

عنوان مقاله:

Nutrition Support among Critically Ill Pediatric Patients: The Current Practice

محل انتشار:

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خلاصه مقاله:

Background: Pediatric Intensive Care Unit (PICU) admitted patients are considered as a nutritionally high-risk population, for whom optimum energy and nutrient delivery is an important treatment strategy preventing organ dysfunction and subsequently poor clinical outcomes. Objectives: The present study aimed to investigate the nutritional adequacy indices and their probable relations to clinical outcomes in critically ill children. Methods: This project was a retrospective cross-sectional study carried out at the Akbar Children's Hospital, Mashhad, Iran. All critically ill children with PICU stay >48 hours during May-June 2019 were enrolled. Age, gender, medical diagnosis, nutritional status, energy and protein requirements and deliveries, and clinical outcomes of patients were extracted. Results: Seventy-one patients were included, among whom 39 subjects (54.9%) were male. The prevalence of malnutrition was 45.3% and 52.4% in PICU patients with surgical and non-surgical underlying diseases, respectively. There were significant associations between the nutritional status of the patients (upon the PICU admission time), infection, and mortality rate. Mean±SEM values of the estimated energy requirement and delivered energy were 85.7±1.6 and 68.3±2.1 kcal/kg/d, respectively. In addition, the estimated protein requirement and protein delivery were 2.5±0.08 and 1.8±0.03 gr/kg/d, respectively. Energy intake had a negative association with infection rate and lower protein delivery was negatively associated with prolonged duration of mechanical ventilation. Conclusions: Significant associations were found between energy/protein delivery and some clinical outcomes. The findings indicated the necessity of immediate further studies on the efficacy of different nutritional interventions as well as monitoring of optimal nutrition support barriers in critically ill children.

کلمات کلیدی:

Critical care outcomes, Critical illness, Intensive care unit, Pediatric, Nutrition Therapy, Nutrients

