Clinical practice internship report

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June 2012

Advisor’s Signature

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Acknowledgments

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I would like to thank you Addis Ababa university food science and nutrition department and Zewuditu, Black lion and St. Paul hospital's administrative and staff members.

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Acronym

AKI- Acute Kidney Injury

BP- Blood Pressure

Crea- Creatinine

CLD-chronic liver disease

DM-diabeties

GERD-gastrointestinal reflex disorder

GDM-gestational diabeties

Hx- History

HAART-higly active retroiral viral treatment

HB-hemoglobin

Kcal- Kilocalories

K-potasum

MBA-megaloblastic anemia

Na-sodium

PR- Pulse rate

PT-Patient

PSC-primery scholories cholongities

RR- Respiration Rate

RVI-retroviral infection

SpO2- Saturation of partial pressure of oxygen

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Section 1

Internship report

1. Objective of the internship

- To have a necessary knowledge skills and attitudes of all dietetic disciplines required to support practice in placement

2. Introduction

During November, I started my Dietetics internship (hospital attachment) at the Black lion hospital pediatrics ward by observation and doing nutritional status assessment with our senior dietetics students

During December 1st, I started at st. Paul hospital internal medicine ward during my stay, things I have accomplished included, screening and identified potential patients from Medical records and self-assessment for dietetic advice and treatment individual patient nutritional assessment and advice.

My stay lasted from end of February –June 2021 at Zewuditu memorial hospital; I started my hospital attachment for different wards such as Internal medicine, Surgical, ICU, gyn&obs, Pediatrics and gyn&obs OPD.

And started from May 2021 –present at TASH diabetic clinic I gave one to one counseling and education for Pediatrics and adult diabetic patients.

3. Activities

Our activities during our stay and clinical rotation at three large hospitals in our country included the following

3.1. Ward activities

During my stay and rotation in 3 specialized hospitals things I have accomplished included,

I. Screening and identifying potential patients from medical record and during ward rounds for dietetic treatment and advice.

- When I do this, I also have faced challenges from the Hospital staff some of the doctors are not cooperative due to work load / lack of understanding of dietary support to their patients.
- To solve the problem, I have repeatedly and patiently discussed with them about my concern how proper nutrition is crucial relates to the disease recovery as well with scientific explanation.
- Unavailability's of weighing scale was also my challenge, I have discussed with the administrative staff but this problem is not solved and it was an issue until the end of my stay.

II. Individual dietetic assessment and intervention

Individual dietetic assessment and intervention based on patients dietetic need then provide nutritional advice and meal plan orally and written form. And also order foods from hospital kitchen for the patients who has not food access

- The challenge was Diet orders were not properly served for the patients, because the hospital doesn't have formal way of Communication between Doctors, nurses, dietitians and kitchen staff on the nutrition care issues regarding patients.
- To solve this problem, we developed food order sheet.
- The other reason Diet orders were not properly served for the patients was Some food items such as milk and egg that are used to make special diets like Bonbie diet are not consistently available due to regular supply.

III. Participating on morning ward rounds and contributing on nutritional advice in needed

IV. Participating on morning Doctors discussion sessions when the nutrition side consultation is required.

V. Mass education for pregnant, DM and GDM mothers

Fig 1: mass counseling at Zewuditu memorial hospita (source from my gallery)

VI. One to one counseling and education for pediatric and adult diabetic patients at TASH diabetic clinic

We were not able to do our dietetics practice at OPD due to un availability of space for us on Zewuditu memorial hospital. Because of this reason our OPD dietetic practice was at Black lion hospital

Fig 2 one to one counseling at TASH Diabetic clinic (source from my gallery)

3.2 Designing and modifying forms

Developing different forms that are used in the clinical practices and working with patients at Zewuditu memorial hospital wards during the clinical practice period and forms included

- Design dietetic assessment and advice sheet
- Follow up sheet
- Dietetic report form for ward notes
- Food order sheet
- Food tracing sheet for patients and care takers
- Ward nutrition assessment questioner adapted and modified from nutrition day website

3.3 Designing education materials on leaflets

During our stay at Zewuditu Memorial Hospital Developing nutrition education leaflets for mothers before and during pregnancy and during lactation, for GDM and DM, about complementary feeding and individual information sheets on specific health conditions and their questions related to their diet to be given for patients on discharge.eg RVI, liver, DM, Hypertension.

3.4 Kitchen

Modified 3 optional special diet on zewuditu memorial Hospital Kitchen.

3.5 Recipe development and Menu idea

Based on Ethiopian food composition table, and nutri survey, I developed 6 High protien&energy feeds then practicing at home and sometimes the hospital kitchen.

- Atmit= 1078kcal ,28.3g protien&1121kcal,30.1g
- Smothie =1317kcal,38.8g protien
- Soup =630kcal, 20.1 protien.
- &soup 738kcal,27gram protien
- Pita =1035.8 kcal,37.6g protien

Also I was provided written menu /education material for all patients except the patients who are suddenly discharges &in surgical ward they discharged soon, so I may not be able to see them again after my 1st assessment.

4. Patient assessment

During my stay at St. Paul hospital, Zewuditu hospital and black lion hospital I was able to assess different patients in different wards.

Out patient	**Inpatient**	**Mass education**
21 (on going)	32	1 (ongoing)
Some of the disease I experienced during practice		
▪ CLD ▪ RVI ▪ DM type 1&2 ▪ GDM ▪ DVT	▪ Stroke(iscemtic&hemorroige) ▪ Hypertension ▪ Cholesterol ▪ SBO+enterocutaneous festula ▪ Necrotizing facitts	▪ CHF ▪ P-TB ▪ Segusidectomy +lavage+Colostomy 2°perforated viscus ▪ Dyspepsia

4.1 Internal Medicine ward

At St. Paul hospital and Zewuditu hospital internal medicine ward I was able to do individual dietetic assessment and provide nutritional advice for patients.

Most of the referrals for nutritional assessment and advice came from my self-assessment during ward rounds and screening from medical cards, rest are from the physicians and nurses.
From the common diagnosis they were admitted was RVI, cardiac disease, DVT, hypertension, liver disease, diabetes, TB, pneumonia, Stroke etc.

4.2 Surgical ward

In surgery ward I was able to assess patients with different cases. The common diagnosis was pre and post-operation admission due to appendicitis, bowel obstruction, and intestinal fistula and perforated GI etc. Some patients also have medical conditions such as DM and hypertension there was one death registered during the time of my stay. The patient who was dead presented here as case report (mini case 2).

4.3 ICU ward

At zewuditu memorial hospital ICU ward I was able to assess patients the common nutritional issue was low energy intake through NG tube.

I was providing modified Atmit and bonbie diet recipe for the family and the hospital kitchen.

4.4 Pediatrics ward

Patients at pediatrics ward most of them were malnourished there was on F75, for very long time without improvment.

The hospital doesn't have pediatric kitchen and the hospital provide only adult foods, so the only thing we could do was educate their parents and caretakers.

The pediatric ward staffs were very welcoming and they are willing to do with a dietitian and they were cooperative.

4.5 Gynecology & obstetrics ward

During my stay at Gyn & obs ward I was able to see, assess and educate GDM mothers.

The problem was the doctors imposed unnecessary food restrictions on patients.

When I was speaking and told them they could eat some types of foods the patients were confused. I was able to solve this problem by educating the patients then gradually the problem solved. And there was a good response from the patients.

5. Learning outcomes of dietetics placement

I. Knowledge

The knowledge of concept and processes related to nutrition and health including diseases and diet,different guidelines and recommendations I had in theory in class,the dietetic placement has helped me to put this knowledge into practcies

I have understood that nutrition care can have a great outcome on improved a patient's health status and nutritional status especially in patients admitted to hospitals as they have higher requirements of energy and nutrients as compared to that of a healthy individual.

II. Skill

The dietetic placement has helped me the nutrition knowledge I gain in theory translate into practice in the hospital, I have gained experience and skill on how to communicate with patients coming from different circumstances, how to design appropriate dietetic care for different type of disease based on patients need, food choice, available food ingredient (Ethiopian foods).

III. Attitude

Eventhough the hospital doesn't have a senior dietitian and nutrition care practice , I was doing the clinical practice with responsibillity and passion so that I was able to work independently and achieve my goals when my supervisor is not around me.

I had the opportunity to show clinical nutrition PhD students about nutrition care processes and how to communicate and approach with the patients in wards

Section 2

Case study

Disease related malnutrition

1. Introduction

This is 50 years old female patient who was an inpatient at medical ward. She lived with her Daughter prior to admission.

She was relatively healthy 2 months back at which time she develops Rt. side tooth ache of a week duration, for this complaint she come to hospital (Dentistry OPD).

And tooth extraction of the Rt. wiper 3rd molar was done, she was discharged with amoxicillin 500mg poTID and metronidezole 250mg po TID but she Tooke amoxicillin 1000mg po TID and metronidazole 250mg po/day for 3 days.

After 3 days she started to develop Rt. Facial and a scalp swelling. For this complaints she come here again (maxillofacial side) and was admitted.

The reason for dietetic referral was loss of appetite and low albumin level.

2. Nutrition care process

2.1 Nutritional assessment

The best effective practice for avoiding hospital mal nutrition is Nutritional assessment. In order to identify individual nutrient deficiencies and determine inflammatory behavior, anthropometric and laboratory markers that can tell apart body composition must be prioritized. (Feferbaum R., 2014)

I. Anthropometry

Both at an individual and population level Anthropometric indicators are useful. this indicators also can be used to assess compromised health and nutritionalstatus at an individual level

This information can be valuable for screening hospitalized patients for interventions and for assessing the response to interventions.

Measurements		**Interpretation**	**Remark**
Weight	46kg		Estimation based on physical appearance compared to the people who know their weight and based on her past weight history.
Height	172cm		Estimation from Hand measurement
BMI	15.2	<18.5 underweight	WHO
MUAC	21 cm	<23 malnourished	WHO

Table 1 Anthropometry measurement

II. Biochemistry

Indicators	Result	**Normal range**
HB	8.1(L)	12-16
Na+	136(N)	135-148
Creatinen	1.49(H)	0.5-0.9
Urea	44.8(N)	10-45
Albumin	0.8 g/dl(L)	3.5g/dl-5.9 g/dl
Cd4 count	272 (L)	500-1500

Table 2 biochemical result

III. Clinical history

Past medical history

She is known RVI patient for the past 10 years otherwise she was relatively healthy

Current medical history

- Known RVI on HAART
- Necrotizing factices on face and scale
- Sever hypoalbuminia 2^0 CLD 2^0 PSC
- Moderate anemia 2^0 MBA
- Epigastria hernia
- AKI 2^0? managed
- Managed wound sepsis

Bp	90/60mmgh(L) (hypotension)
Temperature	36.3 °C
PR	107 beats/min(H)
RR	16 beats/min(N)
SPO4	93%(L)
	03(moderate)
Pain score	

Table 3 vital sign

Over view of the disease and how it affects the nutritional status of the patient

Retro Viral Infection (RVI)

Over 76 million people have been infected with human immunodeficiency virus (HIV), Globally, and contributed more than 35 million deaths since its emergence. Globally by the end of 2018, about 37.9 million people were living with HIV. (UNAIDS, 2017).

The annual number of HIV infected people in Ethiopia, showed decreasing since 2002. Over the past 20 years HIV prevalence rate decreased from 3.3% in 2000 to 0.9% in 2017, and AIDS-related deaths from 83 000 deaths in 2000 to 15 600 in 2017 (HAPCO, 2018).

In 2017adult Ethiopians number of HIV infections was estimated at 722248, growing by 3748 infections from 2016 (Getiye Dejenu Kibre, 2019).

Malnutrition is one of the main complications of HIV infection and a significant factor in disease progression.

HIV causes Nutrient malbsorption and alters metabolism, reduced immune function, increased susceptibility to secondary infections increases energy needs.

Necrotizing fasciitis

It is soft tissue infection it can destroy the tissue in our skin and muscle as well as internal tissue which is the tissue under the skin.

Its incidence in the head and neck region is unusual, the common of reported cases being limited to involvement of neck, commonly from infections of dental or pharyngeal origin. Association of face from NF is rare, which results sever defacement, posturing challenging reconstructive problems. (Maisie L.Shindo MD, 2009)

Fig 3 necrotizing fasciitis (Source medscape.org)

Most commonly caused by an infection with group a streptococcus commonly known as ‘fleshy eating bacteria.

People who have health issues that weaken the immune system are at greater risk of developing infections caused by group A streptococcus.

Symptoms

Vomiting, Nausea, Dizziness, Weakness, Fatigue, Fever

Sever Hypoalbuminia

Happens when the bodies don’t have enough of the protein albumin in your bloodstream.

Albumin is a protein that’s made in liver. The body needs between 3.5-5.9 g/dl albumin

CLD (chronic liver disease)

Liver Cirrhosis is well-defined as diffuse hepatic process characterized by fibrosis and transformation of the normal liver construction into physicallyirregular nodules.

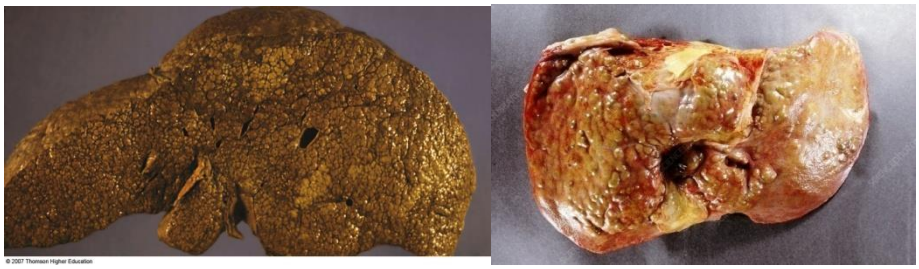

Fig 4 abnormal structure of liver (source medical news today .com)

The progress of liver injury to cirrhosis may occur over several weeks to years. (Blackwell, 2014)

Major functions of the liver

Function	**Examples**
Digestion	Bile acid production
Carbohydrate metabolism	Maintenance of glucose homeostasis Storage of glycogen Gluconeogenesis Mobilization of glucose in response to hypoglycemia
Protein metabolism	Utilization of amino acids for protein synthesis and gluconeogenesis Deamination of amino acids into urea for excretion Regulation of amino acid supply to peripheral tissues
Lipids and lipoproteins	Production of triglycerides and lipoprotein formation Synthesis of phospholipids and cholesterol Synthesis and degradation of non-esterified fatty acids Ketogenesis

Vitamins	Vitamin Storage , B2, B3, B6, B12, K, folate Synthesis of prothrombin factor VII requiring vitamin K Change of tryptophan to nicotinic acid vitamin D Hydroxylation
Detoxification/deactivation	Oxidation of alcohol → acetaldehyde → acetate → CO2 + fatty acids + H2O drugs Deactivation in the cytochrome system Conjugation of steroid hormones for excretion
Excretion	drugs, environmental toxins and heavy metals through bile secretion
Immune function	immune system Adaptive –lymphocyte T and B production Innate immune system Cytokine and inflammatory signaling cell production
Hematological function	haem Synthesis iron metabolism Regulation

Table 4 function of liver

Common sign and symptoms

Ascites, Jaundice (yellowing of eyes and skin), muscle loss, Loss of appetite.

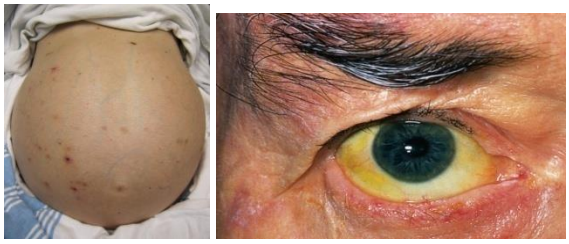

Fig 5-jaundice and ascities(source medical newstoday.com)

PSC (primary sclerosing cholangitis)

Is disease of bile duct, bile ducts carrying the digestive liquid bile from your liver to your small intestine, In PSC inflammation causes scars within the bile ducts.

An immune system reaction to infection or toxin may trigger the disease in people who are genetically predisposed to it.

Sign and symptoms

Fatigue, Weight loss, Enlarged liver and spleen, Fever, Jaundice

Epigastric hernia

Occurs when a weakness in the abdominal muscle lets the tissues of the abdomen to obtrude through the muscle.

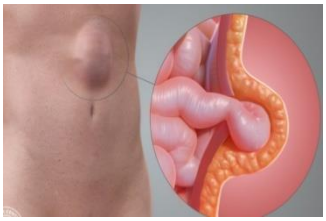

Fig 6-epigastric hernia(sourcemedical newstoday.com)

Symptoms

May not be noticeable unless patient is crying, using to have bowl movement, or another activity that create abdominal pressure.

Medication

Name of medication	Dose	Uses
HAART	300mgTDF,3003te,150mg DTG	Control viral load ,delaying /preventing the onset of symptoms or progression into AIDS
Omeprazole	20mg poBID	Reduce the amount of acid stomach makes .(indigestion, heartburn acid reflex)
Folic acid	5mg po/day	Treatment of MBA
Cobalamine	1mg /week	Used to treat lack of B12 that caused anemia
bisacodyl	5mg po/day	Used to treat constipation /
plasil	10mg IV IID	Treat GERD
Ferrous sulphate	325mgpo/day	Treat and prevent iron deficiency anemia
Multi-vitamin	1tab/day	Vitamin deficiency due to poor diet and illness
Albumin infusion	20%daliuted	Reduce the formation of ascites and oedema
UFH	7500sc BID	Anticoagulant (blood thinner)
Daily Wound care		

Table - 5 medications

IV. Dietary Information

She has 3 main meals and sometimes snack before admitted to the hospital, after admission she was s only taken fluid diet, the food was prepared by her daughter and her sisters.

On the first day assessment she can take only soft diet refers to N. facietes and chewing problem. There was Appetite loss due to sickness and also has early satiety.

She wanted to eat injera, meat, and shiro wot. There is No allergy or intolerance history.

The Doctors recommend high protein diet because she has low albumin level but they did not tell her how much protein she should eat per day and what sources of protein is available as evidenced by care takers interview and also advised salt free diet because she has ascietes and edema as evidenced by interview her doctor.

Her nutritional intake for the past 24 hrs was estimated 230kcal /day, to assess her nutritional intake used Ethiopian food composition table and Nutri. Survey.

Analysis of previous diet (24 hr recall)

Time	Types of food	Ingredients	Amount
Breakfast	Atmit	Oats ,Peanut ,Soya beans, maize,wheat,lentile,linsead	100ml
snack	Papaye juice	Papaye	75ml
Lunch	Atmit		½ of 150ml cup
snack	Orange		1slice of medium orange
Dinner	Chicken soup	Carrot,2tbsoil, 30 gram chicken	½ of 150ml cup

Estimated energy taken	Estimated protein taken	Estimated fluid intake
~230kcal/day	~15gram/day	~550ml

Table 6- 24-hour recall

Patient's estimated nutritional needs:

Calories per kg 25-35	Protein gms per kg 1.2-1.5	Fluid needs
1175 -2093kcal/day	55.2-69gram protein	1610ml

V. Environmental /social and behavioral

The Food is available, her daughters, sons and sisters can prepare and buy anything good for her they are in good financial status, but they don't know what to feed her because no one was gave them clear nutrition and dietary information except some food restrictions as evidenced by care takers interview and In my observation and care givers interview Sometimes they seem bored to feed her.

VI. Functional

Unable to walk with out support

2.2 Nutritional diagnosis

Problem: Disease related malnutrition

A etiology:

- low food intake related to N. fasciitis (chewing problem)
- Early satiety related to liver dysfunction (ascites),
- Appetite loss related to sickness,
- needs higher energy requirement related to liver disease and RVI

Sign and symptoms

- easily fatigability as evidenced by patient and care giver interview
- unspecified weight loss as evidenced by dietary history and by patient and care giver interview
- longer wound healing time as evidenced by medical record

2.3 Nutrition intervention and monitoring

Goals of intervention

Short terms goal

- Discuss with her doctor to prescribe multivitamin supplement

Based on ESPEN guideline on Clinical nutrition in liver disease in cirrhotic patients, micronutrients should be administered to treat confirmed or clinically suspected deficiency

- Increased her energy and protein intake

Based on 24 hr recall assessment she is taken very small amount of energy compared to her daily energy need.

Based on Ethiopian national HIV and nutrition guideline HIV patient's energy needs are higher than other HIV negative individuals

Based on ESPEN guideline on Clinical nutrition in liver disease, in patients with cirrhosis, a high prevalence of malnutrition, Protein depletion and trace element deficiency should be anticipated. Oral diet of cirrhotic patients with malnutrition and muscle depletion should provide 30-35 kcal/kg and 1.2- 1.5 g/kg of protein. (Mathias Plauth a, 2019)

Based on the above guidelines 1st decided to increase her energy intake as initial 25kcal/kg =1175kcal/day (Annex 2)

Protein 1.2g/kg=55.2 g/day

- Education on feeding system for her care givers

Based on ESPEN guideline on Clinical nutrition in liver disease guidelines the following recommendations given, patient liver patients should feed small frequent meal in order to avoid early satieties, and sit properly 90 degree up right position during meal time. (Mathias Plauth a, 2019) .

- Prepare meal plan and feeding recommendations (ANNEX 3)

Using ESPEN guideline on Clinical nutrition in liver disease, and Ethiopian national HIV and nutrition patient's nutrition guideline preparing meal plans based on and consider her health condition, nutrient need, food availability and patient's food choice

- Increased nutrient needs related to promote wound healing

By under consuming key nutrients for a prolonged period of time, elderly patients are placed at risk for malnutrition caused by micronutrient deficiency. The most common micronutrient deficiencies among the elderly include vitamin D, zinc, and vitamin B12 (cobalamin), which may have a significant impact on wound healing (Joseph Andrew Molnar, 2014)

to promote wound healing protein is also one of the main macronutrients based on that increased her protein intake, vitamin Zinc containing foods on her meal and also supplements she taken cobalamin So the plan was contact her doctor to prescribe multivitamin supplement.

Long term goals

- **Increase her energy intake and Promote healthy weight (weight gain)**

Based on National Guidelines for HIV/AIDS and Nutrition 2008(The Federal Ministory of Health Ethiopia, 2008) .

RVI patients Energy intake increased by 20–30% if symptomatic or losing weight.

Final estimated target energy requirement 35kcal/kg =1610kcal/day+30%= 2093kcal/day

- **Food, water safety and hygiene counseling:** because a healthy person's immune system is well equipped to fight harmful germs, but low immunity puts people with HIV at higher risk of infection. They also experience more severe symptoms of food- and water-borne illness, which are more likely to cause serious conditions such as meningitis and can affect nutrient intake and absorption and increase the requirement for nutrients to combat infection. People with HIV may also have a hard time recovering from illness. Food- and water-borne illness can cause weight loss and further lower the body's resistance to other infections. (The Federal Ministory of Health Ethiopia, 2008)

- **Promote Physical activity:** Physical activity can improve body composition and quality of life. It can helps encourage need to eat and increase energy. (The Federal Ministory of Health Ethiopia, 2008)

2.4 Implementation plan

Strategies

The patient has not adequate food intake because of early satiety and can't eat solid foods related to N. fasciitis and dental (chewing) problem so in order to increase her energy and protein intake I have to design soft, small but energy dense foods based on patient food choose, health condition, and easily available food ingredients. (Annex 12).

Explain and consult care takers about her current condition and how the feeding system affect and help on her food intake and overall health condition and fast healing.

To achieve the above goals daily follow up was done her oral intake was monitored every day.

Evaluation and monitoring

After a month 2nd assessment was done slowly the patient energy intake were improved

The patient started communication; she greeted me warmly and asked me why I hadn't seen/visit her on Sunday that was the big progress. And also her MUAC was increased.

Her care takers understand how feeding system and types of foods are important for the patient to improve her health and also nutritional status,

2nd 24 hrs. Nutritional intake assessment

Time fat	Types of food	Ingredients	Amount
Breakfast	Atmit	Flour Milk powder	2tbs （150ml）
Snack	Ensure		½ 150ml cup
Lunch	Homemade bonbe		150ml
Snack	Ensure		½ 150ml
Dinner	Papaya juices	Papaya Milk powder	125_150 ml
Snack	Atmit	Flour Milk powder	150ml cup ½
Estimated energy taken	~1427.1 kcal/day		
Estimated protein taken	~61.8 g/day		

Table 7-24-hour recall 2nd assessment

2.5 Outcome

After she started dietetic treatment, she Met 100% of estimated initial energy requirement and >60% of estimated target energy requirement .and also she Met 100% of estimated protein requirement and >80% of estimated target protein requirement.

1st assessment vs 2nd assessment

Estimated	**1st**	**Reassessment**
Energy intake	230.1 kcal /day	1427 .1 kcal /day (1277.1 kcal/day from Atmit+ homemade bonbe+papaye juice and 150 kcal from 150ml of Ensure)
Protein	15gram/day	61.18g/day (52.6g/day from Atmit,bonbe and papaye juice +5.58 gram from 150ml of Ensure)
MUAC	21cm	22.3cm
Albumin	0.8g/dl	1.04g/dl

Vital sign		
Bp	90/60mmgh(L) (hypotension)	100/60mmgh (N)
PR	107 beats/min(H)	103beats/min
RR	16 beats/min(N)	18beats/min
SPO4	93%(L)	94%(L)
Pain score	03(Moderate)	02 (mild)

Table 8- outcome

3. Discussion

All patients admitted to hospital should screen and early nutritional assessment should part of medical assessment at admission as well as nutrition care plans.

Chronic liver disease Patients should be encouraged to maintain adequate energy intake. Patients usually need 35-45 kcal/kg/day, 60% of the calories should come from CHO, for liver cirrhotic patients 4-6carbohydrates rich meals are recommended (Kawaguchi [World J Gastroenterol2010 April)

Should not be restricted Proteins liver patiens except they become protein intolerant due to encephalopathy. (To the purpose of reduce intestinal ammonia production.) Protein consumption should be in the range of 1.2-1.5 g/kg/day. (Mathias Plauth a, 2019)

4. Conclusion and recommendation

I Met with Pt 2 months and 3weeks after admission; she reported she had loss of appetite and low albumin level.

After she started dietetic treatment her nutritional and health status improved this shows It was good if the dietitian met the patient early in admission it may contributed to decrease length of hospital stay and fast wound healing.

During this case study I learned that there are several contributing factors to malnutrition in hospitalized patients such as disease factor (increased energy requirement eg. infection, wound, RVI, CLD etc), unnecessary restrictions, appetite loss etc. I was most surprised to find that some doctors are not thinking that dietary treatment is a part of this. While that is certainly an important part.

Malnutrition is contributies increased length of stay this CLD and RVI patient. For that reason, it's necessary to assess the nutritional status of patients early in admission and to institute proper nutritional therapy to minimize its consequences on the patients and health care system.

Toall patients admitted to hospital Hospitals should incorporate a nutritional screening and assessment in their care system and in clinical practice early nutritional assessment should be include as part of every medical examination at admission .

Mini cases

Case 1(DM & malnutrition)

This is 60 years old female retired patient; she lived with her children's and her husband prior to admission.

Met her on 75th day of admission at medical ward. She had no history of using alcohol, tobacco or chat. She had no known allergy or intolerance history Prior to sickness.

At the time, her main concern was loss of appetite.

First time met her while I was doing ward assessment; I observed that even if she looks obese she was lostt 10%of her body weight for the past 3 months unintentionally and she has loss of appetite.

Anthropometric measurements

Wt. - before admission 81kg

Current Wt; 69kg

Height; 160cm (reported)

MUAC- 33.5cm

Biochemical assessment

K-2.9

Na-129

Creatin-1.0

Hemoglobin-10

Clinical assessment

With a diagnosis of UYHA class V Stage C CHF 2° r/o Covid 19 + HTN + Type 2 DM +ischemic stroke+ mild anemia +AkI 2°? She was on ventilation.

Dietary assessment

She started to lose appetite due to illness 2 months when she was sick and hospitalized. She was taking firfir (< 1 piece of injera) 3 times, most of the time because it's easy to prepare for her daughter and she don't like the taste of other foods they prepared at home. Sometimes she ate

pasta and be eyaynetu from hospital restaurant. She was drinking <1/2 litter of water per day related to cold intolerance (cough)

Estimated Energy intake= ~450-560kcal

Estimated energy requirement=2037-2415kcal/day

Estimated protein requirement =55.2-82.8g/day

Fluid requirement =2070-2415ml

Nutrition diagnosis: malnutrition related to low food intake and appetite loss as evidenced by unintentional weight loss.

After the nutritional assessment nutrition counseling and meal options that help in maintaining the body's function and improved medical conditions was prepared in written form and given.

Advice given;

- Include fruit and vegetable on her meal ASAP
- eat 3 main meals and 2-3 snacks
- try to drink hot water (

Breakfast	Snack	Lunch and dinner
• peanut butter and banana sandwich • fruit punch • avocado with tomato, onion and oil sandwich • ful with egg • firfir with gomen • beso with milk • yoghurt with honey	• Atmit with milk • Roasted peanut • Bokolt/ashuk	• bozena shiro • lentil wot with salad tomato • vegetable • telba fitfit • shiro with veggie • soup (lentil,veggie,beans)

Table 9- menu

Her intake was getting improved from day to day, they are started to include fruit and vegetable on her meal and her daughter bought boiler and she started to drink water her water intake is increased) she feel stronger than before as evidenced by patient interview. She Were yet on admission.

She gains 0.8 kg within 3 weeks of dietary treatment and follows up

Case 2(Disease related sever malnutrition)

This is 36 yrs. old male patient he lived in Sudan prior to admission.

Met him on 75th Post Op day of laparatomy was done for an indication of peritonitis 2° perforted appendicities and has re opening for and indication of pus collection at sudan hospital.

He was came to ethiopia gamnbela region then after 15 days right leg weanes and sweling .for this complaint he goes to gambela medium clinic.but they refered to Zewuditu hospital for furthur investigation.

He presented with right tigh swelling of 5 days associated to this stabling types of pain at site ,easy fatagablity ,unspecified weight loss of 1month ,vomiting injested mater 2-3x a day ,dry intermitting couegh ,night sweating.

Anthropometry

Weight =40kg

MUAC=18.6

Bio chemical

k -1.5

HB-6.7

Na 145

Albumin 1.4

Cre 1.2

Dietary history

Doctors recommend high protein diet Mumbai diet, but they didn't give them clear advice related to his diet so the caretakers and the patient were thought Mumbai diet is the only food allowed to him. When I met him his estimated energy taken was ~760kcal.

Energy requirement of the patient=1600kcal/day

Protein=60g/day

Nutrition diagnosis

Mal nutrition

Low energy intake related to unclear food orders/recommendations from doctors

Unnecessary food restrictions from doctors relates to his diabetic problem

Need high energy related to disease and, wound healing.

Sign and symptoms

Easley fatigability as evidenced by his medical record, vomiting, unspecified weight loss

Advice given;

- he can eat and should add additional meals to fulfill his energy requirement
- as a snack you can eat roasted peanut, bokolit,and kolo also milk
- add fruits and vegetables on his meal

plan

- modify mombie diet formula that Given by doctors

Modified Mombie diet	Snack
• በሶ 3ሻይማንኪያ • ለውዝቂቤ 3 ሻይማንኪያ • ወተት ½ ሊትር • ሙዝ 1 • ዘይት 1 ሾርባማንኪያ • ማር 1 ሾርባማንኪያ	• Atmit • milk • Roasted peanut • Bokolt/ashuk • Fruit • Yoghurt

Table 10- modified mombi diet

But after 1 day I met him he passed away because of multiple organ failure

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Annex

Appendix 1: DieteticAssessmentformNo.1

Dietetic Assessment and Advice Sheet/For Adults

Date	Name	DOB/Age	Sex	Address/Region
			M ☐ F ☐	

MRN/Card No.	B. No	Occupation	Telephone/ Email	Admission Date
Relation of care taker & info		Contact Address.		
Telephone /email Address				

Dietetic Referral		
Reason for Dietetic Referral		
Referred by		Contact Detail

Vital Signs											
BP		PR		RR		T°		SPO_2		Pain Score	

Physical Parameters											
On Admission	Wt.		Ht.		BMI		MUAC		Waist Circumference		Oedema	
Current	Wt.		Ht.		BMI		MUAC		Waist Circumference		Oedema	

Medical and Related Information	
Relevant Investigation Detail (HB, Na+, Creatinine, Urea…)	
Past Medical History Chronic Disease/ Medication/ No. of past admission/Surgery, No. of admission	
Current Medical Diagnosis and Condition	
Medication/s	
Supplement/s	

Form No. 1

RR	Respiratory rate	12-20 breath/min	SPO2	O2 level	95%-100%
PR	Pulse rate	60-100 beats/min	BP	Blood pressure	120/80mmgh
Pain	Pain score	0-10			

Appendix 2: Dietetic Assessment Form No. 2

Food Diary (Past 24-Hour Recall)/Fluid			
Time	Type of food	Amount (best estimation)	Remark
Breakfast			
Snack			
Lunch			
Snack			
Dinner			
Snack			

Energy Requirement Assessment			
Estimated Energy Taken		Fluid Taken	
Nutritional Status	Energy Requirement	Protein Requirement	Fluid Requirement
Advice given			

Additional Relevant information; _____

_____

_____

_____

Form No. 2

RR	Respiratory rate	12-20 breath/min	SPO2	O2 level	95%-100%
PR	Pulse rate	60-100 beats/min	BP	Blood pressure	120/80mmgh
Pain	Pain score	0-10			

Appendix 3: Dietetic Assessment Form No. 3

Dietary Habit and other General Evaluation	
Most preferred foods	
Intake amount changed? (How, why…)	
Appetite loss/Dietary habit change why, when.	
Chewing / Swallowing issues:	
How often do you skip meal	
Allergy/Intolerance	
Change in weight in the last 3 months	
Who prepares your food?	
Client's Main Concern (Related to diet)	
Nausea/ Vomiting, Elimination:	
Bowel movement/Urine output	
Alcohol/Chat, tobacco /how long / current status	
Mood or emotions play a role in your eating habits or food choices? If so, please describe.	
What things would you like to change about your food intake	
Are you currently following a particular diet	
With whom do you eat your meals?	
How often do you eat fast food or go to a restaurant?	
Food that you eat Frequently	

Additional Relevant information; _____

_____

_____

_____

Form No. 3

RR	Respiratory rate	12-20 breath/min	SPO2	O2 level	95%-100%
PR	Pulse rate	60-100 beats/min	BP	Blood pressure	120/80mmgh
Pain	Pain score	0-10			

Appendix4: Dietetic Assessment No.4

Information Related to Weight Management	
Whose idea/ What influenced your decision to seek a nutritionist to assist you with your weight loss/gain efforts? (doctor, my idea, family ...etc)	
List all factors associated with your wt. gain/loss (eg pregnancy, changing eating, or exercise habits, life stresses, long working hours, etc)	
Have you had any recent changes in your wt. that you are concerned about? Yes /No	
If yes, please explain:	
What would you like to weigh?	
How long have you been thinking about loss/gain weight?	
How committed are you:	
How many hours of sleep do you get, on average? Is your sleep restful? Yes/No	
Explain your daily base activity? Mor.-Eve	

Level of Activity

☐ **Inactive** – seated or reclined most of the day, some household chores
☐ **Minimally active** – household chores, light walking less than 30 minutes per day
☐ **Moderately active** – walking, heavy yard work, more than 30 minutes per day
☐ **Very active** – Intense exercise 5-6 days per week plus daily walking, chores, etc.

Please select the physical activities you are involved often

☐ Stretching/Yoga ☐ Cardio/Aerobics ☐ Strength-training ☐ Sports or Leisure ☐ Other_____

Who will be supporting you with your wt. loss/gain efforts?	

General Evaluation	
What expectations do you have for your nutrition consultation?	
Do you have any specific questions or concerns that you would like to discuss with me?	
What things might make it hard to for you to make lifestyle changes?	
Is there anything else you would like me to know?	

Advice Given Goal/Challenges	
Review/ App. Date	

Form No. 4

RR	Respiratory rate	12-20 breath/min	SPO2	O2 level	95%-100%
PR	Pulse rate	60-100 beats/min	BP	Blood pressure	120/80mmgh
Pain	Pain score	0-10			

Appendix4:AssessmentFormNo.5

Name____________________________MRN/Card No.______________Bed No.______________
Contact Address_________________________________

Follow Up Sheet		
Assessment		
Date	B. Chemical Status	
Wt. Ht. BMI Waist Circumference		
Previous Goal/Challenges		
Revised (New) Goal/Challenge		
Advice Given		
Review Date		
Assessment		
Date	B. Chemical Status	
Wt. Ht. BMI Waist Circumference		
Previous Goal/Challenges		
Revised (New) Goal/Challenge		
Advice Given		
Review Date		
Assessment		
Date	B. Chemical Status	
Wt. Ht. BMI Waist Circumference		
Previous Goal/Challenges		
Revised (New) Goal/Challenge		
Advice Given		
Review Date		
Assessment		
Date	B. Chemical Status	
Wt. Ht. BMI Waist Circumference		
Previous Goal/Challenges		
Revised (New) Goal/Challenge		
Advice Given		
Review Date		

Form No. 5

RR	Respiratory rate	12-20 breath/min	SPO2	O2 level	95%-100%
PR	Pulse rate	60-100 beats/min	BP	Blood pressure	120/80mmgh
Pain	Pain score	0-10			

Appendix 6: Dietetics Assessment form for Pediatrics

Dietetic Assessment and Advice Sheet

Date	Name	DOB/Age	Sex	Date of Admission	Address
		P.of Birth	M ☐ F ☐		
Bed No	MRN/Card No	Occupation	Relation of care taker & info		ROF
			Siblings No. <15		

V/S	BP	PR	RR	T°	SPO_2	Pain

Physical parameters on admission	Wt.		Ht.		BMI		MUAC		oedema		
Current physical parameters	Wt.		Ht.		BMI		MUAC		oedema		
Breast Feeding	Within 1hr	Colostrum given									
Yes / No											

Physical Parameters											
On Admission	Wt.		Ht.		BMI		MUAC		Waist Circumference		Oedema	
Current	Wt.		Ht.		BMI		MUAC		Waist Circumference		Oedema	

Medical and Related Information	
Relevant Investigation Detail (HB, Na+, Creatinine, Urea…)	
Past Medical History Chronic Disease/ Medication/ No. of past admission/Surgery, No. of admission	
Current Medical Diagnosis and Condition	
Medication/s	
Supplement/s	

Form No. 1

RR	Respiratory rate	12-20 breath/min	SPO2	O2 level	95%-100%
PR	Pulse rate	60-100 beats/min	BP	Blood pressure	120/80mmgh
Pain	Pain score	0-10			

Appendix 7: Food Ordering Form No.1

ለታካሚ ምግብ ማዘዣ ፎርም

ቀን_____

ዋርድ	
የአልጋ ቁጥር	
የታካሚ ስም	
ጾታ	
እድሜ	

የሚዘጋጀው የምግብ አይነት/ዝርዝር

ማስታወሻ_____

_____

ምግቡን ያዘዘው _____

ፊርማ_____

ለታካሚ ምግብ ማዘዣ ፎርም

ቀን_____

ዋርድ	
የአልጋ ቁጥር	
የታካሚ ስም	
ጾታ	
እድሜ	

የሚዘጋጀው የምግብ አይነት/ዝርዝር

ማስታወሻ_____

_____

ምግቡን ያዘዘው _____

ፊርማ_____

ለታካሚ ምግብ ማዘዣ ፎርም

ቀን_____

ዋርድ	
የአልጋ ቁጥር	
የታካሚ ስም	
ጾታ	
እድሜ	

የሚዘጋጀው የምግብ አይነት/ዝርዝር

ማስታወሻ_____

_____

ምግቡን ያዘዘው _____

ፊርማ_____

ለታካሚ ምግብ ማዘዣ ፎርም

ቀን_____

ዋርድ	
የአልጋ ቁጥር	
የታካሚ ስም	
ጾታ	
እድሜ	

የሚዘጋጀው የምግብ አይነት/ዝርዝር

ማስታወሻ_____

_____

ምግቡን ያዘዘው _____

ፊርማ_____

Appendix8:FoodOrderingFormNo.2

ለታካሚ ምግብ ማዘዣ ፎርም

ዋርድ	
የአልጋ ቁጥር	

የታካሚ ስም			
ጾታ		እድሜ	

ቀን_____

የ ምግብ አይነት	ግብዓቶች	መጠን

አሰራር
የሚቀርብበት ሰዓት እና መጠን

ማስታወሻ_____

ምግቡን ያዘዘው _____ፊርማ_____

ለታካሚ ምግብ ማዘዣ ፎርም

ዋርድ	
የአልጋ ቁጥር	

የታካሚ ስም			
ጾታ		እድሜ	

ቀን_____

የ ምግብ አይነት	ግብዓቶች	መጠን

አሰራር
የሚቀርብበት ሰዓት እና መጠን

ማስታወሻ_____

ምግቡን ያዘዘው _____ፊርማ_____

Appendix 9: Leaflet for Pre and Post Pregnancy

የ ዘዉዲቱ መታሰቢያ ሆስፒታል

በቅደመ እርግዝና፣ በእርግዝና እና ጡት በማጥባት ወቅት ሊወሰዱ የሚገባቸው ጥንቀቄዎች፣ የአመጋገብና የአኗኗር ዘይቤዎች

ከእርግዝና በፊት ፣በእርግዝና እና የሚያጠቡ እናቶች የተመጣጠነ ምግብ መመገብና ጤናን መጠበቅ በዘላቂነት ጤናማና ሁለንተናው ብቁ የሆነ ዜጋ ለማፍራት ይጠቅማል

አዘጋጆች፡
እሌኒ መኩሪያ . ትርሲት ደምሰው . ሰሚራ ያህያ
የስነ ምግብ ሳይንስ ህክምና ባለሞያዎች

አርታኢ፡ ዶ/ር ዘላለም ደበበ (ረዳት/ፕ)
የስነ ምግብ ህክምና ሳይንስ ባለሞያ

2013

ከሚከተሉት 6 የምግብ አይነቶች ስር ከተዘረዘሩት ውስጥ፣ ቢያንስ አንዱን መርጠው፣ በዋና የምግብ ሰዓት ለማካተት የሞክሩ።

1. ***ቶሀል (ሃይል ሰጪ ምንጭ) ከሆኑት***
   ያልተፈተጉ እህሎች ከስንዴ፣ከገብስ ፣ከአጃ፣ ጤፍ፣ቆሎ እና ከመሳሰሉት የተዘጋጁ ምግቦች፣ ወይም ፋዝ፣ ፓስታ የመሳሰሉትን በርከት ካለ አትክልት ጋር መመገብ።
2. ***ጤናማ ቅባቶችን***
   የኦሜ፣የሱፍ፣ የወይራ ዘይቶችን በመጠኑ መጠቀም
3. ***ገንቢ ምግቦች (ለሰዉነት ጥገናና እድገት ምንጭ) ከሆኑት***
   ስጋ፣ ዶሮ አሳ፣ ወተትና የወተት ተዋእጾች፣ ምስር፣ባቄላ፣ ቦሎቄ፣ ሽንብራ የመሳሰሉትን በየቀኑ መመገብ
4. ***ሕመም ተከላካይ ቫይታሚንና ማዕድኖች***.
   አትክልትቶች ቆስጣ፣ ጎመን፣ሰላጣ፣ቲማቲም፣ ድንች፣ ካሮት፣ቀይስር፣ ዱባ የመሳሰሉትን **በየቀኑ** መመገብ
5. **ፍራፍሬዎች** ሙዝ፣ ብርቱካን፣ ሎሚ፣ማንጎ፣ ፓፓያ የመሳሰሉት መመገብ፣ **ከተቻለ በቀን 2 ጊዜ።**
6. **ውሃ/ፈሳሽ ነገር በቀን ከ 2 እስከ 2 ½ ሊትር መጠጣት።**

ምንም አይነት የእንስሳ ተዋጽዎ የማትወስድ እናት የቫይታሚን ቢ12 (B12) እጥረት እንዳይገጥማት ሀኪሚን ማማከር ይኖርባታል (ጽንሱ ከነርቭ ጋ ተያያዥ ችግሮች እንድይገጥሙት ለመከላከል)

ለሚያጠቡ እናቶች

- ማጥባት ለእናትም ሆነ ለህጻኑ ጤነነት ያለው ጠቀሜታ የላቀ ነው።
- ማጥባት ከወሊድ በኋላ ባሉ ቀናት የሚፈስን ደም ይቀንሳል፣ ማህጸን በቶሎ ወደቦታው እንዲመለስ ያማዛል ፣ ካላስፈላጊ ክብደት መጨመርና ከጡት ካንሰር ይከላከላል።
- የመጀመሪያው ወተት (እንገር)፣ ለህጻኑ፣ ሕመም የመከላከል አቅሙን በከፍተኛ መጠን ይጨምርለታል።
- በተጨማሪም የእናት ወተት ልጆች ሲያድጉ ጥሩ የአእምሮ ብስለት እንዲኖራቸው ይረዳል። ከስኪር ህመም ፣ ከአለርጂ፣ ከተቅማጥ፣ከመሳሰሉት ሕመሞች በተሻለ ሁኔታ ይጠብቃቸዋል።
- ህጻናት እንደተወለዱ በ24 ሰአት ውስጥ እስከ 12 ግዜ መጥባት ይችላሉ። በሚቀጥሉት ወራቶችም እንደዚሁ ከ 8 እስከ 12 ጊዜ እንዲጠቡ የመከራል።
- ሕጻኑ በአግባቡ የእናት ጡት መያዙን ያረጋግ ጡ
- የጡት ወተት መውጣት ካልቻለ ወይም ህጻኑ መጥባት ካልቻለ፤ በአስቸኳይ የህክምና ባለሞያ ምክር መጠየቅ
- የጡት ወተት አስፈላጊውን ንጥረ ነገር ሁሉ ስለሚያሟላ እስከ 6 ወር ምንም አይነት ተጨማሪ ምግብም ሆነ ውሃ መስጠት አያስፈልግም።
- የምታጠባ እናት ቀድሞ ከምትመገው የበለጠ መጠን ከሁሉም የምግብ አይነቶች መመገብ እና ተጨማሪ ፈሳሽ መውሰድ ይኖርባታል።

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Appendix 10: Leaflet for Gestational Diabetes

የዘውዲቱ መታሰቢያ ሆስፒታል

በእርግዝና ጊዜ የሚከሰት የስኳር ህመም

በ እርግዝና ጊዜ ስለሚመጣ የስኳር ህመም እና ጤናማ አመጋገብ ለእናቶች ግንዛቤ ለማስጨበጥ ታስቦ የተዘጋጀ

አዘጋጆች፡
እሌኒ መኩሪያ . ትርሲት ደምሰው . ሰሚራ ያህያ
የስነ ምግብ ሳይንስ ህክምና ባለሞያዎች

አርታኢ፡ ዶ/ር ዘላለም ደበበ (ረዳት/ፕ)
የስነ ምግብ ህክምና ሳይንስ ባለሞያ

2013

ሰውነት ገንቢ ምግቦች

ስጋ፣ወተት፣የ ዶሮ ስጋ፣እንቁላል፣ባቄላ፣በሎቄ፣ ሽንብራ፣ምስር፣አኩሪ አተር

ጤናማ የ ቅባት ምንጮች

አቮካዶ፣ኑግ፣አሳ፣አነስተኛ መጠን

አትክልትና ፍራፍሬዎች

እንደ ጎመን፣ካሮት፣ቀይስር፣ቲማቲም፣ቆስጣ፣ ሰላጣ ፣እበባ ጎመን፣ዝኩኒ፣ብሮኮል
የመሰሰሉትን መመገብ

ፍራፍሬ እንደ አቮካዶ፣ማንጎ፣ብርቱካን፣እንጆሪ፣ አፕል፣ሃባብ፣የመሰሰሉትን በመጠኑ መመገብ (ሲበዛ የስኳር መጠንን በጣም እንዳይጨምር)

የሰውነት እንቅስቃሴ

በቀን ውስጥ ቢያንስ በእንቅስቃሴ ለ 30 ደቂቃ እንዲያሳልፉ ይመከራል። ይህንም ለ 3 ጊዜ በመከፋፈል ለ 10ደቂቃ የእግር መንገድ ማድረግ ሊሆን ይችላል፣በተቀመጡበት ቦታ እጅ እግር ማንቀሳቀስ፣ ዋና መዋኘት እና የዮጋ እንቅስቃሴ ማድረግ ይመከራል።

ምክሮች

- የምግብ ሰዓት አለመዝለል
- የአሰር መጠናቸው ከፍተኛ የሆኑ ያለተፈተጉ እህሎችን፣አትክልትእና ፍራፍሬዎችን አዘውትሮ መመገብ
- የደም ስኳር መጠንን የ ሚጨምሩ በፋብረክ የተቀነባበሩ እንዲሁም እንደ ለስላሳ እና የታሸጉ ጁሶች ከመጠቀም መቆጠብ
- በቂ ውሃ መጠጣት
- ሻይ እና ቡና በመጠኑ መጠቀም

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dktirsit@gmail.com , Samiraffan7@gmail.com

እርግዝና ጊዜ የሚከሰት የስኳር ህመም ምንድነው?

በእርግዝና ጊዜ የሚከሰት የስኮር በሽታ ከስኳር በሽታዎች አንዱ ነው።

ብዙ ጊዜ በእርግዝና ጊዜ የሚከሰት ሲሆን ከወሊድ በኋላ ሊጠፋ ይችላል። በብዛት የሚፈጠረው ከ24 - 28 ሳምንት ባለው ጊዜ ነው። እስፈላጊው ጥንቃቄ ካልተደረገ የተለያዩ ችግሮችን ሊያስከትል ይችላል;;

ለዚህ በሽታ ተጋላጭ የሆኑት እነማን ናቸው?

- ከዚህ በፊት በእርግዝና ጊዜ የሚከሰት የስኳር ህመም ተጋላጭ የነበሩ
- እድሚእቸው ከ40 ዓመት በላይ የሆኑ ሴቶች
- ቤተሰባቸው ውስጥ የስኳር ህመም ያለባቸው ሴቶች ወይም እህትም ሆነ እናታቸው በእርግዝና ጊዜ የሚከሰት የስኳር ህመም ተጋላጭ ከነበሩ
- የክብደት መጠናቸው ከሚፈለገው በላይ የሆኑ
- የእርግዝናው የመጀመሪያ ግማሽ ላይበፍጥነት የክብደት መጠን የመጨመር ነገር ሲኖር
- ከዚህ በፊት የተወለደው ልጃቸው ከ4.5ኪ.ግ በላይ ከነበር ወይም ከዚህ በፊት በእርግዝና ወቅት ሌሎች ችግሮች ገጥሞዋቸው ከነበር
- ማስታወሻ፡- አንድ አንድ ሴቶች ባልታወቀ ምክንያት ሊይዛቸው ይችላል

አንዲት ሴት በእርግዝና ጊዜ የሚከሰት የስኳር ህመም እንደያዛት እንዴት ይታወቃል?

ማን ለዚህ ህመም ተጋላጭ እንደሆነ በእርግጠኝነት ስለማይታወቅ በእርግዝና ጊዜ ሁሉም ሴቶች እንዲመረመሩ ይመከራል።

ከ24 – 28 ባለው የእርግዝና ሳምንት ውስጥ (በባዶ ሆድ የሚደረግ ምርመራ) ሊሰጣቸው ይገባል፡ ፡ ምርመራው የተለያዩ አጋላጭ ምልክቶች ከታዩ ቀድሞ ሊሰጥ ይችላል ።

በእርግዝና ጊዜ የሚመጣ የስኳር ህመምን እንዴት እንቆጣጠር ?

- ጠይናማ የአመጋገብ ዘይቤ በመከተል
- የ ሰውነት እንቅስቃሴ በማድረግ
- የደምን የስኳር መጠን በመከታተል
- አስፈላጊ ከሆነ ከሃኪም ጋር በመመከከር መድሃኒት በመውሰድ

ጤናማ አመጋገብ

በእርግዝና ጊዜ የሚከሰት የህመም ጊዜ ጤናማ አመጋገብ መከተል የደም የስኳር መጠን ለማስተካከል ይረዳል።

ጤናማ እመጋገብ ማለት ሁሉንም የ ንጥረ ነገር ይዘት የሚያሙዋሉ ምግቦችን ለሰውነት በሚያስፈልግ መጠን መመገብ ነው።

ሀይል ሰጭ ምግቦች

እንጀራ፣በቤት ውስጥ የሚዘጋጁ ካልተፈተገ ስንዴ፣ አጀ፣ገብስ እና ከመሰሰሉት የሚዘጋጁ ጨጨብሳ ፣ እንባሻ በአነስተኛ ዘይት ቆጮ ወዘተ

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Appendix 11: Leaflet for Complementary Food

በ ምን አይነት ምግቦች እንጀምር ?

- በ ፈሳሽ ምግቦች ምሰሌ በ ቀጭን ምጥን ገንፎመጀመር ከዛም ከፈል ጠጣር ምግቦችን ማለትም በ ምጥን ገንፎ ውስጥ ተቀቅሎ የተፈጨ እንደ ጎመን፣ካሮት፣ብሮክሊ የመሰሰሉትን አትክልቶች መጨመር ይቻላል።
- በ ሂደትጠጣርምግቦችን እንደ እንጀራ፣ዳቦ፣ የመሰሰሉትን የቤተሰብምግቦችመለማመድ
- ከ 6-_12 ወር ላሉ በ ቀን ከ 2-3 ጊዜ መመገብ
- ከ 12-24 ወር ላሉ በ ቀንውስጥ ከ3 _4 ጊዜከ ተጨማሪ 1 -2 መክሰስ ጋር መመገብ
- ለ መመገብ የምናዘጋጃቸው ምግቦች ለ ህጻናቱን እድገት እና ጥንካሬ ውሰኝ የ ሆኑትን የምግብ ንጥረ ነገሮች የያዙ ምግቦች መሆን ይኖርባቸዋል።

በምናዘጋጃቸውምግቦች ውስጥ

- ስጋ
- እንቁላል
- ዘይት
- ቂቤ
- ለውዝ
- ምስር
- አትክልት እናፍራፍሬዎችን ማካተት ይመከራል

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የ ዘዉዲቱ መታሰቢያ ሆስፒታል

1000 ቀናትድረስ ላሉ ህጻናት ጤናማ እመጋገብ ለ እናቶች ግንዛቤ ለ ማስጨበጥ ታስቦ የተዘጋጀ

ጤናማ እመጋገብ ለ ህጻናት አካላዊ፣እእምሮአዊ እና ጤናማ እድገት ውሰኝ ነው

2013

አዘጋጆች፡
አሌኒ መኩሪያ ፣ ትርሲት ደምሰው ፣ ሰሚራ ያህያ
የስነ ምግብ ሳይንስ ህክምና ባለሞያዎች

አርታኢ፡ ዶ/ር ዘላለም ደበበ (ረዳት/ፕ)
የስነ ምግብ ህክምና ሳይንስ ባለሞያ

አዘገጃጀት መመሪያ

- እጅ በ ዉሃ እና ሳሙና በእግባቡ መታጠብ
- የ ምግብ ማዘጋጃ ቁሳቁሶች ንጽህና በ እግባቡ መጠበቅ
- የ በሰሉእና ጥሬ ምግቦችን ለ ያይቶ ማስቀመጥ
- የበሰሉ ምግቦችን በእግባቡ ከድኖ ማስቀመጥ

የ ህጻናት ተጨማሪ ምግብ

ህጻናት ከ ተወለዱ ጊዜ አንስቶ እስከ 6 ወር ድረስ ከ እናታቸው ጡት የሚያገኙት ወተት ለ አካላዊም ጤናም ፣ሆነ አእምሮአዊ እድገታቸው የሚያስፈልጉንጥረነገሮችን የ ሚያሟላ ነው።

ተጨማሪ ምግብ መቼ እንጀምር ?

የ እናትጡትወተት ከ 6 ወር በ ኋላ ህጻኑየሚያስፈልገውን መጠን ያክል የ ንጥረነገር ይዘት ስለማይዝ ከ እናትጡት በተጨማሪ ፣ሌሎች ተጨማሪ ምግቦች መጀመር ያስፈልጋል።

2 ዓመት እስኪሞላቸውድረስ በ 24 ሰዓት ዉስጥ ቢያንስ 8 ጊዜ መጥባት ይኖርባቸዋል።

ልጆች ተጨማሪ ምግቦችን ለመውሰድ ዝግጁመሆናቸውን የሚገልጹበት ምልክቶች ምንድን ናቸው ?

- ሌሎች ሰዎች በሚመገቡበት ሰአት እፍ መክፈት
- ሌሎች ሰዎች በሚመገቡበት ሰአት ምግቡንለማንሳት/ለመያዝ መሞከር
- ቶሎ ቶሎ ጡት የ መጥባት ፍላጎት ማሳየት

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dktirsit@gmail.com, Samiraffan7@gmail.com

ስም፡

ዕድሜ፡ 50

ያታ፡ ሴት

አልጋ ቁጥር፡ 07

አመጋገብ መመሪያ	
❖ ትንሽ ትንሽ በተደጋጋሚ ቢያንስ ከ 9_10 ጊዜ በቀን ውስጥ ይመግቡዋቸ ሌሊት ጨምሮ ❖ በሚመገቡበት ጊዜ በአግባቡ መቀመጣቸውን፣ቀና ማለታቸውን ያረጋገጡ 90^{o}። ❖ ምግብ ተመግበዉ እንደጨረሱ ወዲያው ላለመተኛት ይሞክሩ።።	
የምግብ አይነት	
<u>አጥሚት</u> ❖ በዱቄት ወተት (4 ሾርባ ማንኪያ) ❖ ለውዝ ቅቤ /ዱቄት (ከተፈላ በሁዋላ መጨመር/አብሮ ማፍላት) (3 ሾርባ ማንኪያ) ❖ ማር 2 tbs ❖ ተልባ ዱቄት 1tbs ❖ ዘይት 1tbs	**<u>ሽሮ ፍትፍት</u>** ❖ ሽሮ ❖ እንጀራ (ከ 1 ቁርጥ ያልበለጠ)
<u>ቦንቤ</u> ❖ የዱቄት ወተት/ወይም ሶያ ወተት (3 ስኩፕ ወይም 100ሚሊ) ❖ ሙዝ (ሁለት አነስተኛ) ❖ የተቀቀለ እንቁላል (3 እንቁላል) ❖ ለውዝ ቅቤ (2 የሾርባ ማንኪያ) ❖ በሶ (2 ሾርባ ማንኪያ) ❖ ዘይት (2 የሻይ ማንኪያ) ❖ ውሃ (ትንሽ) ሁሉንም ግብአቶች አንድ ላይ አድርጎ በመፍጨ መፍጨት ከ ዉሃው በስተቀር	**<u>ኢንሹር</u>** በ ቀን 2 ጊዜ በ አዘገጃጀት መመሪያዉ መሰረት አዘጋጅቶ መስጠት።
<u>አልጫ ምንቸት ፍትፍት</u> ❖ የተፈጨ ስጋ (1 የ ቡና ሲኒ) ❖ ቲማቲም/እርድ ❖ ዘይት (3 የሾርባ ማንኪያ) ❖ እንጀራ (ከ 1 ቁርጥ ያልበለጠ)	
<u>ፍራፍሬ ጭማቂ</u> (አቮካዶ፣ፓፓዬ፣ማንጎ፣ሙዝ ወይም ሌሎች ፍራፍሬ አይነቶች መጠቀም ይቻላል) ከ እዚህ ፍራፍሬዎች አንዱን ወይም በማደባለቅ ከ ❖ የዱቄት ወተት (3 ሾርባ ማንኪያ) ❖ ውሃ (ትንሽ ለ ማቅጠን ካስፈለገ) አንድ ላይ በማድርግ ማዘጋጀት። ❖ ለውዝ ቅቤ (2 የሾርባ ማንኪያ)	

Dietitian;(I) እሌኒ መኩሪያ

Appendix 12: menu and recommendation