# Nutritional Intake And The Leftover Of Patients In General Hospital And Dr. Tajuddin Chalid Hospital Of Makassar

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Abstract: Outcomes indicator on food service in hospitals include nutritional intake and food that is not spent on patient. The hospital provides food to meet the nutritional needs of patients hospitalized. The Ministry of Health sets of minimum food service indicator is ≤ 20% of the food that is not spent. This study was conducted to determine the nutritional intake and leftovers of patients in Dr. Tadjuddin Chalid Hospital and General Hospital of Makassar. The study is designed with a descriptive approaches with a number of subjects were 35 patients in Class III and received regular food. Data intake of nutrition and leftovers collected from interviews using the patient satisfaction questionnaire. The nutritional value of food were analyzed manually using DKBM. The results of this study obtained both hospitals has been serving quality food with good nutrition with energy 2632.1 kilocalories, protein, 73.58 grams, 67.84 grams of fat and 419 grams of carbohydrates each day. Intake of nutriets in patients reached 81.1% and the rest of the food was not spent 19.9%. Based on a sample comparison test between the standard and the intake of nutrition and leftovers obtained by p-value = 0:00. Both hospitals have provided food service and achieving minimum standards as provided herein for the intake of nutrition and leftovers. It is advisable to provide nutrition education to patients that want to spend their food and modify processing and variety of foodstuffs.

Keywords: nutritional intake, leftovers

#### 1 Introduction

The success of the food starts from the menu and define strategy of nutrition standards (1). Usable indicator intake (2) nutritional and leftovers (3) that is not spent on patients in the hospital. Minimum standards of indicators food service for hospital that is the leftovers was not spent by ≤ 20%. (4) The hospital provides food to meet the nutritional needs all of patients and expected to be spent. Many factors the patient affect does not spend on food as their changes in appetite. sense of taste, swallowing disorders (dysphagia), stress and the duration treated. Quality of food services such as flavor, aroma, large portions, menu variety, texture, gesture clerk, food mistakes, inaccuracies meals or eating schedule, the atmosphere of the place of treatment (2,4). The high of leftovers that are not spent in a long time hedge patients, decreased endurance, length of patient recovery and the risk of malnutrition. A study of 42 patients hospitalized in the Bayangkara Hospital of Palembang is 61.90% of the patients leave the food with many categories (4). Evaluation of patient satisfaction (2.4) of the food served judged on nutritional intake and food that was not spent and flavor (2.5). This study was conducted to determine the nutritional intake and leftovers patients in general hospital Makassar and the Dr. Tadjuddin Chalid Hospital Makassar. The purpose of this study was to obtain an overview the nutritional intake and leftovers in General Hospital Makassar and the Dr. Tadjuddin Chalid Hospital Makassar. The specific objective of this study is

- To determine the nutritional patients intake of General Hospital Makassar and dr. Tadjuddin Chalid Hospital Makassar.
- To determine the amount of leftovers that is not spent in General Hospital and Dr. Tadjuddin Chalid Hospital Makassar.

# 2. SUBJECTS AND METHODS

Descriptive study design to describe the nutritional intake and leftovers patients who were not spent. Subjects are patients class III who get regular food as much as 35 patients. Instrument used are questionnaires leftovers and patient satisfaction. Data were analyzed descriptively and compared with the standard quality nutrient of food in hospitals.

#### 3 RESULT AND DISCUSSION

# 1. Overview respoden

Table 1. Description of respondents

Characteristics	N	%
Gender		
Man	15	42.9
Women	20	57.1
Amount	35	100
Education		
Not completed primary school	4	11.5
SD	13	37.3
SMP	5	14.4
SLTA	12	34.5
Higher Educaion	1	2.3
Amount	35	100
Work		
labor	9	25.7
Private / entrepreneur	4	15.4
Student / student	5	14.4
Housewife	12	34.5
Does not work	5	14.4
Amount	35	100
Sources care costs		
General	2	5.7
Askes	0	0
JAMKESMAS	9	25.7
Jamkesda	14	40.0
BPJS	10	28.6
Amount	35	100
Length of hospitalized	2-11 days	
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# Hikmawati Mas'ud, Siti Nur Rochimiwati

#### 2. The nutritional value of menu

Standard menu which at present is a 10-day cycle menu. Patterns menu feeding three times a complete meal (main)

Polytechnic Health Ministry of Makassar

and 1- 2 times snack. Comparison of the nutritional quality of the food at both hospitals as follows

Table 2. Comparison nutritional value food served

The nutritional value	General Hospital	Dr.Tadjuddin Chalid Hospital	Average
Energy (kilocalories)	2462.55	2801.6	2632.1
Protein (g)	77.25	69.9	73.58
Fat (g)	68.51	67.13	67.84
Carbohydrates (grams)	363.23	475.05	419.14

#### 3. The leftovers

**Table 3,** the average leftovers patients (in percent) according to the pattern menu and mealtimes

Patterns menu	Breakfast	Lunch	Dinner
Rice	20.7	13.8	12.0
animal side dish	17.1	15.9	13.4
vegetable side dish	-	14.7	12.8
Vegetable	55.1	10.2	16.2
Fruit	-	9.4	7.0
Snack	-	20.5	9.7
amount	92.9	84.5	71.1
Average	30.9	14.1	15.7

Table 4. Leftovers average a day at mealtimes (in percent)

Eating time	The rest of the meal (%)
Breakfast	30.9
Lunch	14.1
Dinner	15.7
The remaining amount of food a day	59.8
Average leftovers every meal a day	19.9 (<20%)

**Table 5.** Converting the leftovers nutritional value that is not spent

The nutritional value	General Hospital	Dr.Tadjuddin Chalid Hospital	Average
Energy (kilocalories)	490	557.5	523.75
Protein (g)	15.4	13.9	14.65
Fat (g)	13.6	13.4	13.5
Carbohydrates (grams)	72.3	94.5	83.4

**Table 6.** Results of the comparison a sample test between standard, nutritional intake and leftovers

variable	Standard	average	The p-value
nutritional intake	≥ 80%	81.1%	0.00
Leftovers	<20%	19.1%	0.00

## 2. The reason patients do not spend on food

The reason patients do not spend on food is patients do not like vegetables, do not like tuna, do not like the fish cooked, not like egg whites, a sense that change is changed, there is no taste, tasteless / no salt, in the morning feeling of nausea and want to vomit, feel satiated (not hungry, had enough), because it was eaten before the hospital food is served, eat

cake or food from home (lunch time), hard fried fish (too dry).

#### 4 Discussion

Food service at both hospitals began to plan the menu accordingly to meet the nutritional needs of the patient. The menu is designed with a 10-day cycle menu, allowing created variations of taste, food, attractive colors and an appropriate portion (3). Average nutritional value of the food served is 2632.1 kcal energy, 73.58 grams of protein, fat and carbohydrate grams 67.84 419.14 grams higher for energy, fat and carbohydrates than the standard Almatsier namely energy 2146 kcal, fat 59 grams and 331 grams of carbohydrates, while protein lower at 73.58 grams compared to 76 grams (6). According to Aritonang plan menus must be balanced to provide the nutritional value as needed to taste good, so patients can receive it (7). Conditions of hospitalized patients have clinical conditions and severity of different diseases and there are acute and chronic. Patients with chronic diseases require more food in an effort to improve the nutritional status (8). Both hospitals have provided food with higher nutritional value than the recommended order to meet the nutritional needs all of patients Food intake of patients affected by many factors such as the patient's internal (physiological and pathological conditions) such as pain, nausea, vomiting. problems swallowing, changes in appetite. External factors include the quality of the food (taste, shape, menu variety, type of cuisine, etc.), time of presentation of the food, and the food from outside the hospital causes a sense of fullness before the patient eats (2,3,8). Patients received the drug also exists that gives the effect such as nausea and taste like vomit in the morning so that patients are reluctant to eat breakfast. This is evident from the large proportion of the rest of the morning meal high reaching 30.9%. While the rest of the food at lunch time was 14.1% and dinner time by 15.7%. Overall the rest of the meal of the day to be very high at 59.8%. However, seeing as the average leftovers every time the value achieved by 19.9% and reached a value of a standardized is <20%. This situation relates to taste the menu, especially the presentation time may have been a cold morning when going to eat or nausea, vomiting and dizziness like when you wake up in the morning. The high leftovers also related to understanding or lack of knowledge about the importance of food spending of hospitals, where the education level is elementary school (37.3%). Most patients Work housewife in general do not have the income and the sources of financing is 40% of the Jamkesda. So socioeconomic including disadvantaged communities. On the other hand also give reasons why patients do not spend eating as a way of processing, and the existence of the material variation on the food's favorite in the hospital and chose to be brought from home. Judging from the minimal standard of hospital food service, performance or intake of> 80% and the result was 81.1% and 19.9% leftovers. Comparison test results with one sample t test between the standards, the nutritional intake and leftovers obtained by p value = 0:00. So there is a match attainable standard of physical and statistical tests.

# **5 CONCLUSION**

- Both hospitals have been providing food with good nutritional quality and to meet the nutritional needs of patients.
- 2. Intake of nutrients the patient has reached the standard (81.1%).

3. The rest of the food was not spent to reach the standard (19.9%).

#### **6 SUGGESTION**

Need to do education of nutrition (counseling) about the importance of spending the food served by the hospital in improving the nutritional status and support healing of the patient's disease.

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