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Analysis of Dry Food Ingredients Procurement Model Based on EOQ (Economic Order Quantity) at the Nutritional Installation

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Abstract: Nutritional problems in hospitals are assessed according to individual conditions which directly or indirectly affect the healing process. The trend of increasing cases of nutrition-related diseases in all vulnerable groups, from pregnant women, babies, children, teenagers, to the elderly, requires special nutritional management. Therefore, quality food/nutrition services or administration are needed to achieve and maintain optimal nutritional status and accelerate healing. This research is viewed from the intervention carried out on the research object, which is pre-experimental research using descriptive evaluative methods, observational approaches and interviews. The results of this research show that the ratio of procurement of dry food ingredients at the Nutritional Installation of RSUP H. Adam Malik Medan is efficient. It is proven that the TOR value obtained is 1.79, which means that the stock of dry food ingredients is used and updated properly, so that the supply is sufficient to meet patient needs and prevent excessive overstocking.

Keywords: Dry food ingredients; Economic order quantity; Nutrition

Introduction

The era of globalization is characterized by competition in various aspects, high quality human resources (HR) are needed to be able to compete with other countries. Health and nutrition are important factors because they directly influence the quality of human resources in a country, which is described through economic growth, life expectancy and education level. High quality human resources can only be achieved by a good level of health and nutritional status. For this reason, efforts to improve nutrition are needed which aim to improve the nutritional status of the community through efforts to improve nutrition in the family and nutritional services for individuals who, due to their health conditions, must be treated in a health service facility, for example a hospital (RS) (Kementerian Kesehatan Republik Indonesia, 2013). Food/nutrition management is a series of activities starting from procuring ingredients to serving food. One of the food management activities is the procurement and storage of food ingredients (Simbolon, 2021). Food procurement is an activity of providing food ingredients according to needs. Procurement of food ingredients includes menu planning, calculating food needs, ordering, purchasing, receiving, storing and distributing food ingredients. Food ingredients in hospitals consist of dry food ingredients and wet food ingredients (Rahmawati, 2020).

Food inventory management is very important because inventory procurement is a series of policies and controls that monitor inventory levels and determine the level of inventory that must be maintained. This system aims to determine and guarantee the availability of the right resources in the right quantity, time, type and quality as well as minimizing total costs through optimal ordering (Silitonga et al., 2015).

In carrying out activities at the hospital, procurement or logistics cannot be separated. Logistics is the art and science of managing and controlling the

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flow of goods, energy, information and other resources such as products, services and people, from product sources to markets with the aim of optimizing the use of capital. Logistics also includes information integration, transportation, inventory, warehousing, reverse logistics and packaging. In hospitals, logistics is also related to the procurement of food ingredients used to provide patient meals (Sulistiyadi, 2019).

Research conducted by Rahmawati (2020) at Dr. H. Marzoeki Mahdi Bogor stated that the procurement of food ingredients through food needs planning was made by the head of the supplies unit based on the menu, number of patients and standard portions, then calculated the amount of food ingredients for one period and calculated the required budget. Ordering foodstuffs is done before purchasing foodstuffs with a request for foodstuffs for a certain period. Food ordering is done twice a year because it uses a six month period. Receiving food materials is carried out by the Work Result Recipient Committee (PPHP). Food ingredients are received according to nutritional installation specifications or orders and invoices received. One method used to calculate food procurement is using the Economic Order Quantity (EOQ). The advantage or advantage of the procurement model based on the EOQ method is that it can control procurement planning (Sulistiyadi, 2019). If adequate recording, reporting and information systems are carried out, it will produce planning that is close to reality so that minimal inventory will be obtained and increase availability, can reduce the working capital provided, supervision and monitoring of inventory will be carried out continuously to avoid the risk of accumulation of goods and delays in purchases. Meanwhile, the weakness is that accurate data and reports are needed so diligent and thorough personnel are needed. This EOQ method is difficult to carry out if there is a spike or decline in demand for goods (Miranda, 2018). The results of research conducted Silitonga et al. (2015) at the Dumai City Regional General Hospital showed that the total cost per year for procuring dry food ingredients before the EOQ calculation was carried out was very large, namely IDR 286,595,517, whereas after the EOQ it was IDR 102,450. 739.91. This optimizes the investment value of dry food supplies at the Dumai City Regional Hospital of IDR 184,144,777.09. Furthermore, research was conducted by Alhamidy (2006) at the Nutrition Installation at Roemani Hospital, Semarang, who conducted research by comparing the working capital required between procurement using the EOQ (Economic Order Quantity) method and procurement without using the EOQ method. The results of data analysis show that from the Turn Over Ratio (TOR) value, no efficiency was obtained, while from working capital the efficiency was obtained for Indomilk milk at 42% and Van Houten chocolate at 42%, while for the other four types of ingredients no efficiency was obtained.

Food logistics planning as part of the logistics management of the H. Adam Malik Medan Central General Hospital has an important role in the efficiency and effectiveness of the H. Adam Malik Medan Central General Hospital, because planning that is carried out appropriately according to needs has a positive impact on efficiency overall costs of the H. Adam Malik Medan Central General Hospital. Logistics planning in hospitals is separated into two parts, namely dry food ingredients (food ingredients that can be stored) and wet food ingredients (food ingredients that cannot be stored or must be used immediately).

In this regard, the researcher took the title "Analysis of the Procurement Model for Dry Food Based on EOQ (Economic Order Quantity) at the Nutrition Installation of RSUP H Adam Malik Medan".

Method

The type of research carried out in this research is viewed from its aim, namely developing concepts that help in-depth understanding of phenomena in natural settings, which is qualitative research. Meanwhile, in terms of the intervention carried out on the research object, it was pre-experimental research using descriptive evaluative methods, observational approaches and interviews (Arikunto, 2019).

The data used in this data collection are primary data and secondary data. Primary data through interview guides with predetermined informants. Interview with perpetrators related to the procurement of nutritional logistics materials at RSUP H Adam Malik Medan. The aim is to find out the desires of an ideal or better procurement system from related parties involved in the dry food procurement management system. Secondary data was obtained from nutritional installation reports containing reports on the use of dry food ingredients, reports on the procurement of dry food ingredients, stock taking reports on dry food ingredients, reports on over stock of dry food ingredients, and reports on the frequency of procurement of dry food ingredients.

Result and Discussion

Dry Food Ingredients

Based on the research results, it shows that there are 76 types of dry food ingredients in the Nutrition Installation at H. Adam Malik Hospital, Medan, ranging from rice to SGM Soya Milk. Meanwhile, the price of dry food ingredients at the H. Adam Malik Hospital Nutrition Installation in Medan, the cheapest dry food

ingredient is Hunkue, which is IDR 4,999, while the most expensive dry food ingredient is pediasure milk, which is IDR 430,602. The importance of paying attention to the type and price of dry food ingredients in procurement at the H. Adam Malik General Hospital Medan Nutrition Installation is to ensure optimal fulfillment of patients' nutritional needs, control the budget efficiently, and maintain operational continuity and adequate supply availability. By choosing the right type of dry food ingredients and paying attention to the price factor, the Nutrition Installation at RSUP H. Adam Malik Medan can provide quality nutrition services.

A study conducted by Smith (2017) found that rice, wheat flour and sugar were the types of dry food ingredients most commonly used in hospitals. The price of rice is stable throughout the year, while the price of wheat flour and sugar fluctuates depending on supply and demand. Johnson's (2019) research found that fluctuations in the price of dry food ingredients can have a significant impact on budget needs in hospitals. The increase in the price of dry food ingredients such as dried meat and milk powder has caused a significant increase in the budget in nutritional installations. Another study conducted by Thompson (2018) found variations in the quality of dry food ingredients available in private hospital nutrition installations. Prices of dry food ingredients also vary depending on brand and quality. Organic dry food ingredients tend to have a higher price compared to non-organic products.

Nutrition installations usually use various types of dry food ingredients to meet patients' nutritional needs. According to clinical nutrition guidelines, frequently used dry food ingredients include cereals, such as rice, wheat, or oatmeal, which are important sources of carbohydrates. Apart from that, nuts and seeds such as red beans, green beans, or dried chickpeas, are also often used as a source of vegetable protein. Other dry food ingredients include wheat flour, milk powder, sugar, and spices such as salt, pepper, or other seasonings that are used to add flavor to dishes (Khisty et al., 2018).

Determining the appropriate type of dry food ingredients allows providing a balanced diet and optimally meeting the patient's nutritional needs. Additionally, considering the price of dry goods in procurement helps control the budget efficiently and ensures proper allocation of resources. By maintaining the availability of quality dry food ingredients and paying attention to price factors, nutritional installations can provide high quality nutritional services, ensure patient satisfaction, and maintain good operational sustainability (Trinantoro, 2017).

According to researchers, during the period January 2023 - April 2023 the type and price of dry food ingredients play an important role in the procurement of goods in hospital nutrition installations for the following reasons:

Patient Nutritional Satisfaction: The type of dry food ingredients chosen must be able to optimally meet the patient's nutritional needs. Various types of dry foods such as rice, wheat, beans and wheat flour are important sources of carbohydrates and protein for patients. Ensuring the availability of varied and quality dry food ingredients helps provide a balanced diet and meets the patient's nutritional needs.

The price of dry food ingredients will affect the procurement budget at the Nutrition Installation at H. Adam Malik General Hospital, Medan. Paying attention to price when selecting and procuring quality dry food ingredients can help control costs and maintain operational sustainability. By choosing products at affordable prices but still meeting the required nutritional standards, the Nutrition Installation of RSUP H. Adam Malik Medan can allocate the budget efficiently and get maximum benefits from every dollar invested.

The type and price of dry food ingredients also influence the reliability of supply at the H. Adam Malik Hospital Nutrition Installation in Medan. Choosing types of dry food ingredients that are common, easy to find, and can be supplied regularly can ensure operational continuity and avoid supply shortages that can negatively impact the nutritional services provided to patients. By paying attention to the type and price of dry food ingredients when procuring goods at the H. Adam Malik General Hospital Medan Nutrition Installation, we can expect optimal nutritional services, efficient budget management, and good operational sustainability.

Storage Fees

Based on the research results, it shows that the cost of storing dry food ingredients at the Nutrition Installation at H. Adam Malik General Hospital, Medan, is 30% of the budget for procuring dry food ingredients. Some of the reasons why storage costs are 30% are operational sustainability, inventory management, infrastructure and equipment, temperature and humidity control, and security and security. The cost of storing dry food ingredients in nutritional installations is an important component in inventory management. According to research conducted by Shaviklo et al. (2018), dry food storage costs usually include several aspects, such as infrastructure and storage equipment costs, costs for maintaining optimal temperature and humidity, security and security costs, and inventory management costs. This quote shows that dry food storage costs not only include physical aspects such as storage space and equipment, but also involve operational costs related to proper organization and

maintenance. In another study conducted by Thaichon et al. (2019) regarding inventory management in hospitals, dry food storage costs are often calculated as a percentage of the dry food purchase budget. This study shows that efficient inventory management and controlled storage costs can provide benefits in optimizing budget use and reducing inventory waste.

The cost of storing dry food ingredients in nutritional installations is an important factor that needs to be considered in inventory management. These costs include infrastructure costs, such as storage shelves and refrigerators, costs for maintaining optimal temperature and humidity, as well as inventory management costs, including stock monitoring, inventory rotation, and risk management. In addition, storage costs can also include security costs and protection against theft or damage. By calculating and controlling storage costs effectively, nutritional installations can maintain smooth operations, minimize waste, and ensure the availability of adequate dry food ingredients to meet patient needs (Abbas, 2019).

According to researchers, the cost of storing dry food ingredients at the Nutrition Installation at H. Adam Malik General Hospital, Medan, is appropriate for the sustainability of dry food storage operations at 30% of the budget for procuring dry food ingredients. These costs are included as an effort to sustain dry food storage operations at the H. Adam Malik Hospital Nutrition Installation in Medan, referring to the efforts made to maintain the smooth and sustainable process of storing and managing food ingredients so that they can consistently meet patient needs. It involves a series of measures designed to ensure an adequate and safe supply of foodstuffs.

The Nutrition Installation of H. Adam Malik Hospital Medan regularly monitors the existing stock of dry food ingredients. This involves monitoring inventory levels, checking expiration dates, and identifying possible changes in stock quality or quantity. By monitoring stock regularly, nutritional installations can anticipate supply needs and prevent stock shortages or excesses.

In addition, an inventory management system is used to store dry food ingredients at the Nutritional Installation at H. Adam Malik General Hospital, Medan, which aims to maintain smooth supply, optimize the use of resources, and ensure timely and high-quality availability of food ingredients. Through efficient inventory management, nutritional installations can monitor and control inventory, carry out appropriate inventory management, minimize waste or excess stock, identify necessary procurement needs, and maintain good inventory rotation. In this way, the Nutrition Installation at H. Adam Malik Hospital Medan can optimize budget use, maintain sufficient appropriate supplies, and meet patients' nutritional needs effectively.

Another important thing in storing dry food ingredients at the H. Adam Malik Hospital Nutrition Installation in Medan is controlling temperature and humidity which aims to maintain the quality, freshness and safety of dry food ingredients. By regulating the right temperature and maintaining appropriate humidity, nutritional installations can prevent the growth of damaging microorganisms, maintain the texture and taste of food ingredients, and prevent damage or spoilage. Good temperature and humidity control also helps extend the shelf life of food, ensures that supplies remain fit for consumption, and guarantees the quality of food provided to hospital patients.

ABC Analysis

Based on the research results, it shows that from the ABC analysis of dry food ingredients in the Nutrition Installation of H. Adam Malik Hospital Medan, there are 11 types of food ingredients in category A (70%), 10 types of food in category B (20%), and 55 types of food in category C (10%).

This research is in line with research by Rivaldi (2020) showing that by applying ABC analysis, hospital nutrition installations can identify items with the largest contribution to expenditure and take appropriate action in procuring them. The evaluation results show that expenditure can be optimized by reducing inventory of items in category C that have a low contribution to expenditure, while focusing more on procurement of important items in category A. This helps reduce waste, improve budget utilization, and ensure material availability dry food required in hospital nutrition installations. A study conducted by Davis (2018) concluded that ABC analysis helps hospital nutrition installations manage dry food supplies more efficiently. By prioritizing procurement of high value items in category A, nutritional installations can avoid inventory shortages and minimize storage costs for items that have a low contribution to expenditure. Subsequent research conducted by Aditya (2019) found that by implementing ABC analysis, hospital nutrition installations could identify key items that had a significant contribution to expenditure and prioritize their procurement. This approach helps allocate resources effectively, reduces waste, and improves dry goods inventory management.

ABC analysis has an important role in the procurement of dry food ingredients in hospital nutrition installations. By using this method, nutritional installations can identify and group dry food ingredients based on their strategic value and contribution to expenditure. Items that have a high contribution to expenditure, such as critical or expensive dry food

ingredients, are included in category A. Dry food ingredients that have a moderate contribution to expenditure are included in category B. Meanwhile, items with a low contribution, such as dry food ingredients that rarely used, included in category C (Mulyadi, 2018).

Through ABC analysis, hospital nutrition installations can allocate resources more efficiently. Procurement of dry food ingredients in category A can be looked at in more detail to ensure adequate availability, while procurement of dry food ingredients in category C can be reduced or better controlled. This helps reduce waste, optimize budget use, and maintain operational sustainability in the storage and supply of dry food ingredients in hospital nutrition installations. Thus, ABC analysis provides a strategic basis for decision making in the procurement of dry food ingredients in hospital nutrition installations, ensuring that limited resources are used effectively and efficiently to provide quality nutrition services to patients (Gani, 2019). According to researchers, the dry food ingredients in the nutrition installation with a value of 70% of the budget for January-April 2023 at the Nutrition Installation at H. Adam Malik Hospital in Medan contain 11 items, most of which are for purchasing milk, namely skim milk, plastic wrap, rice, Nutren Junior, Pediasure, Pregistimil, cooking oil, infatrini, peptisol, Nutren Optimun, and Nefrisol.

Dry food ingredients which are included in category B are food ingredients with a moderate contribution to expenditure at the Nutrition Installation of H. Adam Malik General Hospital, Medan. Even though they are not as critical or expensive as foodstuffs in category A, foodstuffs in category B are still important in providing food and influence the procurement budget. There are 10 items of dry food ingredients in category B at the Nutrition Installation of H. Adam Malik Hospital Medan, namely Diabetasol, Goldsure, peptamen, blendera, Nutrican, Isocal, Nefrisol D, hepatosol, Blueband, peptimune, and diabetasol sugar. Furthermore, category C inventory has a relatively low value compared to category A and B inventory. This is due to cheaper prices or types of food ingredients that are less valuable. Because the value is low, the Nutrition Installation of H. Adam Malik Hospital Medan may decide to have more category C inventory to continue to meet needs that may arise with low stock risk. Additionally, category C inventory generally has a lower frequency of use compared to category A and B inventory. This means category C inventory is used less frequently or in smaller quantities. Therefore, hospitals may choose to have a greater amount of category C inventory to remain ready if demand arises, without having to order frequently or manage inventory at a high intensity.

Category C dry food ingredients have a longer shelf life or are more resistant to damage or expiration. In some cases, category C supplies consist of dry food ingredients with a longer shelf life, such as spices, additives, or non-perishable food ingredients. In this case, the Nutrition Installation of RSUP H. Adam Malik Medan chose to have a larger amount of category C inventory to ensure long-term availability and minimize the risk of waste or inventory shortages.

Procurement of Dry Food Ingredients Based on Economic Order Quantity (EOQ)

Based on the research results, it shows that the Economic Order Quantity (EOQ) value of the procurement of dry food ingredients at the Nutrition Installation of H. Adam Malik General Hospital Medan during the period January - April 2023 (4 months) is IDR 13,314.2, whereas if averaged over 1 month it is IDR 13,314.2. IDR 3,328.6, this amount is relatively small so the EOQ value is declared efficient.

Research conducted by Tiwari et al. (2016) applied the Economic Order Quantity (EOQ) model in food supply management in hospitals. The study shows that the optimal ordering policy for dry food ingredients in hospitals takes into account inventory costs, ordering costs, and demand. Further research conducted by Linh et al. (2021) who examined the Economic Order Quantity (EOQ) model in food inventory management in hospital food services. This research found that using Economic Order Quantity (EOQ) can optimize dry food ordering policies by minimizing inventory costs and ordering costs.

Economic Over Quantity (EOQ) is a method used to determine the quantity of material procurement that minimizes direct costs, storage, inventory and ordering supplies. EOQ is also a control over the use of food ingredients which is carried out through a cross-check between the number of consumers and the use of food ingredients. This inspection is carried out by the logistics and production quality control and reporting recording departments (Wibowo et al., 2018).

Economic Over Quantity (EOQ) is a mathematical model used to determine the optimal number of orders or purchases of dry food ingredients in order to minimize inventory costs. This model considers factors such as ordering costs, holding costs, and demand levels. Measuring the efficiency of dry food supplies based on the results of Economic Over Quantity (EOQ) calculations can provide an idea of the extent to which inventory management is efficient (Abbas, 2019; Nasution, 2019).

According to researchers, the results of this study show that the supply of dry food ingredients at the Nutrition Installation at H. Adam Malik General Hospital in Medan using the Economic Over Quantity

(EOQ) model is efficient for optimizing orders for dry food ingredients. Procurement of dry food ingredients at the H. Adam Malik General Hospital Medan Nutrition Installation based on Economic Order Quantity (EOQ) is said to be efficient because it uses a mathematical approach to optimize ordering policies. Several reasons why EOQ can be considered efficient in the context of procuring dry food ingredients at the H. Adam Malik Hospital Nutrition Installation in Medan are reducing inventory costs, avoiding excess or shortage of inventory, optimizing ordering frequency, and improving inventory management.

By using EOQ, the Nutrition Installation of H. Adam Malik Hospital Medan can identify the optimal order quantity that minimizes storage costs and inventory shortage costs. EOQ considers holding costs, ordering costs, and demand levels to determine the appropriate order quantity. By using EOQ, the Nutrition Installation of H. Adam Malik Hospital Medan can also avoid excess inventory which can cause waste and high storage costs. On the other hand, EOQ also helps prevent inventory shortages that can disrupt service and result in additional costs in getting dry groceries quickly.

In addition, EOQ helps the Nutrition Installation of RSUP H. Adam Malik Medan to determine the right ordering frequency based on the optimal quantity ordered each time. By reducing the frequency of unnecessary orders, the Nutrition Installation of H. Adam Malik Hospital Medan can save on administration costs related to procurement. EOQ provides a mathematical framework that can help the Nutrition Installation of RSUP H. Adam Malik Medan in managing inventory more efficiently. By considering factors such as inventory costs, ordering costs, and demand, EOQ can help in making better decisions regarding the procurement of dry goods.

Turn Over Ratio (TOR)

Procurement of Dry Food Ingredients Based on the research results, it shows that the Turn Over Ratio (TOR) value for procurement of dry food ingredients at the Nutrition Installation at H. Adam Malik General Hospital, Medan, is an average of 1.79. The highest value is goldsure. The highest value is goldsure, namely 5.14 and the lowest value is nutren junior, namely 1.00. The Turnover Ratio (TOR) value is 1.79, which means that the dry food inventory ratio at the Nutrition Installation at H. Adam Malik General Hospital, Medan, is quite efficient.

Turnover Ratio (TOR) in the procurement of dry food ingredients in hospital nutrition installations is a measure used to describe the efficiency of using dry food ingredients over a certain period of time. TOR measures how quickly dry food ingredients are purchased and consumed in hospital nutrition installations. TOR is calculated by comparing total purchases of dry food ingredients with the average stock of dry food ingredients during a specified time period. Thus, TOR indicates how often dry food ingredients are used or "rotated" in that period (Nasution, 2019).

The higher the TOR, the faster dry food ingredients are consumed and renewed. This can show good efficiency in the management of dry food supplies, avoiding excessive overstocking or expired dry food ingredients. On the other hand, if the TOR is low, it may indicate overstocking or problems in the use of dry food ingredients. TOR can be a useful tool for hospital nutrition installations to measure the efficiency of dry food inventory management, identify changing trends in demand for food ingredients, and optimize inventory needs to suit patient needs and available budget (Abbas, 2019).

According to researchers, the ratio of procurement of dry food ingredients at the Nutritional Installation of RSUP H. Adam Malik Medan is efficient, as proven by the TOR value obtained at 1.79, which means that the stock of dry food ingredients is used and updated properly, so that the supply is sufficient to meet patient needs and prevent Excessive excess stock. Turn Over Ratio (TOR) in the procurement of dry food ingredients at the H. Adam Malik Hospital Nutrition Installation in Medan can be said to be efficient because it measures how quickly dry food ingredients are turned over or consumed within a certain time period. Several reasons why the TOR in procuring dry food ingredients at the H. Adam Malik Hospital Nutrition Installation in Medan is said to be efficient, namely optimizing inventory, saving storage costs, food safety, and being responsive to demand.

TOR assists in optimizing dry food supply levels at the Nutrition Installation at H. Adam Malik General Hospital, Medan. Having a high TOR means that dry food ingredients run out quickly and are replaced with new ones. This helps avoid excessive inventory buildup and potential damage or waste. By having an efficient TOR, the Nutrition Installation of H. Adam Malik Hospital Medan can avoid high storage costs. The faster dry food items turn around, the less space and resources are required to store supplies. This can reduce storage costs and maximize the use of storage space.

By having a high TOR, the Nutrition Installation of RSUP H. Adam Malik Medan can ensure the availability of fresh and high quality dry food ingredients. Dry food items that rotate quickly tend to have a shorter shelf life, so hospital nutrition installations can ensure that the food served to patients remains fresh and safe to consume. The high TOR also shows that the Nutrition Installation at H. Adam Malik Hospital Medan can respond to requests quickly. Patients who require dry food receive adequate and

timely supplies. This is important in meeting the needs of patients who may have special dietary requirements or health conditions that need attention.

Conclusion

Based on the results of research that has been carried out and presented in the previous chapter, it can be concluded as follows: a) There are 76 types of dry food ingredients in the Nutrition Installation H. Adam Malik Hospital Medan. The price of the cheapest dry food ingredient is Hunkue, which is IDR 4,999, while the most expensive dry food ingredient is pediasure milk, which is IDR 430,602. b) The cost of storing dry food ingredients at the Nutrition Installation at H. Adam Malik General Hospital, Medan, is 30% of the dry food procurement budget, including operational sustainability, inventory management, infrastructure and equipment, temperature and humidity control, and security and security. c) Based on the ABC analysis of dry food ingredients at the Nutrition Installation of H. Adam Malik Hospital Medan, there are 11 types of food ingredients in category A (70%), 10 types of food in category B (20%), and 55 types of food in category C (10%). d) The value of the Economic Order Quantity (EOQ) for the procurement of dry food ingredients at the Nutrition Installation at H. Adam Malik General Hospital in Medan during the period January – April 2023 (4 months) is IDR 13,314.2, whereas if averaged over 1 month it is IDR 3,328 .6, this number is relatively small so the EOQ value is declared efficient. e) The Turn Over Ratio (TOR) value for the procurement of dry food ingredients at the Nutrition Installation at H. Adam Malik General Hospital, Medan, is an average of 1.79. The highest value is goldsure, namely 5.14, and the lowest value is nutren junior, namely 1.00. The Turnover Ratio (TOR) value is 1.79, which means that the dry food inventory ratio is quite efficient.

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