



Faculty of Allied Medical Sciences



Evaluation of Malnutrition and its associated risk factors among hospitalized patients

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Project summary:

Malnutrition is a general term that refers to both under-nutrition and over-nutrition. Malnutrition in hospitalized individuals according to the Academy Dietetic Association (ADA) is used to describe under nutrition.

The high global prevalence of malnutrition in hospitalized patients has been widely documented over the past four decades.

It was reported to be between 20% and 50% in the acute hospital setting.

The consequences of malnutrition may be fatal; on the cellular level, malnutrition impairs the immune response. At a psychological level, malnutrition is associated with fatigue and apathy, which in turn delays recovery, exacerbates anorexia and increases convalescence time.

The objectives of this project were: To identify prevalence of malnutrition among hospitalized patients

To determine malnutrition risk factors among hospitalized patients including:

1. Age
2. Medical condition and different diseases
3. Length of hospital stay
4. Frequency of hospitalization
5. Hospital factors (presence of dietitian and the meals offered to the patients).

The project was carried on 100 hospitalized patients (74 patients were adults and 26 patients were elderly). They were subjected to full history taking (personal data and medical history) using pre-designed questionnaire and laboratory investigations.



Full anthropometric assessment was done to all patients enrolled in the project and 2 nutrition screening tools were used (nutrition risk index (NRI) for adults and mini nutrition assessment (MNA) for elderly).

Questions about hospital settings related to nutrition were asked. Selected laboratory investigations were recorded from patients' files.

The results of the project showed that there was no statistically significant difference between both sexes and between two age groups.

Regarding the medical history of the patients; most of them had diabetes followed by liver and renal diseases.

As regard the pattern of hospitalization; 14% of the patients were admitted to the hospital for the first time and 86% were recurrently admitted to the hospital and among this group; 72% were re-admitted for the same condition and 28% were re-admitted for another condition.

Concerning the risk factors of malnutrition;

1. The NRI was significantly related to sex while MNA was not related to sex.
2. The NRI was significantly related to diabetes, cancer and renal diseases while MNA was significantly related to renal diseases, respiratory diseases, HTN and CVD.
3. Both NRI and MNA were significantly related to frequency of hospitalization.

From the previous results; the followings were concluded:

1. Malnutrition is highly prevalent among hospitalized patients.
2. Lack of dietitian contributes largely to malnutrition of hospitalized patients.
3. Meals offered are not matched with the nutrition status of each patient.
4. NRI and MNA are good screening tools for adults and elderly respectively.
5. The age of the patients, long hospital stay, frequent hospitalization and the nature of the disease all are risk factors for malnutrition among hospitalized patients.

From the previous conclusions the followings are recommended:

1. Presence of dietitian is a must in all hospital settings.
2. All hospitalized patients should be screened for malnutrition on admission.
3. Follow up of nutritional status of hospitalized should be done weekly for those with hospital stay more than 2 weeks.
4. Close monitoring for patients with frequent hospitalization on discharge
5. Meals offered to the patients should be individualized according to patient medical condition and nutritional status.