



Daffodil
International
University

Internship Report

On

Nutritional Management of Diabetic Patients with complications of Electrolyte Imbalance, Urinary problem, Urinary issues, HTN, IHD Peripheral Hemopathy Uncontrolled blood sugar at BIRDEM General Hospital

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Letter of Transmittal

Date:

Ms. TasmiaTasnim (Senior lecturer)

Department of Nutrition and Food Engineering

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Subject: Submission of internship report

Dear Ma'am,

I am contributing to the NFE program's required reading by submitting my internship report on the nutritional management of diabetic patients with comorbidities such as electrolyte imbalance, chronic kidney disease, and stroke. It has been a great pleasure to work under your encouraging guidance, and I would want to express my gratitude for all of the direction, advice, and support you have given me in preparing this report. The BIRDEM general hospital has offered me a 30-day internship. Without your guidance, finishing this paper has become challenging.

I've learned a lot and gotten a lot of experience through my internship. I am better equipped to handle my diabetes, thanks to the diet chart, guidelines, and nutritional assessment I learned.

If you would be so kind as to review this report and offer your thoughts, I would be eternally grateful.

Sincerely yours

ZannatulTazry



ID 181-34-105


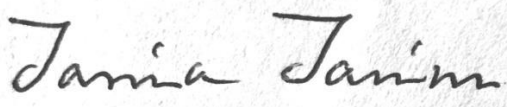
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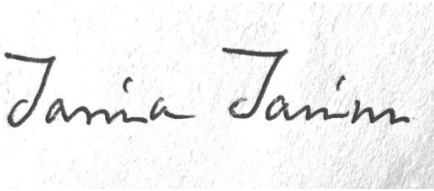
APPROVAL CERTIFICATION

I hereby certify that the Intenship report " Nutritional Management of Diabetic Patients with complications of Electrolyte Imbalance, Urinary problem, Urinary issues, HTN, IHD Peripheral Hemopathy Uncontrolled blood sugar at BIRDEM General Hospital" has been authorized for presentation and defense /viva voice by the Department Of Nutrition and Food Engineering. This internship work, in whole or in part, has not been submitted to any other institution for the granting of a degree, diploma, associate ship, or fellowship.

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Declaration

This dissertation entitled Association " Nutritional Management of Diabetic Patients with complications of Electrolyte Imbalance, Urinary problem, Urinary issues, HTN, IHD Peripheral Hemopathy Uncontrolled blood sugar at BIRDEM General Hospital" to the department of Nutrition and Food Engineering, Faculty of Allied health science, Daffodil international University as a part of partial fulfilment of the requirements for the degree bachelor of Science in Nutrition and Food. This project report is unique and completed by Zannatul Tazry ID No: 181-34-105 National Institute of Cardiovascular Disease Hospital.

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Letter of Authorization

Date:

Dr Nizam Uddin

Associate professor and Head in charge

Department of Nutrition and Food Engineering

Faculty of Allied Health Science

Daffodil International University An announcement

Subject :An Announcement

Dear sir

I am ZannatulTazry genuinely declare that, this internship report I masterminded is certainly is not a copy from some different reports or articles.

Exactly what I understand and saw is formed here from my experience. I moreover declare that it will not be submitted to other individual in future.

Sincerely yours,

ZannatulTazry

ID: 181-34-105



Bangladesh Institute of Research and Rehabilitation in Diabetes Endocrine and Metabolic Disorders (BIRDEM)

This is to certify that

Zannatul Jazry of Daffodil International University has completed a one month training program on collecting patient history to determine the "Nutritional Problems and Diet Planning of Hospitalized Patients" in BIRDEM Hospital from November 29 to December 29, 2021 as a part of her internship program to fulfill the requirements of BSc (Hons) in Nutrition and Food

A. Chowdhury
Director General

Engineering
J. Hossain
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M. M. Hossain
Training Coordinator

Acknowledgment

I want to start by thanking Allah, the All-Mighty, for allowing me to write this Internee report.

The internship I had at BIRDEM General Hospital was fantastic for my professional and personal growth. In this time frame, I was fortunate enough to interact with many wonderful and competent people who were quite helpful to me.

Daffodil International University, Department of Nutrition and Food Engineering Honorable Associate Dean and Professor (Dr. Md Bellal Hossain), Associate Professor and Head (Fouzia Akhter), and my Supervisor (Ms. TasmiaTasnim) for their guidance, stimulating suggestions, and encouragement in helping me to coordinate my intern, and in writing this report in particular.

With the utmost reverence and thanks, I would like to thank Joint Director (administration) Md. Ashfaqur Rahman sir for granting me the opportunity to complete my internship at BirdemGeneral Hospital.

Despite her busy schedule, my internship coordinator QuamrunNahar, PhD (Principal Research Officer, BIRDEM) was gracious enough to spend time with me and provide me with important learning opportunities.

Finally, I'd want to thank every single patient for their helpful cooperation and patience.

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Chapter One

1.1 Introduction

Your body's normal ability to utilize glucose, often known as blood sugar, can be hindered if you have diabetes mellitus, which is a group of disorders. The cells that make up our muscle tissues get the majority of their energy from the blood glucose that flows through them. It is necessary to our health in every way. In addition to this, it is the primary source of energy that is utilized by our brain. It is a direct consequence of the food that we eat. Insulin is a hormone that is secreted by the pancreas. Insulin facilitates the transport of glucose into cells so that it can be used as fuel. Because of this, there are times when our body does not create enough insulin or does not make proper use of the insulin that it does produce. According to the findings of the World Health Organization's Global Health Days 2016, more than 80 percent of deaths caused by diabetes occur in countries with low or intermediate incomes. Diabetes affects around 422 million people all over the world, the vast majority of whom are inhabitants of developing nations. In addition, developing and middle-income countries are home to 80 percent of the world's diabetic population. In addition, they reported that diabetes affected 12.88 million individuals in Bangladesh in 2016, which represented 8% of the country's total population, and that diabetes was the cause of 3% of all deaths across all age categories in Bangladesh in 2016. These statistics were presented in 2016. It would appear that diabetes mellitus is getting increasingly frequent in the population of Bangladesh as time goes on. People who have diabetes are at risk for developing a wide range of complications due to their condition. It is possible for someone's risk of complications to grow if their blood sugar is not under control or if they have had diabetes for an extended period of time. Diabetes can lead to a number of different health complications, including cardiovascular disease, kidney damage, nerve damage, damage to the eye, skin, and feet, urinary issues, hypertension, peripheral neuropathy, and depression. As a consequence of this, the high risk outcomes may be mitigated through the utilization of suitable medicine, dietary changes, physical activity, and regulation of blood glucose levels.

1.2 Origin of the report

We are required to participate in an internship with an organization after completing 11 semesters. Due to the fact that I am a student, the organization must be involved in the food or health sectors.

Department of Nutrition and Food Engineering. It is the last stage of a student's academic journey. Students at Daffodil International University are required to participate in an internship program.

After doing extensive research on businesses, hospitals, and several organizations, I ultimately chose to finish my internship at BIRDEM General Hospital.

Chapter Two

2.1 Overview Of BIRDEM General Hospital

The Bangladeshi Institute of Diabetes, Endocrinology, and Metabolism (BIRDEM) is a private hospital that specializes in treating diabetic patients. It is regarded as one of the finest medical facilities in Bangladesh. Dr. Mohammad Ibrahim was the one who initiated the formation of the organization in the year 1980.

BIRDEM, which is also known as the Bangladesh Institute of Research and Rehabilitation in Diabetes, Endocrine, and Metabolic Disorders, is a facility that can be found in the neighborhood of Shahbag in the city of Dhaka. Its primary focus was initially on the care of diabetic patients; however, in recent years, the hospital has broadened its scope to include patients with a variety of medical conditions and is now known as BIRDEM General Hospital. This facility offers care at the tertiary level. It is now a 16-story building with almost 600 individual housing units inside its complex. Every day, the BIRDEM Out Patients Department provided medical attention to three thousand patients. This hospital treats more people with diabetes than any other hospital in Bangladesh combined, making it unique among Bangladeshi medical facilities.



Vision:

- "No diabetic person shall die in Bangladesh without food, medical care, or employment."
- "Each and every person will receive affordable medical treatment."

2.3 Mission:

- To Regardless of gender, socioeconomic class, or financial situation, provides complete medical care, including rehabilitation, to all diabetic patients.
- To use these services to fund self-sustaining institutions that would offer affordable BADAS medical care to all Bangladeshis.
- To For all diabetes patients, establish medical supplies and high-quality foods..
- To create skilled labor of the highest caliber (physicians, technicians, research scientists, associate employees and nurses)
- To build a system of comprehensive and integrated management for the management of medical care.

2.2 Services and Facilities :

In BIRDEM General Hospital, there are many services and facilities for their patients. These are:

• Out Patients Department (OPD)	• Indoor Service
• General Ward	• Cabin
• ICU	• CCU

<ul style="list-style-type: none"> • HDU 	<ul style="list-style-type: none"> • OT/ Post-Operative
<ul style="list-style-type: none"> • Medical Emergency 	<ul style="list-style-type: none"> • Surgical Emergency
<ul style="list-style-type: none"> • Radiology and Imaging 	<ul style="list-style-type: none"> • Blood Bank

The major service that BIRDEM General Hospital provide are:

*** Indoor patients service : This department mainly deals with the admission of patients to the hospital.

- General Ward (For male and Female)
- Single room (AC, Non -AC)
- Double Room(AC, Non- AC)
- VIP Room.

They also provide Breakfast, Lunch, Evening snacks, Dinner and bed time food. Laundry service, 24 hours drug store etc.

*** Outdoor patients service : The outdoor department can serve almost 3000 patients in more than 60 examination rooms per day.



2.3 Joining process for Internship:

The first person I approached about being an intern at BIRDEM General Hospital was my current superior, Ms. TasmiaTasnim Ma'am. After that, I took her recommendation and went to the BIRDEM General Hospital to get more information regarding the joining procedure. After that, I had a conversation with QuamrunNahar, the main research officer, who informed me that in order to secure an internship, I needed to write an application letter and send it to the director, sir. After that, I informed my boss Ma'am about the situation, and she promptly wrote a letter of recommendation for my internship position and sent it to the Director Sir. The next day, I went to the facility and delivered the letter to the Director Sir's personal secretary. After 21 days, after the Director Sir had sent a letter confirming that my application had been received, I went to the hospital to obtain my ID card from QuamrunNahar Ma'am. While working indoors, I came into contact with a wide variety of patients of various types. QuamrunNahar Ma'am is the senior research officer in charge of this field and a nutritionist with a great deal of experience. During my time working at the internship, she was not only a wonderful friend to me but also really helpful.

Duration : The duration of my Intern was 1month. I started at 29th November and Finished 29th December. I worked for 4 hours a day, from 1 PMto 4 PM. We took Friday as a day off.

Chapter Three

3.1 Activities :

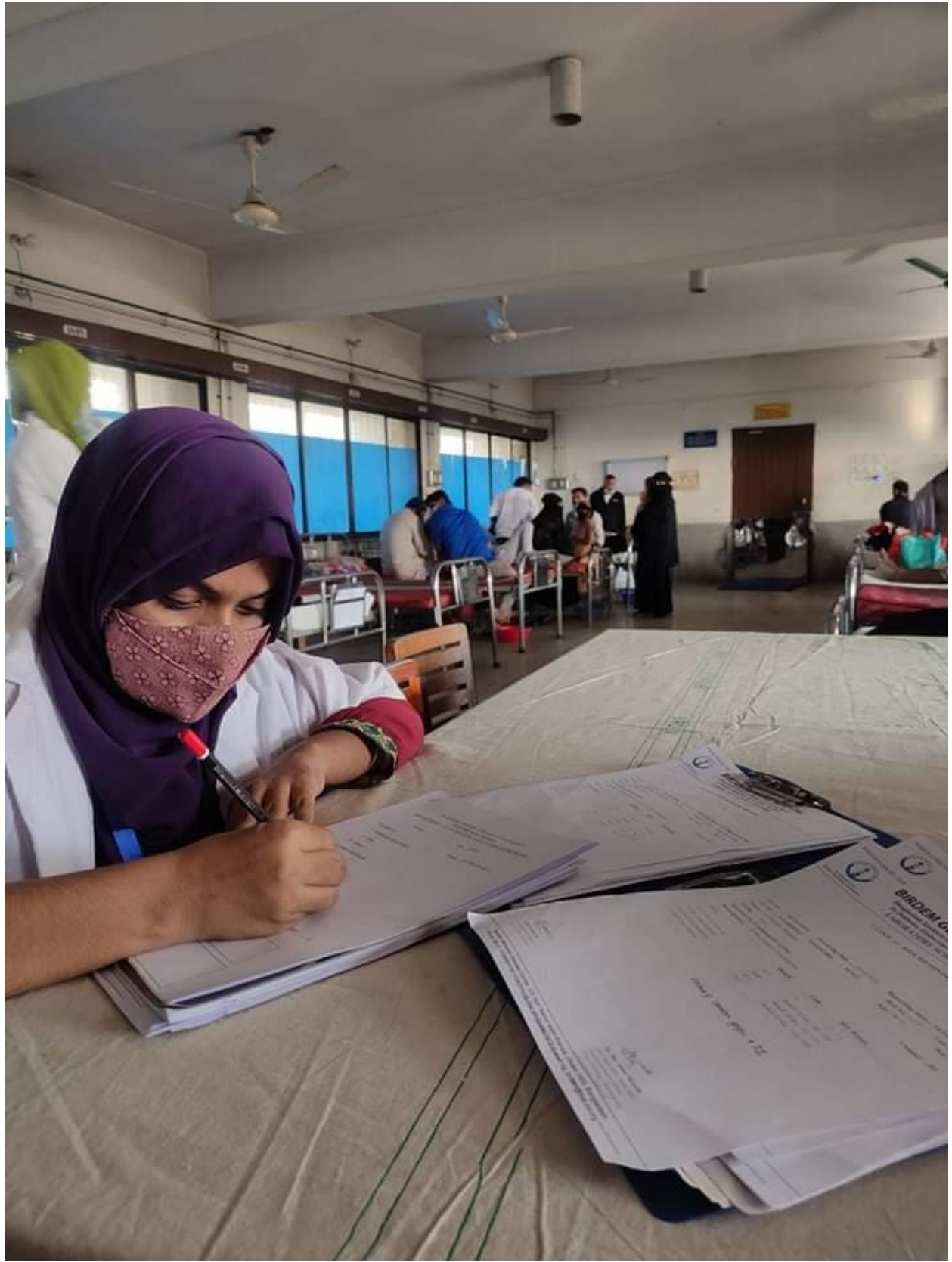
During my internship, I worked in the indoor department, which allowed me to gain experience in that field. In the indoor section, there were examples of each type of patient. My internship supervisor QuamrunNahar Ma'am constantly provided me with instructions whenever it came time to deal with patients, their requests, or any other issues that arose. There were numerous different types of patients, each with its own unique issues, including the following:

- (1)diabetic patient with complications with electrolyte imbalance.
- (2)Urinary problem, DM,HTN,Weaknessof left side of body.
- (3)DM(Insulin) HTN
- (4) DM, Uncontrolled blood sugar, HTN, Urinary issues.
- (5) IHD , Peripheralhemopathy.

Therefore, they were the patients I encountered most frequently.

3. 2 Daily ward round and observation

My daily ward round, which consisted of going around the entire unit, began at one in the afternoon. Every intern is required to make rounds through all of the units. I talked to the patients as I walked through the wards so that I could gather information on their current conditions, nutritional needs, and complications. I recorded the information that I gleaned from those conversations. Make advantage of their data to keep track of their diet chart as well. After keeping a watch on their diet conversations and their current situation, I made a mental note to discuss the issues with my supervisor. I will do so as soon as possible.





3.3 Management of the patients:

The BIRDEM General Hospital provides medical attention to people with a wide variety of conditions. When I went to visit the patients in those wards, I found that each and every nurse I spoke with was extremely helpful in giving aid for them. I saw diabetic patients who had urinary problems, high blood pressure, weakness on the left side of the body, diabetes mellitus (insulin), uncontrolled blood sugar, ischemic heart disease, peripheral artery disease, and other complications related to diabetes.

They are given diet charts by nutritionists, and they are counseled by nutritionists on appropriate dietary strategies that are tailored to their conditions. They never take their eyes off of their patients and make sure that they are getting the appropriate medication at the appropriate times. They are provided with food by nurses in accordance with the diet plans that they have created, and the nurses always bring the meals at the appropriate times. Patients are checked on by medical professionals and nutritionists at intervals of three hours.

3.4 Particular objectives of my Internship

- ** To discover more about Diabetes.
- **To learn about miss conception about Diabetes.
- ** To learn about how Urinary problem, Urinary issue are related with diabetes.
- **To learn about how Hypertension, IHD, Peripheral Homeopathy etc, are related with diabetes.
- ** Experience about the challenge during patients counselling.
- ** To learn about indoor patients handling, monitoring and observation process.
- ** To be familiar with hospitals environment.

** To learn how to make and develop diet chart according to patients.

Chapter Four

4.1 Diabetes Mellitus:

Diabetes is a group of conditions where the body cannot produce enough or any insulin, cannot properly use the insulin that is produced, or cannot do a combination of either. When any of these things happen, the body is unable to get sugar from the blood into your cells. This can lead to high blood sugar levels.

Types of diabetes :

- (1) Prediabetes.
- (2) Type 1 Diabetes.
- (3) Type 2 Diabetes.
- (4) Gestational Diabetes.

Other Forms of Diabetes.

Symptoms of Diabetes :

- Frequent urination.
- Unexplained weight loss.
- Blurred vision
- Extreme hunger.
- Irritability
- Fatigue
- Increased thirst.

Some causes of diabetes:

- Diabetes, especially Type 2 diabetes, may be influenced by eating
- Type 1 diabetes is caused by an autoimmune response. The body's immune system attacks and destroys the insulin producing beta cells in the pancreas.

Misconception about diabetes:

- (1) Eating too much sweets causes diabetes.
- (2) If you have diabetes, you can't eat underground food.
- (3) If you have diabetes, you have to eat less food.
- (4) Those who take insulin or take tablets have no problem in eating.
- (5) Diabetic women should not get pregnant.
- (6) It is not possible to prevent diabetes.

Some major complications of diabetes :

- (1) Eye problems (retinopathy).
- (2) Diabetes foot problems are serious and can lead to amputation if untreated.
- (3) Heart attack and stroke.
- (4) Kidney problems (nephropathy).
- (5) Nerve damage (neuropathy).
- (6) Gum disease and other mouth problems.
- (7) Related conditions, like cancer.

Food Habit : Dietary management for diabetes can be as simple as maintaining consistent mealtimes and eating only the healthiest foods in appropriate portions. A diet for diabetes is

an eating plan that is nutritionally sound, low in calories and fat, and naturally high in nutrients. Fruits, vegetables, and grains in their whole form are all important components.

What foods he/she can take and what foods needs to avoid is given below:

Carbohydrate :

- In the morning 2-3 small piece of roti,(according to he/she BMI) can take. Rice 4-5 time in a week, he/she can eat 1- 2 cup rice (according to he/she BMI). Roti is brown flour is more suitable because it release glucose slowly which does not increase sugar level.
- White bread, Noodles, pasta, Frozen food and highly heated food they are forbidden.
- Food that contains huge amount of sugar such as Ice-cream, cakes, many types chocolates, sweet cookies, Fast food, soda, carbonated beverage, cold drinks, Artificial juice, must need to avoid.

Protein:

People with diabetes who eat a high protein diet can fish is good source of high quality protein. Its helps stabilize blood sugar level.

- Any kind of pulses, lentils, beans, good source of protein.
- The patients should drink milk but the cream should be removed.

Red meat such as beef, pork lamb etc.can increase diabetes. So chicken is the safest option for meat.

- 1 full egg is permitted. If he/she wants more egg, the yolks must need to avoid. Fried, poach eggs are forbidden. Also boiled eggs are permitted.
- Protein from plants such as beans, nuts soy tofu are safe for health.

Fat:

- He/ she needs to avoid butter, oil, ghee, palm oil soybean oil full fat mayonnaise, too much nuts oil. He/ she can use sunflower oil, olive oil for cooking food.

- Trans fat like burger, Many kind of chips, French fries, Chicken fries, Pizza, etc. are harmful. So patients can't consume them.
- Some fat containing foods are healthy such as sunflower oil, mustard oil, olive oil, avocado, seeds.

Vegetables :

- Spinach , bitter gourd, cauliflower, carrot etc. and all non-starchy vegetables are good for diabetes patients.
- Cabbage increase acidity. So, it's better to avoid.
- Vegetables that contain a lot of seed like papaya, tomato, pumpkin are forbidden.

Fruits :

- Sweet fruits for example mangos, lychees, pineapple, apple are need to be avoided if the diabetes is not in control.
- Seasonal fruits are very helpful and he needs to take. All patients can enjoy seasonal fruits according their health conditions also diabetes level.
- Almond are harmful because of cholesterol.
- She/he can't take coconuts but green coconuts are ok.
- Dried fruits, fruitsjam and jelly, fruits juice, canned fruits with sugar syrup, fruits pickles are must need to avoid.

Dairy:

- Dairy foods are good source of calcium and vitamins.
- Sour yogurt, low fat cheese, sour cream can be taken.
- Whole milk, sweet yogurt, ice-cream, milk based drinks are should be avoided.

Exercise :

- Daily physical exercise or at least walking is a must. At least 40-45 minutes exercise or walking is needed.
- High impact exercise like jumping and running must be avoided.
- In the morning he can't leave house for exercise with an empty stomach. Because there is great possibility of hypoglycemia (low glucose level in blood) at least he/she can take 2-3 biscuits without sugar.

Some Artificial sweeteners for diabetic patients :

Artificial sweeteners very useful for diabetic patients because Artificial sweeteners of kind of sugar that are free from carbohydrate. We know that it is forbidden for diabetic patients to eat sweet because it has carbohydrate which increase the sugar level of the patient. But artificial sweetener has no carbohydrate.

Name of some artificial sweetener :

- Aspartame
- Acesulfamepotassium
- Cyclamate
- Erythritol
- Glycerol
- HSH
- Isomalt
- Sorbitol etc

Electrolyte Imbalance :

An electrolyte imbalance occurs when your body's electrolyte levels deviate from their normal range, which can be either too low or too high. Maintaining a healthy electrolyte balance is crucial for proper bodily function.

Some sing and symptoms electrolyte disorder :

- (1)fast heart rate.Irregular
- (2)heartbeat.
- (3)convulsions or seizures.
- (4)lethargy.
- (5)fatigue.
- (6)diarrhea or constipation.
- (7) nausea vomiting

Several strategies can help keep your electrolytes in balance :

- (1) Consume an electrolyte-rich diet that is balanced and healthful.
- (2) Drink a lot of water, but not excessively.
- (3) Avoid using over-the-counter diuretics excessively or taking them for an extended period of time without a prescription.
- (4) Limit your sodium intake

Glycemic Index(GI):

The glycemic index of a food indicates how rapidly it will cause your blood sugar (glucose) level to rise after eating it (GI). A GI value can only be assigned to a food if it contains carbohydrates. Even though oils, fats, and meats do not have a GI, the levels of sugar in a diabetic person's blood can be affected by eating them.

Your awareness of what you're placing on your plate can be increased using the glycemic index, which can also help you lose weight, lower your blood sugar levels, and lower your cholesterol levels. In addition, it can help you become more aware of what other people are putting on their plates.

4.2 Urinary Problem:

An infection that takes place in the urinary tract is known more colloquially as a urinary tract infection (often abbreviated as UTI). Urinary tract infections are one of the most prevalent urinary disorders. This illness, which can affect the kidneys, ureters, urethra, or bladder, is most commonly brought on by germs such as fungi, bacteria, and viruses.

Some symptoms :

- (1) Difficulty starting urination.
- (2) Frequent urination.
- (3) Involuntary loss of urine.
- (4) Pain or burning when urinating.
- (5) Strong, persistent urge to urinate.

Relations between Diabetes and Urinary problem :

Diabetes can cause nerve damage to your urinary tract, causing bladder problems. Overweight and obesity also can increase bladder problems, such as urinary incontinence (UI). Managing diabetes is an important part of preventing problems that can lead to excess urination.

Some of the more common problem of the urinary system include:

- (1) Bladder infections - (cystitis) usually caused by bacteria.
- (2) Enlarged prostate - in men, this can make it difficult to empty the bladder.
- (3) Incontinence - when urine leaks out of the urethra.
- (4) Kidney infections - when a bladder infection 'backs up' the ureters.

Prevention :

- (1) Follow a healthy eating plan.
- (2) Drink enough liquids.
- (3) Change your bathroom habits.
- (4) Quit smoking.
- (5) Avoid constipation.
- (6) Do pelvic floor muscle exercises.

4.3 Urinary Issues : Urinary incontinence (UI), one of the most prevalent bladder control issues, is the unintentional loss or spilling of urine. Urinary troubles are a condition rather than a disease that may be correlated with another health issue or life event, such as prostate disorders or pregnancy.

symptoms of prostate issues include

- (1) A persistent urge to urinate

- (2) The need to frequently get up during the night to use the restroom.

(3) Blood found in pee or sperm.

(4) Hurting or painful urinating.

(5) Excretion that hurts and

(6) Recurrent discomfort or stiffness in the lower back, hips, pelvis, or thighs.

The urethra may become compressed by an enlarged prostate, which may alter how you urinate. Having trouble starting or stopping to urinate is one sign of an enlarged prostate. an inadequate urine flow.

The three types of prostate disease that are most prevalent are:

1) Inflammation (prostatitis). (2) Benign prostatic hyperplasia, or BPH, a non-cancerous swelling of the prostate, and (3) prostate cancer. One or more of these conditions may affect men.

4.4 Hypertension (HTN):

The condition of having a blood pressure that is consistently high is referred to as hypertension in the medical field. Another name for this condition is high blood pressure. Because of the different things you do during the day, your blood pressure will go through a range of different numbers.

Make a distinction between blood pressure that is considered normal, prehypertension, which is considered to be mild, stage 1 blood pressure, which is considered to be moderate, and stage 2 blood pressure.

As a result of the damage that diabetes causes to the arteries, those arteries become good candidates for the process of hardening that is known as atherosclerosis. This can result in high blood pressure, which, if it is not managed, can lead to a range of health concerns, including as damage to the blood vessels, a heart attack, and renal failure.

Some causes of Hypertension :

Behaviors that are linked to stress, such as overeating, smoking, or drinking alcohol, can contribute to an even greater increase in blood pressure. a few constant terms and conditions. The presence of certain chronic conditions, such as kidney disease, diabetes, or sleep apnea, may also raise the likelihood that you will develop high blood pressure.

Hypertension Has 4 Stages:

- (1) Normal: systolic and diastolic pressures of less than 120 and 80 mm Hg, respectively.
- (2) Elevated: systolic pressure of 120 to 129 mm Hg and diastolic pressure of less than 80 mm Hg.
- (3)Stage 1: Systolic or diastolic pressure between 80 and 89 millimeters of mercury.
- (4)Stage 2: systolic pressure of at least 140 mm Hg or diastolic pressure of at least 90 mm Hg

Some symptoms of Hypertension :

They may include morning headaches, nosebleeds, erratic heartbeats, alterations in vision, and ear ringing. Fatigue, nauseousness, vomiting, bewilderment, anxiety, chest pain, and trembling of the muscles are all symptoms of severe hypertension.

Prevention and management of hypertension entail eating a balanced diet. You should reduce the quantity of sodium (salt) you consume and up your intake of potassium to assist control your blood pressure. Additionally, it's crucial to consume a lot of nutritious grains, fruits, and vegetables as well as low-fat foods.

4.5 Uncontrolled Blood Sugar: If your diabetes is not under control, even with treatment, your blood sugar levels are still too high. Additionally, you can experience symptoms including frequent urination, extreme thirst, and other issues caused by your diabetes.

Due to the detrimental consequences of elevated blood sugar, uncontrolled diabetes can have an impact on numerous bodily organs.

Prevention:

- to attain and keep a healthy body weight;

- Be physically active by engaging in frequent, moderate-intensity activity for at least 30 minutes on most days.
- consume a nutritious diet and abstain from saturated fats and sweets; and.
- Avoid using tobacco since it raises your chances of diabetes and heart disease.

4.6 Ischemia of the Heart (IHD):

Figure 2 demonstrates that the average woman can anticipate living with heart disease for a greater number of years than the average man at every age. The average woman may expect to survive 7.9 years beyond the age of 50 with heart disease, compared to the statistic for the average man is 6.7 years.

Acute ischemia episodes can be significantly triggered by stress. The key ischemic heart disease symptoms' circadian distribution, which demonstrates this in a roundabout way (sudden death, myocardial infarct, ST segment depression).

Types:

- Heart Irregularity (IHD)
- a microvascular angina.
- Angina Pectoris that is stable.
- Vasovascular Angina (Prinzmetal Variant Angina)

Sign and symptoms :

- Chest pain (angina), shortness of breath, and sweating.
- rapid heart rate.
- back or shoulder ache
- Arm, neck, or jaw discomfort
- Sweating/clamminess.
- Nausea/vomiting.
- Fatigue.

Prevention :

Myocardial ischemia can be treated with the same lifestyle choices that can help prevent it from happening in the first place. Maintaining a heart-healthy lifestyle

can aid in maintaining strong, flexible, and smooth arteries that allow for optimal blood flow.

(1) Abstain from tobacco and smoking. Stopping to use tobacco products, including smokeless tobacco, is one of the finest things you can do for your heart.

(2) Get active: Aim for 30 to 60 minutes of activity each day.

(3) Maintain a nutritious diet.

Keep your weight in a healthy range.

(5) Get a good night's rest.

Manage your stress.

Get routine health screenings.

Chapter Five

5.1 Conclusion :

This internship program at BIRDEM General Hospital was wonderful throughout and highly helpful for my future career. For me, this internship program was filled with difficulties. Through this internship, I gained knowledge on how to manage indoor patients and their dietary requirements in accordance with their issues, such as electrolyte imbalance, Diabetes Mellitus, urinary problems, IHD, etc. I may increase my knowledge and learn how to observe indoor patients through the help of this training.

I had a great time during my internship, and I can say with certainty that I now have a much better understanding of this field.

- ❖ I worked with 50 patients with diabetes who had electrolyte imbalance, urinary problems, IHD, and other complications throughout my internship. The 6 diet charts I created for them are listed here, along with a brief history of each.

DAFFODIL INTERNATIONAL UNIVERSITY
DHANMONDI, DHAKA
DEPARTMENT OF NUTRITION AND FOOD ENGINEERING

Year: 2021

Case Study No: 01 Date: 29.11.2021

Information about Patient

- a) Name : Rabiul Islam
- b) Address : Mirpur ,Dhaka
- c) Name of the Hospital : Birdem general hospital

- d) Admission Date : 22.11.2021
- e) Reason of admission : DM, Electrolysis imbalance
- f) Word No : 131
- g) Bed No : 1321
- h) Health Condition : Weakness,DM,vomiting for 3days
- i) Mental status : Stable

Anthropometric parameters

Age: 67 years **Sex:** Male **Weight:** 66 kg **Height:** 168 cm **BMI:** 23.4 kg/m²

IBW: 52 kg

Underweight Normal Over weight Obesity

Nutritional Status

< 17 17-18.5 > 18.5 – 23 23 – 25 25.1 – 29.9 30 – 39 ≥ 40

Activity Level

Very active Active Moderate worker Sedentary worker Ambulatory bed rest

Lab / Biochemical Test (Blood)	Result	Lab / Biochemical Test (Blood)	Result
<input type="checkbox"/> Blood Glucose (F)	5.69 mmol/dl	<input type="checkbox"/> SBP	160 mmHg
<input type="checkbox"/> Blood Glucose (ABF)	mmol/dl	<input type="checkbox"/> DBP	90 mmHg
<input type="checkbox"/> HbA1c	7.2 %	<input type="checkbox"/> Magnesium	0.6 mmol/l
<input type="checkbox"/> Albumin	g/dl	<input type="checkbox"/> Phosphate	3.9 mmol/l
<input type="checkbox"/> Total Protein	g/dl	<input type="checkbox"/> Calcium	7.9 mmol/l
<input type="checkbox"/> TG	60 mg/dl	<input type="checkbox"/> Potassium	4.1 mmol/l
<input type="checkbox"/> HDL	39 mg/dl	<input type="checkbox"/> Sodium	106 mmol/l
<input type="checkbox"/> LDL	75 mg/dl	<input type="checkbox"/> Serum Chloride	79 mmol/l
<input type="checkbox"/> Total Cholesterol	126 mg/dl	<input type="checkbox"/> Hb	11.7 g/dl
<input type="checkbox"/> BUN	mg/dl	<input type="checkbox"/> Hematocrit	%
<input type="checkbox"/> Creatinine	1.38 mg/dl	<input type="checkbox"/> ESR	mm

<input type="checkbox"/> Urea	39 mg/dl	<input type="checkbox"/> SGOT	IU/I
<input type="checkbox"/> Bilirubin	mmol/dl	<input type="checkbox"/> SGPT	U/I
<input type="checkbox"/> S.TCO2	16 mmol/L	<input type="checkbox"/> Alk.Phos.	SomU/I
<input type="checkbox"/> Amylase	IU/I	<input type="checkbox"/> Others	
<input type="checkbox"/> Bicarbonate	mmol/l	<input type="checkbox"/> Others	
<input type="checkbox"/> Uric Acid	mg/dl	<input type="checkbox"/> Others	

Supplements: Yes No

If yes, Type Vitamins and Minerals Vitamins Minerals

Appetite: Excellent Good Fair Poor

Socioeconomic & Cultural factor:

- Monthly family income : BDT 30,000 /=
- Religion : Islam
- Education : Inter
- Occupation : Own business
- Living status : Middle class
- Rural/Urban : Urban

DIET PLAN (for present condition)

Nutritional status: Normal weight

<input type="checkbox"/> Estimated Energy needs: 1800 kcal	<input type="checkbox"/> Carbohydrate: 240 gm
<input type="checkbox"/> Protein: 60 gm	<input type="checkbox"/> Fat: 32 gm

Restrictions: Yes No

If Yes,

<input type="checkbox"/> Calorie	<input checked="" type="checkbox"/> Fat	<input type="checkbox"/> K
<input checked="" type="checkbox"/> Protein	<input checked="" type="checkbox"/> Cholesterol	<input type="checkbox"/> Mg
<input checked="" type="checkbox"/> Free sugar	<input type="checkbox"/> Na	<input type="checkbox"/> Other

Food List

Food group	Serving	Amount gm	Kcal	Carbohydrate gm	Protein gm	Fat gm

Cereals	10	600	750	150	24	-
Pulses	0	0	0	-	-	-
Fish/Meat/ Egg	3	90	120	-	18	6
Vegetables	8	240	225	40	9.2	-
Milk & Milk product	2	240	200	15	8	16
Fruits	7	210	175	35	2.45	-
Oil	2	30	270	-	-	10
Total	32	1410	1740	240	60.65	32

Menu Planning

Meal	Food	Serving	Amount	
			Household	gm
Breakfast	Ruti	3	3 small& thin	90
	Mixed vegetable	3		
	Egg (boiled)	1	3 cup	90
	Fruits	2	1 medium 2 medium	45 60
Snacks (Mid-morning)	Milk	1	1 cup	125
	Bread	2	2 piece	60
	Rice	3	3 cup	120
	Fish/Meat	2	2 piece	60
	Vegetable (mixed)	2	2 cup	60

Lunch	Fruits (apple/banana)	1	1 medium	30
Snacks (Afternoon)	Sugar-free yogurt	1	1 cup	90
	Fruits (banana)	2	2 medium	50
	Soup	2	1,1/2 cup	120
Dinner	Ruti	3	3 small	90
	Meat/Egg/Fish	1	1 piece	30
	Vegetables	3	3 cup	90
	Fruits (apple)	2	2 small	60
Bed-time	Milk	1	1 cup	125
	Bread	1	1 piece	30

Total cooking oil: 2 Table spoon

Advice /Recommendation for Patients

Foods to be avoided	Moderate to eat	Foods permitted
Any kinds of beans are avoided.	Fried items, tea, coffee, extra sugars	Vegetables, fruits, milk, cereals

Other Dietary Guidelines

1. Always follow the diet chart and take food in time.
2. Don't exclude or include any of the foods items from the diet chart.
3. Don't take any types of extra sugars, molasses in making of juices or any other foods. Like-jam, pastry, soft-drinks, sweets.
4. Whole grain rice, wheat, brown rice, fruits with peel can help to increase the blood glucose level slowly. So, these food items must have to be consumed in daily basis.
During fever, appetite is loss. So, foods can be consumes 5-6 times little by little.

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Year: 2021

Case Study No: 02

Date: 30.11.21

Information about Patient

- a) Name : Rahat Hossain
- b) Address : Mirjapur
- c) Name of the Hospital : Birdem General Hospital
- d) Admission Date : 26.11.21
- e) Reason of admission : Uncontrolled blood sugar, Electrolysis imbalance
- f) Word No : 114
- g) Bed No : 1399
- h) Health Condition : Weakness, right,DM shoulder pain
- i) Mental status : Stable

Anthropometric parameters

Age: 64 years **Sex:** Male **Weight:** 66 kg **Height:** 165 cm **BMI:** 24.2 kg/m²

IBW: 63 kg

Underweight Normal Over weight Obesity

Nutritional Status

< 17 17-18.5 > 18.5 – 23 23 – 25 25.1 – 29.9 30 – 39 ≥ 40

Activity Level

Very active Active Moderate worker Sedentary worker Ambulatory bed rest

Lab / Biochemical Test (Blood)	Result	Lab / Biochemical Test (Blood)	Result
<input type="checkbox"/> Blood Glucose (F)	mmol/dl	<input type="checkbox"/> SBP	120 mmHg
<input type="checkbox"/> Blood Glucose (ABF)	mmol/dl	<input type="checkbox"/> DBP	70 mmHg
<input type="checkbox"/> HbA1c	%	<input type="checkbox"/> Magnesium	mmol/l
<input type="checkbox"/> Albumin	g/dl	<input type="checkbox"/> Phosphate	39 mmol/l
<input type="checkbox"/> Total Protein	g/dl	<input type="checkbox"/> Calcium	7.9 mmol/l
<input type="checkbox"/> TG	mg/dl	<input type="checkbox"/> Potassium	3.5 mmol/l
<input type="checkbox"/> HDL	mg/dl	<input type="checkbox"/> Sodium	135 mmol/l
<input type="checkbox"/> LDL	mg/dl	<input type="checkbox"/> Serum Chloride	104 mmol/l
<input type="checkbox"/> Total Cholesterol	mg/dl	<input type="checkbox"/> Hb	7.6 g/dl
<input type="checkbox"/> BUN	mg/dl	<input type="checkbox"/> Hematocrit	23.5 %
<input type="checkbox"/> Creatinine	1.2 mg/dl	<input type="checkbox"/> ESR	mm
<input type="checkbox"/> Urea	mg/dl	<input type="checkbox"/> SGOT	IU/I
<input type="checkbox"/> Bilirubin	mmol/dl	<input type="checkbox"/> SGPT	U/I
<input type="checkbox"/> S.TCO ₂	20 mmol/L	<input type="checkbox"/> Alk.Phos.	SomU/I
<input type="checkbox"/> Amylase	IU/I	<input type="checkbox"/> Others	
<input type="checkbox"/> Bicarbonate	mmol/l	<input type="checkbox"/> Others	
<input type="checkbox"/> Uric Acid	mg/dl	<input type="checkbox"/> Others	

Supplements: Yes No

If yes, Type Vitamins and Minerals Vitamins Minerals

Appetite: Excellent Good Fair Poor

Socioeconomic & Cultural factor:

- Monthly family income : BDT 38,000 /=
- Religion : Islam
- Education : Class 10
- Occupation : Family business
- Living status : Middle class
- Rural/Urban : Rural

DIET PLAN (for present condition)

Nutritional status: Normal

▫ Estimated Energy needs: 1800 kcal	▫ Carbohydrate: 300 gm
▫ Protein: 100 gm	▫ Fat: 32 gm

Restrictions: Yes No

If Yes,

<input type="checkbox"/> Calorie	<input type="checkbox"/> Fat	<input type="checkbox"/> K
<input type="checkbox"/> Protein	<input type="checkbox"/> Cholesterol	<input type="checkbox"/> Mg
<input checked="" type="checkbox"/> Free sugar	<input type="checkbox"/> Na	<input type="checkbox"/> Other

Food List

Food group	Serving	Amount gm	Kcal	Carbohydrate gm	Protein gm	Fat gm
Cereals	8	210	600	120	24	-
Pulses	4	120	500	60	28	4

Fish/Meat/ Egg	3	90	120	-	18	7.5
Vegetables	3	90	75	15	9	-
Milk & Milk product	2.5	292	250	37.5	20	4
Fruits	4	200	240	60	-	-
Oil	3	45	135	-	-	15
Total	26.17	1027	1920	292.5	100	30.5

Menu Planning

Meal	Food	Serving	Amount	
			Household	gm
Breakfast	Thin wheat flour ruti	3	3 Thin & small	90
	Egg	2	2 Medium sized	100
	Mixed vegetables	1	1 cup	90
Snacks (Mid-morning)	Milk (skim milk)	1	1 cup	250
	Chira	1	½ cup	22
	Ripe banana	1	1 small	25
Lunch	Rice	2	1 ½ cup	120
	Meat/fish	1.5	3 small sized	60
	Lentils	2	1 cup	30
	Mixed vegetables	1	1cup	30

Snacks (Afternoon)	Milk	1.5	1 ½ cup	275
	Sugar-free biscuits	2	2 piece	50
Dinner	Rice/ruti	1	1 medium	60
	Meat/fish/egg	1.5	2 medium piece	60
	Lentils	2	2 cup	60
	vegetables	1	1 cup	30
Bed-time	Bread	1	1 piece	25

Total cooking oil: 3 serving cooking oil

Advice /Recommendation for Patients

Foods to be avoided	Moderate to eat	Foods permitted
High sugar contain foods like- soft drinks, juices, jelly must be avoided.	Parata, oil based products	All seasonal vegetables, eggs, meat, lentils, whole wheat flour

Other Dietary Guidelines

1. High protein contain foods like- meat, lentils can increase the protein in the body. So, eat these items for increase the body's desired protein in prescribed amount.
2. Always drink plenty of water and water contains foods. Like- coconut water, soup etc. which can help to hydrate the body all day long
3. Cheese, butter, fatty meat, deep fry fast-food must have to avoided.
4. Fish, fish oil, plant-based oil like- soybean oil, sesame oil, sunflower oil can have polyunsaturated fatty acid which is good for health. So, these included for good diet.

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Year: 2021

Case Study No: 03

Date: 03.12.21

Information about Patient

a) Name : MD Ibrahim

- b) Address : Gazipur
- c) Name of the Hospital : Birdem General Hospital
- d) Admission Date : 28.11.21
- e) Reason of admission : DM, IHD, foot pain
- f) Word No : 113
- g) Bed No :111
- h) Health Condition : pain in right knee, weakness, right leg swelling
- i) Mental status : Stable

Anthropometric parameters

Age: 65 years Sex: Male Weight: 68 kg Height: 160 cm BMI: 26.6 kg/m²

IBW: 60 kg

Underweight Normal Over weight Obesity

Nutritional Status

< 17 17-18.5 > 18.5 – 23 23 – 25 25.1 – 29.9 30 – 39.9 ≥ 40

Activity Level

Very active Active Moderate worker Sedentary worker Ambulatory bed rest

Lab / Biochemical Test (Blood)	Result	Lab / Biochemical Test (Blood)	Result
<input type="checkbox"/> Blood Glucose (F)	7.4 mmol/L	<input type="checkbox"/> SBP	mmHg
<input type="checkbox"/> Blood Glucose (ABF)	mmol/dl	<input type="checkbox"/> DBP	mmHg
<input type="checkbox"/> HbA1c	%	<input type="checkbox"/> Magnesium	0.9 mmol/l
<input type="checkbox"/> Albumin	31.9 g/dl	<input type="checkbox"/> Phosphate	mmol/l
<input type="checkbox"/> Total Protein	73.5 g/dl	<input type="checkbox"/> Calcium	8.3 mmol/l
<input type="checkbox"/> TG	mg/dl	<input type="checkbox"/> Potassium	4.3 mmol/l
<input type="checkbox"/> HDL	mg/dl	<input type="checkbox"/> Sodium	135 mmol/l
<input type="checkbox"/> LDL	mg/dl	<input type="checkbox"/> Serum Chloride	96 mmol/l
<input type="checkbox"/> Total Cholesterol	mg/dl	<input type="checkbox"/> Hb	10.1 g/dl

▫ BUN	mg/dl	▫ Hematocrit	32.1 %
▫ Creatinine	2.6 mg/dl	▫ ESR	mm
▫ Urea	98 mg/dl	▫ SGOT	27 IU/I
▫ Bilirubin	0.4 mmol/dl	▫ SGPT	21 U/I
▫ S.TCO2	28 mmol/L	▫ Alk.Phos.	200 SomU/I
▫ Amylase	IU/I	▫ Others	
▫ Bicarbonate	mmol/l	▫ Others	
▫ Uric Acid	4.3 mg/dl	▫ Others	

Supplements: Yes No

If yes, Type Vitamins and Minerals Vitamins Minerals

Appetite: Excellent Good Fair Poor

Socioeconomic & Cultural factor:

- Monthly family income : BDT 28,000/=
- Religion : Islam
- Education : Uneducated
- Occupation : Small shop
- Living status : Middle class
- Rural/Urban : Rural

DIET PLAN (for present condition)

Nutritional status: Over weight

▫ Estimated Energy needs: 1600 kcal	▫ Carbohydrate: 245 gm
▫ Protein: 86 gm	▫ Fat: 32 gm

Restrictions: Yes No

If Yes,

<input type="checkbox"/> Calorie	<input type="checkbox"/> Fat	<input type="checkbox"/> K
<input checked="" type="checkbox"/> Protein	<input type="checkbox"/> Cholesterol	<input type="checkbox"/> Mg
<input checked="" type="checkbox"/> Free sugar	<input type="checkbox"/> Na	<input type="checkbox"/> Other

Food List

Food group	Serving	Amount gm	Kcal	Carbohydrate gm	Protein gm	Fat gm
Cereals	9	540	675	135	27	-
Pulses	0	0	0	-	-	-
Fish/Meat/ Egg	5	150	165	-	35	2
Vegetables	4	400	320	20	8	-
Milk & Milk product	2	250	200	30	16	-
Fruits	3	120	180	45	-	-
Oil	2	30	270	-	-	30
Total	25	1490	1810	230	86	32

Menu Planning

Meal	Food	Serving	Amount	
			Household	gm
Breakfast	Whole wheat flour	3	3 medium	90
	Egg	1	1 medium	50
	Vegetable	2	2cup	200
Snacks (Mid-morning)	Milk(low fat)	1	1 cup	60
	Toast biscuit	1	1 medium	30
	Rice	2.5	2 cup	360
	Fish/chicken	2	2 piece	60
	Vegetable	1	1 cup	100

Lunch				
Snacks (Afternoon)	fat-free yogurt	1	½ cup	30
	fruits(seasonal)	3	3 small sized	60
Dinner	Rice/ ruti	2.5	2 cup	90
	Meat/egg/fish	2	2 piece	60
	vegetable	1	1 cup	100
Bed-time	Sugar-free biscuits	1	1 medium size or 2 small sized	30

Total cooking oil: 30 gm of cooking oil

Advice /Recommendation for Patients

Foods to be avoided	Moderate to eat	Foods permitted
All types of beans, lentils, seeds are must be avoided	Extra sugar, salt, oily foods have to be eaten in a limited way.	Whole grains, fruits, vegetables, fish, lean meat.

Other Dietary Guidelines

<ol style="list-style-type: none"> 1. Lean meat, low fat milk or skim milk has to be consumed for better health. 2. Sea fishes have contained lots of PUFA that can increase the good cholesterol in the body. So, these can be included in diet. 3. Always drink plenty of water for hydration of the body.

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DHANMONDI, DHAKA

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Year: 2021

Case Study No: 04

Date:10.12.21

Information about Patient

- a) Name :Khadizaparvin
- b) Address :uttra, Dhaka
- c) Name of the Hospital :Birdem General Hospital
- d) Admission Date :05.12.21

- e) Reason of admission : DM, Urinary problem
 f) Word No : 133
 g) Bed No : 1350
 h) Health Condition : burning sensation during micturition, weakness, leg swelling
 i) Mental status : Normal

Anthropometric parameters

Age: 32 years Sex: Female Weight: 60 kg Height: 146 cm BMI: 28.1 kg/m² IBW: 47 kg

Underweight Normal Over weight Obesity

Nutritional Status

< 17 17-18.5 > 18.5 – 23 23 – 25 25.1 – 29.9 30 – 39 ≥ 40

Activity Level

Very active Active Moderate worker Sedentary worker Ambulatory bed rest

Lab / Biochemical Test (Blood)	Result	Lab / Biochemical Test (Blood)	Result
<input type="checkbox"/> Blood Glucose (F)	7.2 mmol/l	<input type="checkbox"/> SBP	140 mmHg
<input type="checkbox"/> Blood Glucose (ABF)	9.7 mmol/l	<input type="checkbox"/> DBP	90 mmHg
<input type="checkbox"/> HbA1c	%	<input type="checkbox"/> Magnesium	0.6 mmol/l
<input type="checkbox"/> Albumin	32.6 g/dl	<input type="checkbox"/> Phosphate	mmol/l
<input type="checkbox"/> Total Protein	69 g/dl	<input type="checkbox"/> Calcium	7.5 mmol/l
<input type="checkbox"/> TG	mg/dl	<input type="checkbox"/> Potassium	4.8 mmol/l
<input type="checkbox"/> HDL	mg/dl	<input type="checkbox"/> Sodium	133 mmol/l
<input type="checkbox"/> LDL	mg/dl	<input type="checkbox"/> Serum Chloride	103 mmol/l
<input type="checkbox"/> Total Cholesterol	mg/dl	<input type="checkbox"/> Hb	7.6 g/dl
<input type="checkbox"/> BUN	mg/dl	<input type="checkbox"/> Hematocrit	24.1 %
<input type="checkbox"/> Creatinine	8 mg/dl	<input type="checkbox"/> ESR	mm
<input type="checkbox"/> Urea	128 mg/dl	<input type="checkbox"/> SGOT	IU/I
<input type="checkbox"/> Bilirubin	mmol/dl	<input type="checkbox"/> SGPT	U/I
<input type="checkbox"/> S.TCO ₂	20 mmol/l	<input type="checkbox"/> Alk.Phos.	5 SomU/I
<input type="checkbox"/> Amylase	IU/I	<input type="checkbox"/> Others	

<input type="checkbox"/> Bicarbonate	mmol/l	<input type="checkbox"/> Others	
<input type="checkbox"/> Uric Acid	mg/dl	<input type="checkbox"/> Others	

Supplements: Yes No

If yes, Type Vitamins and Minerals Vitamins Minerals

Appetite: Excellent Good Fair Poor

Socioeconomic & Cultural factor:

- Money Coming in Each Month: BDT 32,000/=
- Religion : Islam
- Education : SSC
- Occupation : Housewife
- Living status : Middle class
- Rural/Urban : Urban

DIET PLAN (for present condition)

Nutritional status: Over weight

<input type="checkbox"/> Estimated Energy needs: 1200 kcal	<input type="checkbox"/> Carbohydrate: 180 gm
<input type="checkbox"/> Protein: 50	<input type="checkbox"/> Fat: 30

Restrictions: Yes No

If Yes,

<input checked="" type="checkbox"/> Calorie	<input checked="" type="checkbox"/> Fat	<input type="checkbox"/> K
<input checked="" type="checkbox"/> Protein	<input checked="" type="checkbox"/> Cholesterol	<input type="checkbox"/> Mg
<input checked="" type="checkbox"/> Free sugar	<input type="checkbox"/> Na	<input type="checkbox"/> Other

Food List

Food group	Serving	Amount gm	Kcal	Carbohydrate gm	Protein gm	Fat gm

Cereals	7	260	525	105	16.8	-
Pulses	0	0	0	-	-	-
Fish/Meat/ Egg	3	90	120	-	18	7.5
Vegetables	6	180	150	30	6	-
Milk & Milk product	2	250	100	12	8	4
Fruits	4	100	100	20	1.4	-
Oil	1	15	135	-	-	15
Total	23	895	1130	167	50.2	26.5

Menu Planning

Meal	Food	Serving	Amount	
			Household	gm
Breakfast	Whole grain roti	2	2 small	60
	Egg	1	1 medium	50
	Vegetable	2	1 cup	60
Snacks (Mid-morning)	Milk(skim)	1	1 cup	125
	Biscuits	2	2 small	20
	Fruits(apple)	2	2 small	90
Lunch	Rice	2	1 ½ cup	60
	Fish/chicken	2	2 small	60
	Mixed vegetables	1	pieces 1 cup	60

Snacks (Afternoon)	Milk(skim)	1	1 cup	125
	Puffed rice	1	1 cup	22
	Fruits (sour)	2	8-10 piece	100
Dinner	Ruti	1	1 small	30
	Fish	1	1 piece	30
	Mixed vegetables	1	1 cup	60
Bed-time	Bread (sugar free)	1	1 slice	30

Three tablespoons of oil is the total amount needed for cooking.

Advice /Recommendation for Patients

Foods to be avoided	Moderate to eat	Foods permitted
Beans, seeds, lentils, extra sugar, soft drinks, oily foods, fast-foods.	Egg, meat, oil, milk	Green vegetables, fruits, whole grain rice, flour

Other Dietary Guidelines

<ol style="list-style-type: none"> 1. Follow a diet chart and eat regularly within its guidelines 2. Secondly, try to work out or walk for at least half an hour every day. 3. To keep an eye on blood sugar levels at all times. 4. Never discontinue taking oral diabetic medication or insulin without first talking to your doctor.
