

A prospective, randomized, double-blind, controlled clinical trial of enteral immunonutrition in the critically ill

*S Atkinson, E Sieffert, D Bihari
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Objective

To measure differences in hospital length of stay and mortality in a heterogenous critically ill population receiving either IMPACT[®] Formula or an isonitrogenous control.

Methods

A prospective, randomized, double-blind, controlled clinical trial of 398 patients (9% trauma, 57% medical, 34% surgical) able to begin feeding within 48 hours of ICU admission and requiring enteral feeding for at least three days. Nearly all patients required mechanical ventilation. 101 patients were successfully fed >2.5L of study or control formula within 72 hours of admission and became defined as the 'early enteral nutrition subgroup.'

Results

- Patients receiving the study formula (IMPACT) in the early enteral group were found to require less mechanical ventilation (4.5 days less, $p=0.007$) compared with controls.
- An associated decrease in hospital LOS (4.5 fewer days) was also noted for patients receiving the study formula (IMPACT) in the early enteral group ($p=0.03$).
- There was no significant difference found in hospital mortality between the study and control groups with an intention to treat analysis, nor between a subgroup analysis of patients fed early as defined above. However, patients receiving the study formula (IMPACT) were noted to have higher Acute Physiology and Chronic Health Evaluation (APACHE II) scores than those in the control group.

Conclusion

Investigators conclude that critically ill patients able to achieve early enteral nutrition with study formula (IMPACT) had a significant decrease in morbidity (time on mechanical ventilation and LOS) as compared to those fed early with isonitrogenous control formula.

Summary prepared by Nestlé HealthCare Nutrition. For a complete copy of the study, please go to the following site:

http://www.ncbi.nlm.nih.gov/pubmed/9671364?ordinalpos=7&itool=EntrezSystem2.PEntrez.Pubmed.Pubmed_ResultsPanel.Pubmed_DefaultReportPanel.Pubmed_RVDocSum