

## NUTRITIONAL ASSESSMENT AND CLINICAL NUTRITION THERAPY

Malnutrition is a widespread problem in many inpatient settings, including intensive care units (ICUs). A number of studies have shown that the prevalence of malnutrition among hospitalized adults of all ages ranges from 20%–69%, with a prevalence as high as 40% among critically ill patients. As many as 30% of hospitalized patients, meet criteria of malnutrition on admission.

Patients with medical conditions e.g. gastrointestinal disease, neuromuscular or arthritic impairment, hypoxic cardio pulmonary disease, cancer and infection are often malnourished on admission. Additional stress during hospitalization may exacerbate any pre-existing nutritional deficits. Critical illness, in particular, is associated with a marked increase in metabolism, leading to greater energy requirements and loss of lean body mass.

Malnutrition has been associated with increased morbidity and mortality in hospitalized patients. There was a significantly higher incidence of e.g. infectious complications, cardiac and respiratory failure in malnourished patients compared to well-nourished patients. Likewise, a state of negative energy balance has been associated with increased morbidity in ICU patients. The increased incidence of complications resulting from malnutrition and energy deficit translates into a prolonged hospital stay and increased health care costs.

All ICU and High Care patients are screened by dieticians to identify patients at risk for malnutrition. Where necessary, clinical nutrition therapy is recommended by the dietician. Proper nutritional assessment and monitoring is applied.

To calculate whether increased nutritional needs are balanced by nutritional intake, oral food intake is monitored. Factors e.g. diarrhoea, nausea and vomiting, low appetite, level of consciousness, fatigue, fever, esophageal stenosis, obstruction, mouth sores, pain and difficulty in breathing influence nutritional intake.

The enteral route is the preferred route for delivering nutritional support with a functioning GIT. When oral intake is not possible and naso-gastric tube placement is not indicated, Total Parental Nutrition is recommended. The dietician calculates the patient's nutritional needs (energy, protein, fat and carbohydrates) and a specific enteral feed or TPN code is recommended at a specific rate according to the patient's needs. The following is monitored by the dietician on a daily basis:

- Biochemistry (for renal function, albumin, inflammatory markers, electrolytes, liver functions, etc.)
- Medication (effect on nutritional status and interaction of medication on specific nutrients)

- Clinical condition (e.g. naso-gastric residue, urinary excretion, bowel sounds, level of consciousness, diarrhoea, nausea, vomiting, low appetite, mouth sores, constipation etc.) Thus, dieticians do not just take note of the patient's condition and confirms what doctor has already observed.
- Diet (monitor food intake, if not optimal, supplemental protein and energy drinks for that specific patient's needs and condition are recommended. With nausea, vomiting, diarrhoea, low albumin, low HB levels or chemotherapy, supplements are recommended)

Clinical nutrition therapy is a specialized field of nutrition support in which the dieticians are qualified with years of experience. The dietician forms part of the medical team and support the doctor or specialist's approach and treatment for an optimal outcome to the patient. All Medical Aid's acknowledge nutritional therapy by a dietitian based on clinical and medical research that confirms the following:

- Decrease in length of stay in ICU
- Prevention of development of immune deficiency
- Decrease in infection rate
- Decrease in complications
- Decrease in length of hospital stay
- Decrease in morbidity and mortality
- Decrease in health care costs

Dieticians, as all other healthcare professionals, are registered at the HPCSA with a practice number. As the doctor's account is not part of the hospital account, neither is the dietician's account part of it. As there is a yearly limit to consultations at a doctor/specialist, there is a limit to other healthcare professional services according to your specific Medical Aid and medical plan. The dieticians account will be handed in to the patient's Medical Aid (as part of in hospital services) for payment, but in case of no provision by his/her medical aid/option or in case of exhausted funds, payment of the account stays the responsibility of the patient.

Thank you

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