



## EVALUATION OF FOOD MANAGEMENT FOR PATIENTS IN THE NUTRITION DEPARTMENT OF MALAHAYATI ISLAMIC HOSPITAL, MEDAN

**Futri Ritonga<sup>\*</sup>, Mastuti Berutu, Siti Soraya Tambunan, Vindy Ammadhea Tanjung,  
Widya Kinanti, Nadia Ulfa Tanjung**

Fakultas Kesehatan Masyarakat, Universitas Islam Negeri Sumatera Utara  
Jl. Lap. Golf No. 120, Kab. Deli Serdang, 20353, Medan, Sumatera Utara, Indonesia  
Email: [futritonga090@gmail.com](mailto:futritonga090@gmail.com)

### Abstract

Hospitals function as healthcare service facilities for the community and have characteristics influenced by several factors, including advancements in medical science, technological progress, and the socio-economic conditions of the population. This study aims to evaluate the management of the food service system in the nutrition department for patients at Malahayati Islamic Hospital in Medan. This research employs a qualitative descriptive approach, utilizing data collection techniques through direct observation and interviews with food service staff. The results indicate that the food procurement system at Malahayati Islamic Hospital, from ordering and purchasing to receiving, storing, and distributing food ingredients, complies with hospital food service standards (PGRS). However, improvements are needed in food processing, presentation, and distribution, specifically in monitoring and evaluating the washing of food ingredients before chopping and the use of personal protective equipment (PPE) by serving staff. This study was conducted to enhance awareness and concern regarding their responsibilities.

**Keywords:** Food, Nutritional Status, Hospital

### Introduction

One type of healthcare facility that conducts medical operations is a hospital. Hospitals function as health service centers for the community and possess characteristics influenced by several factors, including advancements in medical science, technological progress, and the socio-economic conditions of the population. Therefore, hospitals must provide better and more affordable healthcare services to help the community achieve the highest possible level of health (Yulia et al., 2022).

Patients must be provided with food that is safe and free from contaminants. Food handlers, food processing locations, equipment, food storage, and food presentation are all essential components of the application of food hygiene and sanitation (Said et al., 2024). The way food is processed, starting from raw components to the finished product ready for consumption by patients, significantly determines the quality of hospital nutrition services in aiding patient recovery. Effective nutrition service delivery can be achieved if accompanied by proper food management. Food management is a series of procedures followed to provide high-quality food for patients or clients, beginning with meal planning and ending with food distribution.

In addition to providing outpatient services tailored to individual patients, hospitals are crucial healthcare facilities that play a vital role in improving public health outcomes by increasing acceptance of programs such as disease prevention and cure (preventive) and healing and recovery (curative). Hospital nutrition services refer to the provision of care based on the clinical, nutritional, and metabolic conditions of the patient. The healing process is significantly influenced by the nutritional status of patients, which, in turn, is affected by their medical conditions. Often, inadequate nutritional intake

required for organ repair worsens the patient's condition. Malnutrition or diseases are exacerbated by impaired organ function. Nutritional problems and obesity are strongly linked to diseases like diabetes, coronary heart disease, hypertension, cancer, and other degenerative conditions. Nutritional care serves as a means to promote recovery.

Malahayati Islamic Hospital in Medan is a private general hospital that provides medical and community health services. Its goal is to support the community and the government in improving physical, mental, and social well-being. The process of food preparation, from raw ingredients to finished meals ready for patient consumption, has a significant impact on how well hospital nutrition services promote patient recovery. If nutrition services are supported by proper food management, they can be implemented effectively. Food management is a systematic series of tasks aimed at producing high-quality food, from meal planning to patient or customer distribution.

Based on the background described above, this study aims to evaluate the food service management system in the nutrition department for patients.

## **Method**

Qualitative phenomenological descriptive research methodology was used to provide a clear and comprehensive picture of the management practices applied in food management operations at the Nutrition Installation of Malahayati Islamic Hospital Medan. The research period was September-October 2024. Informants in this study consisted of: Nutritionists as many as 2 people, food processing and distribution as many as 10 people. Data processing and analysis went through the following stages: Data processing, namely data (information) obtained from the field is recorded thoroughly and in detail and summarizes the results of observations and interviews, data presentation presented in this study in the form of narratives developed from the results of the study.

## **Results**

### **A. Evaluation of Food Planning**

The execution of planning and strategy formulation is the first aspect of hospital management. The person in charge of the hospital's nutrition department plans everything, from the requirements for food ingredients and necessary equipment for food preparation to the staff directly involved in preparing the food. For effective patient nutrition management, the head of the nutrition department must possess strong managerial skills (Harahap & Satria, 2022).

Malahayati Islamic Hospital in Medan is considered to have robust menu planning because it adheres to guidelines on quantity, recipes, seasonings, and menu cycles. Additionally, the menu design takes into account patients' nutritional needs by offering a variety of foods in alignment with balanced nutrition guidelines. These guidelines require a combination of main dishes, side dishes, fruits, and vegetables. To ensure the food meets patients' needs and supports their recovery and healing, patients' nutritional adequacy levels (AKG) are calculated accurately.

To create a more appealing menu, factors such as food preparation equipment, available budget, patient preferences, and color variety are also considered. The care sector provides daily information on the number of hospitalized patients and the types of food required, such as soft foods, regular meals, filtered diets, restricted diets, etc. This information is used to manage food preparation effectively.



**Figure 1. Documentation of counseling and interviews with the head of the nutrition department in the food preparation area**

In the food preparation area (nutrition department), meals are portioned and served using appropriate utensils according to the centralized distribution method employed by the Nutrition Department of Malahayati Islamic Hospital in Medan. All meals, including those for patients without specific dietary needs and those requiring specialized diets, are distributed by the nutrition department. No one outside the department is authorized to handle or distribute the meals, as servers deliver them directly to the patient care rooms.

Providing meals to patients is more complex than serving healthy individuals. This complexity arises from reduced physical activity, the uncertain mental state of patients due to illness, their appetite, and the effects of medication. The Minimum Service Standard for Nutrition at Medan hospitals requires accurate meal provision. According to the Indonesian Ministry of Health, in 2013, more than 90% of meals were served on time or earlier.

The Nutrition Department is responsible for providing meals for inpatients. This includes food preparation, procurement of necessary ingredients, and meal distribution to all inpatients. However, previous studies indicate that 50% of patients do not finish the meals provided, and 75% express dissatisfaction with the hospital's food standards. Malnutrition develops in hospitals due to inadequate fulfillment of patients' nutritional needs. The high amount of uneaten food left by patients poses a significant issue for many hospitals (Triyanto, 2020).

A person's nutritional status is influenced by the food they consume. When the body receives adequate nutrients and uses them effectively to support physical and mental development, work capacity, and overall health, it is considered to be in a good or optimal nutritional state. Conversely, when the body lacks one or more essential nutrients, malnutrition occurs. Nutritional problems can result from both overnutrition and undernutrition. Two factors influencing children's nutritional status are insufficient food intake and illness. Since infectious diseases are affected by healthcare services, sanitation, hygiene, and therapeutic and rehabilitative interventions, their prevalence may increase (Satti et al., 2021).

## **B. Evaluation of Food Ingredient Management**

The process of transforming raw food ingredients into ready-to-eat, high-quality, and safe meals is known as food preparation or cooking. Food components can be processed to enhance and preserve their color, taste, texture, and appearance, improve digestibility, and ensure they are free from harmful organisms and toxins. Food processing requires the availability of menus, menu cycles, guidelines, cooking equipment, and standards for evaluating the cooking outcomes. Consistent procedures for food preparation and cooking are essential, as are regulations governing the use of food additives (BTP) in

food processing. Culinary techniques include methods such as roasting, grilling, using water as a medium (boiling, steaming), setting, and other techniques involving water as a medium.



**Figure 2. Documentation of an Interview with a Cook at Malahayati Islamic Hospital**

One of the cooks at Malahayati Islamic Hospital in Medan stated: "During the food preparation and serving stages, some staff members have followed protocols by washing their hands before handling food, cleaning the ingredients, and wearing plastic gloves and personal protective equipment (PPE) to prevent contamination. Food is transported during distribution using hygienic stainless steel trolleys," they explained.

The food preparation methods used at Malahayati Islamic Hospital in Medan were found to be suboptimal based on observations in the Nutrition Department. Specifically, food ingredients were sliced before being cleaned. This aligns with research by V. Elfira (2022), which emphasizes that food preparation, including washing vegetables before processing or consuming them, should be done carefully. Washing vegetables after chopping can result in a loss of water-soluble vitamins. Moreover, slicing vegetables before washing can allow bacteria or germs to seep into the fibers. To preserve the nutrients in vegetables, the practice of chopping fruits and vegetables before washing should be avoided.

According to the Indonesian Ministry of Health Regulation No. 30 of 2019, a hospital is defined as a healthcare facility providing inpatient, outpatient, and emergency services, as well as comprehensive individual healthcare, including nutritional services. Hospital nutrition services encompass inpatient and outpatient nutritional care, nutritional evaluation, and monitoring through assessment and evaluation. Along with other medical services, Hospital Nutrition Services (PGRS) aim to enhance the quality of care provided to both inpatients and outpatients.

Errors in food preparation are common among cooks, such as being splashed with hot oil, bumping into pans with hot food, or even falling while cooking. These incidents are often due to a lack of awareness about workplace safety, rushed conditions, and the need to prepare large quantities of food with diverse menus. Most food quality issues can be prevented and controlled through proper food storage, especially immediately after the food is received and inspected. Proper food storage requires: (a) a structured product storage system, (b) designated storage areas for ingredients according to needs, and (c) stock cards and record books for tracking the inflow and outflow of food components (Apriani, 2022).

Consuming food is crucial for growth, maintaining immunity against diseases, and meeting nutritional needs as a source of energy. Hospital-related mortality has been linked to low food intake. Factors such as hunger, nausea, and fatigue during treatment, the nature of the illness, medical interventions, and environmental factors—such as eating in bed, eating alone, or poor interaction with other patients in inpatient rooms—can influence appetite and willingness to eat (Yani & Hani, 2021).

### C. Facilities and Infrastructure

Based on observations made in the Nutrition Department of Malahayati Islamic Hospital in Medan, it was found that the head of the Nutrition Department uses a 10+1-day menu cycle to describe food processing, starting with menu planning and adjustments based on patient volume, relevant menu items, and portion sizes. Food procurement is done daily, especially for perishable food components such as fish, meat, fruits, and vegetables. Food purchasing is based on the food requests from each ward and the food request forms.

One of the kitchen staff at Malahayati Islamic Hospital explained the available facilities and infrastructure at the hospital, saying: "The food service area is well-located because it is accessible from all patient care rooms. The noise and activity in the food processing area do not disturb other rooms, and it is easily reachable by vehicle from outside. It is not near garbage disposal areas, laundry, or other unhygienic environments, and it receives sufficient light and air. The food preparation and processing room, food serving room, dishwashing room, dry and wet food storage rooms, discussion room, and restroom are part of the Nutrition Department."

The hospital has the necessary facilities to store food components, ensuring that they remain fresh from receipt until they are served to patients. Staff must be aware that food storage involves organizing, preserving, and storing dry food ingredients in dry, refrigerated, or frozen environments, in safe quantities, quality, and methods. For both fresh and dry food components, there are specific storage requirements, including packaging. Food storage facilities must comply with regulations. Stock cards and records for food component entries and exits must be available.

In the food service and facilities of Malahayati Islamic Hospital, the Nutrition Department follows a timely meal schedule for patients. Breakfast is served between 06:30 and 07:30 WIB, followed by morning snacks from 09:30 to 10:30 WIB, lunch from 11:30 to 12:30 WIB, afternoon snacks from 13:30 to 15:00 WIB, and dinner from 16:30 to 17:30 WIB. The nutrition staff follows the server in using trolleys for distribution. After one hour of eating, the staff collects the eating utensils from patients.

At Malahayati Islamic Hospital, food is served using trolleys available at the hospital. The cleanliness of the trolleys is emphasized to prevent contamination from dust, bacteria, insects, and recontamination. This aligns with the findings of Doktriana (2024), which noted that the push trolleys used are clean but lack a temperature regulation system (Hasanah, 2020). According to the researcher's observations, food transportation at Karya Medika Hospital already adheres to Indonesian Ministry of Health Regulation No. 1096 of 2011, although the system currently lacks temperature regulation, and two push trolleys are used for food distribution. The dry food storage area at Malahayati Islamic Hospital also does not yet implement the First In, First Out (FIFO) system. The FIFO method is an inventory management technique that controls how food items are stored and distributed based on their arrival dates. Items that arrive first in the warehouse are prioritized for removal according to this system.

When using the FIFO system for food storage, the following factors must be considered:

1. Recognize when food expires. Words like "best before," "expiration date," and "use by" are typically printed on food packaging.
2. Display the nearest expiration date at the front of the inventory shelves to keep things organized.
3. Track the amount of food entering and exiting using item cards or bin cards, along with the corresponding dates.

Dry food storage involves keeping ingredients at room temperature or lower in a clean, dry environment. Proper ventilation is necessary when storing dry goods to keep insects away. The ideal storage location for dry items is between the kitchen and the receiving area. When storing dry goods, several requirements must be met, especially:

- a) Food components should be organized systematically and regularly based on type, category, and order of use.
- b) Use FIFO (first items in, first out). The date of receipt should be written on labels to indicate when the food was received and removed from its original packaging.
- c) Food should be added and removed regularly, and all storage areas, including food stock cards, should be promptly updated, stored, and regularly reviewed.
- d) Stock or inventory cards, along with records of food entries and exits, should be promptly completed and stored in appropriate places.
- e) All food should be stored on strong, sufficient, and tiered shelves that do not touch the walls and remain tightly sealed.
- f) Storage area doors should always be opened at designated times and locked when not in use. Only authorized staff are allowed to enter the warehouse.
- g) Room temperature (between 19°C and 21°C) must be dry.
- h) Routine cleaning should occur twice a week.
- i) Pesticides should be regularly applied in the storage area, while considering environmental conditions.
- j) All openings in the warehouse must be tightly closed, and any damage caused by rodents should be repaired immediately.

The FIFO approach, which requires the first items stored in the warehouse to be used or removed first, is a strategy to ensure that food inventory is stored and retrieved proportionally. The main goal of the FIFO method is to maintain food freshness (Haspara et al., 2023).

## Conclusion

Based on the research conducted, it can be concluded that the nutrition services at Rumah Sakit Islam Malahayati Medan show that the nutritional status of the food consumed by patients has a significant impact on the speed of recovery from illness. On the other hand, the patient's condition can also affect how quickly the illness heals. The food service is quite good, and the cooked food is clean and hygienic, so Rumah Sakit Islam Malahayati Medan provides harmonious service to patients. The kitchen staff at Rumah Sakit Islam Malahayati Medan provides patients with the best food and drinks to meet expectations and ensure that minimum service requirements are met. However, attention should be given to further raising awareness and concern for better food preparation processes.

Additionally, it is expected that the food service staff will increase their awareness of the use of personal protective equipment (PPE), as the PPE currently used is incomplete, such as the use of gloves and masks during the food service process. This will help reduce the risk of food contamination by microorganisms.

## References

- [1] Anisakoh, A. (2020). *Gambaran penyimpanan bahan makanan kering di instalasi gizi rumah sakit PKU Muhammadiyah Gamping Sleman* (Doctoral dissertation, Poltekkes Kemenkes Yogyakarta).
- [2] Apriani, S. R. (2022). Implementasi Prosedur Penyimpanan Bahan Makanan Di Instalasi Gizi Rumah Sakit Dustira Berdasarkan Permenkes Ri No 78 Tahun 2013. *Journal of Hospital Administration*, 1(1), 25-36.
- [3] Doktriana, R. A. G., Yaser, M., & Wahyudi, J. (2024). Analisis Hygiene Dan Sanitasi Makanan Di Instalasi Gizi Rumah Sakit. *Antigen: Jurnal Kesehatan Masyarakat dan Ilmu Gizi*, 2(2), 11-21.
- [4] Harahap, J., & Satria, B. (2022). Evaluasi Manajemen Penyelenggaraan Makanan Pasien Rawat Inap Di Instalasi Gizi Rsud Dr. Rm Djoelham Binjai. *Journal Of Healthcare Technology And Medicine*, 7(2), 1395-1408.
- [5] Marsita, V., Putri, S. A., & Erpidawati, E. (2024). Gambaran Prinsip Penyimpanan Bahan Makanan Kering pada Ruang Gizi di Rumah Sakit Islam Ibnu Sina Padang Panjang Tahun 2023. *MARAS: Jurnal Penelitian Multidisiplin*, 2(1), 327-332.
- [6] Said, S., Umar, F., Thasim, S., Haniarti, H., & Amir, R. (2024). Evaluasi Penerapan Higiene dan Sanitasi Penyelenggaraan Makanan di Instalasi Gizi RSUD Nene Mallomo. *Jurnal Ilmiah Manusia Dan Kesehatan*, 7(3), 403-414.
- [7] Satti, Y. C., Mistika, S. R., & Imelda, L. (2021). Faktor-Faktor yang Mempengaruhi Status Gizi Pasien Hemodialisa di Rumah Sakit Stella Maris Makassar. *Jurnal Keperawatan Florence Nightingale*, 4(1), 1-8.
- [8] Triyanto, A., & KM, S. (2022). Hubungan Antara Ketepatan Waktu Penyajian Makanan Dan Rasa Makanan Dengan Sisa Makanan Pasien Umum Rsud Raa Soewondo Kabupaten Pati. *Jurnal Kediklatan Widya Praja*, 2(1).
- [9] Yani, A., Hermanto, R. A., & Hanny, R. (2021). Gambaran Lama Hari Rawat Inap, Asupan Energi Dan Protein Dengan Status Gizi Pasien Yang Mendapatkan Positive Diet Di Rsu Holistic. *Journal of Holistic and Health Sciences (Jurnal Ilmu Holistik dan Kesehatan)*, 5(1), 1-8.