

Nutritional support for trauma patients in intensive care units

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Background: Trauma mostly occurs in young patients. Trauma is characterized by a combination of cardiovascular, inflammatory, and metabolic responses. Hypercatabolism after trauma may lead to acute protein malnutrition that ultimately results in multiple organ failure. Nutritional support may prevent this sequence. Therefore, nutritional support is an essential component of the care of critical trauma patients for optimizing outcomes.

Objective: This study presents a review of the literature regarding nutritional support used in the improvement of trauma patients.

Materials and Methods: To that end, we performed a bibliographic search of national and international scientific articles published within the past 10 years and indexed in PubMed, Scopus, SID, and Google Scholar.

Results: A good nutritional assessment is the first step in preventing and treating malnutrition. There are several general assessment tools that can be completed to determine potential or actual malnutrition of trauma patients such as SGA, MUST, and MST, among others. Various studies have demonstrated the importance of early nutritional support (<72 hrs) and total enteral nutrition (TEN) in the critical care management of trauma patients to improve clinical profiles such as preventing gut mucosa atrophy, preserving gut flora, reducing stress responses, and reducing incidences of septic complications, and others. An immune-enhancing diet for 7–10 days, then a high protein and fiber-enriched polymeric diet based on patient needs may be useful in trauma patients.

Conclusions: Using a programmed nutrition protocol based on evidence uses safe methods according to patient needs and in appropriate time with an accurate assessment of nutritional status will provide better results (such as reducing complications, infections, ICU stay, duration of mechanical ventilation, costs, and mortality), and improvement indicators in critical trauma patients.

Keywords: Nutritional support; Trauma; nutrition assessment; malnutrition