

Guidelines and evaluation of nutrition support therapy in adult critically ill patients.

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Introduction

The importance of nutrition in the hospital (particularly in the intensive care unit) cannot be emphasised. Critical illness is often accompanied with a catabolic stress state, in which patients exhibit a systemic inflammatory response, as well as comorbidities such as increased infectious morbidity, multiple organ dysfunction, longer hospitalisation, and disproportionate death. Over the last three decades, tremendous progress has been achieved in understanding the molecular and biological impacts of nutrition in maintaining homeostasis in critically ill patients. Nutrition support has traditionally been thought of as an add-on service for critically ill patients, with the goal of providing exogenous fuels to maintain lean body mass and support the patient during the stress response. This technique has recently evolved to represent nutrition treatment, in which the feeding is expected to assist reduce the metabolic response to stress, minimise oxidative cellular harm, and alter immunological responses in a favourable manner. Early EN, adequate macro- and micronutrient supplementation, and precise glucose control can all help to improve the clinical course of critical disease. Early nutrition support therapy, especially through the enteral route, is considered as a proactive therapeutic technique that may lower illness severity, reduce complications, shorten ICU LOS, and improve patient outcomes. Based on expert opinion, we recommend that all patients admitted to the ICU who is expected to have insufficient volitional intake have their nutrition risk assessed. Patients with a high nutrition risk are more likely to benefit from early EN therapy.

Patients who have had a sleeve gastrectomy, gastric bypass, or biliopancreatic diversion (with or without duodenal switch) are more likely to be deficient in micronutrients. In the critically ill patient, these deficiency states should be evaluated and corrected. Malabsorptive surgeries, such as biliopancreatic diversion and very long-limb Roux-en-Y gastric bypass, are more likely to cause nutritional and metabolic problems. Prior to administering dextrose-containing IV fluids, it is necessary to rule out a possible thiamine shortage. It's also a good idea to take a daily multivitamin with iron and vitamin B12, as well as calcium and vitamin D supplements. There is currently no agreement on the best vitamin supplementation programme. Serum micronutrient levels should be checked annually once

they have been adjusted. Although a decline in patient volitional intake is typically a source of anxiety for care workers and families, dehydration and poor oral intake are commonly tolerated and cause no symptomatology in the majority of terminally ill patients. To assist dispel misconceptions and reduce emotional suffering, the caregiver should anticipate and appropriately address this fear. In rare cases, cultural, ethnic, religious, or individual patient concerns may trump scientific evidence, necessitating the administration of ANH. Unfortunately, there is currently insufficient data to clearly characterise the benefits and risks of ANH in terminally ill patients [1-4].

There is no difference between withholding and withdrawing ANH, according to scientific, ethical, and legal views. Several professional organisations have issued recommendations or position statements to assist healthcare providers in making ethical decisions about whether to begin, continue, or discontinue ANH. Several themes remain constant: clear communication between providers and patients, families, or surrogate decision makers; respect for dignity and patient autonomy; setting realistic therapy goals; involvement of an interdisciplinary ethics committee or panel consultation when issues cannot be resolved; continuing care until any conflict surrounding ANH is resolved; transferring care to equally qualified, willing practitioners if conflict cannot be resolved; and at no time transferring care to an unqualified, unwilling practitioner [5,6].

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