

COMPARISON OF THE CRITICAL CARE GUIDELINES FOR ADULT CRITICALLY ILL PATIENTS

Developed in collaboration with
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TOPIC	ASPEN/SCCM ¹	ESICM ²	ESPEN ³	CANADIAN ⁴
Suggest use of EN over PN in patients who require nutrition support therapy	Yes	Yes	Yes	Yes
Suggest early initiation of EN in patients who require nutrition support therapy	Yes, initiate EN within 24-48 hours	Yes, initiate EN within 24-48 hours	Yes, initiate EN within 48 hours	Yes, initiate EN within 24-48 hours
Optimal timing for initiating supplemental PN when EN does not meet requirements	Use PN after 7-10 days, if unable to meet >60% of energy and protein	-	Initiation of supplemental PN should be weighed on case-by-case basis†	Initiation of supplemental PN should be weighed on case-by-case basis
Best method for determining energy needs	Indirect calorimetry (IC) when available, or 25-30 kcal/kg/d in absence of IC	-	Indirect calorimetry	Insufficient data
Suggest intentional hypocaloric feedings	Yes, obese patients can have high-protein hypocaloric feeds (not exceeding 65-70% of target energy requirements as measured by IC)‡	Yes, do not aim to cover full energy target with exclusive EN for early phase of acute illness	Yes, for early phase of acute illness (not exceeding 70% of target energy requirements)	Yes, should be considered for patients at low nutrition-risk
Amount of protein to improve clinical outcomes	1.2-2.0 g/kg/d actual body weight‡	-	1.3 g/kg/d	-
Monitor protein provision independent of energy	Yes	-	-	-
Suggest protocol-driven EN feeding	Yes	-	-	Yes
Suggest continuous EN over bolus feeding	Yes, for high-risk patients, or those shown to be intolerant to bolus feeds	-	Yes	Insufficient data
Use of gastric residual volumes (GRVs) as a marker for aspiration to monitor EN	No	Yes, delay feeding when GRV is >500mL/6 hr	Yes, delay feeding when GRV is >500mL/6 hr	Check GRVs every 4-8 hrs and delay feeding if 250-500mLs
Preferred route of EN feeding	Stomach	-	Stomach	Small intestine
Preferred route of EN feeding for patients at high-risk for aspiration	Small intestine	Small intestine	Small intestine	Small intestine
Suggest use of gastric motility agents	Yes, for patients at high-risk for aspiration	-	Yes, for patients with feeding intolerance	Yes, for patients with feeding intolerance

- Not addressed in guidelines

† It has been suggested that when the level of energy needs provided by EN is <60%, 3 days after ICU admission, supplemental PN should be initiated to reach a maximum of 100% of energy needs.

‡ If IC is unavailable, suggest using the weight-based equation 11-14 kcal/kg actual body weight per day for patients with BMI in the range of 30-50 and 22-25 kcal/kg ideal body weight per day for patients with BMI >50.

‡ May likely be even higher in burn or multi-trauma patients.

KEY
ASPEN – American Society for Parenteral and Enteral Nutrition
SCCM – Society of Critical Care Medicine
ESICM – European Society of Intensive Care Medicine
ESPEN – European Society for Clinical Nutrition and Metabolism

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1. McClave SA, et al. *JPEN J Parenter Enteral Nutr.* 2016;40(2):159-211. | 2. Reintam Blaser A, et al. *Intensive Care Med.* 2017;43(3):380-398. | 3. Singer P, et al. *Clin Nutr.* 2019;38(1):48-79. | 4. 2015 Canadian Clinical Practice Guidelines. www.criticalcarenutrition.com. Accessed January 31, 2020.

