

ANALYSIS OF INPATIENT RECEIVABLES MANAGEMENT INSURANCE COVERAGE AT XYZ HOSPITAL

Arif Muhrojin

Piksi Ganesha Polytechnic
Bandung, Indonesia

Ratih Purnamasari

Piksi Ganesha Polytechnic
Bandung, Indonesia

Abstract

This paper explores the management of inpatient receivables under insurance coverage at XYZ Hospital, using the theory of constraints as a framework. Employing a qualitative, descriptive approach, the study aims to identify and analyze key constraints within the receivables management process, covering stages such as acceptance, account arrangement, verification, billing, and closing. The analysis focuses on internal hospital factors, including human resources, standard operating procedures (SOPs), computerized systems, and hospital facilities and infrastructure. Findings highlight significant limitations, such as a shortage of skilled personnel, lack of established operational standards, suboptimal utilization of the MyAccounting system, and inadequate facilities and infrastructure that delay the insurance collection process. To streamline receivables management, XYZ Hospital requires comprehensive follow-up measures, including facility upgrades, infrastructure maintenance, workload analysis, targeted training, clear delegation of authority, defined job descriptions, ongoing monitoring and evaluation, and the establishment and socialization of SOPs to guide staff in effective implementation.

Keywords: *Hospital receivables management, Inpatient insurance receivables, Theory of Constraints*

Introduction

Health is both a fundamental right and a valuable investment. Defined by Health Law No. 36, 2009, health is a state of physical, mental, and social well-being that enables individuals to live productively both socially and economically. Maintaining good health is essential for everyone's quality of life and longevity. However, with healthcare costs on the rise, communities are increasingly engaging in preventive

and curative health measures to manage potential costs associated with illness. As a result, many individuals now view health insurance as a necessary investment to secure coverage for future medical expenses, ensuring financial protection in times of health crises.

The shift in healthcare financing for hospital users from self-financed (out-of-pocket) payments to third-party coverage has driven hospitals, as key public health service providers, to enhance their competitiveness by streamlining patient administration services. Hospitals now receive income not only from direct cash payments but also from credit payments facilitated through third-party payers, reflecting a need to adapt to diverse payment methods for their services.

Credit receivables occur when patients, after receiving treatment at the hospital, do not make direct cash payments but instead use health insurance cards or company guarantees, which allow for a grace period before payment is received. According to Farah (2011), receivables are assets or wealth resulting from credit sales. Arif (2009) defines receivables as claims (the right to receive) money from other entities, commonly referred to in accounting as collections or receivables. M. Munandar (2006:77) further explains that receivables are amounts owed to a company, which are expected to be paid when due. Typically, such receivables are expected to be collected within a short period, such as 30 to 60 days. In this context, receivables serve as an important component of working capital for hospitals, functioning as a form of investment.

Receivables can be a valuable asset if managed effectively, but they can also pose significant risks if not handled properly. The risks associated with receivables include non-payment of some or all amounts owed, or delays in payment. Hospitals must adopt careful and strategic policies to mitigate these risks. Furthermore, effective financial management is essential in actively managing receivables and collections to minimize outstanding amounts, thereby reducing the potential for larger financial losses.

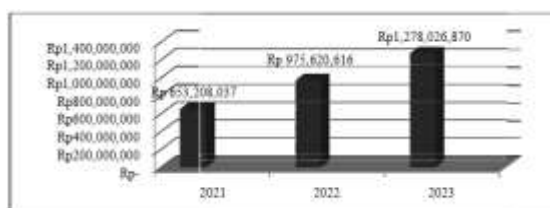
Management is the process of planning, organizing, leading, and controlling the efforts of an organization's members, as well as effectively utilizing organizational resources to achieve predefined goals (Stoner, 1996). Financial management, as defined by J.L. Massie (2023), involves the operational activities responsible for securing and deploying the necessary funds to ensure effective and efficient business operations. One critical aspect of financial management is accounts receivable management. Since accounts receivable often represent a significant portion—typically about a quarter—of a company's total assets, it is crucial to manage them effectively, particularly in relation to the company's credit sales volume (Djakman, C, 2000). The accounts receivable management cycle encompasses various stages: registration, charging, billing, payment processing, payment receipt, and the closing of accounts. In a hospital setting, any failure to properly manage

accounts receivable can severely impact cash flow, ultimately disrupting the smooth operation of the hospital.

XYZ Hospital is a privately owned Type C facility with 110 beds. Based on financial report data from 2009 to 2011, the hospital has experienced a consistent increase in its receivables balance, as illustrated in the diagram below.

Figure 1

Balance of Third Party Guarantee Receivables of XYZ Patients



In 2023, the receivables balance stands at Rp1,278,026,870, reflecting a 30% increase compared to the balance in 2010. In 2022, the receivables balance reached Rp975,620,616, marking a 49% increase from the 2009 balance. Meanwhile, the receivables balance in 2021 was Rp653,208,037.

Table 1 Percentage of Receivables to Net Revenue of XYZ Hospital from 2021-2023

Tahun	Penerimaan Bersih	Piutang	%
2021	Rp 29.307.070.574,00	Rp 1.278.026.870,00	4,3%
2022	Rp 26.400.587.101,00	Rp 975.620.616,00	3,6%
2023	Rp 23.699.867.097,00	Rp 653.208.037,00	2,7%

The comparison table above shows an increase in the percentage of receivables relative to the hospital's net income, with the growth in receivables outpacing the increase in income. If the receivables percentage were set at 2.7%, the receivables in 2010 would be Rp712,815,608, and in 2011, they would amount to Rp791,290,905. Revenue from inpatient services is higher than that from outpatient services, which further emphasizes the importance of the hospital's ability to secure payments for credit-based services.

Methodology

A. Accounts Receivable

Generally, accounts receivable can be defined as receivables arising from the sale of goods or services on credit within a predetermined period of time as a result of credit

sales. The term accounts receivable includes all claims in monetary form against other legal entities including individuals, companies and other organizations. Various definitions of accounts receivable include the following:

1. According to Wild (2005), accounts receivable is the maturity value resulting from the sale of goods or services or from the granting of credit.
2. According to Mulyadi (2002), accounts receivable are claims against other parties for money, goods or services that can be received within a period of one year or within the activity cycle of the company.
3. According to Sunarto in the book Intermediate Accounting, accounts receivable are claims or monetary claims of a company against third parties that result in the receipt of cash in the future.
4. According to the Decree No. 156/MENKES/SK/I/2003 of the Minister of Health of the Republic of Indonesia on the Accounting Guidelines for Hospitals, accounts receivable are divided into two groups according to the source of origin, namely trade accounts receivable and non-commercial accounts receivable.

Hospital accounts receivable are a major problem for hospital financial managers. Hospital accounts receivable account for the majority of current assets.

B. Classification of accounts receivable

In the definition of the Financial Accounting Standards for hospitals, accounts receivable are classified into two categories depending on their occurrence, including:

1. Trade accounts receivable, namely accounts receivable arising from the provision of medical services in the course of hospital activities, such as insurance receivables, company guarantees for outpatient services and inpatient receivables, personal guarantee receivables and other performance receivables
2. Accounts receivable arising from non-business activities mentioned above are classified as other accounts receivable. For example, employee/staff receivables and rent receivables.

C. Objectives of Accounts Receivable Management

The objectives of accounts receivable management according to Neumann (1988):

1. Minimize service costs that cannot be billed
2. Minimize the time required to complete the accounts receivable cycle for each patient

3. Minimize the cost of credit origination and the cost of debt collection

To achieve the objectives of accounts receivable management, according to (Metha, 1988), several steps must be taken, namely:

1. Establish a credit procedure to determine the patient's financial ability to pay hospital bills
2. Charge for services received. Ensure that a service rendered is included in the patient's bill
3. Present patient bills well
4. Establish billing procedures.
5. Credit and close patient accounts. Determine that the bill is still an account receivable or close the patient account because payment has been made.

D. Credit policies

The risks that companies that sell their products on credit always face are non-payment of receivables and delays in settling receivables. Therefore, in order to anticipate the risks associated with lending as early as possible, an evaluation of potential customers is necessary before granting credit. Based on the possibility of failure of a group, according to Neuman (1988), credit policies can be applied to vulnerable groups, for example, it is only allowed in emergency situations or a down payment or partial payment is required. The considerations commonly used to evaluate potential customers are often referred to as the 5-C principles or five C's principles. The 5 C principles are:

A. Character

Character, shows the possibility or probability that the subscriber will honestly try to fulfill his obligations. This factor is very important because any credit transaction involves solvency.

B. Capacity

Capacity is a subjective opinion of the subscription's capacity. This is measured by past records, supplemented by physical observations at subscribed businesses. This performance is a measure of solvency or ability to pay.

C. Capital

The capital, measured against the general financial position of the company, is presented through a financial analysis that particularly highlights the "tangible net

value" of the company. This can be seen from the balance sheet, the income statement, the capital structure and the profit ratios determined such as return on equity. Return on capital. Based on the above conditions, it is possible to judge whether it is appropriate to grant a loan to potential customers and how much credit limit is appropriate.

D. Security

Security reflected in the assets of the subscription linked to or used as security for the credit security given for the subscription.

e. Condition

Condition, showing the impact (immediate influence of general economic trends on the company concerned or particular developments in a specific economic sector that affect the ability of subscribers to meet their obligations).

E. Claims Management

A claim is a request made by one of two parties who have a surety bond to have their rights met. One of the two parties entering into the agreement will present a claim to the other party in accordance with the agreement or policy provisions mutually agreed upon by both parties. There are several important things to consider when managing claims, including:

1. There are clearly two parties entering into an agreement
2. There is a clear and official agreement between the two parties.
3. There is a consent form.
4. Documented

A. Research Methods

In conducting this research, the author employs a multi-stage approach consisting of the following methodologies:

1. Field Research

Field research involves direct visits to the study site, where data is collected through two primary methods:

a. Observation

This data collection technique involves conducting research and directly observing the issues being studied on-site.

b. Interviews

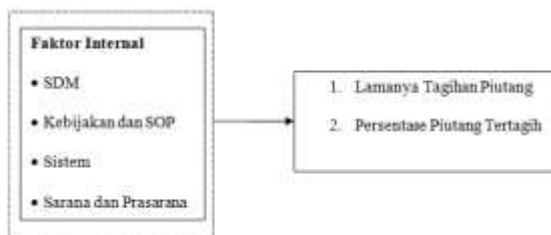
Interviews are conducted by engaging in direct communication with individuals who manage sales-related matters to gather relevant insights.

2. Library Research

Library research entails collecting data by reviewing and studying relevant books, articles, or notes, which help in understanding data processing issues. This method includes referencing expert opinions as a means of comparing theoretical perspectives with the actual situation.

B. Theoretical Framework

Every organization faces limitations in its operations, typically arising from scarce resources. These limitations are referred to as "constraints." The Theory of Constraints (TOC) posits that the performance of any organization is determined by its constraints. To improve performance, a company must first identify its constraints, strategically leverage them both in the short and long term, and then adopt the most effective approach to overcome them. According to Gunadi (2004), constraints are factors within a company that hinder its ability to achieve its objectives.



C. Data Collection Techniques

1. Questionnaire

According to Sugiyono (2013), a questionnaire is a data collection technique that involves providing a set of written questions or statements to respondents, who then provide their answers. The questionnaire used in this study is attached in the Appendix as the primary research instrument for gathering responses.

2. Literature Study

In this study, the author conducted a literature study to gather information and insights that can serve as references for the research. This involved reviewing and examining books, journals, and other relevant literature related to the topic.

3. Observation

As defined by Notoatmodjo (2005), observation is a systematic process that includes observing and recording specific activities and their frequency or intensity, which are directly related to the issue being studied.

Results and Discussion

The number, background, and length of service of education officers are outlined in the table. The working hours in the reception section are divided into three shifts: morning (07:00–14:00), afternoon (14:00–21:00), and evening (21:00–07:00). In the billing section, there are two main shifts: morning (07:00–02:00) and afternoon (14:00–21:00), with evening billing handled on call. However, officers in the verification, collection, and utility closing sections do not follow a shift schedule and generally work in the morning. Formal education requirements for these roles include a DIII for verification and collection staff, and an S1 for utility closing officers. There are no specific educational qualifications for each stage of the billing process.

Billing management does not follow standardized procedures, as there is no formal standard operating procedure (SOP) for billing and collection management. Observations reveal that the pre-reception and acceptance stages are handled directly at the front office. Patient registration officers have a heavy workload, as they are responsible for both registration and customer service tasks. The account arrangement and billing process is conducted daily based on the costs of services provided to insurance patients, with billing staff handling accounts for both insurance and cash patients. Verification is carried out by finance staff, who check the rates applied, the validity of patient participant cards, patient signatures, claim forms, and final guarantee letters.

Table 2 Number, Educational Background, and Length of Service of Inpatient Administration Staff in Each Process

Tahap	Jumlah	Pendidikan	Lama Kerja		
			3 Tahun	4 Tahun	5 Tahun
Penerimaan	4	D3	1	1	2
Pendaftaran Rekening	3	D3	1	2	
Verifikasi	1	D3			1
Penagihan	1	D3	1		
Penutupan Piutang	1	S1		1	

Inpatient acceptance and registration for insurance at XYZ Hospital are handled by a single unit, the Front Office. Four staff members are responsible for the registration process, with no distinction between cash and guaranteed inpatient registrations. These four officers are divided into three shifts (morning, afternoon, and evening), with one staff member off each day. The formal education level of the staff involved in the registration process is D3, and their work experience ranges from three to five years.

During observations, it was noted that the confirmation process with the insurance provider—regarding benefits, initial medical reports, and obtaining the initial approval letter—took a considerable amount of time. When two or more guaranteed patients arrived simultaneously, the front office officer would offer the patients the option to either wait or proceed directly to the treatment room.

Charges and Account Arrangement

Three staff members are assigned to inpatient administration and billing, with no distinction between collateral and cash patients. The billing staff work in two shifts: morning (07:00–02:00) and afternoon (14:00–21:00). From Monday to Thursday, two staff members are assigned to the morning shift, and one staff member handles the afternoon shift. On Fridays, weekends, and holidays, one staff member works both the morning and afternoon shifts. All staff members hold a D3 degree and have between three and four years of experience. The limited number of human resources is also felt in the management of patient accounts.

The confirmation process for charging costs and arranging accounts with third parties takes a considerable amount of time, often two to three hours. In addition to arranging accounts, billing officers are responsible for inputting charges based on room costs, doctor's fees, diagnoses, medical procedures, doctor visits, and medical equipment used by patients. The charging of drug costs is managed daily by pharmacists for use in units such as VK, Perina, NICU, and the Healthy Baby Room. Nurses directly oversee the use of drugs and medical devices.

Verification

The verification process is handled by a single staff member with a D3 educational background and five years of experience. There is no specialized training provided for the verification process. Delays often occur in the verification due to other competing workloads. In addition to verifying patient data, this staff member also serves on the tariff team. The verification officer reported difficulties in understanding medical writing and terminology related to treatment rates, which are essential for billing the guarantor or insurance provider.

Another officer, also with a D3 education and three years of experience, is directly involved in the inpatient billing process. However, no specialized training has been provided for billing tasks either. The officer's responsibilities include not only processing bills but also reviewing and ensuring the completeness of the billing files before proceeding with the billing.

"In addition to organizing the insurance files and completing the billing documentation, I am also responsible for following up on the billing process. From the verification stage, I constantly need to double-check the completeness of the files. Often, the medical resume is missing, or the final guarantee letter has not been

signed by the billing officer. Additionally, the results of medical support examinations are frequently absent, so I have to go to the Medical Records (MR) department to request the resume. Sometimes, the treating doctor has not filled out the medical resume, or the medical support results are not yet available in the patient's record."

The interview results reveal that collection officers are responsible for more than just collecting payments from insurance companies. They also handle the recapitulation of billing files, verify the completeness of these files, complete any missing information, and prepare billing letters. Additionally, collection officers follow up on payments through phone calls and external visits. However, these follow-up efforts are not conducted regularly and are only done when opportunities arise, due to the officers' other responsibilities. In May of this year, a dedicated team was established to handle billing follow-ups by phone, but the implementation of this initiative has not been fully optimized.

Closing of Receivables

The closing of receivables is managed by a single individual, who also serves as the head of financial accounting at XYZ Hospital. This staff member holds a Bachelor's degree and has four years of work experience. Due to the limited human resources in the verification, collection, and closing processes—each having only one assigned officer—if any of these officers take extended leave, their duties are passed on to other staff members, creating an additional workload during their absence.

Inpatient Registration

Based on an interview with the front office coordinator, the Standard Operating Procedure (SOP) for inpatient registration is still in the drafting stage and is subject to frequent changes as it has not yet been officially finalized. Additionally, the flow for inpatient admission guarantees is not documented in writing. Similarly, according to the inpatient registration staff, there is no official SOP for patient admission and registration. The implementation of inpatient admission and registration currently does not follow any specific policies or SOPs, as no written guidelines were found during the observation. Furthermore, there is no monitoring or evaluation of policies and SOPs related to the implementation of patient admission and registration.

Charges and Account Arrangement

Currently, there are no established policies or standard operating procedures (SOPs) for charging and account arrangement related to inpatient insurance coverage, such as procedures for inputting charges, assigning responsibilities, or determining when the process should be completed. The task of inputting charges for medical services is not consistently performed by nurses, as there is no written SOP to guide the process. As a result, there are no clear guidelines or references for ensuring that

each step of the process is properly executed or when a task is considered to be completed correctly.

Billing

Based on observations, there are no formal billing policies or standard operating procedures (SOPs) in place within the unit. Staff members do not have a written SOP to refer to for billing processes, such as guidelines for billing implementation, instructions for delivering billing files, or policies regarding the processes, targets, and units involved in the billing procedure. According to interviews, the billing file delivery policy is communicated verbally, with delivery occurring every five days. Monitoring of policies and operational standards for billing has not been implemented. The evaluation of receivables collection management is only done at the end of the month when the billing or receivables report is reviewed, focusing on the extent to which insurance payments have been received. Follow-up actions, such as external visits to the insurance company, are only taken afterward.

Closing of Receivables

Similar to the previous steps in receivables management, there are no operational standards available to guide the receivables closing process.

The MyHospital and MyAccounting systems were purchased by XYZ Hospital from the vendor as an integrated package. XYZ Hospital is the first to acquire the complete system, which includes both MyHospital and MyAccounting. The MyHospital system is used across various service units, such as billing, medical support, medical records, pharmacy, and logistics. Meanwhile, the MyAccounting system is utilized in accounting processes, including billing, settlement, and reporting. Currently, XYZ Hospital still uses the old system, MyOb, for accounting purposes, which is separate from MyHospital and is not integrated with it.

According to interviews with the EDP (Electronic Data Processing) unit, the integration between MyHospital and MyAccounting has not been tested yet because no other hospital has previously purchased the complete system. The data entered into MyHospital will eventually be used in MyAccounting for billing, settlement, and reporting. The units involved in the data input process include billing, medical support, and medical records. The MyHospital system has been in use since 2008 and is functioning optimally in these service units. However, the MyAccounting system, which was only implemented in February 2023, is currently limited to billing and is not yet operational for settlement and reporting due to ongoing transition and verification processes.

Interviews with the EDP unit revealed that the use of the MyAccounting system faces challenges from both the third-party vendor and the hospital. The third party does not fully understand the existing MyOb system, and there is no established SOP or

management flow to guide the vendor in adapting the system to the hospital's operational needs for optimal use. Additionally, there has been no formal evaluation or monitoring of the system's performance, and no clear transition policy has been implemented to guide the shift from the old system to the new one. Front-line staff, including those in patient registration and billing, also lack understanding of the relationship between the two systems (MyHospital and MyAccounting).

Table 4 Sample of Inpatient Claim Files for Insurance Coverage as of May 26, 2023

No. Registrasi	Tanggal Masuk	Tanggal Keluar	Pengiriman	Lama Pengiriman
184399	25 April 2023	27 April 2023	26 Mei 2023	29 Hari
187044	8 Mei 2023	12 Mei 2023	26 Mei 2023	14 Hari
185866	2 Mei 2023	6 Mei 2023	26 Mei 2023	20 Hari
185982	3 Mei 2023	4 Mei 2023	Belum dikirim	-
185919	3 Mei 2023	8 Mei 2023	26 Mei 2023	19 Hari
187452	11 Mei 2023	13 Mei 2023	Belum dikirim	-
186759	7 Mei 2023	11 Mei 2023	Belum dikirim	-
186918	8 Mei 2023	10 Mei 2023	Belum dikirim	-
186964	8 Mei 2023	12 Mei 2023	26 Mei 2023	14 Hari
186198	4 Mei 2023	11 Mei 2023	26 Mei 2023	15 Hari
229227	5 Mei 2023	8 Mei 2023	26 Mei 2023	18 Hari
187292	10 Mei 2023	14 Mei 2023	26 Mei 2023	12 Hari

Based on the above sample data, there are 30% of the files that have not been sent because the files are incomplete, all billing files do not contain medical resumes, and one of them does not yet have radiology results. Medical resumes and medical support examination results were obtained from the medical records department. Incomplete medical resumes can be caused by a variety of reasons, including medical resumes not being filled out by the attending physician and stacked in the doctor's office to complete the examination results, and officials from the medical support unit not including the examination results in the patient's medical file.

The billing records that the billing officer receives from the verification officer are often incomplete, there is no application form filled out by the attending physician or attending physician. There are still application forms in the billing office and doctor's office to be filled out

Accounts receivable percentage

The percentage of collectible accounts is determined by comparing payment amounts with accounts receivable. The percentage of collectible accounts receivable in this study is the total percentage of accounts receivable that can be settled in less than or equal to 30 (thirty) days as shown in the accounts receivable reconciliation report for XYZ Hospital in 2022. Based on the accounts receivable reconciliation report for the time less than or equal to 30 days is 70.45%. Based on the billing data

for April 2023, the average payment day from the insurance company is 29 days from the time of invoice dispatch to the date of invoice payment.

Table 5 Percentage of Receivables Collected 30 Days at Graha Bunda Hospital in 2023

Jumlah Piutang	Pembayaran (0-30 hari)	Persentase
Rp955.222.441,00	Rp673.836.180,00	70,45%

Conclusion

From the research results analyzing the management of inpatient insurance claims in XYZ Hospital in 2023, the following conclusions can be drawn:

1. The percentage of collectible claims from XYZ Hospital insurance patients that can be collected within 30 days is 70.45% and based on the billing data for April 2023, the average payment day from the insurance company is 29 days from the date the invoice is sent to the date the invoice is paid.
2. The average time for invoices to be sent to partners is 14 (fourteen) days. Based on data from a sample of problematic billing files as of May 26, 2023, the total time to send invoices can be 29 days. This finding is not in line with the content of the hospital's cooperation agreement with the insurance company
3. In the smooth process of managing patient claims from the admission stage, collecting fees, structuring accounts, reviewing, settling and closing claims for inpatient insurance in XYZ Hospital in 2023, there are several internal obstacles in XYZ Hospital.

SUGGESTTION

1. In order to provide high-quality and high-quality human resources, it is necessary to monitor the availability of the number of human resources involved in the management of claims in the form of workload analysis. Special training to maintain and improve work skills in inpatient claims management. The trainings conducted are in-service training both off-duty and on-duty, using information presentation techniques and simulation methods. Training in the form of information presentations and simulations can be conducted in hospitals, in meeting rooms or hospital halls. It must be recognized that there is a delegation of authority when the official is absent or on leave in the process, so that the smooth flow of the tasks of checking, accounting and settling claims is not affected.

2. There should be a clear job description (job description) and monitoring and evaluation of staff performance whether it is consistent with the existing job description to monitor the performance of staff in managing inpatient claims for insurance patients in Graha Bunda Hospital on claims

3. SOPs and policies should be established and socialized at every stage of claims management. The written SOPs and policies will be used and evaluated in claims management as a guide and reference basis for correct implementation for the executing staff.

References

Atmodiwirio, Seobagio. 2002. Training Management. Jakarta: PT Ardadizya Jaya

Azwar, Azrul. 1996. Introduction to Health Administration, Third Edition. Jakarta: PT Bina Rupa Aksara

XYZ Hospital Accounting Department 2023.

XYZ Hospital Accounts Receivable Report for the period 2021, 2022, 20223. Depok:

XYZ Hospital Accounting Department

XYZ Hospital Accounting Department 2023. XYZ Hospital Comparative Profit and Loss Report for the period 2009, 2010 and 2011. Depot:

Baridwan, Zaki. 2005. Intermediate Accounting, 8th Edition: Yogyakarta: Gadjah Mada University

East, Star. Life Accounting, Constraint Theory or Constraint Theory. 2023.

Budi, Hengki Irawan Setia. 2011. Managing Accounts Receivable Wisely, Smartly in Accounts Receivable. Jakarta: PT Elex Media Komputindo

Human Resources Department, General Department and Legal Department. 2023. Employment Data 2023.

Effendi, Meitha Dwiana. 2002. Analysis of Third-Security Inpatient Accounts Receivable Management in Kartika Pavilion of RSPAD Gatot Soebroto for the Period June 30, 2001 to June 2002. Thesis. Depok: FKM User Interface.