

Capsule Summary

Is early initiation of supplemental Parenteral Nutrition in critically ill surgical patients who are not eligible for Enteral Nutrition beneficial?

Maintaining adequate nutritional status plays an important role in the clinical recovery of critically ill patients. Starting early enteral nutrition is the preferred choice and shown to reduce disease severity and ICU length of stay, leading to improved patient outcomes [1, 2]. However, **initiating early enteral nutrition support in critically ill patients, such as those undergoing emergency abdominal surgeries might present challenges due to altered anatomy and gastrointestinal motility. Initiating parenteral nutrition in critically ill surgical patients is controversial**, with ESPEN critical care guidelines recommending an early start [1], whereas some studies demonstrate no additional survival benefits [3, 4].

Clinical studies demonstrate that receipt of adequate caloric and protein supply either with enteral or parenteral nutrition support, among critically ill patients at a high risk of malnutrition, led to improved clinical outcomes and survival [5, 6]. Therefore, supporting the nutritional needs of critically ill patients is of paramount importance for improving outcomes among critically ill patients such as those undergoing emergency unscheduled surgeries.

Major Inclusion Criteria

- Patients admitted via emergency department for abdominal surgery.
- Postoperative intensive care admission.
- Confirmed complicated intra-abdominal infection.

Total pts = 316	Early Group	Usual Group
No of Patients	66	45
Median Age (yr)	77.5	76
Sex (M/F)	28/38	23 / 22
BMI	20.63 ± 3.86	21.47 ± 4.13

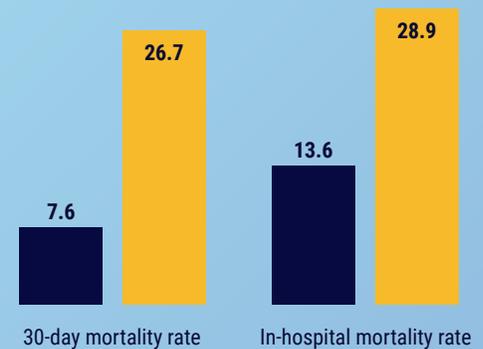
Patient stratification for malnutrition status - Modified Nutrition Risk in Critically Ill (mNUTRIC) score and body mass index (BMI).

Definition of patients at high risk of malnutrition – mNUTRIC score ≥ 5 or BMI of <18.5 kg/m². Based on the start of parenteral nutrition (PN),

patients further subdivided into:

- (i) 'Early' group – receiving PN within 48h of surgery.
- (ii) "Usual" group – who do not receive PN.

Results



Conclusion

- Early initiation of parenteral nutrition support within 48 hours of surgery in critically ill surgical patients who are at high risk of malnutrition significantly reduced mortality rates.
- Parenteral nutrition may significantly benefit critically patients who fail to achieve adequate nutritional support via enteral nutrition alone

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