



GUIDELINE FOR INPATIENT
FOOD SERVICE SYSTEM IN
BHUTAN

2019

Department of Medical Services
Ministry of Health

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Background

Health care in Bhutan is provided free of cost to all its citizens through a systemic approach of referral system to the next higher center. This health care is provided through more than 200 BHUs (and 562 outreach clinics) at the community level; 31 General hospitals, and 3 referral hospital including the National Referral hospital.

The health facilities in Bhutan have an important role of preventing and treating illnesses. Nutrition of the patients have an important role in the health outcomes of the patients. Studies show that when health facilities provide nutritionally sound meals; it can result in faster recovery, shorter hospital stays and ultimately reduced costs¹.

Patient meals in Bhutan is provided at Basic Health Units (BHUs) grade 1, General hospitals, regional referral hospitals and the national referral hospital. The patient meals were guided by the “Guidelines for inpatient food service system 2013”.

However, there have been challenges while implementing the 2013 guidelines as the guidelines did not cater to the patient requirements at different levels of the health facilities. This revised guideline takes a holistic approach taking into consideration the challenges from all levels of the health facilities in Bhutan.

Objective

To provide safe, adequate and appropriate inpatient meals in the health facilities of Bhutan.

1. FOOD SERVICE SYSTEM

The Planning and Review Process:

At all levels of the Health facility, the planning for the inpatient meal should be done through a multi-disciplinary committee. The health facilities can choose to have a separate “Patient Diet Committee” or use one of the existing committees (such as Quality Assurance (QA) Committee, Hospital Administration and Management Transformation Committee (HAMT)) for planning and reviewing the food service.

The committee should consist of representatives of the following:

1. Administration
2. Procurement Unit
3. Ward in-charges/Nursing head
4. Food service In-charges /Kitchen Incharge and or Dietitians (if available)
5. Store in charge
6. Cooks
7. Any relevant official

The planning meeting should be conducted a minimum of 4 times a year (quarterly) and serve as a monitoring process of the food service system by the health facility. The function of the committee should be to:

- Review the monitoring, supervision and indenting reports submitted by the food service team.
- Plan inpatient meals for the subsequent quarter (the probable menu for the next quarter).
- Expenditure statements.
- Discuss any other relevant issues related to inpatient diet.

Protected meal timing

As far as possible the meal times in the health facilities should be protected. However, individual health facilities may assign protected meal timing as per their context. The following is the recommended meal timings:

Breakfast: 07-08 AM

Lunch: 11.30-12.30 PM

Evening snack: 3.00-4.00 PM

Dinner: 6.30-7.30 PM

2. ROLES AND RESPONSIBILITIES OF THE FOOD SERVICE TEAM

2.1 Management

The management should designate the most relevant official (preferably dietitian if available) as the overall In-charge of the food service system. The management shall also periodically monitor the food service system to ensure that the establishment follows the best practices and supply of kitchen items. The management is also mandated to provide uniform to cooks ONCE a year and assist to provide periodic medical screening.

2.2 Treating Physician

Prescribing diet to inpatients based on their disease status

2.3 Dieticians/Nutritionist (if available)

Management, planning and periodic monitoring of the food service system to ensure that the establishment follows the best practices.

Awareness to the hospital management and other relevant decision makers for food service related issues. Prescribing diet and making dietary modification to inpatients based on their disease status. Assessment and medical nutrition therapy of the patient.

2.4 Nurse In-charge

Preliminary screening for nutritional status based on general examination during admission (including height, weight, BMI for adults, appetite status, malnourished, etc.).

Consult treating physician/dietitian if required for further assessment and management. Filling out the diet request form and handing the form to store in charge.

2.5 The kitchen in charge/Store in charge

Management, planning and periodic monitoring of the food service system to ensure that the establishment follows the best practices, wherever dietician is not present.

Awareness to the hospital management and other relevant decision makers for food service related issues, wherever dietician is not present.

Kitchen store in-charge should oversee the procurement of raw commodities, issuance and inventory of food items and updating the stock register and monitor cleanliness of the kitchen regularly.

2.6 Cook

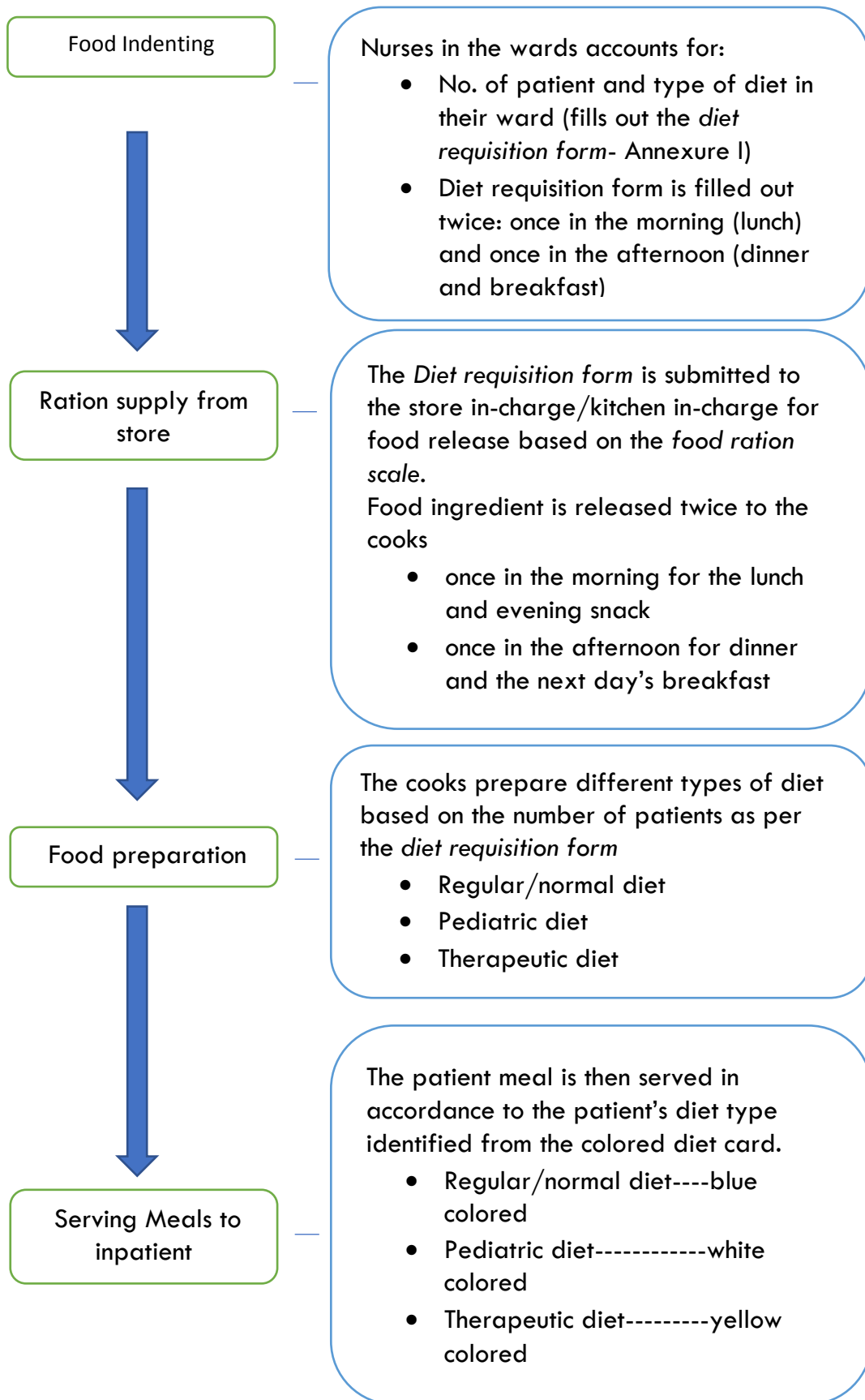
Receiving the food indent from wards, cooking as per the doctor's order, transporting and serving food to the inpatients.

Cleaning and ensuring that food establishment including the storage rooms are clean, free from pests and has minimum risk of contamination.

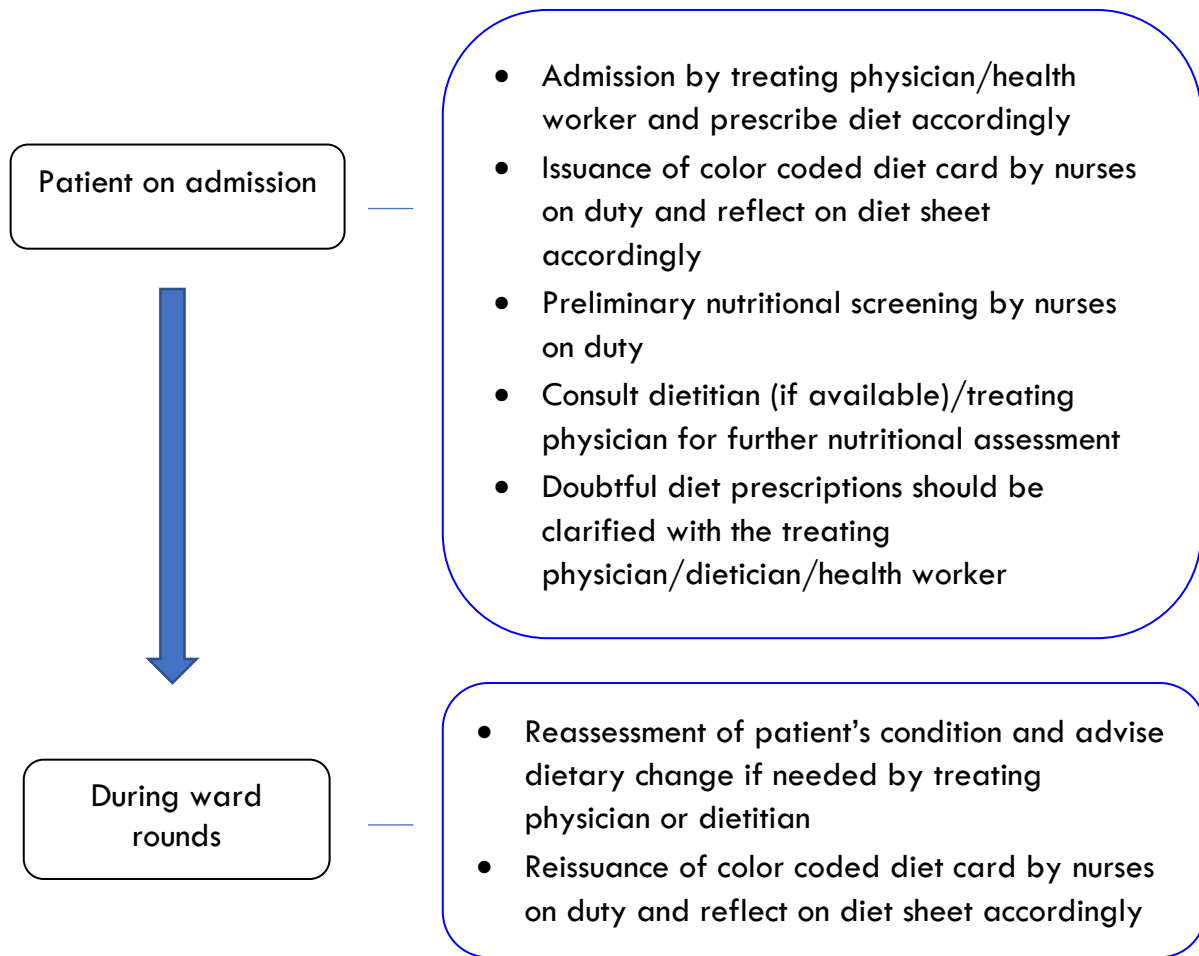
2.7 Medical Screening

All food handlers must be screened during the recruitment process and shall undergo a complete medical screening on an annual basis and must produce a medical fitness certificate. Those food handlers on medical leave must produce a medical fitness certificate while resuming his duty.

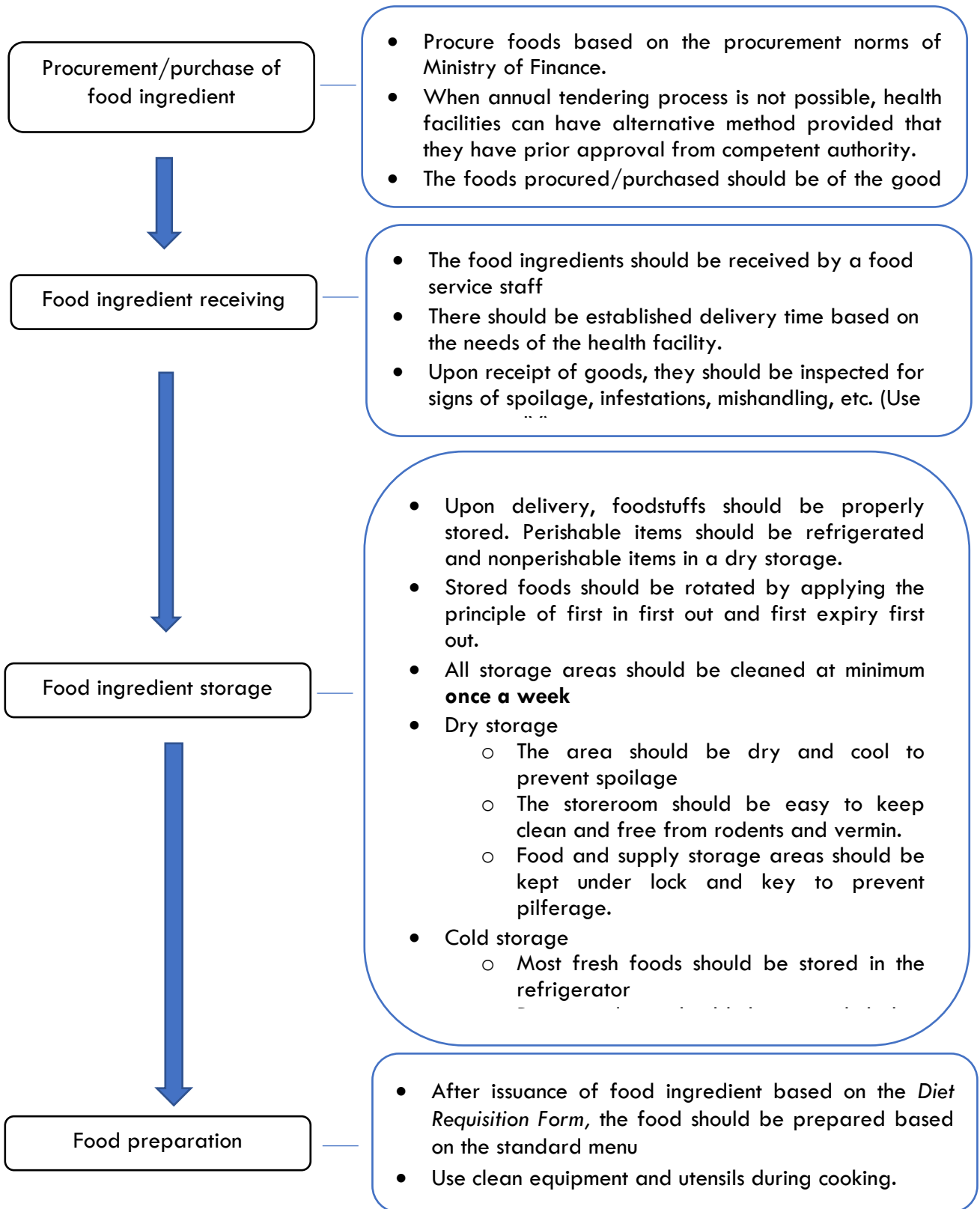
3. FOOD SERVICE PROCESS IN THE HEALTH FACILITIES



4. PRISCRIBING DIET



5. FOOD SERVICE MANAGEMENT



6. SANITATION, SAFTY AND MAINTAINENCE

To safeguard the health of patients and personnel, the Food Service should maintain high standards of sanitation in the receipt, storage, preparation, and service of food. The food service personnel should be periodically trained on relevant areas.

6.1 Cleaning

The food service establishment should be cleaned at least three times a day. After breakfast, after midday meal and after dinner.

6.2 Cooks/Food handlers

Cooks/food handlers should observe desirable personal hygiene, habits, safe food handling; and serving practices.

- Cooks/food handlers should be subjected to physical and medical examinations upon acceptance, and at least once a year thereafter.
- Hair should be kept clean and neat, and must use head gear.
- Clean and washable aprons and uniforms should be worn at all times.

6.3 Utensils and equipment

- Equipment and utensils must be made of non-toxic, smooth, durable, non-corrosive, and easy to clean materials
- Only clean utensils should be used in preparing, cooking, and serving food.
- All equipment and utensils in food preparation, service and storage must be cleaned regularly as follows.
 - Counter tops, chopping boards and tables, can openers, pots and kitchen utensils, floors after every use.
 - Refrigerators, storage shelves, every week.
 - Ceilings, lighting fixtures, on a monthly basis.

6.4 Garbage Disposable

- Garbage containers should be kept in cool areas near the exit and kept away from food.
- All garbage bins must be lidded so that pests cannot get access to the garbage.

The food service premise should be routinely inspected as follows:

- Dieticians/Kitchen in-charge on a daily basis.
- Dietitians/Kitchen in-charge on a weekly basis (using Checklist-Annexure II)
- Hospital management representative on a monthly basis (using Checklist-Annexure III)

7. TYPE OF DIET

The health facilities should explore the possibility of providing various types of diet as per the patient condition based on case load. The guideline recommends the following types of diet:

7.1 Normal/regular diet

This type of diet should be served to those patients who do not have special needs due to conditions such as heart disease or diabetes and that are able to chew and swallow regular foods. The regular diet aims to provide a variety of nutrients, including protein, carbohydrates, vitamins and minerals to patients. The menu for adults have been planned to meet 2100 Kilocalories per day with energy distribution as follows:

Carbohydrate: 60%-----315g
Protein: 15%-----79g
Fat: 25 % -----58g

Sample Menu: Normal Diet for adults (2100Kilocalories)

Meal	Main Dish	Side Dish	Soup/Drink
<i>Breakfast</i>	<ul style="list-style-type: none">• Channa fried rice (or)• Vegetable Fried rice (or)• Bread	<i>Fruit 1 no</i>	<i>Milk Tea</i>
<i>Lunch</i>	<i>Rice</i>	<ul style="list-style-type: none">• Mixed vegetable Curry + Boiled egg (or)• Meat curry	<i>Dal</i>
<i>Evening Snack</i>	<i>Milk 200ml OR Milk Tea</i>		
<i>Dinner</i>	<ul style="list-style-type: none">• Rice• Roti	<ul style="list-style-type: none">• Mixed Vegetable Curry (or)• Neutralla curry	<i>Dal</i>

7.2 Pediatric diet

Children have different nutritional needs and palatability. The menu for paediatric patients have been planned to meet 2000 Kilocalories per day with energy distribution as follows:

Carbohydrate: 65%-----325g
Protein: 15%-----75g
Fat: 20 %-----45g

Sample Menu: Normal Diet for pediatric patient (2000 Kilocalories)

Meal	Main Dish	Side Dish	Soup/Drink
B/Fast	<ul style="list-style-type: none"> • Egg Fried Rice • Vegetable Fried Rice • Rice Porridge • Bread 	Fruit 1 no	Tea
Lunch	Rice	<ul style="list-style-type: none"> • Mixed veg Curry+ Boiled egg (1no) • Meat curry 	Dal
Evening Snack	/milk tea pilot suggest removing milk as patient prefer tea. Will be helpful in reducing the cost too.		
Dinner	Rice	Mixed veg Curry+ Boiled egg 1no	Dal

7.3 Therapeutic diet

This type of diet is for patients who with specific conditions such as heart disease, diabetes, obesity etc. These diets are restricted in salt, cholesterol, saturated fat and sugar. These diets are used to treat and prevent a variety of health-related conditions.

7.3.1 Low salt, low fat diet

Low salt and low fat diet can be easily prepared from regular diet by reducing the quantity of salt and fat (oils) in the diet.

7.3.2 Soft diet

Post-surgery, patients who have digestive and absorptive disorders or to those patients who have difficulty chewing and swallowing etc. require soft diet. It should consist of foods that are bland, moderately low in fat and soft in texture. The diet will provide around 1800Kcal.

7.3.3 Enteral feeding

This diet is meant for patients who are on tube feeding. Enteral feed is usually provided to patients who have very poor appetite, difficulty in swallowing food particles or chewing but with a functional gastrointestinal tract. Enteral feed menu would differ from patient to patient based on their disease conditions. Ideally it should consist of all food groups and supplements if indicated.

Carbohydrate: 65%-----293g
 Protein: 15%-----67.5g
 Fat: 20%-----40g

Sample Menu: Soft Diet for adults

Meal	Main Dish	Side dish 1	Soup/Drink
B/Fast	Rice porridge		Tea
Lunch	Soft cooked rice	Chicken	Dal
Evening Snack	Milk 240ml or Milk tea		
Dinner	Soft cooked rice	Egg	

7.4 Supplements

Supplements might be required for severely malnourished patients or with a specific medical condition. The supplements shall be provided as per the decision of the treating physician or the dietician. (Example of supplements, eggs, Horlicks, Ensure, B-Protein, Protein-X, D-Proteins, Kids Pro, etc.)

Food ration scale normal diet for adult patients

Raw Commodities	Breakfast	Lunch	Dinner
Rice	100gram (parboiled)*	150gram	150gram
Chickpeas	30g		
Bread	4 slices/patient		
Dal	-	40grams	40grams
Oil	10ml	10ml	10ml
Meat**	-	120grams	-
Neutralla	-	-	30grams
Vegetables	30 grams	110grams	110grams
Egg	One egg/patient/day		
Fruits	three times a week		
Milk powder	30grams/patient/day		
Milk	200ml/patient/day		
Sugar	10grams/patient/day		
Tealeaves	5grams/patient/day		
Salt	5grams/patient/day		
Spices and condiments***	As required		

*Parboiled rice to be served for breakfast to increase the micro-nutrients intake.

**Meat should be provided three times per week wherever possible.

***Spices and condiments includes cheese, haldi, chilli powder, masala, ginger and garlic.

Food ration scale pediatric patients

Raw Commodities	Breakfast	Lunch	Dinner
Rice	100gram (parboiled)*	150gram	150gram
Bread	4 slices/patient		
Dal	-	40grams	40grams
Oil	10ml	10ml	10ml
Meat**	-	100grams	-
Vegetables	75 grams	100grams	75grams
Egg	One egg/patient/day		
Fruits	three times per day		
Milk powder	30grams/patient/day		
Milk	200ml/patient/day		
Sugar	10grams/patient/day		
Tealeaves	5grams/patient/day		
Salt	5grams/patient/day		
Spices and condiments***	As required		

*Parboiled rice to be served for breakfast to increase the micro-nutrients intake.

**Meat should be provided three times per week wherever possible.

***Spices and condiments includes cheese, haldi, chilli powder, masala, ginger and garlic.

Food ration scale soft diet for adult patients

Raw Commodities	Breakfast	Lunch	Dinner
Rice	80gram (parboiled)*	100gram	100gram
Cottage cheese	50g		
Soyabean oil	5g	5g	10g
Mixed vegetable raw	60g	60grams	60grams
Salt	1g	1g	1g
Meat**	-	60grams	-
Lentil	-	40grams	
Skimmed milk	-	240ml	
Egg	One egg/patient/day		
Milk powder	30grams/patient/day		
Sugar	10g/patient/day		
Tea leaves	5g/patient/day		

*Parboiled rice to be served for breakfast to increase the micro-nutrients intake.

**Meat should be provided three times per week wherever possible.

8. BUDGET REQUISITION

Budget proposal for Inpatient Food Services shall be based on total expenses of the preceding year with additional 10% to cover up for inflation.

ANNEXURE II: Weekly monitoring checklist

Direction: This checklist should be used by the dietitian/kitchen In-charge during their weekly inspection

Hygiene				
Sl.No	Item	Yes	No	Remarks
1	Employees wear clean and proper uniform including apron, head-gear and shoes.			
2	Hands are washed properly, frequently, and at appropriate times.			
3	Employees appear in good health, if no specify.			
4	Hand sinks are unobstructed, operational and clean.			
5	Hand sinks are stocked with soap and other cleaning agents.			
6	Employee restrooms are operational and clean.			
7	Food equipment, utensils and food contact surfaces are properly washed and rinsed before use.			
Food preparation and storage				
1	All foods stored and prepared in the facility are from approved source.			
2	Food is handled with suitable utensils.			
3	All food and paper supplies are stored 6 to 8 inches above the ground.			
4	Open bags of food are stored in closed containers with tight fitting lids and are labelled with common names.			
5	The FIFO (First in, First out) and FEFO (First expiry, First out) method of inventory is used.			
Kitchen hygiene				
1	Water is clean and free of grease and food particles.			
2	Work surface and utensils are clean.			
3	Kitchen area looks clean.			
4	Cleaning is done when least amount of food is exposed.			
5	Kitchen is well ventilated			
6	Kitchen garbage cans are clean and kept covered.			
7	Garbage cans are emptied as necessary.			

Signature:

Name of the observer:

Date:

Corrective action/s taken:

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ANNEXURE III: Kitchen monitoring tool for Management

Direction: Score as 1: Needs improvement, 2: satisfactory, 3: Good

The management should use this checklist during monthly inspection

Sl.no	Particularities	Score	Suggestion/ Remarks
1	General kitchen cleanliness		
2	Personal hygiene of kitchen staff (haircut, nails, cleanliness of uniforms, etc.)		
3	Patient meals are provided as per requisition		
4	Cleanliness of the food storage areas		
5	Food stock registers are updated		
6	All equipment such as refrigerator, water supply system, etc. in the premises are functioning well		

ANNEXURE V: Nutritive analysis of adult menu when meat is served

Nutrients	Content
Energy	2401.2 kcal
Water	720.5 g
Protein	83.0 g(14%)
Fat	62.3 g(23%)
Carbohydrate	371.1 g(63%)
Dietary fiber	17.4 g
PUFA	21.8 g
Vit. A	845.8 µg
Vit. E (eq.)	9.5 mg
Vit. B1	1.2 mg
Vit. B2	1.0 mg
Vit. B6	2.2 mg
tot. fol.acid	259.5 µg
Vit. C	84.1 mg
Calcium	451.7 mg
Magnesium	443.4 mg
Phosphorus	1233.3 mg
Iron	12.9 mg
Zinc	8.2 mg

ANNEXURE VI: Dietician and cooks standard, 2018

Hospital type	No. of Cook	No. of Dietician
National Referral Hospital	12	6
Regional Referral Hospital	5	2
60 bedded hospital	4	2
60 bedded hospital (Gidakom Hospital)	3	1
40 bedded hospital	3	1
20 bedded hospital	2	1
10 bedded BHU-I	2	1