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Information on medical records of covid-19 patients in Indonesia

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Abstract
Background of the study: This research describes medical record management activities in two government hospitals in Indonesia, namely RSUD Tugurejo Semarang and RSUD Kota South Tangerang. This Hospital became history for the Indonesian people during the COVID-19 era and became a referral hospital for COVID-19 patients. Medical records, as written documents regarding the initial history of a patient's illness, can be trusted in the name of law and become archives with legal and historical value. Therefore, it is necessary to look at how the medical records of COVID-19 patients are recorded and utilized.
Purpose: Analyze the use of COVID-19 medical records as a source of health information data in hospitals.
Method: This research uses descriptive qualitative methods. Data sources come from observation, interviews, and documentation.
Findings: The research results found that medical records at General Hospitals in Indonesia are managed based on life cycle files, following the guidelines issued by the Regulation of the Minister of Health of the Republic of Indonesia Number 24 of 2022 concerning Medical Records.
Conclusion: The more organized a hospital's medical record archive is, the more information contained in the medical record will be visible to researchers.
Keywords*: Covid-19 patients, medical records, Covid-19 patient information*

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Introduction

According to WHO, Coronavirus disease (COVID-19) is an infectious disease caused by the SARS-CoV-2 virus (Coronavirus disease (COVID-19) (World Health Organization., 2023). This disease is in the same family as SARS and MERS, which causes many people to die (Liu et al., 2020). The government has made various efforts to save its citizens by enforcing various policies. One of them is Indonesia, which is implementing Large-Scale Social Restrictions (PSBB) in the hope that the spread of COVID-19 will become more widespread. (Tinambunan et al., 2021). Then, in 2022, various countries began to be able to overcome the spread of COVID-19, and Indonesia has begun to provide leeway in wearing masks in open spaces, except for the elderly or people who are sick (Humas, 2022).

Historically, the COVID-19 outbreak, or pandemic, is not the first to hit many parts of the world. According to Beach et al. (2020), the current COVID-19 pandemic is similar to the influenza pandemic that occurred in 1918. Both pandemics resulted in respiratory illnesses that spread highly infectious viruses. This virus spread massively throughout the world in just a few months. Therefore, researchers began to open old health archives, including medical records, to discover past medical records. According to data from January 3, 2020, to August 30, 2023, from WHO sources regarding handling COVID-19, there are around 6,813,095 confirmed cases of COVID-19, with 161,916 deaths reported to WHO (World Health Organization., 2023).

After the disaster spread, the Indonesian government realized the importance of studying archives during the pandemic. Therefore, the government issued the rescue of COVID-19 archives through a circular issued by the Ministry of State Apparatus Empowerment and Bureaucratic Reform of the Republic of Indonesia number 62. After the disaster spread, the Indonesian government realized the importance of studying archives during the pandemic. Therefore, the government issued the rescue of COVID-19 archives through a circular issued by the Ministry of State Apparatus Empowerment and Bureaucratic Reform of the Republic of Indonesia number 62. After the disaster spread, the Indonesian government realized the importance of studying archives during the pandemic. Therefore, the government issued the rescue of COVID-19 archives through a circular issued by the Ministry of State Apparatus Empowerment and Bureaucratic Reform of the Republic of Indonesia number 62 of 2020 concerning Saving Archives in Handling COVID-19 to Support Accountability for the Performance of Government Agencies. The letter states that performance, allocation of energy resources, and the impacts that arise need to be recorded and stored correctly as a form of accountability and a valuable learning source for every generation of Indonesia, even the world community. The scope of this letter includes COVID-19 rescue files handled by archive creators and the preservation of static archives at archival institutions (Indonesia., 2020).

March 2, 2020, was the first day Indonesia started documenting everything related to Covid-19. At that time, the two residents had direct contact with Japanese citizens who were visiting Indonesia (Sukur et al., 2020). Records of patients in the Hospital are listed in the medical record. In principle, the contents of medical records must be protected, but in the case of COVID-19, it is necessary to revise the access rules contained in medical records. So, to respond to this, the government made special regulations regarding medical records for COVID-19 patients whose information can be disclosed for future research purposes (Noor et al., 2022). The rules for open access to medical records of COVID-19 patients are regulated in the Decree of the Honorary Council for Medical Ethics Number: 016/PB/K.MKEK/04/220 concerning Revision of the Fatwa on Medical Ethics, Health Policy and Research in the Context of the COVID-19 Pandemic (Majelis Kehormatan Etik Kedokteran (MKEK) Pusat Ikatan Dokter Indonesia., 2020).

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The quality and accuracy of hospital data are crucial to report. This can be seen from the results of research conducted by Sudat et al. (2021), stating that hospitals in California, when the COVID-19 pandemic hit, were required to provide daily reports. The information reported relates to the number of emergency units, inpatient admissions, public hospital occupancy, ventilator use, hospital capacity, surgical bed use, the amount of protective equipment used, the number of hospital staff, and the number of deaths in the Hospital. Dron et al. (2022) emphasized that the importance of data collected by hospitals routinely is vital for research both before and during the COVID-19 pandemic. Research that uses this data can be called real-world evidence. Applying this concept, the US Food and Drug Administration stated that real-world evidence data could only be collected through Health Electronic Records (HER), which can be collected, followed up on, and meaningful. The research conducted by Asghari stated that when COVID-19 hit, the Hospital also stored nursing interventions for each COVID-19 patient as a patient health archive. This nursing intervention record is used by Sina Educational Hospital, one of the referral hospitals for COVID-19 patients in Tabriz, Iran, as a supporting file provided by nursing to help analyze the patient's illness (Asghari et al., 2022).

Another research discusses the management of prevention and control of COVID-19 in the Medical Records Work Unit conducted by Andriani (2021). This research aims to discover how to prevent and control COVID-19, especially in the Medical Records Work Unit. The research results show that the Indonesian Association of Professional Medical Recorders and Health Information (PORMIKI) has issued a circular containing precautionary and protective measures for Medical Recorders and Health Information (PMIK) in the Covid-19 pandemic situation but has not explicitly mentioned preventative management and control in the Medical Records Work Unit (UKRM). Another study regarding electronic medical records during the COVID-19 pandemic conducted by Pryor et al. (2020) stated that there were obstacles in handling the transfer of patients detected with COVID-19 when not all hospitals used electronic medical records. Most still used manual ones. This can be avoided if the Hospital uses electronic medical records, which also help prevent transmission through touched documents.

The well-organized management of COVID-19 patient medical records is vital to support the eradication of COVID-19. Regional General Hospitals or General Hospitals are the institutions that most often create medical record files for COVID-19 patients. Some of the research above is related to the research that researchers will conduct. These studies have the same research object: managing and developing a strategy for handling medical record archives. Some of the research above was conducted abroad, and some in Indonesia, especially Central Java. However, until now, there has been no specific research that researchers will carry out regarding how to manage and utilize medical record archives for COVID-19 patients carried out by hospitals, especially in two big cities in different provinces.

In this study, we examined two hospitals that serve COVID-19 patients and also serve as COVID-19 referral hospitals. The first Hospital was Adhyatma Hospital (known as Tugurejo Hospital). This Hospital is located in Tambakaji, Ngaliyan, Semarang. Tugurejo Hospital is one of the representative referral hospitals for COVID-19 patients in Semarang City, Central Java Province. Furthermore, according to BPS online data, Semarang City has the largest population in this province, which is also a consideration when choosing this Hospital (Badan Pusat Statistik., 2023).

The second research object is the South Tangerang Regional General Hospital, one of 24 referral hospitals in South Tangerang that accepts COVID-19 patients for hospital treatment. The data collection results at the General Hospital can be used to compare and strengthen the data findings and results from Tugurejo Hospital. This research aims to analyze

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the use of medical records from referral hospitals for COVID-19 patients to support the response to COVID-19. Then, it is hoped that the results of the medical record analysis can be utilized optimally and become a reference for other hospitals in handling COVID-19 cases in the future. This research will be beneficial for the world of health and medicine in the future, and to date, no research has been conducted on the medical records of COVID-19 patients to support the success of dealing with COVID-19.

Method

Research Approach

This study is qualitative with case studies and field studies, so the time required to carry out the study requires quite a long process. This matters because this study is a study of archival data on medical records of COVID-19 patients. Medical records are wrong. One part of the archive requires a long process for permission to be used and researched in a study because patient data is confidential data that can be misused, affecting the image and credibility of the Hospital. It is the licensing process that ultimately affects the speed or the slowness of this study.

Study Location

This research examines the practice of managing medical records in the two big government hospitals, namely the Tugurejo Regional General Hospital, Semarang, and the Tangerang Selatan Regional General Hospital.

Target Population, Sample, Size, and Sampling Procedures

The criteria for informants used as sources in this study are (1). The person is responsible for managing an active dynamic archive of medical records. (2). People involved in archive management activities dynamic, active medical records. This is based on sampling theory. According to Sugiono (2018), purposive sampling is a collection technique to sample data sources by the person who is considered to know best about what we expect, or perhaps he is the authority that will make it easier for researchers to explore the object or social situation being studied. To support the sampling technique used in this study, we took medical record data from 5 patients who were COVID-19 survivors (recovered) and five patients who died of the two mentioned above

Data Collection Methods and Analysis Procedures

Data was collected by interviews, observation, and documentation (Creswell, 2018). The research implementation time requires quite a long process, from December 2022 to May 2023. This is because the medical record archive data licensing process takes work, specifically for COVID-19 patients. The author made observations focused on the keeping of medical records. When doing observation, the author positions himself as a non-observer participant. Then, an interview will be conducted with the head of the medical records unit and the executive officer for managing home medical record archives at Tugurejo Regional General Hospital and General Hospital South Tangerang. In the interview process, the author prepared some questions related to the author's study and recorded the moment interviews so that the data obtained would not be easily forgotten or lost. When documenting, the writer makes retrieved photos or images related to the life cycle of medical records at Home Tugurejo Regional General Hospital and General Hospital South Tangerang, as well as several related documents after obtaining permission from the Hospital medical records unit Tugurejo Regional General and General Hospital South Tangerang.

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Table 1. Research Data Source

Initial Name	Time	Duration	Position
Eh	December 14, 2022	2 hours	Medical recorder at Tugurejo Hospital Semarang
Ai	March 16, 2023	2 hours	Medical recorder at South Tangerang General Hospital

In supporting the data, researchers also used secondary data in the form of reference sources for archive management, various statutory regulations related to the management of medical record archives in hospitals, and access security such as Law Number 43 of 2009 concerning Archives, Regulation of the Minister of Health of the Republic of Indonesia Number 24 2022 regarding Medical Records and other regulations.

Result and Discussion

This research found that hospital medical records in Indonesia are managed based on the archive life cycle by following the guidelines issued by the Regulation of the Minister of Health of the Republic of Indonesia Number 24 of 2022 concerning Medical Records.

Medical Records Life Cycle

Since the COVID-19 pandemic hit various regions in Indonesia, hospitals have treated COVID-19 patients differently from ordinary patients. As stated by informant Eh: "Tugurejo Hospital is a referral hospital for treating Covid-19 patients, on instructions from the Governor of Central Java, Mr. Ganjar Pranowo," The order was directed to 13 hospitals throughout Central Java, to meet urgent needs. Many patients are affected by the suspected virus (Diskominfo Jateng., 2020). Likewise, RSU Tangerang Selatan, based on the data contained in Siranap 3.0 (2021), is a referral hospital for COVID-19 patients.

Informant Eh said: "At first, we managed files from COVID-19 patients in a panic. Need help managing it? We treat medical records specifically by separating the medical records of COVID-19 patients from general patients. The medical records of COVID-19 patients are separated by putting them in closed plastic provided in each room. When the medical records are in the patient's room, they are put in closed plastic and disinfected. Informant Eh continued: "So if medical record documents come from the patient's room wrapped in plastic, we give them formalin first. Then, the nurse or doctor in charge of patients' medical records who care for or have direct contact with patients after leaving the COVID-19 patient room must shower first before entering the treatment room. Even though it is clean, people take precautions this way due to worry and fear. Then, the medical records are put into a special COVID-19 medical box. The documents in the box are left for 5 to 7 days. "Once it is deemed safe, it will only be transferred to the medical room like a normal medical record and stored together with other documents."

Informant Eh continued: "However, after a long time, medical personnel realized that medical records were not physically held or touched by patients. So then, medical personnel treat the medical records of COVID-19 patients the same as patients in general. Panic about holding patient documents can be overcome by managing patient documents to the same standards as patients in general."

Starting in 2022, the Ministry of Health will require every Hospital to register patient data electronically. Tugurejo Hospital, Semarang, also does this. The software can be seen in

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Figure 1. On the other hand, not all hospitals can implement electronic data collection, including South Tangerang General Hospital, which is still manual.

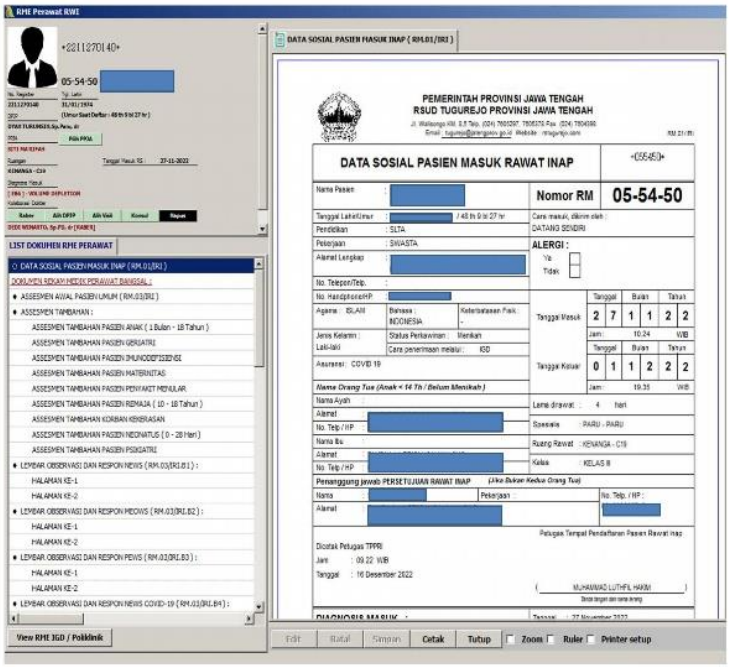

Figure 1. Tugurejo Regional General Hospital Semarang creates an electronic patient registration form.

Even though medical records have been created electronically, several forms must be signed manually. Therefore, there is still special treatment in storing medical records for COVID-19 patients, as explained by informant Eh: "Yes, electronic patient data collection makes it easier to track patient data. You can quickly search for data on patients with indications of Covid-19 or patients in general. However, to authenticate data, we still need the patient's signature, so we still store it. Therefore, it still requires physical storage. "If it is electronic, we still keep the patient's signature."

Medical Data Storage

The Hospital is a storage place for archives of legal and historical value. Therefore, archival storage is not separate from the regulations set by the hospital manager. Conventional medical record management is stored in two places, first in the medical records room and second electronically. Based on the results of observations, the conventional medical record process at Tugurejo Hospital regarding medical record management is carried out by sorting Medical Record Documents (DRM) in the Assembling Section. One of the main tasks of this section is to re-sort medical record documents obtained from the registration department, whether outpatient, emergency, or inpatient. Medical Record Documents sorted based on the Unit Numbering System (UNS) are then tagged in the Medical Record Documents folder. Marking was submitted to the Filling section to receive medical record documents. The task of this section is to store, provide, store, and assist in destroying Medical Record Documents.

Storage of medical record files in the Filling Department of the Tugurejo Regional General Hospital uses Terminal Digit Filling (TDF) as a guide in assessing and sorting Medical Record Documents. Terminal Digit Filling is a medical record document storage system that aligns the order of file folders based on the sequence of medical record numbers

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in the last two digits. This number is meaningless; it is only a basis for file sorting. Sorting Medical Record Documents at Tugurejo Hospital consists of 6-digit numbers, which are grouped into three parts, namely primary, secondary, and tertiary numbering groups. Each group consists of two-digit numbers ranging from 00 to 99. Each group of numbers is located in a different order. The primary group is at the end, the secondary numbers are at the beginning, and the tertiary numbers are in the middle.

The data content input section carries out the storage of Medical Record Documents at Tugurejo Hospital by aligning Medical Record Documents on the shelves provided. Several shelves have been arranged and filled with Medical Record Documents. Each frame is labeled to indicate the contents of the file. A sign is a two-digit number derived from the main number of the Unit Numbering System. Markers on the shelves are also given a background color based on the Unit Numbering System digits in the file. The numbers used are two primary numbers. The aim is to make preparing and reaccessing medical record documents easier. If one row of shelves cannot accommodate medical record documents with the same primary number, the next row can be added directly by continuing with the previous number. Only the number printed on the shelf matches the serial number of the shelf. Rows on the same prime number.

Figure 2. Research Findings: Storage of medical records at the South Tangerang Regional General Hospital

The storage of medical record documents at Tugurejo Hospital does not separate medical record documents for COVID-19 patients from other diseases. COVID-19 patient medical record documents are handled differently before entering the Assembling Department. When entering the Assembling Department, medical record documents for COVID-19 patients are first quarantined in a large container box for 14 days. After that, the medical record documents are allowed to enter the Assembling Section for processing and continue to the Completion Section to be stored, provided, and maintained together with other patient medical record documents.

The storage of medical record documents for COVID-19 patients in the Archives Department of the Tugurejo Regional General Hospital is the same as that of COVID-19 patients and patients with other diseases. COVID-19 patient medical record documents are arranged in a row based on the order of Filling in Terminal Digits on the shelf according to the marker. These colored stickers label several disease documents as disease markers. However, color COVID-19 stickers still need to be regulated in the medical record installation service guidelines because the COVID-19 document here is included in the general disease group.

In storing medical record archives, Tugurejo Hospital uses a centralized system. The informant stated: "Because we are centralized, yes, conventionally, our storage is still centralized. If electronic goods no longer have storage, they are stored on the server. That is

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why type A, B, and C hospitals are fine. Now, it has different server capacities depending on the number of patients. For example, it is different here and in other hospitals."

For medical records of COVID-19 patients, the Tugurejo Regional General Hospital still needs a specific policy. As stated by the following informant: "Yes, there is no special storage place for Covid medical records. So, this is still the policy of each Hospital. What was said earlier? Now, it is not as extreme here as it was yesterday."

The role of hospital medical recorders in storing records of various types and forms originating during the COVID-19 pandemic is beneficial for doctors in making diagnoses. Apart from that, the public can trace the results of the actions given by the doctor, which will be seen in the medical records as evidence. Lolytasari et al. (2021) in their writing stated that the collected memories of hospital archives will become the identity and history of the development of the Hospital. Therefore, the role of the medical record manager is to store and administer history, which will make the Hospital a source of health history for future needs.

Retention Period for COVID-19 Patient Medical Records

Currently, every institution creating COVID-19 archives, including hospitals in Indonesia, is waiting for a decision from the government regarding the determination of the COVID-19 archives Retention Schedule. However, what can be ascertained is that the archive criteria for handling COVID-19 patients are based on Circular Letter Number 62 of 2020. There are seven criteria, including: 1) Archives created in the context of determining and implementing policies to accelerate the handling of COVID-19; 2) Archives were created in the context of coordinating and controlling the implementation of activities to accelerate the handling of COVID-19; 3) Archives created in the context of monitoring the implementation of accelerated handling of Covid-19; 4) Archives were created in the context of mobilizing resources to carry out activities to accelerate the handling of COVID-19; 5) Archives created in the context of reporting on the accelerated handling of Covid-19; 6) Archives created as a result or impact of handling COVID-19, either directly or indirectly; 7) Archives created to overcome COVID-19 include and are not limited to innovation, facilities and infrastructure, treatment/vaccines, patient care, use of technology, and research results.

Based on these criteria, hospitals are currently trying to assess and save the medical records of COVID-19 patients, still based on Minister of Health Regulation Number 269/MENKES/KES/PER/III/2008. This regulation states that medical records of inpatients must be kept for at least five years, then discharge summaries and approval of medical procedures must be preserved (Kementerian Kesehatan., 2008).

Hospitals have yet to dare to determine the retention period for medical records for COVID-19 patients. This Hospital's indifference is due to the absence of a written policy regarding the retention period or Retention Schedule for COVID-19 Patient Medical Records. The Minister of Health's regulation governing the destruction of electronic medical records has only reached the socialization and reformulation stage. So, until now, there has been no destruction of medical record archives for COVID-19 patients. Likewise, electronic medical records are still stored in the system. The informant stated: "But there is still no way to destroy it. However, it will be in the electronic medical record guidelines. However, the conference organizers must create electronic medical record guidelines because the draft already exists. It has been made, but the Minister of Health Regulation has yet to be issued. After the Minister of Health's Regulation came down, it was different. Finally, it has been revised again, and perhaps later, it will be included in the service guidelines. "If the regulatory policy is just the Minister of Health in general, the details will be in the guidelines such as how to store or destroy it, something like that."

Hospitals currently have Covid-19 Medical Record Documents in electronic form. In

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principle, this electronic document is more accessible to store via a hospital server with a cloud computing system, making it easy to trace. However, the Electronic Medical Record still has a retention schedule. In this case, the Hospital refers to the Minister of Health Regulation Number 24 of 2022, which stipulates that Electronic Medical Record data be stored for a minimum of 25 (twenty-five) years (Kementerian Kesehatan., 2022).

However, for efficiency in medical record storage space, medical record documents for COVID-19 patients are stored in paper form, with an active period of five years from the patient's last visit and an inactive period of two years. Meanwhile, medical record documents in electronic form have a period of twenty-five years from the patient's last visit, and the server performs regular backups in different locations.

Hospitals provide special treatment to new cases in assessing the retention of medical records for COVID-19 patients. These medical records undoubtedly have permanent value. Apart from medical records of Covid-19 patients, there are cases of certain diseases such as HIV, rape victims, transgender, and Covid. There is special treatment for those mentioned. The medical record archive must not be destroyed. Hospital management forms a special team to determine which medical record archives should be kept. The informant stated: "There is a team. "This can be immortalized or not, the term is, or management can determine that this case should not be destroyed."

Rescue of COVID-19 Patient Medical Records

Then, during the rescue period, informant Eh continued: "During the storage period, we stored the COVID-19 medical records in plastic in a box and left them untouched for approximately two days. "Before taking medical records to the medical records room, they are disinfected first, and to save ourselves as officers, we wear complete Personal Protective Equipment (PPE) such as gloves and so on."

In making medical record archives, the Tugurejo Regional General Hospital took precautions by placing COVID-19 patient medical record archives in plastic and then disinfecting the archives. After that, it is left for several days, and the medical staff who collect it must wear complete Personal Protective Equipment (PPE).

Tugurejo Regional General Hospital Semarang has collected data on COVID-19 patients and regular patients electronically, as shown in Figure 1. Initial patient information data is stored centrally in the system. However, the form containing the patient's consent when the doctor carries out a medical procedure is still manual. It must be signed by the patient or the patient's family/guardian.

Security of Access to Information on Covid-19 Patient Medical Records

COVID-19 patient medical record archives have high utility value and can be used for various purposes. One of the uses of the Tugurejo Hospital COVID patient medical record archive is for administrative data such as data on the number of patients, patient names, number of deaths, number of recoveries, and other data needed by the government to tackle the COVID-19 pandemic. The informant further explained: "Usually the governor asks for it through the director, or sometimes we also ask for data like that: data on COVID patients who died or recovered. The data is already here. and we manage the information. In the next ten years, the data contents will be re-recorded, such as who the patients were, how many in total, how many were confirmed positive, the name of the person, how many died, in which area, and so on. "That is so, so that the information that is the source of the information is still managed here and with the involvement of the Ministry of Health."

Another informant also conveyed a similar statement: The provincial Ministry of Health needs Archives of medical records for COVID patients to record the number of

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COVID patients based on the following criteria: "You can also see it later there. Previously, we were asked for examples of COVID medical records that contained positive and died with mild, moderate, and severe criteria. "This has also been requested from the Provincial Ministry of Health."

The determination of these criteria is not carried out by archivists but by doctors because a diagnosis is required. The informant explained this: "Yeah... it is difficult because it is too tactical. We are not medical people. Usually, the doctor decides, but we group the data, or at least the nurse does the grouping. Even though we were given guidelines to get there, we experienced a few difficulties. Usually, we ask medical friends for help because we are also not medical people, which is not within our competence. Diagnosing patients. Our competency is only providing codes and not diagnosing them."

A medical recorder, or what is usually called a medical information expert, cannot diagnose a disease. The role of a medical writer is to collect and categorize notes so they are easy to access and retrieve when necessary.

Access to medical records is limited because medical records are archives that have confidential value. The informant firmly stated that direct access to medical records is limited, and not everyone can access and use them. The informant said: "Medical record managers are sworn to not reveal the secret of the patient's illness to anyone or share it in any form of media. The confidentiality of patient data is protected by law, which expressly states in Article 18 that medical recorders are obliged to keep patients/clients confidential following applicable regulatory provisions (Regulation of the Minister of Health of the Republic of Indonesia Number 55 of 2013 concerning Implementation of Medical Recorder Work in 2020). PMK No. 55 continued if the medical record officer violates the Head of the Health Service, his medical record SIK will be revoked."

Confidentiality of medical records is not only the responsibility of the medical record officer; This is also contained in Law Number 29 of 2004 concerning Doctor's Practice, which states that medical record documents must be kept confidential by doctors or dentists and heads of health service facilities (Indonesia, 2004). In investigating cases of patient data leakage during COVID-19, there was one case involving a doctor at a hospital in Kupang, where he leaked medical record documents for COVID-19 patients and was subject to sanctions under the ITE Law (Ola Keda, 2020)

If you want to see the medical records, specifically conventional and electronic COVID, both can still be opened and photographed while filling out the certificate. Open the document; there are specific rules. The co-assistant cannot write medical record documents. The President agrees that the DPJP must verify it. Anyone with the right to write medical records must also follow the policies in the medical record service guidelines. So, to access it, further permission is needed so that it is not accessed carelessly."

As stated by the informant above, not just anyone can access patient medical records, let alone the medical history of COVID-19 patients. To open it requires special access and requires permission. Access limitations also apply to researchers. "Because many researchers will likely be looking for COVID, the problem." Then, for patient information data, researchers are required not to share it; the informant's statement: "Yes, his identity will be obscured later. That is why there are rules in research: Students or even students from other units who want to borrow (COVID-19 medical records) from the medical records are not allowed to take them to other places. It must be in the medical records room with information (if researchers want to see it)."

A researcher cannot carelessly access the medical records of COVID-19 patients. Patient names must be obscured, and medical record archives must not be moved, let alone borrowed, to conduct research.

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Discussion

Management and storage of data in medical records in Indonesia have transformed electronic media. This is due to the publication of Minister of Health Regulation (PMK) number 24 of 2022 concerning Medical Records. The policies implemented by the Minister of Health Regulation result from the transformation of health technology, updating the Minister of Health Regulation Number 269 of 2008 concerning Medical Records (Tarmizi, 2022). Medical record files based on (Permenkes RI Number 269 of 2008 concerning Medical Records, 2008) Chapter II Article 3 have the same content but differ slightly between emergency, outpatient, and inpatient patients. In general, the three types of medical record files contain the date and time, patient identity, results of anamnesis (at least complaints and medical history) and diagnosis, results of physical examination and medical support, treatment or other procedures given, as well as the name and signature of the doctor. Or health care staff (Kementerian Kesehatan., 2008).

The article regarding Medical Record Management by Edna K. Huffman, published in 1971, states that medical records are who, what, why, where, when, and how patients are treated in the Hospital. Huffman defines medical records as any documented notes or facts relating to a patient's life and history, including illness and treatment, that have been received, and the documents are filled in by expert personnel who treat the patient. Zali et al. (2018) added that Health professionals contribute to recording patient care, and the Medical Records Department leads those responsible for managing daily patient records. Binkheder et al. (2021) stated that in assessing the accuracy of the data, it is necessary to evaluate and analyze the recording of Covid-19 patients further. Hospitals have implemented Electronic Health Records, abbreviated as HER data, as a model for collecting patient data via electronic data.

Information in medical records is helpful in administration, law, finance, research, education, and documentation. This information includes (a) Patient identity and consent form, (b) Medical history, (c) Physical examination report, (d) Diagnostic and therapeutic instructions signed by an authorized health worker, (d) Observation notes, (e) Discovery action report, and (f) Patient resume. Apart from that, the government is trying to save archives related to the COVID-19 pandemic, which are contained in every creative institution, including hospitals. The steps that need to be carried out by each archive creation institution, including medical records of COVID-19 patients who are in hospitals as stated in Circular Letter Number 62 of 2020, include (1) preparation, (2) data collection and identification of archives, (3) structuring and archive registration, (4) verification or assessment of archives and (5) submission of static archives.

Conclusion

In managing medical record archives, hospitals have included medical record archives based on applicable provisions, namely the Regulation of the Minister of Health. To complement the Minister of Health's Regulation, the Hospital has also prepared guidelines and SOPs for its management, including manufacturing, storage, and shrinkage. Hospitals must do an excellent job of depreciating (shrinking) medical record archives. Hospitals must comply with applicable regulations because they can impact both the patient and the Hospital itself.

Special treatment is applied to manage COVID-19 patients' medical record archives at every stage. At the manufacturing stage, COVID-19 patient files require extra security, such as disinfectant, and exceptional security equipment, such as PPE, is required to access them. At the storage stage, medical record archives are stored separately before being transferred to another medical records room. For storage, the classification number is adjusted

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to hospital regulations. At the depreciation stage, hospitals store COVID-19 patient medical records archives according to applicable regulations, but some are stored permanently depending on each Hospital's policy.

In managing medical record archives, hospitals must process patient medical records electronically because a Minister of Health Regulation has been issued to regulate this. This electronic medical record will make it easier for hospitals to create, store, and reduce their medical record archives. However, based on the results of this research, its implementation has several obstacles.

Information on COVID-19 patient medical records is used for data on the number of patients, names of patients, number of deaths, number of recoveries, and symptom criteria based on doctor's diagnosis. The government needs this data to tackle the spread of the COVID-19 virus and as a basis for making policies or decisions. One of the decisions in question is determining the level of PPKM or PSBB in Indonesian territory. Apart from that, researchers and health experts also use archived medical records of COVID-19 patients to study the symptoms and actions that should be taken in COVID-19 patients.

The implication of this study is to provide information about how hospitals in Indonesia manage archives of their medical records, especially patient medical files for COVID-19. In addition, this research can provide consideration to the government, in this case, the Ministry of Health, in making a policy for managing COVID-19 medical archives. This matter is needed because, until now, there have been no government regulations regulating the storage or destruction of archived medical records of COVID-19 patients, especially if the archived medical record is in electronic form.

This research recommends that medical record managers for COVID-19 patients create a grand design for medical records with historical value. The Health Archives will serve as educational, legal, and historical reference materials. The National Archives needs to make regulations regarding access to Covid-19 patient information. With the Industrial Revolution 5.0 era, it is necessary to implement policies regarding access to medical record information for COVID-19 patients.

Researchers realize that this research has limitations, especially in exploring further access to medical records of COVID-19 patients. Not just anyone can access medical records; opening them requires special access and permission. Even though it is to be studied as research material, it is increasingly difficult to get access to examine medical records the more we understand the importance of managing COVID-19 patient medical records from the time of its creation until now in the post-COVID-19 pandemic period.

If this research is to be developed by other researchers, it is necessary to develop a science of archives and health information, especially regarding medical records of COVID-19 patients, and help manage medical records. This can also be used as a basis for researchers to follow up.

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Authors' Contributions

All authors have contributed to the final manuscript. The contribution of all authors: conceptualization, methodology, formal analysis, writing original draft preparation, writing review and editing. All authors have read and agreed to the published version of the

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Conflict of Interest

All authors have no conflict of interest related to this study.

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