



Daffodil
International
University

Internship Report

On

Study on Nutritional status and diet chart for burn patients

Supervised by :

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Submitted by

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ID: 173 – 34 – 698

Department of Nutrition and Food Engineering

Daffodil International University

Date of Submission: 20-04-2022

Letter of Transmittal

Date: 13-04-2022

To

Head

Department of Nutrition & Food Engineering

Faculty of Allied Health Science

Daffodil International Assistant University

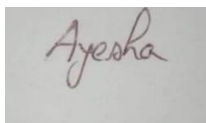
Subject: Submission of Internship Report.

Dear Sir,

With great pleasure, I submit my internship report on “Burn patients at **SHNIBPS** hospital”, Which is a part of the NFE program curriculum. It is a great achievement to work in SHNIBPS hospital in the Lavender Unit for 30 days, under the supervision of Dr.Tanmoy Prakash Ghosh, MBBS, BCS(Health), MS(Plastic Surgery) Assistant Register, SHNIBPS. I tried my best to learn something from my internship and also worked hard to complete my intern report.

I'd be grateful if you could gather this information and render your valuable opinion. It would be a tremendous honor for me if you found this file useful and educational in gaining a clear perspective on the issue.

Thank you again for your support and patience.



Sincerely Yours,

.....
Miss. Ayesha Siddika

ID: 173-34-698

Department of Nutrition and Food Engineering

Daffodil International University

Letter of Authorization

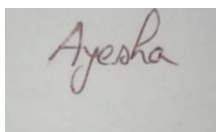
Date:13-04-2022

To
Head
Department of Nutrition and Food Engineering
Faculty of Allied Health Sciences
Daffodil International University

Subject: Declaration regarding the validity of the Internship Report.

I am declaring with complete honesty and truthfulness that the "Internship Report" I have written is not a copy of any other intern report and was entirely created by me.

I'd also like to ensure that the report is based on my internship learnings. In this text, I didn't include any topics that were prejudiced or that I had already mastered. I'd want to reassure you that this report will never be used for another purpose



Yours Sincerely,

.....

Miss. Ayesha Siddika

ID: 173-34-698

Department of Nutrition and Food Engineering
Daffodil International University

Approval Certification

This is to certify that Miss. Ayesha Siddika bearing ID: 173-34-698, Program B.Sc. in Nutrition and Food Engineering is a regular student department of Nutrition & food Engineering Faculty of Allied health Science, Daffodil International University. She has successfully completed her Internship program of one month in SHNIBPS (Sheikh Hasina National Institute Of Burn And Plastic Surgery) in Dhaka on “Study On Nutritional Status And Diet Chart For Burn Patients” and completed this report on March 8,2022 under my direct report is worthy of fulfilling the partial requirements of NFE program.



Ms. Fouzia Akter
Assistant Professor and Head
Department of NFE
Faculty of Allied Health Sciences
Daffodil International University

Supervisor
Ms. Effat Ara Jahan
Senior Lecturer
Department of NFE
Daffodil International University

ACKNOWLEDGEMENT

Firstly, I evince our deepest thanks and gratefulness to Almighty Allah for his heavenly blessing that makes us possible to complete the final year internship successfully.

I would like to express my gratitude and thanks to my Honorable Head, Ms. Fouzia Akter, Department of Nutrition and Food Engineering, and also Supervisor Ms.Effat Ara Jahan for helpful suggestions, support, and encouragement during this work.

My honest gratitude is going to my internship supervisor Dr.Tanmoy Prakash Ghosh, MBBS, BCS(Health), MS(Plastic Surgery) Assistant Register, SHNIBPS hospital for her right guidance and recommendation, which made the take a look at achievement.

Finally, I would really like to thank all of the faculty and mentors during my 4 years bachelor's degree in NFE. All of this assisted me in gaining a better understanding of the current world and overcoming any challenges that were thrown my way.

The knowledge I got from the internship program will undoubtedly benefit me in my career.

SUMMARY

This internship at SHNIBPS Hospital was well-organized by the government and provided me with valuable exposure.

I am pleased and satisfied that I have gained new knowledge, concepts, and abilities and that I have accomplished many of my learning objectives. I had been given inner works and responsibilities completed by way of a medical and clinical nutritionist. This internship is also very valuable and good for determining what my strengths are and what my weaknesses are. This opportunity allows me to determine what talents and activities to analyze practically and perform the understanding I need to obtain and improve in myself in the future.

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Chapter 1
Introduction

1.1 Introduction

One of the most painful incidents is a severe burn. Burns that are more than 15-20% of the total body surface area (TBSA) induce systemic problems, including strong stress reactions, impaired immunity, and considerable fluid redistribution[1,2,3]. More than half of all burns, especially in youngsters and the elderly, are fatal. Burns on the face and respiratory tract are the most severe, and chemical and electrical burns are more difficult to treat. Simple redness of the epidermis occurs with a first-degree burn. Redness and blistering appear in a second-degree burn.

Every year, around 3,000 people in Bangladesh die as a result of burns. During the winter, all burn deaths become more common.[4]

To repair and deposit lean tissues, update fat loss, repair water loss, and preserve body characteristics, burn victims require a wide variety of calories and protein. The recovery system, weight, and immune system will all suffer if sufficient nutrition is not provided.

This major advancement in burn survival can be ascribed to a number of factors, one of which is the invention and deployment of advanced nutritional assistance techniques that boost host immune systems and improve burn wound regeneration.

Although immune and inflammatory defects in burn patients are multifactorial, the patient's nutritional status is a critical factor in their ability to avoid an infectious mission, and recent evidence suggests that immune and inflammatory structures can be modulated with the use of a specific nutritional support method.[5]

1.2 Origin of the report

The internship Program at Daffodil International University is a Graduation requirement for NFE students. This study is a partial requirement of the Internship program of the NFE curriculum at the Daffodil International University. The main purpose of the internship is to get the student exposed to the job world. The perfect condition between theory and practice is of paramount importance in the context of better education in the world nowadays. The internship program brings a student closer to the real-life situation and thereby helps to launch a career with some prior experience.

This report is the result of one month long internship program conducted in SHNIBPS hospital. This was assigned by the organizational supervisor Dr.Tanmoy Prakash Ghosh and was approved by the faculty supervisor Ms. Effat Ara Jahan.

1.3 Objective of the report

The initial objective of preparing this report is to fulfill the requirement of the B.sc in Nutrition & Food Engineering program. The objectives are:

- To Calculate a burn patient's nutrient requirements.
- To learn about the macronutrient and micronutrient requirements for burn patients.
- To determine the calorie requirements of burn patients.
- Relate the theoretical knowledge with the real workplace.

Chapter 2

The Organization

2.1 Historical background of SHNIBPS hospital

Sheikh Hasina National Institute of Burn and Plastic Surgery hospital is situated at 63 ,A H M Kamruzzaman Sharani, Chankharpul, Dhaka , Bangladesh. This hospital is dedicated to burn and plastic surgery. Prof. Dr. Mohammad Shahidullah, Bangladesh's first plastic healthcare professional, established the states' first burn center with six beds in Dhaka Medical College Hospital in 1986. Under the direction of Dr. Samanta Lal Sen, the bed count was extended to 50 in 2003. The bed count was eventually expanded to 100.

The institute's foundation stone was set on April 6, 2016, by Sheikh Hasina. On October 24, 2018, she also officially opened the hospital. It officially began operations on July 4, 2019. The facility includes 500 beds, 22 ICU beds, and 22 HDU beds. It has 12 operating rooms and a post-operative unit.

it is regarded as the most important burn and plastic surgical care in the world. it is prepared of providing dedicated and one of remedies for burning sufferers and also ensure health care offering for the mass people of Bangladesh.[6]

2.2 Mission

The undertaking of the Burn health facility isn't only to store lives, but it's also to improve the affected person's excellent lifestyle, helping to the most stage of the function and the activity in society. Since the medical institution is established, it has treated hundreds of inpatients and outpatients.

2.3 Vision

The burn unit works hard to provide care of acutely burned patients and support their households in an atmosphere of love, kindness, tolerance, and compassion. All humans are provided with less expensive health care services.

2.4 Overview of Burn unit

Acute, persistent, and recovering burn patients are all treated and rehabilitated inside the Burn Unit. A crew of pretty professional scientific, nursing, and aid employees gives a complete multi-disciplinary approach to burn care at Burn Unit. The important intention of burn center care is to not simplest store the patient's life, but additionally to go back him or her to the exceptional viable level of social, mental, and vocational features.

2.5 Role in outbreaks:

The hospital facility turned into hired as an extension unit of Dhaka Medical College Hospital in the course of the Dengue outbreak in 2019 to accommodate a high wide variety of dengue patients, further to its everyday activities. In conjunction with Dhaka Medical College Hospital, this hospital served as a COVID-19 remedy center in 2020.[6]

2.6 Departments of SHNIBPS hospital

2.6.1 OPD

OPD is a wing of the medical institution wherein the patient is to find consultation with a medical doctor or a consultant to discuss the health issues. The outpatient department of a hospital provides diagnosis and care for patients that do not need to stay overnight.

2.6.2 HDU

High Dependency Unit(HDU)is placed beside the ICU department, which helps the short and efficient transfer of sufferers and it has a single bed. The SHNIBPS hospital unit is to offer the finest care to burn-injured patient utilizing the competencies of a multidisciplinary team from the extreme to the rehabilitative section of burn injury.

2.6.3 ICU

The Trauma and Burn Intensive Care Unit(ICU) takes essential care of trauma and burn sufferers requiring extensive therapeutic interventions because of injury. Modern and well equipment has in the ICU of this SHNIBPS hospital. Experienced doctors and properly-trained nurses are working inside the ICU.

2.6.4 Emergency unit

The emergency unit is very important for SHNIBPS hospital. The emergency unit is normally intended for the instant medical attention and resuscitation of critically ill sufferers.SHNIBPS hospital emergency branch's goal is to offer good care as successfully as feasible.

2.6.5 Kitchen

The kitchen of SHNIBPS hospital is very big and clean. The staff of the kitchen work clearly. They keep hygiene when they cook for patients and service to the patients.

Chapter 3

About burn patients and Nutritional support

3.1 About burn patients

Burns and trauma are the main cause of accidental death and disability among kids and teenagers. Burn sufferers go through many physiological changes skilled via surgical patients. The amount of trauma suffered by sufferers with burns is dependent upon the form of burn (chemical, electrical, and thermal), extent (both intensity and vicinity) of the burn damage, and their age. Together those factors determine the chance of mortality. Second- and third-degree burns over 15 percent of the whole body surface can bring about burn shock because of the amount of fluid loss. Burns of greater than 50 percent of the body surface are often deadly, in particular in children and the elderly. The purpose of treatment is to save from infection, promote restoration, and provide for the body's extended wishes for nutrients and fluids. The therapy needs to maintain until intact skin is completed and metabolism is normal. Badly burned sufferers are extremely unlucky. They go through great pain and sometimes then face permanent maiming.[7]

3.2 TYPES OF BURNS

Various types of burn patients are admitted to the SHNIBPS Hospital. Thermal burn, electrical burn, flame burn, and chemical burn are only a few of them. The majority of the patients have suffered from flame and electrical burns.

3.3 Nutritional support for burn patients

a)Carbohydrates

Carbohydrates are the popular strength supply for burn sufferers as high-carbohydrate diets cell wound recovery and impart a protein-sparing effect[8]. Carbohydrate needs 60% to 70% of total energy. Carbohydrates are an exceptionally vital part of the burn patient's diet plan; but, there is a maximum price at which glucose can be oxidized and utilized in seriously burned sufferers (7 g/kg/day)[9].This charge may be much less than the caloric amount needed to prevent lean body mass loss, which means severely burned sufferers might also have more glucose needs than can be competently given. If glucose is given in over what may be applied, it results in hyperglycemia, the conversion of glucose to fat, glucosuria, dehydration, and respiration troubles[10].

b)Protein

Protein is needed to fulfill ongoing needs and deliver substrate for wound restoration, and immune characteristics, and limit the lack of lean frame mass[11]. Currently, protein necessities are expected as 1.5–2.0 g/kg/day for burned adults and 2.5–4.0 g/kg/day for burned kids. Protein needs as 15% to 20% of total energy[12].

c)Fat

Fat is a required nutrient to save vital fatty acid deficiency, but it is endorsed as most effective in limited quantities[13]. The improved beta-oxidation of fat presents fuel at some stage in the hypermetabolic state; however, most effective 30% of the loose fatty acids are degraded and the relaxation undergoes reesterification and accumulates in the liver[14]. Because of these consequences, many authorities suggest very low-fat diets (<15% of regular energy) in burn patients in which no greater than 15% of energy comes from lipids.[15]

d)Micronutrients

The metabolism of “micronutrients” (nutrients and hint elements) is useful after burn as they're crucial in immunity and wound recovery. Decreased ranges of vitamins A, D, C, and Fe, Se, Zn, and Cu had been located to negatively impact wound recuperation and skeletal and immune characteristic. So burn patients need a proper amount of micronutrients.[16]

e)NG Tube Feeding

Nasogastric (NG) feeding is in which a slim feeding tube is located through the nostril down into the belly. The tube is used to offer fluids, drug treatments, and liquid food entire with nutrients proper away into the belly. It is important for severe burn patients.

SHNIBPS hospital has provided that NG tube feeding formula. Here is 3 formula -

Formula 1

Food item	Quantity	Kcal
Milk	167 ml	70
Sugar	2 teaspoon	30
Oil	1 teaspoon	40
Egg	2 pcs	160
Total		300

Formula 2

Food item	Quantity	Kcal
Barley	200 ml	3
Boneless chicken	95gm	157
Mixed vegetables	100gm	60
Oil	2 teaspoon	80
Total		300

Formula 3

Food item	Quantity	kcal
Milk	85 ml	50
Barley	50 ml	02
Boneless chicken	70 gm	113
Oil	1 teaspoon	40
Sugar	1 teaspoon	15
Egg	1 pcs	80
Total		300

This 3 NG feeding formula is utilized in the hospital. Doctors prescribe ng feeding to patients who are unable to eat themselves. Doctors recommend taking a 50 mL feed every 2 hours for a total of 10 feeds.

3.5 Caloric requirements

The primary intention of dietary help in burn sufferers is to meet the increased caloric necessities as a result of the hypermetabolic state while heading off overfeeding. Numerous formulas to estimate the caloric desires of burn victims have been developed and used all through the years and The formula is the Curreri formula[17]. This formula calculates the calorie requirement. SHNIBPS hospital use this formula for total calorie count. The formula is -

In the case of

Adult: $(25\text{kcal} \times \text{wt .in kg}) + (40 \times \% \text{TBSA burn})$

In the case of

Child : $(60\text{kcal} \times \text{wt .in kg}) + (35 \times \% \text{TBSA burn})$

3.6 Counselling section of Burn Patients :

In the counseling segment, my supervisor, Dr. Tanmoy Prakash Ghosh, assists. Sir teaches me how to counsel the patients and the way to grant suggestions to them.

- ✓ I take their patient's information: Name, Age , Height ,Weight, Address, Parent's name.
- ✓ I review the clinical report earlier than counseling.
- ✓ I ask questions and supplied the member of the family and affected man or woman the opportunity to ask questions.
- ✓ I Listen efficiently to their issues and solve them.

Chapter 4

Report and Diet chart of 3 burn patients

4.1 Case study no: 1

Date: 5/10/2021

1. Information about patients

- a) Name : Alpona
- b) Address : Gazipur, Dhaka
- c) Name of the hospital :SHNIBPS
- d) Admission date :5/10/2021
- e) Reason of admission : 30% Flame Burn
- f) Unit name : Lavender
- g) Word no : 701
- h) Bed : 13
- i) Anthropometric Parameters :
- j) Age: 9yr weight: 26 kg Height: 121.92cm
- k) BMI: 17.75 kg/m²

Underweight ✓	Normal
Overweight	Obesity

2.Nutritional Status

- < 18✓
- 18.5-24.9
- 25.0-29.9
- 30.0-34.9
- 35.0- 39.9
- >40

The patient is underweight and the doctor recommended a high protein diet.

3.Activity level

- Active
- Very Active
- Moderate worker
- Sedentary worker
- Confined to bed✓

The patient is a 30% flame burn and she can not move.

4. Biochemical test

Investigations	Result	Unit	References values
Serum creatinine	0.50	mg/dL	Male: 0.72-1.25 Female: 0.57-1.11
s. albumin	3.94	g/dL	3.5-5
s. electrolytes			
s. sodium(Na+)	138	mmol/L	135-146
s.potasium(K+)	4.21	mmol/L	3.5-5
s.chloride	104	mmol/L	95-107

5 . Diet Nature: 30% flame burn patient diet

The condition that currently exists:	
<input type="checkbox"/> Nausea	<input type="checkbox"/> Swallowing difficulties
<input type="checkbox"/> Anemia✓	<input type="checkbox"/> Jaundice
<input type="checkbox"/> Diarrhea	<input type="checkbox"/> Dehydration✓
<input type="checkbox"/> Oedema✓	

6.DIET PLAN (for present condition):

Patients: children	Carbohydrate : 350.625 g/day
Total energy needs: 2550kcal /day	Protein :129 g/day
	Fat : 71 g/day
Micronutrient requirement= 1 multivitamin daily (for vitamin A, C & zinc sulphate)	

7.Restrictions:

- yes
- no✓

If yes

<input type="checkbox"/> Calorie	<input type="checkbox"/> Sugar	<input type="checkbox"/> Mg
<input type="checkbox"/> Protein	<input type="checkbox"/> NA	<input type="checkbox"/> Other
<input type="checkbox"/> Fat	<input type="checkbox"/> K	

8. Food Exchange List:

Doctors are recommended a high protein diet plan. Dr. Tanmoy Prakash Ghosh, my supervisor, assisted me in making a meal list. He instructed me on which foods to add to the burn patient's food list and make a menu planning chart.

Food items	Serving size	CHO	CHON	FAT	KCAL
Cereals	9	135	27	9	720
Milk or milk products	3	45	24	24	480
Fruits	4	60	-	-	240
Dal	2	30	14	6	250
Meat/fish/egg	8	-	56	24	360
Fruit juice	1	15	-	-	60
Nuts	1	-	-	5	45
Payesh/shemai	1	-	-	-	283
Biscuit	2	30	4	-	140
Starchy vegetables	2	30	6	-	160
Oil	5	-	-	25	225
Subtotal		345	131	93	2963

9.Menu Planning

Meal	Food	Serving	Description	Kcal
Breakfast	Cereals	3	Bread - 3 (small size)	610
	Fish / Meat / Egg	2	Egg – 2 boiled(whole)	
	Fruit	2	Baby banana-2	
	Milk	1	Milk -1 cup (whole)	
Mid-morning	Nuts	1	Peanuts -10 nuts	265
	Orange juice	1	Orange juice-1/2 cup	
	Biscuits	2	Biscuits-2 pcs	
Lunch	Cereals	3	Rice- 3 cup	535
	Fish/Meat/Egg	2	Chicken-2 oz	
	Pulses	1	Lentils-1/2 cup	
	Veg(starchy)	1	Potato- 1or ½ cup	

Mid-afternoon	Fish/Meat/Egg	2	Egg-2 boiled(whole)	493
	Fruits	2	Baby banana-2	
	Payesh/shemai	1	Shemai with milk-1/2 cup	
Dinner	Cereals	3	Rice- 3 cup	535
	Pulses	1	Lentils- ½ cup	
	Fish/meat/egg	2	Fish-2 medium pcs	
	Veg(starchy)	1	Pumpkin- 1 cup	
Bedtime	Milk and milk products	1	Milk- 1cup (whole)	160

❖ Total Cooking oil: 5

4.2 Case study no: 2

Date: 5/10/2021

1.Information about patients

- a) Name : Ismail
- b) Address :Narsingdi
- c) Name of the hospital :SHNIBPS
- d) Admission date : 18/11/2021
- e) Reason of admission : 25% Flame Burn
- f) Unit name : Lavender
- g) Word no : 701
- h) Bed no : 03
- i) Anthropometric Parameters:
- j) Age: 12 yr weight: 30 kg Height:139.7 cm
- k) BMI: 15.38 kg/m²

Underweight✓	Normal
Overweight	Obesity

2.Nutritional Status

- < 18✓
- 18.5-24.9
- 25.0-29.9
- 30.0-34.9
- 35.0- 39.9
- >40

The patient is underweight and the doctor recommended a high protein diet.

3.Activity level

- Active
- Very Active
- Moderate worker
- Sedentary worker
- Confined to bed✓

The patient is a 25% flame burn and he can not move.

4. Biochemical test

Investigations	Result	Unit	References values
Serum Glucose(Random)	7.8	mmol/L	3.5-7.8
Serum creatinine	0.95	mg/dL	Male: 0.72-1.25 Female: 0.57-1.11
s. albumin	3.01	g/dL	3.5-5.3
S. Electrolytes			
s. sodium(Na+)	135	mmol/L	135-148
s.potassium(K+)	4.79	mmol/L	3.5-5.8
s.chloride	105	mmol/L	95-107

5 . Diet Nature: 25 % flame burn patient diet

The condition that currently exists:

<input type="checkbox"/> Nausea	<input type="checkbox"/> Swallowing difficulties
<input type="checkbox"/> Anemia	<input type="checkbox"/> Jaundice
<input type="checkbox"/> Diarrhea	<input type="checkbox"/> Dehydration
<input type="checkbox"/> Oedema	

6.DIET PLAN (for present condition)

Patients: children	Carbohydrate : 367.81 g/day
Total energy needs: 2675 kcal /day	Protein :135.25 g/day
	Fat : 78.30 g/day
Micronutrient requirement= 1 multivitamin daily (for vitamin A, C & zinc sulphate)	

7.Restrictions

- yes
- no✓

If yes

<input type="checkbox"/> Sugar	<input type="checkbox"/> Mg
<input type="checkbox"/> NA	<input type="checkbox"/> Other
<input type="checkbox"/> K	

8. Food Exchange List

Doctors are recommended a high protein diet plan. Dr. Tanmoy Prakash Ghosh, my supervisor, assisted me in making a meal list. He instructed me on which foods to add to the burn patient's food list and make a menu planning chart.

Food items	Serving size	CHO	CHON	FAT	KCAL
Cereals	12	180	36	12	960
Milk or milk products	2	30	16	16	320
Fruits	4	60	-	-	240
Dal	2	30	14	6	250
Meat/fish/egg	7	-	49	21	315
Fruit juice	1	15	-	-	60
Nuts	1	-	-	5	45
Yogurt	1	15	8	8	160
Cakes	2	-	-	-	300
Starchy vegetables	2	30	6	-	160
Oil	6	-	-	30	270
Subtotal		360	129	98	3035

9.Menu Planning

Meal	Food	Serving	Description	Kcal
Breakfast	Cereals	4	Bread - 4 (small size)	690
	Fish / Meat / Egg	2	Egg – 2 boiled(whole)	
	Fruit	2	Baby banana-2	
	Milk	1	Milk -1 cup (whole)	
Mid-morning	Nuts	1	Peanuts -10 nuts	405
	Orange juice	1	Orange juice-1/2 cup	
	Cakes	2	Cakes -2 pcs	
Lunch	Cereals	3	Rice- 3 cup	535
	Fish/Meat/Egg	2	Chicken-2 oz	
	Pulses	1	Lentils-1/2 cup	
	Veg(starchy)	1	Sweet Potato- ½ cup	

Mid-afternoon	Fish/Meat/Egg	2	Egg-2 boiled(whole)	370
	Yogurt	1	Yogurt -1 cup	
	Bread	2	Bread – 2 pcs (small size)	
Dinner	Cereals	3	Rice- 3 cup	490
	Pulses	1	Lentils- ½ cup	
	Fish/meat/egg	1	Fish-1 medium pcs	
	Veg(starchy)	1	Pumpkin- 1 cup	
Bedtime	Milk and milk products	1	Milk- 1cup (whole)	160

❖ Total cooking oil: 6

10. Advice / Recommendation for Burn Patient

Doctors have advised these types of food are consumed by burn patients.

- Should be Used a high-calorie, excessive-protein diet with five–to six small food and snacks every day.
- Should be the use of fruit juices (cranberry, grapefruit, prune, or orange juice) to make certain appropriate potassium resources.
- For burn patients should be provided extra nutrients and minerals -- especially iron, zinc, selenium, and vitamins A, D, and C.
- Vitamins should be consumed at twice the RDA for children until they have recovered.
- The importance of essential fatty acids is to prevent infection and enhance wound healing. should be consumed Omega-3 fatty acids aid to maintain a healthy protein balance in the body and reduce inflammation.

4.3 Case study no:03

Date: 5/10/2021

1. Information about patients

- a) Name : Irin
- b) Address : Barishal
- c) Name of the hospital : SHNIBPS
- d) Admission date : 15/11/2021
- e) Reason of admission : 60% Flame Burn
- f) Unit name : Lavender
- g) Word no : 701
- h) Bed no : 08
- i) Anthropometric Parameters:
- j) Age: 28 yr weight: 43 kg Height: 154.94 cm
- k) BMI: 17.9 kg/m²

Underweight ✓	Normal
Overweight	Obesity

2.Nutritional Status

- < 18✓
- 18.5-24.9
- 25.0-29.9
- 30.0-34.9
- 35.0- 39.9
- >40

The patient is underweight and the doctor recommended a high protein diet.

3.Activity level

- Active
- Very Active
- Moderate worker
- Sedentary worker
- Confined to bed✓

4. Biochemical test

Investigations	Result	Unit	References values
Serum Glucose(Random)	6.6	mmol/L	4.4-7.8
Serum creatinine	3.86	mg/dL	Male: 0.72-1.25 Female: 0.57-1.11
s. albumin	1.51	g/dL	3.5-5.3
S. Electrolytes			
s. sodium(Na+)	131	mmol/L	135-148
s.potasium(K+)	5.40	mmol/L	3.5-5.8
s.chloride	105	mmol/L	95-107

6. DIET PLAN (for present condition)

Patients : Female

Total energy needs : 3475 kcal /day

Diet : High protein diet

NG tube feeding 200ml 2 hourly

Total 10 feeds/day

7. Restrictions:

yes

no

If yes

<input type="checkbox"/> Calorie	<input type="checkbox"/> Sugar	<input type="checkbox"/> Mg
<input type="checkbox"/> Protein	<input type="checkbox"/> NA	<input type="checkbox"/> Other
<input type="checkbox"/> Fat	<input type="checkbox"/> K	

8. Ng tube feeding menu planning:

This patient is unable to eat orally. NG feeding is advised by doctors. This feeding has a caloric content of 300 kcal. The hospital supplies this formula.

200 ml feeding contains 300 kcal

So, 10 times feed $(300 \times 10) = 3000$ kcal

Food item	Quantity	Kcal
Milk	167 ml	70
Sugar	2 tea spoon	30
Oil	1 tea spoon	40
Egg	2 pcs	160
Total		300



Chapter 5
Conclusion

5.1 Conclusion

In Bangladesh, the SHNIBPS hospital is a well-known organization. It provided me with to analyze a variety of topics and useful reveal for further study. During my internship, I learned how to use counseling to identify the true cause of a patient's condition. My bachelor's degree has provided me with information from my academic studies as well as practical experience. I also learned to prepare a proper diet chart for patients through observing laboratory data, blood pressure, % of burn , complications, social economic and family history of patients. This internship program enriched my knowledge about clinical nutrition.

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