals need to develop a more structured strategic plan. This plan should include risk analysis, capacity assessment, and mitigation measures that can support better preparedness in the face of emergency situations.

3) Insurance

The insurance aspect of the hospital is unclear, despite BPJS coverage for health workers. Information on insurance that protects hospital assets and patients is lacking. This suggests the need for a more comprehensive review and development of insurance policies to protect all parties involved.

3. Hospital Disaster Preparedness Infrastructure.

Hajj Hospital Medan has set up various facilities and infrastructure that are essential for disaster preparedness, although there are still some shortcomings that need to be corrected. Among the key facilities, evacuation signs have been clearly posted to help patients and staff recognize evacuation routes during emergency situations. Rapid evacuation routes have also been designated, allowing for efficient and safe movement. In addition, backup logistics warehouses have been provided and are ready to be used to store equipment and essentials during a disaster, while emergency exits and ramp facilities are functioning well to support the evacuation process. However, the hospital does not yet have a network with neighboring buildings, which is crucial for strengthening overall disaster management capacity. In terms of public facilities, the hospital does not yet have a command post, which is a weakness in terms of organization and coordination during disasters. The use of communication tools such as HTs and radios also needs to be improved to ensure quick and accurate information delivery. A communal kitchen is not yet in place, which is crucial to meet the nutritional needs of patients and staff in a disaster situation, while the existing logistics warehouse needs to be evaluated to ensure availability and security of supplies.

Conclusion

Medan Hajj General Hospital has taken significant steps in disaster preparedness, with a clear structure and command system, and an organized disaster management team. Early warning systems have been implemented in the new building, although evaluation is needed in the old building. Infrastructure management shows good preparedness, with backup generators and an organized logistics system. However, there are some challenges that need to be addressed. Limited access in and out could potentially hamper evacuation, and the manual data collection of victims risks causing delays. In addition, communication and coordination aspects need to be improved, including the provision of command posts and the use of more effective communication tools. Disaster management plan documents have been prepared, but more structured strategic plans and comprehensive insurance policies are still needed. Facilities and infrastructure also need to be improved, including networking with neighboring buildings and provision of public kitchens. Overall, while Medan Hajj Hospital has a strong foundation in disaster preparedness, improvements in several key areas will enhance the effectiveness of response to emergency situations, protect patients and staff, and strengthen overall

disaster management capacity.

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