Project Report On:

Diet Preparation for Patients with Cancer and other Associated

Diseases in Ahsania Mission cancer and General Hospital

Submitted To:

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Date of submission: 05-05-2021

LETTER OF TRANSMITTAL

5th May, 2021

Dr. Sheikh Mahatabuddin
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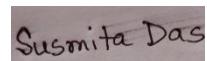**Subject: Submission of project work report.**

Dear Sir,

It is a great pleasure and respect for me to have the opportunity to submit my project report works on Diet Preparation for Patients with Cancer and other Associated Disease in Ahsania Mission Cancer and General Hospital, Uttara, Dhaka.

I have Prepared this report based on the acquired experience and valued knowledge during my Project work. Without your help this report would have been impossible to complete.
I have got the opportunity to work in your university under the supervision of Ms. Fouzia Akter, Assistant Professor.

I therefore, request and expect that you will appreciate me with any sort of recommendation and valued suggestion and will cordially receive this report for your kind assessment.

Sincerely Yours,

Susmita Das

Susmita Rani Das

ID: 171-34-595

Approval Certification

This is to certify that the dissertation entitled **"Diet preparation for Patients with Cancer and Other Associated disease in Ahsania Mission Cancer and general Hospital"** submitted by Susmita Rani Das, a regular student of B.Sc. in Nutrition and Food Engineering, Faculty of Allied Health science, Daffodil international University, student ID: 171-34-595 successfully carried out her project work program 2.5 months under Ahsania Mission Cancer Hospital, Uttara, Dhaka.
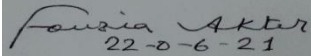
Then she completed her report on the base of her data of cancer patients under my direction. We aware that **Susmita Rani Das** completed her report under observation of her supervisor. We ensure that her report was very essential for NFE program.

28/06/2021

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Abstract:

The main purpose of this study is to assess the prevalence of cancer and to identify the factors associated with cancer among both male and female several group ages patients in Ahsania Mission Cancer and General Hospital, Uttara, Dhaka. A total of 30 patients, 15 male and 15 female were involved in this study. And cancer prevalence was much noticeable in middle age to older group age where stomach cancer 13.33%, ovary and breast both cancer percentage was 6.67%, lung, tongue, liver, and vocal cord cancer same percentage was 6.67%, esophagus cancer 13.33%, blood cancer 3.33%, prostate, pharynx and pancreas cancer percentage were same as 3.33%, larynx 10%, cervix cancer 3.33%. Most of them suffering from other disease such as diabetes 23.33%, hypertension20%, ischemic heart disease 13.33%, hypokalemia and hyperlipidemia both diseases percentage were 3.33%, some patients were treatment by chemotherapy and radiotherapy at different stages. Collected all patients height, weight, age and their health condition and to create diet chart for all patients. BMI range percentage were 60% patients at normal range, 6.66% were underweight, 26.66% were overweight and 6.66% were obese.

Keywords: Cancer, Prevalence, Diabetes, Hypertension, Ischemic heart disease, Hypokalemia, Chemotherapy, Radiotherapy, Diet chart.

<div align="center">**CHAPTER ONE**</div>

Introduction:

Cancer is one of the leading causes of death worldwide. The WHO reported that the cancer disease accounting for 8.2 million deaths in 2012 and also predicted that 12 million of all deaths by 2030 worldwide due to cancer. In mainly breast, prostate, lung, stomach, and liver cancers are the causes of cancer deaths in each year. The most Frequent types of cancer differ between men and women, lung cancer in men and cervical and breast cancer in women about 38% of all cancer in Bangladesh. According to WHO at least of all cancer deaths are preventable and the rates are extending as more people live to an old age and as much lifestyle changes originate in the developing world. About 30% of cancer deaths are due to the five leading causes such as behavioral and dietary risks which are high body mass index, low fruits and vegetables intake, lack of physical activity, and use of tobacco and alcohol. About 21% of global cancer deaths and 70% of global lung cancer deaths due to causes of smoking. [1]

Bangladesh, at 142 million people, is the 9th most populous country in the world. There are 13 to 15 lakh cancer patients in Bangladesh, with about 2 lakh patients newly diagnosed with cancer each year. And lung cancer, mouth and oropharynx cancer rank as the top 2 prevalent cancers in males. Other types of cancers commonly include esophagus cancer, stomach cancer, lymphomas, and multiple myeloma. In women, cervix uteri cancer and breast cancer are most prevalent. Other types of cancers also affected womens are mouth cancer and oropharynx cancer, lung cancer, and esophagus cancer. [2]

Risk factors of cancers: [3]

A cancer risk factor is anything that increases a person chance of getting cancer. It is important to know about risk factors of cancer. It will help you make a better lifestyle to improve your health.

General risk factors for cancer include:

1. Older age
2. Family history of cancer
3. Taking tobacco and smoking
4. Obesity and physical inactivity
5. Alcohol consumption
6. Some types of viral infections such as human papillomavirus (HPV)
7. Unhealthy lifestyle

Operational definition

Normal diet: Normal diet means patients doesn't have any restriction about food consumption and they should be eaten nutrients rich foods and also follow a balanced diet.

Semisolid/liquid diet: This type of diet is recommended for patient who does not able to digest any normal foods because of their health conditions. In this situation need to feed any soft or liquids foods such as soup, blended foods, liquids foods, porridge rice etc.

Neutropenic diet: It is a special diet for cancer patients and doctors recommended this diet before and after certain types of chemotherapy and other cancer treatment. And also have some restriction about taken foods.
Food avoid list:
1. Pulses and seed rich foods.
2. Pell of some fruits such as grapes, apple.
3. Processed and spicy foods.

Diabetic diet: A diabetes diet means eating the healthiest foods in appropriate amount and eat less amount of fat, calorie and avoid sugar rich foods.

NG tube feeding: A nasogastric (NG) tube is a small tube that goes into the stomach through the nose. It can be used to give liquids and liquid foods, drugs. Or used to remove substances from the stomach. Giving food through a nasogastric tube is a type of enteral nutrition.

Diet chart: Diet chart means make a chart for people where all nutrients are included within their daily calorie requirements
For a Diet chart first of all we need to know about how much calorie need in per a day.
So, calculation of calorie was very much important and i used Mifflin equation to calculate calorie requirement per a day.

Calorie calculation:

MIFFLIN ST JEOR FORMULA: [4]

For males: $10 \times$ weight in (kg) + $6.25 \times$ height in (cm)-$5 \times$ age+5
For females: $10 \times$ weight in (kg) + $6.25 \times$ height in (cm)-$5 \times$ age (in year)- 161

Total energy requirements:

Sex	Light workers	Moderate Workers	Heavy workers
Male	1.55	1.78	2.1
Female	1.53	1.64	1.82

Micronutrients	High	Moderate	Low
Carbohydrate	55	55-65	60- 65
Fat	20-25 or more	20-65 or more	20-25 or more
Protein	18	15	20- 25 or more

1.Calculation of weight for age and weight height for age

Height: 5.6" = 167.64 cm

We know, 1 foot =12 inch

So, $5 \times 12 = 60 + 6 = 66$ inch

1inch= 2.54 cm

$66 \times 2.54 = 167.64$ cm

2. Convert pound in kg, need to divide the pound by 2.2.

Example: 25/2.2

3.To convert kg to pound need to multiply kg with 2.2.

Example: For 25 kg (25×2.2).

Required Diet,

CHO = 60%

Protein = 15%

Fat = 25%

Amount of needed CHO= TER$\times 60/100 \div 4$

Amount of needed protein = TER$\times 15/100 \div 4$

Amount of needed fat= TER$\times 25/100 \div 9$

For example, an overweight female daily recommendation diet:

Weight=75 Kg, Height= 5.4'' inch =162.56 cm, Age=24 years

BMI = Weight/Height in m^2

= 75/ (1.62) ^2

=28.38

10× weight in (kg) + 6.25×Height in (cm)-5× Age (year) -161

=10×75+6.25×162-5×24-161

= 1485×1.64

=2435 calorie

CHO= 60%, 2000× (60/100) = 1200g per day

Protein= 15%, 2000× (15/100) = 300g per day

Fat = 25%, 2000× (25/100) = 500g per day

Objectives: The objective of the study were prepared diet chart for cancer patients in Ahsania Mission Cancer and General Hospital. This study was very much effective awareness message for cancer patients.

General objective: To found the types of cancer with other diseases in Ahsania Mission Cancer and General hospital.

Specific objectives:

    a. To access the background information of patients.
    b. To identify the socioeconomic information of patient's family.
    c. To identify the complication of patients.
    d. To access the dietary recommendations.
    e. To access the nutritional status of patients.

Significance of the report:

The report would be helpful indeed for the students, researchers working in this field. As the report presents case study-oriented knowledge, the authenticity of the paper is highly maintained. Therefore, someone working in this field will find the information necessary. Notably, the report would be of inexhaustible value to the students of Nutrition, Food Science, Health and Allied Science students.

ACRONYMS:

DM- Diabetes Mellitus

HTN- Hypertension

HB- Hemoglobin

RBC- Red Blood Cell

WBC- White Blood Cell

IHD- Ischemic heart disease

BMI- Body Mass Index

NG tube- Nasogastric tube

TER- Total Energy Requirement

CHAPTER TWO

Literature Review

Cancer is a complex, multifactorial disease. The common environmental factors that responsible for death of cancer such as diet and obesity (30-35%), smoking (25-30%), infections (15-20%), stress and lack of physical activity. The correlation between lifestyle and cancer is evidenced by the large variation in rates of specific cancers in different countries. The two main factors that lifestyle and environmental factors have the principle role in causing sporadic cancer.

Obesity are the major causes to increased mortality from various cancers. In both men and women, body mass index (BMI) associated with higher rates of death due to cancer of the esophagus cancer, colon cancer, liver cancer, pancreas cancer, kidney cancer, and myeloma cancer. Due to high obesity rates of female mostly death from cancer of the breast, uterus, cervix and ovary cancer.

Heavy consumption of red meat or processed meat is a risk factor for several cancers such as prostate, bladder, and breast cancer. Epidemiological association studies have linked consumption of grilled meat increased risk of esophagus, stomach, colon, and breast cancer.

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It was noted in the 1970s that people in many western countries had diets high in animal products, fat and sugar increased rates of such cancers. Diets that are high in processed or red meats and low in fruits and vegetables are linked with number of cancers. Diets high in fruits, vegetables, whole grains and spices were linked to reduced risks of cancers of the colon, stomach, liver, pharynx cancer. [5]

CHAPTER THREE

Materials:

No	Equipment's	Purpose
1	Weight measurement machine	To measure the weight of each patient.
2	Height measure machine	To measure the height of patients.
3	Paper	To making questionnaire.
4	Microsoft	For whole report writing.

Methodological approach:

Study location: Ahsania Mission cancer and General Hospital and Collected data by visiting hospital word.

Study design:
For this study, data collection is done by personal interview of patients and their family members followed by the questionnaire system.

Study population: The study was conducted on diet preparation for patients with cancer and other associated disease in Ahsania Mission cancer and General Hospital.

Study Period
9th November 2020 to 20th February 2021.

Data collection period
12th November 2020 to 30th January 2021.

Data collection method:
   a. To used local language of the patients.
   b. Data were collected by their permission.
   c. Data collected by patient's medical file.
   d. Used Microsoft word to analysis statistics data.

Results: From these 30 cancer patients, 15 patients are male and another 15 patients are female. In this study all cancer patients age at middle to higher and percentage was at higher at the age of 49-68 years (53.33%) and at middle age from 33- 48 years (26.6%). [According to Table 2] And majority of patients monthly income range were 10000-14000 Taka (23.33%). [According to Table 3] Types of diet for normal diet patients 40%, semisolid/liquids diet 36.67%, diabetic diet 10%, neutropenic diet 6.67%, NG tube feeding 3.33%. [According to Table 9]

Working data: The data of 30 cancer patient's information's and their diet chart:

1. Name: Hajera khatun
Weight: 50 kg, height: 148 cm, age: 70 years
Complications: Fatty liver patient and also have diabetes
Cancer: Ovary
Diet: Normal
BMI= 50/ (1.48) ^ 2 = 22.82
TER= 1500 calorie per day

Meal	Food items	Quantity
Morning	Ruti Vegetables	3 pieces 2 cups
Mid-morning	Egg boiled Fruits	1 1
Lunch	Rice Vegetables Meat/fish Pulse	2 cups 1 cup 3 pieces 2 cups
Evening	Soup	1 cup
Dinner	Rice Meat/fish Pulse	2 cups 3 pieces 1 cup
Bed time	Milk and semolina	2 cups

Food included:
1. Fresh fruits and vegetables.
2. Fruits juices.
Food excluded:
1. Oily and spicy foods.

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2. Processed and fast foods.
3. Raw foods.

2.Name: Dipa thipura
Weight: 57 kg, height: 150 cm, age: 39 years
Complications: Hemoglobin: low, uric acid: high
Cancer: breast
Diet: Normal
BMI= 57/ (1.50) ^ 2 = 25.3
TER= 1800 calorie per day

Meals	Food items	Quantity
Morning	Ruti	2 pieces
	Vegetables	2 cups
	Egg	2
Mid-morning	Milk	1 cup
	Biscuits	3-4 pieces
	Fruits	1
Lunch	Rice	3 cups
	Meat/fish	4 pieces
	Vegetables	2 cups
Evening	Soup	2 cups
Dinner	Rice	2 cups
	Meat/fish	3 pieces
	Vegetables	2 cups
Bed time	Yogurt	1 cup

Food included:
1. Carrot, orange, mango.
2. Liquids fruits such as fruits juice.
Food excluded:
1. Processed and fast foods.
2. Oily and spicy foods.
3. Raw foods.
4. Pulses rich foods.
5. Cauliflower and cabbage.

3. Name: Mrs. Shilpi khatun
Weight: 45 kg, height: 148 cm, Age: 33 years
Complications: Albumin and hemoglobin: low,
Cancer: stomach
Diet: Semisolid/ liquid
BMI= 45/(1.48)^2 = 20.54
TER: 1800 calorie per day

Meal	Food items	Quantity
Morning	Porridge rice	2 cups
	Egg boiled	2
Mid- morning	Milk	1 glass
	Fruit juice	1 glass
Lunch	Khichuri	2 cups
Evening	Soup	2 cups
Dinner	Porridge rice	1 cup
	Egg boiled	1
Bed time	Milk and cornflakes	2 cups

Food included:
1. Iron rich foods such as mango, carrot, tomato.
2. Meat, fish, egg
3. Green coconut water, pomegranate.
4. Fruit juices.

Food excluded:
1. Oily and spicy foods.
2. Processed and fast food

4. Name: Mr. shafazzaman khan
Weight: 69 kg, Height: 168 cm, Age: 81 years
Complications: DM, HTN and IHD
Cancer: Tongue
Diet: Semisolid solid base or liquid.
BMI= 69/ (1.68)^2 = 24.44
TER= 2400 calorie per day.

Meals	Food items	Quantity
Morning	Milk and semolina	2 cups
	Egg	1
Mid- morning	Milk and bread	2 cups
	Fruit juice/ green coconut water	1 glass
Lunch	Porridge rice	4 cups
	Vegetables(blend)	2 cups
	Meat/ fish (blend)	3 pieces
Evening	Soup	2 cups
Dinner	Porridge rice	2 cups
	Meat/ fish	2
	Vegetables	2 cups
Bed time	Milk and puffed rice	2 cups

Food included:
1. Fresh foods.
2. Fruit juices.

Food excluded:
1. Spicy and oily foods.
2. Processed and spicy foods.
3. Skin of some fruits such as apple, grape.

5. Name: Mrs. Loren justin gromes
Weight: 58 kg, Height: 158 cm, Age: 38 years
Complications: constipation, fever, hemato oncology, RBC and WBC: low
Na and K: low,
Cancer: Blood
Diet: Neutropenic
BMI= 58/ (1.58) = 23.23
TER: 2000 calorie per day

Meals	Food items	Quantity
Morning	Ruti	3 pieces
	Egg	1
	Vegetables	2 cups
Mid- morning	Milk	1 glass
	Fruit juices	1 glass
Lunch	Rice	3 cups
	Vegetables	2 cups
	Meat/ fish	3 pieces
	Pulse	1 cup
Evening	Egg boiled	2
	Fruit juice	1 glass
Dinner	Rice	2 cups
	Vegetables	1 cup
	Meat/ fish	2 cups
Bed time	Pudding	2 slices

Food included:
1. Fruits juices such as beetroot, pomegranate.
2. Banana, egg.
3. Meat liver.

Food excluded:
1. Oily and spicy foods.
2. Raw foods.
3. Skin of some fruits.

6. Name: Md. Sazzad hossain
Weight: 69 kg, height: 165 cm, Age: 38 years
Hemoglobin: low,
Cancer: esophagus
Diet: Normal
BMI= 69/ (1.65)^2 = 25.34
TER= 2600 calorie per day

Meals	Food items	Quantity
Morning	Ruti	3 pieces
	Egg	2
	Vegetables	2 cups
Mid – morning	Milk	1 glass
	Fruit juices	1 glass
Lunch	Rice	3 cups
	Vegetables	2 cups
	Meat/ fish	4 pieces
	Pulse	1 cup
Evening	Egg boiled	1
	Soup	1 cup
Dinner	Rice	2 cups
	Meat /fish	3 pieces
	Pulse	1 cup
Bed time	Fruit custard	2 cups

Food included:
1. Fresh foods.
2. Fruits juices.
3. Egg white.

Food excluded:
1. Oily and spicy foods.
2. Processed and fast foods.

7. Name: Rakha Majumder
Weight: 63 kg, height: 147 cm, age: 60 years
Complications: IHD, HTN.
Cancer: left vocal cord.
Diet: Normal based high protein diet
BMI= 63/ (1.47) ^2 = 29.15
TER= 1600 calorie per day

Meals	Food items	Quantity
Morning	Ruti	2 pieces

	Egg	2
	Vegetables	1 cup
Mid- morning	Milk	1 glass
	Puffed rice	1 cup
	Fruits	1
Lunch	Rice	2 cups
	Meat/ fish	4 pieces
	Pulse	2 cups
Evening	Egg boiled	1
	Nuts	20g
Dinner	Rice	2 cups
	Meat/ fish	3 pieces
	Pulse	1 cup
Bed time	Milk	1 cup

Food included:
1. Fresh foods.
2. Fruit juices.
3. Meat, fish and egg.

Food excluded:
1. Oily and spicy foods.
2. Fish head and egg.
3. Mutton and beef meat.

8. Name: Mr. Ramkrishna saha
Weight: 81 kg, Height: 165 cm, Age: 71 years
Complications: Hemoglobin: 11.0, albumin: 3.0, sugar level: 12.3
K+: 2.9, creatinine level: 1.3,
Cancer: prostate.
Diet: Normal
BMI= 81/(1.65)^2 = 29.75
TER= 2400 calorie per day

Meals	Food items	Quantity
Morning	Ruti	3 pieces
	Egg	1
	Vegetables	2 cups
Mid-morning	Milk low fat	1 glass
	Puffed rice	2 cups
	Fruits	2
Lunch	Rice	3 cups
	Meat/fish	4 pieces
	Vegetables	2 cups

Evening	Soup (egg white+ chicken meat) Fruit juice	2 cups 1 glass
Dinner	Rice Meat/ fish Vegetables	3 cups 4 pieces 2 cups
Bed time	Yogurt (without sugar)	2 cups

Food included:
1. Egg white, meat.
2. Carrot, tomato.
3. Papaya, orange, banana.
4. Green coconut water.

Food excluded:
1. Pulses and seed rich foods.
2. Sugar rich foods, processed and fast foods.

9. Kartik dey
Weight: 78 kg, Height: 165 cm, Age: 65 years
Complications: hemoglobin level: low,
Cancer: esophagus
Diet: Soft diet
BMI= 78/ (1.65) ^2 =28.65
TER= 2400 calorie per day

Meals	Food items	Quantity
Morning	Milk and cornflakes Egg boiled(blend)	3 cups 2
Mid- morning	Soup Fruit juice	3 cups 1 glass
Lunch	Porridge rice Egg white+ chicken meat (blend)	4 cups 2 and 60 g
Evening	Milk and bread Fruit juice	3 cups 1 glass
Dinner	Khichuri (Pulse+ Vegetables+ meat)	4 cups
Bed time	Milk and sago	4 Cups

Food included:
1. Iron rich foods such as mango, carrot, orange, tomato, banana.
2. Beetroot and pomegranate juices.

3. Egg white.

Food excluded:
1. Oily and spicy foods.
2. Processed and fast foods.
3. Skin of some fruits such as apple, grape.

10. Abdus Sattar
Weight: 48 kg, Height: 161 cm, Age: 68 years
Complications: Hemoglobin: 8.2, creatinine: 1.36, Na level: 133, K+ level: 4.0
Cancer: lung
Diet: Semisolid/liquid based
BMI= $48/(1.61)^2 = 26.23$
TER= 2000 calorie per day

Meals	Food items	Quantity
Morning	Milk and sago	3 cups
	Egg boiled(blend)	1
Mid-morning	Soup	3 cups
	Fruit juice	1 glass
Lunch	Porridge rice	3 cups
	Vegetables (blend)	2 cups
	Meat/fish(blend)	3 pieces
Evening	Soup	2 cups
Dinner	Porridge rice	2 cups
	Meat/fish	3 pieces
Bed time	Milk and bread	2 cups

Food included:
1. Fruit juices and green coconut water.
2. Egg, meat.
3. Carrot, orange, banana, mango.

Food excluded:
1. Processed and fast foods.
2. Oily and spicy foods.
3. Pulse and seed rich foods.

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11. Mrs. Mohsena begum
Weight: 75 kg, Height: 158 cm, Age: 55 years
Complications: Hb: 9.0 creatinine: 1.11, Na+: 135, K+: 3.4
Cancer: Buccal mucosa (left)
Diet: diabetic
BMI= 75/(1.58)^2 = 30.04
TER= 2000 calorie per day

Meals	Food items	Quantity
Morning	Ruti	3 pieces
	Egg	1
	Vegetables	2 cups
Mid-morning	Milk and semolina	2 cups
	Fruit juice	1 glass
Lunch	Rice	3 cups
	Meat/fish	3 pieces
	Vegetables	1 cup
Evening	Soup (egg white+ chicken meat)	2 cups
Dinner	Rice	2 cups
	Vegetables	2 cups
	Egg curry	2 cups
Bed time	Milk	1 cup
	Puffed rice	1 cup

Food included:
1. Green coconut water, fruits juice.
2. Banana, orange, carrot.
3. Egg white, meat.

Food excluded:
1. Sugar rich foods.
2. Processed and fast foods.
3. Pulses and seed rich foods.

12. Name: Mosharof hossain
Weight: 59 kg, Height: 165 cm, Age: 54 years
Cancer: bone of tongue
Diet: semisolid base.
BMI= 59/(1.65)^2 = 21.67
TER= 2400 calorie per day

Meals	Food items	Quantity
Morning	Milk and semolina	4 cups
	Egg boiled	1

Mid-morning	Soup	4 cups
	Fruit juice	1 glass
Lunch	Porridge rice	3 cups
	Meat/fish	3 pieces
	Vegetables	2 cups
Evening	Milk and bread	3 cups
Dinner	Khichuri (pulse, rice, vegetables, chicken)	3 cups
Bed time	Soup (Chicken meat, vegetables)	2 cups

Food included:
1. Fresh foods.
2. Fruits juices.

Food excluded:
1. Oily and spicy foods.
2. Processed and fast foods.
3. Raw foods.
4. Skin of some fruits such as apples, grape.

13. Name: Md. Siddiqur rahman
Weight: 68 kg, Height: 158 cm, Age: 55 years
Complications: Hb: 7.0, creatinine: 1.14, uric acid: 6.3
Cancer: Upper right pharynx nasopharynx
Diet: semisolid/ liquid
BMI= 68/ (1.58) ^2 = 27.23
TER= 2400 calorie per day

Meals	Food items	Quantity
Morning	Milk and cornflakes	3 cups
	Egg boiled (blend)	2
Mid-morning	Soup	3 cups
	Fruits juice	1 glass
Lunch	Porridge rice	4 cups
	Meat/fish (blend)	3 pieces
	Vegetables (blend)	2 cups
Evening	Soup (egg white, chicken meat)	3 cups
Dinner	Porridge rice	2 cups
	Meat/fish (Blend)	3 pieces
	Vegetables (blend)	2 cups
Bed time	Milk and semolina	3 cups

Food included:
1. Fresh foods.
2. Egg white.
3. Carrot, orange, beetroot and pomegranate juice.

Food excluded:
1. Pulses and seed rich foods.
2. Processed and fast foods.
3. Raw foods.

14. Name: Bashed sikder
Weight: 42 kg, height: 168 cm, age: 54 years
Complications: k+: 3.7, Hb: 9.5, HTN
Cancer: Sarcoma right proximal humerus
Diet: Normal
BMI= 42/(1.68)^2 = 14.88
TER= 2400 calorie per day

Meals	Food items	Quantity
Morning	Ruti	4 pieces
	Egg	2
	Vegetables	2 cups
Mid-morning	Milk	1 glass
	Biscuits	4-5 pieces
	Fruits	2
Lunch	Rice	3 cups
	Meat/fish	3 pieces
	Pulses	2 cups
	Vegetables	1 cup
Evening	Soup (Egg white, chicken meat)	3 cups
Dinner	Rice	2 cups
	Meat/fish	3 pieces
	Pulses	2 cups
Bed time	Milk and semolina	2 cups

Food included:
1. Egg white, meat.
2. Fresh fruits and vegetables.
3. Carrot, tomato, mango.
4. Beetroot and pomegranate juice.

Food excluded:
1. Processed and fast foods.
2. Raw foods.

15. Name: Md. Basir uddin
Weight: 60 kg, height: 166 cm, age: 62 years
Complications: Na+: 133, k+: 4.3,
Cancer: lung
Diet: Normal
BMI= 60/ (1.66) ^2 = 21.77
TER= 2400 calorie per day

Meals	Food items	Quantity
Morning	Ruti	3 pieces
	Egg	1
	Vegetables	2 cups
Mid-morning	Milk	1 glass
	Biscuits	4-5 pieces
	Fruits	2
Lunch	Rice	4 cups
	Vegetables	2 cups
	Meat/fish	4 pieces
	Pulses	1 cup
Evening	Soup	3 cups
Dinner	Rice	2 cups
	Meat/fish	3 pieces
	Pulse	1 cup
Bed time	Yogurt	2 cups

Food included:
1. Fresh foods.
2. Green coconut water, fruits juice.
3. Banana, tomato.
Food excluded:
1. Processed and fast foods.
2. Skin of some fruits such as grape, apple.

16. Name: Hazi Abul kashem
Weight: 72 kg, height: 165 cm, age: 72 years
Complications: HTN, Hb: 8.8, creatinine: 1.02
Brain tumor right front parietal
Diet: Normal
BMI= 72/ (1.65)^2 = 26.44
TER= 2400 calorie per day

Meals	Food items	Quantity
Morning	Ruti	4 pieces
	Egg	2
	Vegetables	2 cups
Mid-morning	Milk	1 glass
	Egg boiled	1
	Fruits	2
Lunch	Rice	3 cups
	Meat/fish	4 pieces
	Vegetables	1 cup
	Pulses	1 cup
Evening	Soup	2 cups
Dinner	Rice	2 cups
	Meat/fish	4 pieces
	Pulses	2 cups
Bed time	Milk and cornflakes	2 cups

Food included:
1. Fruit juices such as beetroot, pomegranate.
2. Fresh foods.
3. Egg white, meat.
4. Carrot, orange, tomato.

Food excluded:
1. Processed and fast foods.
2. Skin of fruits such as grape and apple.

17. Name: Sufia khatun
Weight: 46 kg, height: 155 cm, age: 52 years
Complications: Albumin: 2.40, Hb: 9.6, Na+: 128
Cancer: pancreas
Diet: Diabetic normal
BMI= 46/ (1.55) ^2 = 19.14
TER: 1800 calorie per day

Meals	Food items	Quantity
Morning	Ruti	3 pieces
	Egg	1
	Vegetables	1 cup
Mid-morning	Milk	1 cup
	Biscuits	4-5 pieces
	Fruits	2
Lunch	Rice	3 cups

	Meat/fish	3 pieces
	Pulses	1 cup
Evening	Soup	2 cups
Dinner	Rice	2 cups
	Meat/fish	3 pieces
	Pulses	1 cup
Bed time	Milk and puffed rice	2 cups

Food included:
1. Green coconut water, fruits juice.
2. Egg white, meat.
3. Banana, tomato.

Food excluded:
1. Sugar rich foods.
2. Processed and fast foods.
3. Skin of some fruits such as apple and grape.

18. Name: MD. Delowar
Weight: 59 kg, height: 158 cm, age: 45 years
Cancer: Rectum with regional CN and liver met.
Diet: Normal
BMI= 59/ (1.58) ^2 = 23.63
TER= 2400 calorie per day

Meals	Food items	Quantity
Morning	Ruti	4 pieces
	Egg	1
	Vegetables	2 cups
Mid-morning	Milk	1 glass
	Puffed rice	2 cups
	Fruits	2
Lunch	Rice	3 cups
	Vegetables	2 cups
	Meat/fish	4 pieces
	Pulses	1 cup
Evening	Soup	2 cups
	Peanut	10 gm
Dinner	Rice	2 cups
	Meat/fish	3 pieces
	Pulses	1 cup
Bed time	Milk and semolina	2 cups

Food included:
1. Fresh foods.
2. High protein rich foods such as egg, meat.
3. Fruits and vegetables.

Food excluded:
1. Raw foods.
2. Processed and fast foods.

19. Name: Rufikul nesa
Weight: 42 kg, height: 142 cm, age: 75 years
Complications: DM, HTN, Hyperlipidemia, jaundice, Na+: low.
Cancer: Sarcoma
Diet: Diabetic normal
BMI= 42/ (1.42) ^2 = 20.82
TER= 1600 calorie per day

Meals	Food items	Quantity
Morning	Ruti	2 pieces
	Egg	1
	Vegetables	1 cup
Mid-morning	Milk	1 cup
	Puffed rice	1 cup
	Fruits juice	1 glass
Lunch	Rice	2 cups
	Meat/fish	3 pieces
	Pulse	1 cup
	Vegetables	1 cup
Evening	Soup	2 cups
Dinner	Rice	2 cups
	Meat/fish	2 pieces
	Pulse	1 cup
Bed time	Yogurt	1 cup

Food included:
1. Fruit juice and green coconut water.
2. Fresh foods.

Food excluded:
1. Sugar rich foods.
2. Processed and fast foods.
3. High cholesterol rich foods such as ghee, butter, fish head.

20. Name: Ali hossain
Weight: 47 kg, height: 160 cm, age: 60 years

Complications: DM, IHD, HTN, hypokalemia.
Cancer: liver
Diet: Normal
BMI= 45/ (1.60) ^ 2 = 17.57
TER= 2000 calorie per day

Meals	Food items	Quantity
Morning	Ruti	3 pieces
	Egg	1
	Vegetables	1 cup
Mid-morning	Milk	1 cup
	Puffed rice	1 cup
	Fruits	2
Lunch	Rice	2 cups
	Meat/fish	3 pieces
	Pulses	1 cup
	Vegetables	1 cup
Evening	Soup	2 cups
	Biscuits	3-4 pieces
Dinner	Rice	2 cups
	Meat/fish	3 pieces
	Pulses	1 cup
Bed time	Milk and semolina	2 cups

Food included:
1. Fresh foods.
2. Fruits such as orange, pomegranate.
3. Vegetables.

Food excluded:
1. Sugar rich foods.
2. Processed and fast foods.
3. Oily and spicy foods.
4. Cholesterol rich foods such as ghee, butter, fish head, mutton, beef.

21. Name: Md. Jalal uddin sikder
Weight: 56 kg, height: 158 cm, age: 64 years
Complications: DM, IHD, Hb: 10.9, creatinine: 1.15
Cancer: Tongue
Diet: Semisolid/liquid
BMI= 56/ (1.58) ^ 2 = 22.43
TER= 2000 calorie per day

23

Meals	Food items	Quantity
Morning	Milk and bread	2 cups
	Egg boiled (blend)	2
Mid-morning	Soup (chicken, egg white)	2 cups
	Fruit juice	1 glass
Lunch	Porridge rice	3 cups
	Meat/fish(blend)	3 pieces
Evening	Soup	2 cups
	Smoothie (milk, banana and bread blended)	1 cup
Dinner	Porridge rice	3 cups
	Meat/fish(blend)	3 pieces
Bed time	Milk and semolina	2 cups

Food included:
1. Food juice such as beetroot, pomegranate.
2. Egg white, meat.
3. Carrot, tomato.

Food excluded:
1. Sugar rich foods.
2. Processed and fast foods.
3. Cholesterol rich foods such as ghee, butter, fish head, mutton, beef.
4. Pulses and seed rich foods.

22. Name: Atawar rahman
Weight: 72 kg, height: 164 cm, age; 65 years
Complications: Hb: 8.4, creatinine: 1.01, Na+: 140, K+: 3.6
Cancer: rectum and anal canal
Diet: Normal
BMI= 72/(1.64) ^2 = 26.76
TER= 2400 calorie per day

Meals	Food items	Quantity
Morning	Ruti	4 pieces
	Egg	2
	Vegetables	1 cup
Mid-morning	Milk	1 cup
	Biscuits	4-5 pieces
	Fruits	2
Lunch	Rice	4 cups
	Meat/fish	3 pieces

	Pulses	1 cup
	Vegetables	1 cup
Evening	Soup	2 cups
	Egg	1
Dinner	Rice	2 cups
	Meat/fish	4 pieces
	Vegetables	1 cup
	Pulse	1 cup
Bed time	Milk and semolina	2 cups

Food included:
1. Fresh foods.
2. Green coconut water, banana, tomato.
3. Fruit juice such as beetroot, pomegranate.

Food excluded:
1. Processed and fast foods.
2. Skin of some fruits such as apple, grape.

23. Name: Mojibun rahman
Weight: 56 kg, height: 165 cm, age: 50 years
Complications: Creatinine: 1.32, Na+: 122, K+: 3.1
Cancer: larynx
Diet: Liquid
BMI= 56/ (1.65) ^2 = 20.56
TER= 2400 calorie per day

Meals	Food items	Quantity
Morning	Milk and bread	2 cups
	Egg boiled (blend)	1
Mid-morning	Soup	2 cups
	Fruit juices	1 glass
Lunch	Porridge rice	4 cups
	Meat/fish(blend)	3 pieces
	Vegetables (blend)	2 cups
Evening	Soup	2 cups
Dinner	Porridge rice	3 cups
	Meat/fish	3 pieces
	Egg boiled (blend)	1
Bed time	Milk and semolina	2 cups

Food included:
1. Green coconut water, banana, tomato.
2. Fruit juice.
3. Fresh foods.

Food excluded:
1. Processed and fast foods.
2. Pulses and seed rich foods.

24. Name: Mrs. Blikis begum
Weight: 49 kg, height: 146 cm, age: 55 years
Complications: Hb: 8.4 g/dl
Cancer: ovary
Diet: Normal
BMI= 49/ (1.46) ^2 = 22.98
TER: 1600 calorie per day

Meals	Food items	Quantity
Morning	Ruti	3 pieces
	Egg	2
	Vegetables	1 cup
Mid-morning	Milk	1 cup
	Puffed rice	1 cup
	Fruits	2
Lunch	Rice	2 cups
	Meat/fish	4 pieces
	Pulse	1 cup
	Vegetables	1 cup
Evening	Soup	2 cups
	Egg boiled	1
Dinner	Rice	2 cups
	Meat/fish	3 pieces
	Pulse	1 cup
Bed time	Milk and semolina	2 cups

Food included:
1. Fruits juices such as pomegranate, beetroot and orange.
2. Vegetables like tomato, carrot.
Food excluded:
1. Processed and fast foods.
2. Spicy and oily foods.

25. Name: Noor nahar
Weight: 67 kg, height: 148 cm, age: 55 years
Complications: Hb: 9.7 g/dl, Na+: 134, K+: 3.7

Cancer: cervix
Diet: Semisolid
BMI= 67/ (1.48) ^2 = 30.58
TER= 1900 calorie per day

Meals	Food items	Quantity
Morning	Milk and bread Egg boiled(blend)	2 cups 2
Mid-morning	Soup (chicken+ egg+ vegetables) Fruit juice	2 cups 1 glass
Lunch	Khichuri (Pulse, rice, vegetables, meat)	4 cups
Evening	Soup Fruit juice	2 cups 1 glass
Dinner	Porridge rice Meat/fish(blend) Vegetables (blend)	3 cups 4 pieces 1 cup
Bed time	Milk and semolina	2 cups

Food included:
1. Fruit juices, green coconut water, banana.
2. Fresh foods, tomato, carrot.

Food excluded:
1. Processed and fast foods.
2. Skin of fruits like grape, apple, papaya etc.

26. Name: Mrs. Sabrina Yesmin
Weight: 45 kg, height: 144 cm, age: 39 years
Cancer: esophagus
Diet: Semisolid
BMI= 45/(1.44)^2 = 21.70
TER= 1800 calorie per day

Meals	Food items	Quantity
Morning	Milk and semolina Egg boiled(blend)	2 cups 1
Mid-morning	Soup Fruit juice	2 cups 1 glass
Lunch	Porridge rice Meat/fish(blend) Vegetables(blend)	2 cups 3 pieces 1 cup
Evening	Soup	2 cups
Dinner	Porridge rice	2 cups

	Meat/fish (blend)	3 pieces
Bed time	Milk and bread	2 cups

Food included:
1. Fresh fruits and vegetables.
2. Milk and egg.

Food excluded:
1. Processed and fast foods.
2. Skin of some fruits such as apple, grape.

27. Name: Suruzzaman
Weight: 45 kg, height: 154 cm, age: 48 years
Complications: Hb- low, creatinine- high
Cancer: esophagus
Diet: Neutropenic (semisolid base)
BMI= 45/ (1.54) ^2 = 18.97
TER= 1800 calorie per day

Meals	Food items	Quantity
Morning	Milk and bread Egg boiled(blend)	2 cups 1
Mid-morning	Soup Fruit juice	2 cups 1 glass
Lunch	Porridge rice Meat/fish(blend)	3 cups 3 pieces
Evening	Soup Egg boiled(blend)	2 cups 1
Dinner	Porridge rice Meat/fish (blend)	2 cups 3 pieces
Bed time	Milk and semolina	2 cups

Food included:
1. Fruit juices such as beetroot, pomegranate, orange.
2. Egg white, meat.

Food excluded:
1. Oily and spicy foods.
2. Processed and fast foods.
3. Pulses and seed rich foods.
4. Skin of some fruits such as apple, grape.

28. Name: kazi sharmin sultana
Weight: 50 kg, height: 155 cm, age: 42 years
Complications: creatinine, uric acid and albumin: high

Cancer: Stomach
Diet: Liquid
BMI= 50/ (1.55) ^2 = 20.81
TER= 1800 calorie per day

Meals	Food items	Quantity
Morning	Milk and bread	2 cups
	Egg boiled(blend)	1
Mid-morning	Soup	2 cups
	Fruit juice	1 glass
Lunch	Porridge rice	3 cups
	Meat/fish (blend)	3 pieces
	Vegetables (blend)	1 cup
Evening	Soup	2 cups
Dinner	Porridge rice	2 cups
	Meat/fish (blend)	3 pieces
		1 cup
Bed time	Milk and semolina	2 cups

Food included:
1. Fresh fruits and vegetables.
2. Milk and meat.

Food excluded:
1. Spicy and oily foods.
2. Processed and fast foods.
3. Pulses and seed rich foods.

29. Name: Mrs. Nurjahan
Weight: 48 kg, height: 149 cm, age: 75 years
Complication: Hb- low
Cancer: Breast
Diet: Normal
BMI= 48/ (1.49) ^2 = 21.62
TER= 1800 calorie per day

Meals	Food items	Quantity
Morning	Ruti	2 pieces
	Vegetables	1 cup
	Egg (boiled)	2
Mid-morning	Milk	1 cup
	Puffed rice	1 cup
	Fruits	1

	Lunch	Rice	2 cups
		Meat/fish	3 pieces
		Pulse	1 cup
		Vegetables	1 cup
Evening		Soup	2 cups
		Egg	1
Dinner		Rice	2 cups
		Meat/fish	3 pieces
		Pulse	1 cup
Bed time		Semolina cooked by water	2 cups

Food included:
1. Fruits juices such as beetroot, pomegranate, orange.
2. Egg white, meat
3. Vegetables like carrot, tomato.

Food excluded:
1. Processed and fast foods.
2. Peel of some fruits such as apple, grape.

30. Name: Siddikur rahman
Weight: 68 kg, height: 158 cm, age: 55 years
Cancer: stomach
Diet: NG tube feeding
BMI= 68/ (1.58) ^2 = 27.23
TER= 2000 calorie per day
150 ml foods+ 50 ml water
Total = 10 feeds per day

Meals	Time	Food items	Quantity
Morning	8.00 and 10.00 am	Rice	2 cups
		Egg boiled	1
		Vegetables	1 cup
		Or,	
		Milk and bread	
		(All foods need to blend)	
Mid-morning	11.30 am	Fruit juice	1 glass
Lunch	1.00 and 3.00 pm	Rice	2 cups
		Meat/fish	2 pieces
		Vegetables	1 cup
		Pulses	1 cup

		(All foods need to blend)	
Evening	4.30 pm and 5.30 pm	Soup Fruit juice/ green coconut water	2 cups 1 glass
Dinner	8.00 pm and 10.00 pm	Rice Meat/fish Vegetables Pulse	2 cups 2 pieces 1 cup 1 cup
Bed time	11.00 pm	Milk	2 cups

Awareness about NG tube feeding:
1. Need to blend all foods and add water and mixed very well.
2. Avoid hot foods put into the tube, when food at normal temperature then ready to put into the tube.
3. Not allow to put any leafy vegetables.
4. Attention about foods thickness.

Background information

1. Gender

Table 1: Gender distribution

Gender	Number of patients	Percentage (%)
Male	15	50
Female	15	50
Total	30	100

This table shows that male and female patients' percentage were equal (50%).

Table 2: Age range of patients

Age range(years)	Number of patients	Percentage%
33-48	8	26.6
49 – 68	16	53.33
69- 81	6	20

Total	30	100

This table shows that the majority of patients aged in between 49 to 68 (53.33%).

Table 3: Monthly income of the family

Income range (Taka)	Number of patients	Percentage (%)
10000- 14000	7	23.33
15000-19000	6	20
20000-25000	3	10
26000-30000	4	13.33
31000-40000	5	16.66
41000-50000	5	16.66
Total	30	100

This table shows that the majority of these patient's family income range per month in between 10,000 and 14,000 taka (23.33%).

Table 4: Number of family members

Category	Number of patients	Percentage (%)
1-4 members	10	33.33
4-6 members	15	50
7-10 members	5	16.6
Total	30	100

This table shows that the majority of patients family member were in between 4 and 6 members (50%).

Nutritional status of patients
Table 5: BMI range

BMI range	Number of patients	Percentage (%)
<18.5	2	6.66
18.5-24.9	18	60
25-29.9	8	26.66
>30.0	2	6.66
Total	30	100

This table shows that the majority of patients body mass index were in between 18.5 and 24.9 (60%).

Table 6: Weight status

Category	Number of patients	Percentage (%)
Underweight	2	6.66

Normal	18	60
Overweight	8	26.66
Obese	2	6.66
Total	30	100

This table shows that majority of patients weight status were normal range (60%).

Table 7: Different types of cancer in both male and female patients:

Types of cancer	Male	Percentage (%)	Female	Percentage (%)	Total Patients	Percentage (%)
Stomach	2	6.67	2	6.67	4	13.33
Blood	0	0	1	3.33	1	3.33
Ovary	0	0	2	6.66	2	6.66
Esophagus	3	10	1	3.33	4	13.33
Tongue	2	6.67	1	3.33	3	10
Breast	0	0	2	6.66	2	6.66
Lung	2	6.67	0	0	2	6.67
Prostate	1	3.33	0	0	1	3.33
Liver	2	6.67	0	0	2	6.67
Pharynx	1	3.33	0	0	1	3.33
Pancreas	0	0	1	3.33	1	3.33
Larynx	1	3.33	2	6.67	3	10
Cervix	0	0	1	3.33	1	3.33
Sarcoma	1	3.33	1	3.33	2	6.67
Buccal mucosa	0	0	1	3.33	1	3.33
Total	15	100	15	100	30	100

This table shows that majority of patients weight status was normal range (60%).

Table 8: Cancer with other types disease patients:

Diseases	Number of patients	Percentage (%)
Diabetes	7	23.33
Hypertension	6	20
Ischemic heart disease	4	13.33

33

Hypokalemia	1	3.33
Hyperlipidemia	1	3.33

This table shows that majority of cancer patients also have diabetes (23.33%).

Table 9: Types of diet for patients

Diet types	Number of patients	Percentage (%)
Normal	12	40
Semisolid/liquid	11	36.67
Diabetic	3	10
Neutropenic	2	6.67
NG tube feeding	1	3.33
Normal based high protein	1	3.33
Total	30	100

This table shows that the majority of cancer patients diet types was normal (40%).

Chart 1:

Gender:
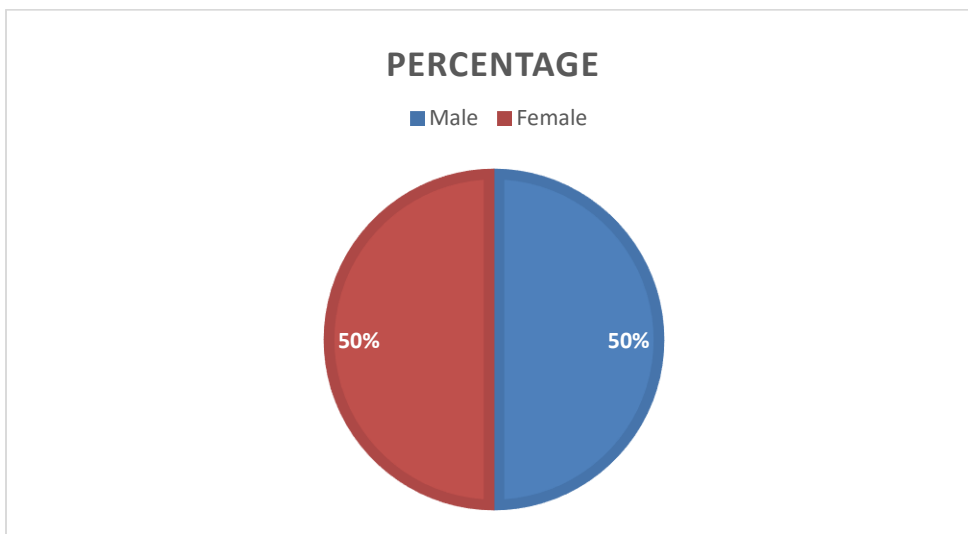
This chart shows that, 50% male patients and another 50% were female patients.
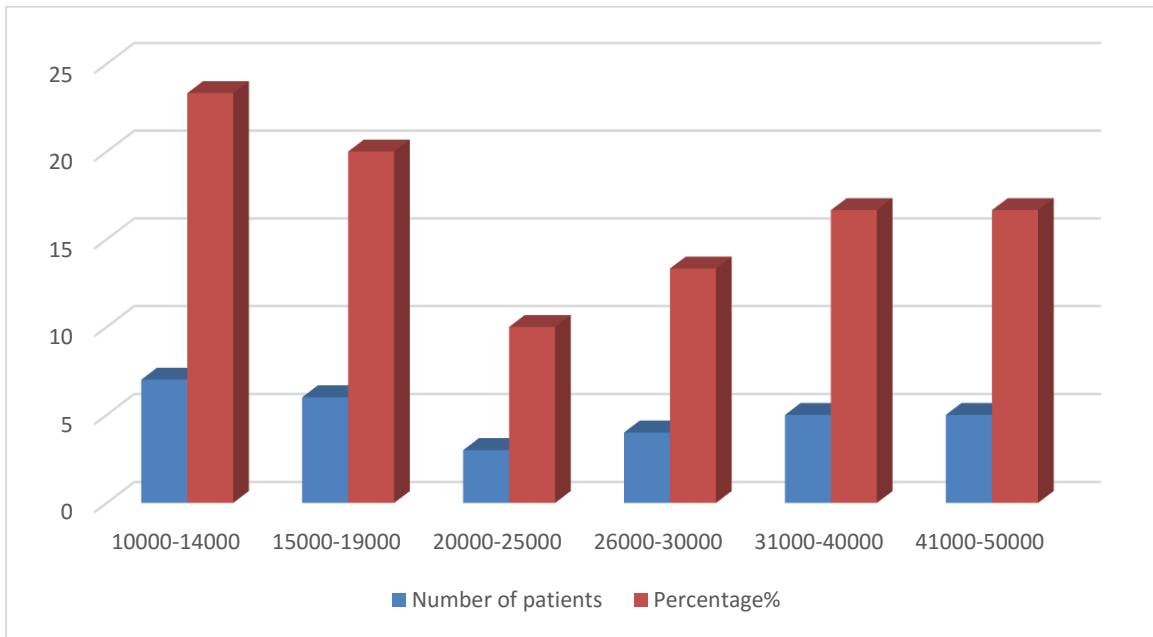
Chart 2:

Monthly income of the family:
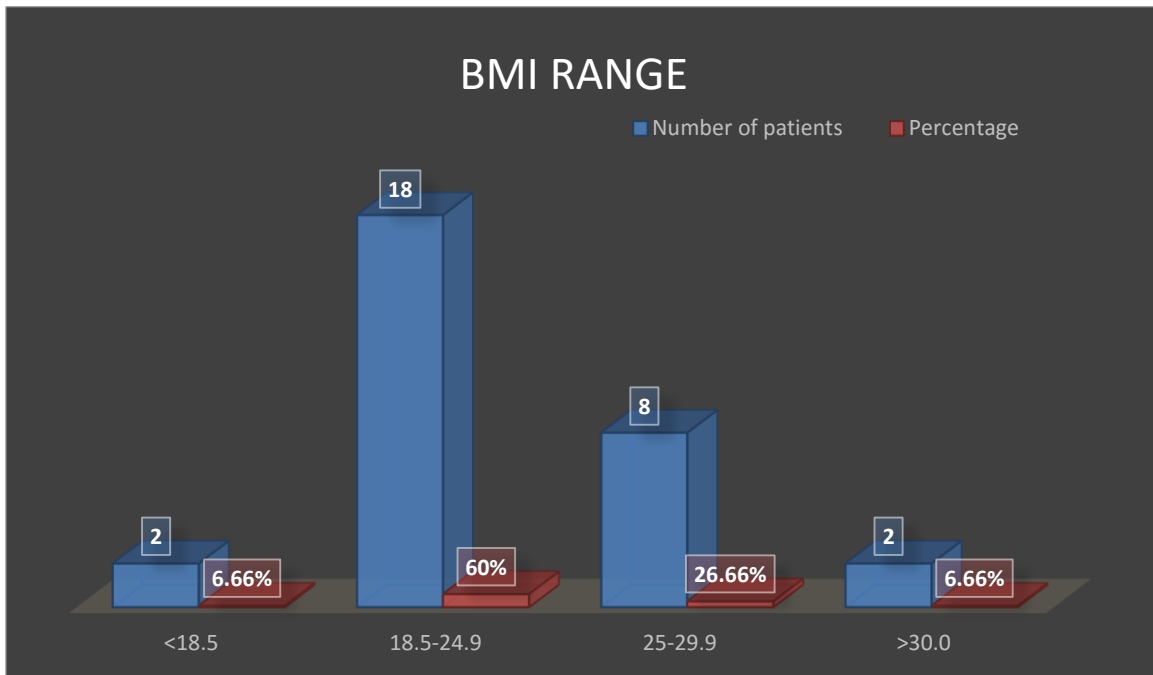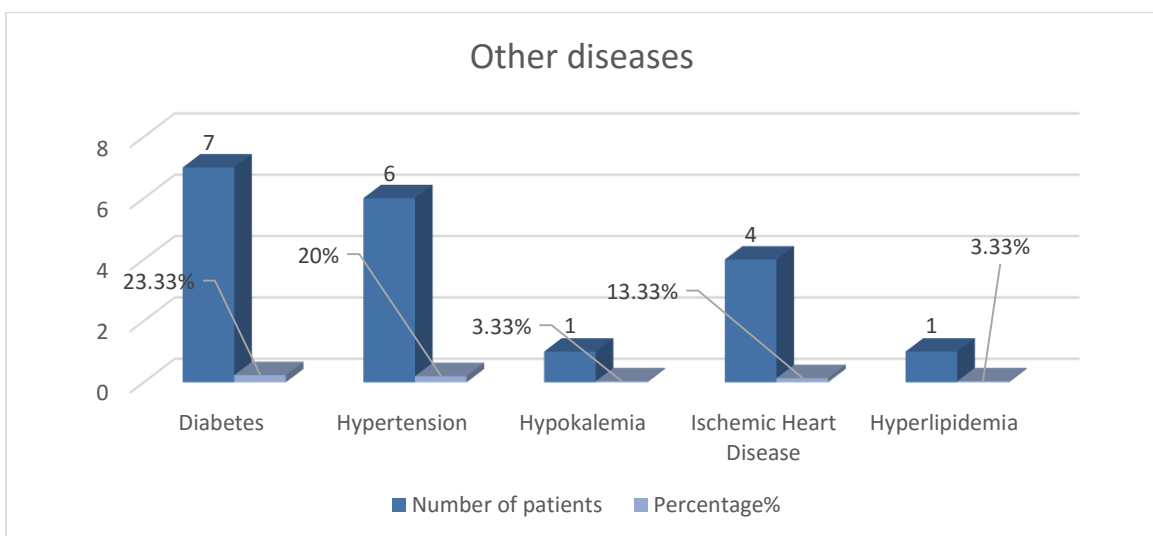
Chart 3:

BMI Range:

Chart 4:

Cancer with other types disease patients:

CHAPTER FOUR

Discussion:

This report has been conducted to assess the several types of cancer patients and prepared diet for these patients but they also affected by other types diseases. In Bangladesh there are 13 to 15 lakh cancer patients with about two lakh patients newly diagnosed with cancer each year. [2]

In 2020 both males and females and all ages peoples affected several types of cancer these cancer percentage for male esophagus 16.1%, lung 11.15%, stomach 5.8%, hypopharynx 7.3%, and other cancers 49.2%. And female breast cancer 19%, cervix uteri 12%, esophagus 11.1%, gallbladder 7.8%, and other cancer 43.4%. [6]

According to this study both male and female cancer patient's percentage were equal (50%). Most people are affected with cancer because of illiteracy, poor socioeconomic status, gender discrimination, inadequate diagnosis availability, and religious problems in Bangladesh. Globally the three most cancer were lung, breast and stomach. Most of them patient's family members were in 4-6 members (50%) and their monthly income range in between 10000-14000 Taka.

In this study majority of these patients affected with stomach and esophagus cancer (13.33%). And majority of patients have other noncommunicable disease such as diabetes (23.33%) and hypertension (20%). The majority of patients BMI range were at normal stage. Doctors suggest most of them patients diet recommendation were normal diet (60%). Majority of patients treated by surgery and chemotherapy from this hospital.

Conclusion:

This study shows that the types of cancers and their dietary recommendation of patients in Ahsania Mission Cancer and General Hospital. This study was carried out with 30 patients. This study discusses about dietary patterns of cancers patients but they also affected other types of noncommunicable disease. Cancer treatment is a longer process and very much expensive. The study reflects the types of cancer patient and its treatment depends on patients' condition such as age, sex, educational status, income range, types of cancer and cost of the treatment process.

There has no vaccination to prevent cancer. There are several types treatment process of cancer these are surgery, chemotherapy, radiation therapy, bone marrow transplant, and immunotherapy. Cancer are most dangerous noncommunicable disease, a patient cannot overcome almost from cancer. But these are some treatment processes of cancer for fewer days, months or years.

Cancer patients have some restriction about eaten foods and maintain a proper diet plan was very much effective for patients. These are some dietary modification of cancer patients such as intake lower calorie rich foods, fresh vegetables and fruits, fiber rich foods such as grains, nuts and beans. And reduced consumption of fat, red meat and processed meat and avoid smoking and alcohol rich foods. This study might be better but due to pandemic situation I was unable to do it in a more effective way. But in future if I have a scope, I can explore different angles of this study.

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Questionnaire: Diet preparation for patients with cancer and other associated disease in Ahsania Mission Cancer and General Hospital.

1. **Interviewee and interviewer details:**

1.1 . Name of the hospital: -------------------------

1.2 . Name of the patients: --------------------------

1.3. Date of interview: ------/---------/--------

2. Background characteristics and socioeconomic characteristics:

2.1. Age (√): 30-50 years/51-60 years/ 61-85 years

2.2. Religion (√): Islam/ Hindu/ Christian/ Buddhism

2.3. Family members (√):

- 1-2 members
- 4-6 members
- 7-10 members
- More than 10 members

2.4. Family income per month (√):

- 10000-20000 Tk
- 21000-30000 Tk
- 31000-50000 Tk
- >50000 Tk

3.**Measurement**:

3.1. Weight: 40-50 kg/ 51-60 kg/ 61-70 kg/ >70 kg

3.2. Height: 140 cm/ 141-150 cm/ 151-160 cm/ >161 cm

3.3. BMI: <18.5/ 18.5-24.5/ 24-29.9/ >30.0

3.4. Nutritional status: Underweight/ Normal/ overweight/ Obese

4**. Physical activities**:

4.1. Did you perform physical activity?

- Yes
- No

4.2. Physical activity level: Low/ Moderate/ Heavy

4.3. Exercise:

- Yes
- No

5. **Diagnosis report on biochemical analysis:**

5.1. Hemoglobin level-----------g/DL

5.2. Creatinine level-----------mg/DL

5.3. Sodium (Na) level ----------mEq/L

5.4. Potassium level (K)---------mmol/L

6. **Other diseases**:

6.1 Do you have other disease?

- Yes
- No

6.2 Types of disease: Diabetes/ Hypertension/ Heart disease/ kidney disease

7. **Diet plan:**

7.1 Do you follow any diet chart?

- Yes
- No

7.2 Types of diet: Normal/ Semisolid/Liquid/ NG tube feeding

7.3 Restriction about any food items:

- Yes

- No

7.4 Do you eat any cholesterol rich foods?
- Yes
- No

7.5 Do you eat sugar rich foods?
- Yes
- No

7.6 Do you eat any processed and fast foods?
- Yes
- No

7.7 No of meal you taken per day: 2 meals/ 3 meals/ 4meals/ 5 meals

8.**Treatments:**

8.1 Which types treatment you taken from this hospital:

- Surgery
- Chemotherapy
- Radiotherapy

8.2 Times of chemotherapy you taken: 1 time/ 2 times/ 3 times/ 4 times

Thanks for giving your valuable time