CLINICAL NUTRITION IN HOSPITALIZED PATIENTS: THE ROLE OF PROPER DIET IN DISEASE RECOVERY.

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Abstract

Hospital nutrition plays a crucial role in the recovery process of patients by providing essential energy, proteins, micro and macronutrients. Studies indicate that a significant proportion of hospitalized patients experience malnutrition, which negatively impacts recovery and increases mortality risk. This article discusses the clinical importance of proper nutrition, assessment methods, influencing factors, and evidence-based strategies such as oral, enteral, and parenteral nutrition support. The role of a multidisciplinary approach and the need for hospital-based nutritional screening are also highlighted.

Keywords: Clinical nutrition, hospital diet, malnutrition, enteral nutrition, parenteral nutrition, multidisciplinary care.

1. Introduction

Nutrition during illness is a cornerstone of patient recovery. Inadequate nutrient intake in hospitals can delay wound healing, increase infection rates, and prolong hospital stays. Despite its significance, malnutrition remains underdiagnosed and undertreated in clinical settings. According to recent European Society for Clinical Nutrition and Metabolism (ESPEN) guidelines, up to 40% of hospitalized patients are at risk of malnutrition.

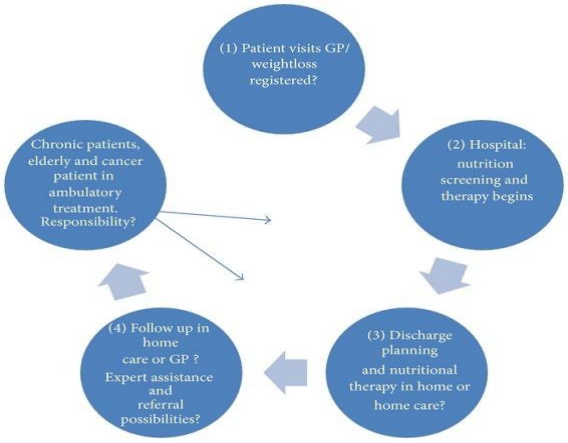
Proper nutrition ensures energy balance, maintains immune function, supports muscle mass, and enhances rehabilitation outcomes. Hence, nutrition must be viewed as a therapeutic intervention rather than merely food provision.

2. Clinical Importance of Nutrition

Nutrition is directly linked to recovery speed, immunity, and patient prognosis. Malnutrition can lead to:

- Reduced muscle strength and mobility
- Impaired wound healing
- Higher infection rates
- Longer hospital stays
- Increased morbidity and mortality

Meta-analyses show that nutritional interventions in hospitals reduce mortality and rehospitalization rates.



3. Assessment and Monitoring of Patient Nutrition

3.1 Screening

Every hospitalized patient should undergo nutrition risk screening upon admission. Validated tools such as **NRS-2002** or **MUST** help identify patients at risk.

3.2 Assessment Parameters

- **BMI (Body Mass Index)**
- **Unintentional weight loss** (within 3–6 months)
- **Food intake level** (percentage of meals consumed)
- **Biochemical markers** (albumin, prealbumin, transferrin)

3.3 Monitoring

Daily or weekly assessment of food intake and body composition is vital to ensure energy and protein needs are met.

Table 1: Example of energy and protein requirements for various conditions (e.g., post-surgery, sepsis, chronic disease).

4. Factors Influencing Nutrition During Illness

Several factors contribute to poor nutrition among hospitalized patients:

- **Disease-related metabolic stress** (catabolism, inflammation)
- **Reduced appetite**, taste alteration, dysphagia
- **Fasting for diagnostic or surgical procedures**
- **Poor food service quality** or timing of meals
- **Psychosocial factors** such as loneliness or depression

These elements can significantly lower oral intake, leading to negative nitrogen balance and delayed recovery.

5. Nutrition Strategies: Standard and Therapeutic Diets

5.1 Standard Diet

For patients without specific dietary restrictions, balanced hospital menus should provide adequate calories and proteins (25–30 kcal/kg/day, 1.0–1.2 g protein/kg/day).

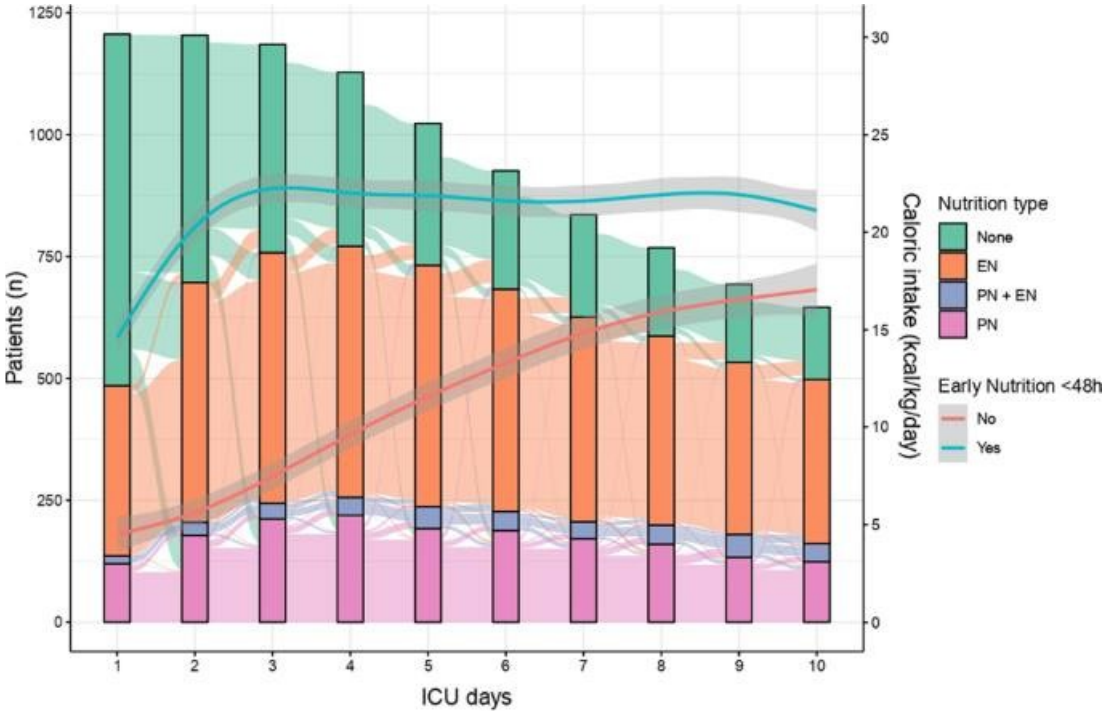
5.2 Therapeutic Diets

Customized diets are prescribed according to disease type-renal failure, diabetes, liver disease, cardiovascular disorders, etc. However, unnecessary restrictions can worsen malnutrition.

Example: Excessively low-calorie or low-protein diets in elderly patients increase muscle loss.

5.3 Energy and Protein Requirements

During illness, energy expenditure rises by 10–30%, depending on disease severity.



6. Nutrition Support: Oral, Enteral, and Parenteral

6.1 Oral Nutrition

If the patient can eat, texture-modified meals and small frequent servings are encouraged. Encouragement and menu variety improve intake.

6.2 Enteral Nutrition

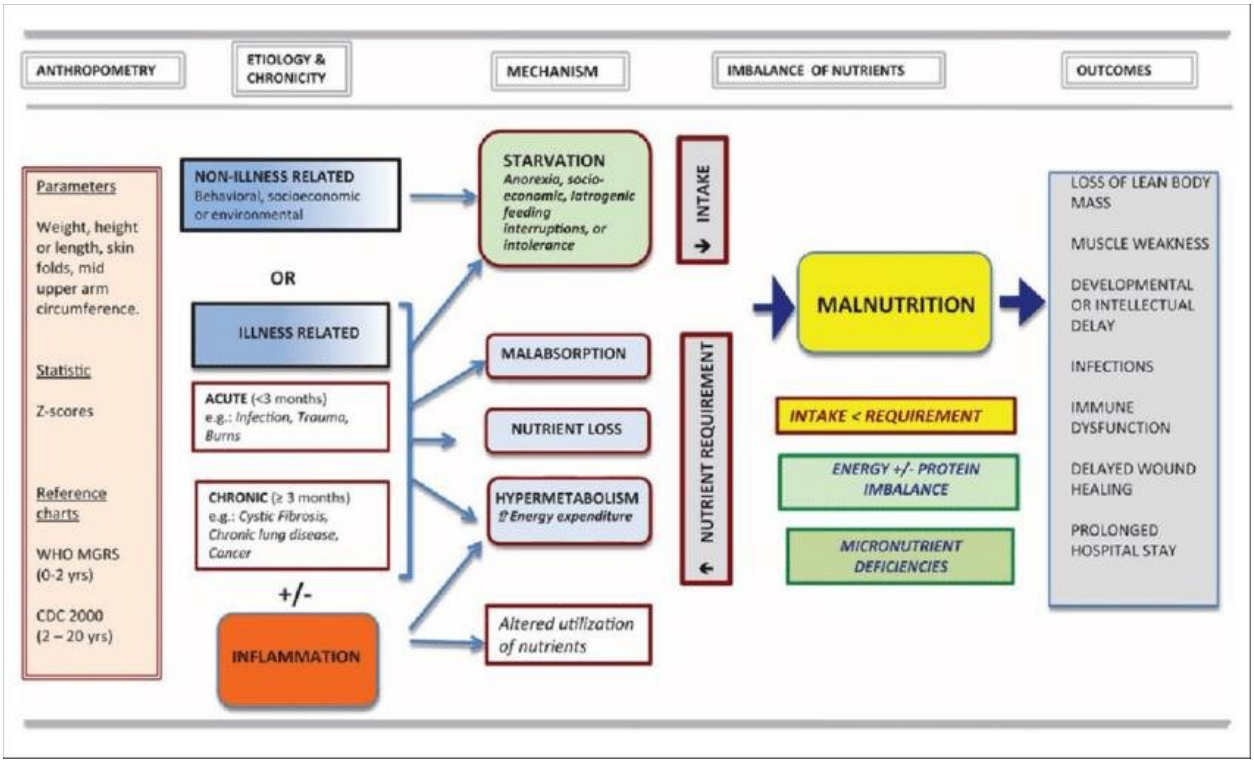
When oral intake is insufficient, enteral nutrition via feeding tubes provides essential nutrients directly into the gastrointestinal tract. Studies show that early enteral feeding reduces infection risk and improves survival.

6.3 Parenteral Nutrition

If enteral feeding is impossible, intravenous parenteral nutrition is used. However, it carries risks (infection, metabolic imbalance) and must be carefully monitored.

6.4 Implementation Guidelines

- Start within **24–48 hours** of hospitalization
- Daily monitoring of calorie and protein targets
- Multidisciplinary coordination between doctors, nurses, and dietitians



7. Multidisciplinary Approach and Quality Assurance

Hospital nutrition requires collaboration between physicians, dietitians, nurses, and food service teams. Research shows that patient participation in meal selection increases food intake by up to 20%.In Uzbekistan and other Central Asian hospitals, improvement strategies may include:

- Use of local food products (fresh fruits, vegetables, proteins)
- Menus adapted to cultural and linguistic preferences
- Continuous training of hospital kitchen and nutrition staff

Image suggestion: Hospital nutrition process — dietitian counseling a patient, food preparation, and serving.

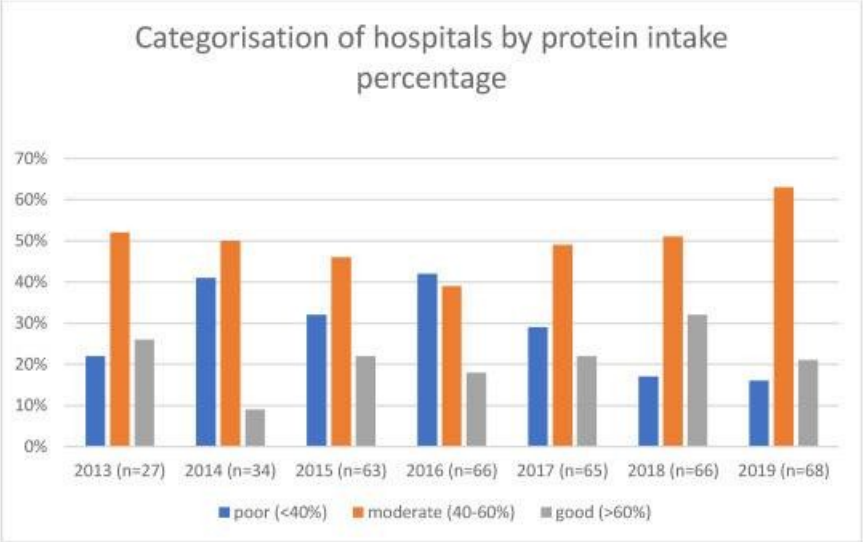
8. Conclusion and Recommendations

Conclusion

Clinical nutrition is a key medical factor in patient recovery. Adequate calorie and protein intake prevents malnutrition, shortens hospital stay, and improves outcomes.

Recommendations

- Introduce **mandatory nutrition screening** for all inpatients.
- **Revise hospital menus** according to patient needs.
- **Strengthen cooperation** between dietitians and chefs.
- Encourage **patient participation** in food choice.
- Develop **cost-effective, locally sourced menus** ensuring balanced nutrition.



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