

Nutritional Support: ASPEN/SCCM Guidelines for Nutrition Support Therapy in Critically Ill Adult Patients (2022)

About the Guideline

- This guideline is an update to the 2016 American Society for Parenteral and Enteral Nutrition (ASPEN)/Society of Critical Care Medicine (SCCM) critical care nutrition guidelines.
- A literature search was conducted using data extracted from PubMed/MEDLINE dated from January 2001 through July 2020.
- The methodology used to develop and summarize the evidence was the Grading of Recommendations, Assessment, Development and Evaluation (GRADE) process.
- Five questions were investigated in this guideline with the purpose of providing recommendations to practitioners as they assess artificial nutritional support needs of the critically ill patient.

Key Clinical Considerations

Become familiar with the recommendations and best-practice statements provided in this guideline, especially if you work in an acute care setting.

Higher vs. Lower Energy Intake

- No significant impact was reflected in the following parameters between patients with higher vs. lower levels of energy intake:
 - Risk of pneumonia
 - Risk of any infection
 - Mean intensive care unit (ICU) length of stay (LOS)
 - Hospital LOS
 - Mean ventilator days
 - ICU mortality
 - Hospital mortality
 - Mortality at 28 days and at 90 days
- Feeding between 12 and 15 kcal/kg is suggested in the first 7 to 10 days of an ICU stay.

Higher vs. Lower Protein Intake

- No significant impact was noted in outcomes of patients receiving higher vs. lower protein intake; however, available data was limited.
- Due to a lack of new or updated data, protein intake of 1.2 to 2 g/kg/day is still suggested (as noted in the 2016 guideline).
 - Higher protein intake is recommended for patients with burns, trauma, or obesity.

Early Energy Intake by Parenteral Nutrition vs. Enteral Nutrition

- For patients who are candidates for enteral nutrition (EN), there was no significant difference in clinical outcome noted between intake of parenteral nutrition (PN) vs. EN in the first week of critical illness.
 - Neither nutrition modality was superior to the other, therefore PN or EN are acceptable forms of nutrition.

Utilization of Supplemental Parenteral Nutrition

- For patients receiving early EN, there was no significant impact in outcome noted with the addition of supplemental parenteral nutrition (SPN).
- Initiating SPN is not recommended during the initial 7 days of ICU admission as there was no added benefit noted.

Utilization of Mixed-Oil vs. 100% Soybean Oil Lipid Injectable Emulsion

- For patients who are candidates for initiation of PN in the first week of ICU admission, the use of either mixed-oil lipid injectable emulsion (ILE) or 100% soybean oil ILE is suggested.
 - No significant impact in outcome was noted with use of either form of ILE.
 - Examples of mixed-oil ILE include mixtures of medium-chain triglycerides, olive oil, and/or fish oil.

Utilization of Fish Oil ILE vs. Non-Fish Oil ILE

- For patients receiving PN in the first week of ICU admission, the use of either fish oil ILE or non-fish oil ILE is suggested.
 - No significant impact in outcome was noted with use of either form of ILE.
- Some data indicate there may be an increased risk of pneumonia in patients receiving non-fish oil ILE; however, more data and research is needed to make a strong recommendation against the use of non-fish oil ILE.

Reference

Compher, C., et al. (2022). Guidelines for the provision of nutrition support therapy in the adult critically ill patient: The American Society for Parenteral and Enteral Nutrition. *Journal of Parenteral and Enteral Nutrition*, 46(1), 12–41.
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