

Canadian Clinical Practice Guidelines 2015

List of New Randomized Controlled Trials since the 2013 update



**Critical Care
Nutrition**

Topics	# RCTs	Citations
1.0 EN vs PN	4	Justo Meirelles CM, de Aguilar-Nascimento JE. Enteral or parenteral nutrition in traumatic brain injury: a prospective randomised trial. <i>Nutr Hosp.</i> 2011 Sep-Oct;26(5):1120-4.
		*Wang G, Wen J, Xu L, Zhou S, Gong M, Wen P, Xiao X. Effect of enteral nutrition and ecoinutrition on bacterial translocation and cytokine production in patients with severe acute pancreatitis. <i>J Surg Res.</i> 2013 Aug;183(2):592-7.
		Harvey SE, Parrott F, Harrison DA, Bear DE, Segaran E, Beale R, Belligan G, Leonard R, Mythen MG, Rowan KM; the CALORIES Trial Investigators. Trial of the Route of Early Nutritional Support in Critically Ill Adults. <i>N Engl J Med.</i> 2014 Oct 1. [Epub ahead of print]
		Sun JK, Mu XW, Li WQ, Tong ZH, Li J, Zheng SY. Effects of early enteral nutrition on immune function of severe acute pancreatitis patients. <i>World J Gastroenterol.</i> 2013 Feb 14;19(6):917-22.
3.2 Achieving target dose of EN	2	Braunschweig CA, Sheean PM, Peterson SJ, Gomez Perez S, Freels S, Lateef O, Gurka D, Fantuzzi G. Intensive Nutrition in Acute Lung Injury: A Clinical Trial (INTACT). <i>JPEN J Parenter Enteral Nutr.</i> 2014 Apr 9. [Epub ahead of print]
		Peake SL, Davies AR, Deane AM, Lange K, Moran JL, O'Connor SN, Ridley EJ, Williams PJ, Chapman MJ; for the TARGET investigators the Australian New Zealand Intensive Care Society Clinical Trials Group. Use of a concentrated enteral nutrition solution to increase calorie delivery to critically ill patients: a randomized, double-blind, clinical trial. <i>Am J Clin Nutr.</i> 2014 Jul 2. [Epub ahead of print]
3.3b Hypocaloric EN	3	Petros S, Horbach M, Seidel F, Weidhase L. Hypocaloric vs Normocaloric Nutrition in Critically Ill Patients: A Prospective Randomized Pilot Trial. <i>JPEN J Parenter Enteral Nutr.</i> 2014 Apr 3. [Epub ahead of print]
		Charles EJ, Petroze RT, Metzger R, Hranjec T, Rosenberger LH, Riccio LM, McLeod MD, Guidry CA, Stukenborg GJ, Swenson BR, Willcutts KF, O'Donnell KB, Sawyer RG. Hypocaloric compared with eucaloric nutritional support and its effect on infection rates in a surgical intensive care unit: a randomized controlled trial. <i>Am J Clin Nutr.</i> 2014 Nov;100(5):1337-43.
		Arabi YM, Aldawood AS, Haddad SH, Al-Dorzi HM, Tamim HM, Jones G, Mehta S, McIntyre L, Solaiman O, Sakkijha MH, Sadat M, Afesh L; PermiT Trial Group. Permissive Underfeeding or Standard Enteral Feeding in Critically Ill Adults. <i>N Engl J Med.</i> 2015 May 20. [Epub ahead of print]

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4.1a Diets Supplemented with Arginine and Select Other Nutrients	1	Khorana J, Rerkasem K, Apichartpiyakul C, Sakonwasun C, Watcharasakslip W, Waniyapong T, Norasethtada T, Jittawatanarak K. Immunonutrition and cytokine response in patients with head injury. J Med Assoc Thai. 2009 Feb;92(2):188-94.
4.1bi Fish Oils, Borage Oils and Antioxidants	1	Kagan I, Cohen J, Stein M, Bendavid I, Pinsker D, Silva V, Theilla M, Anbar R, Lev S, Grinev M, Singer P. Preemptive enteral nutrition enriched with eicosapentaenoic acid, gamma-linolenic acid and antioxidants in severe multiple trauma: a prospective, randomized, double-blind study. Intensive Care Med. 2015 Mar;41(3):460-9.
4.1bii Fish Oils Supplementation	1	Parish M, Valiyi F, Hamishehkar H, Sanaie S, Asghari Jafarabadi M, Golzari SE, Mahmoodpoor A. The Effect of Omega-3 Fatty Acids on ARDS: A Randomized Double-Blind Study. Adv Pharm Bull. 2014 Dec;4(Suppl 2):555-61.
4.1c EN Glutamine	3	van Zanten AR, Sztark F, Kaisers UX, Zielmann S, Felbinger TW, Sablotzki AR, De Waele JJ, Timsit JF, Honing ML, Keh D, Vincent JL, Zazzo JF, Fijn HB, Petit L, Preiser JC, van Horssen PJ, Hofman Z. High-protein enteral nutrition enriched with immune-modulating nutrients vs standard high-protein enteral nutrition and nosocomial infections in the ICU: a randomized clinical trial. JAMA. 2014 Aug 6;312(5):514-24
		Pattanshetti VM, Powar RS, Godhi AS, Metgud SC. Enteral glutamine supplementation reducing infectious morbidity in burns patients: a 2 randomized controlled trial. Indian J Surg. 2009 Aug;71(4):193-7.
		**Koksal GM, Erbabacan E, Tunali Y, Karaoren G, Vehid S, Oz H. The effects of intravenous, enteral and combined administration of glutamine on malnutrition in sepsis: a randomized clinical trial. Asia Pac J Clin Nutr. 2014;23(1):34-40.
4.2c High vs low protein	1	Rugeles SJ, Rueda JD, Díaz CE, Rosselli D. Hyperproteic hypocaloric enteral nutrition in the critically ill patient: A randomized controlled clinical trial. Indian J Crit Care Med. 2013 Nov;17(6):343-9.
4.5 EN Fibre	1	Majid HA, Cole J, Emery PW, Whelan K. Additional oligofructose/inulin does not increase faecal bifidobacteria in critically ill patients receiving enteral nutrition: A randomised controlled trial. Clin Nutr. 2013 Nov 16. (Epub)
5.1 EN Feeding Protocols	2	Heyland DK, Murch L, Cahill N, McCall M, Muscedere J, Stelfox HT, Bray T, Tanguay T, Jiang X, Day AG. Enhanced protein-energy provision via the enteral route feeding protocol in critically ill patients: results of a cluster randomized trial. Crit Care Med. 2013 Dec;41(12):2743-53.

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		Zavertařilo LL, Semen'kova GV, Leřderman IN. [Effect of an original enteral feeding protocol on clinical outcome indicators in patients with acute cerebral damage of vascular and traumatic genesis]. <i>Anesteziol Reanimatol.</i> 2010 Jul-Aug;(4):35-8 [article in Russian].
5.3 Small bowel vs gastric	1	Friedman G, Flavia Couto CL, Becker M. Randomized study to compare nasojejunal with nasogastric nutrition in critically ill patients without prior evidence of altered gastric emptying. <i>Indian J Crit Care Med.</i> 2015 Feb;19(2):71-5.
5.5 GRVs	1	Williams TA, Leslie G, Mills L, Leen T, Davies H, Hendron D, Dobb GJ. Frequency of Aspirating Gastric Tubes for Patients Receiving Enteral Nutrition in the ICU: A Randomized Controlled Trial. <i>JPEN J Parenter Enteral Nutr.</i> 2014 Sep;38(7):809-16.
6.2 EN Probiotics	6	Tan M, Zhu JC, Du J, Zhang LM, Yin HH. Effects of probiotics on serum levels of Th1/Th2 cytokine and clinical outcomes in severe traumatic brain-injured patients: a prospective randomized pilot study. <i>Crit Care.</i> 2011;15(6):R290.
		*Wang G, Wen J, Xu L, Zhou S, Gong M, Wen P, Xiao X. Effect of enteral nutrition and ecoinmunonutrition on bacterial translocation and cytokine production in patients with severe acute pancreatitis. <i>J Surg Res.</i> 2013 Aug;183(2):592-7.
		Lopez de Toro Martın-Consuegra I, Sanchez-Casado M, Perez-Pedrero Sanchez-Belmonte MJ, Lopez-Reina Torrijos P, Sanchez-Rodrıguez P, Raigal-Cano A, Heredero-Galvez E, Zubigaray SB, Arrese-Coscolluela MA. [The influence of symbiotics in multi-organ failure: randomised trial]. <i>Med Clin (Barc).</i> 2014 Aug 19;143(4):143-9 [article in Spanish].
		Sanaie S, Ebrahimi-Mameghani M, Hamishehkar H, Mojtahedzadeh M, Mahmoodpoor A. Effect of a multispecies probiotic on inflammatory markers in critically ill patients: A randomized, double-blind, placebo-controlled trial. <i>J Res Med Sci</i> 2014 Sept; 19:827-33
		Tan M, Lu XL, Duan JW, Peng H, Zhu JC. [Effects of probiotics on blood glucose levels and clinical outcomes in patients with severe craniocerebral trauma]. <i>Zhonghua Wei Zhong Bing Ji Jiu Yi Xue.</i> 2013 Oct;25(10):627-30.
		Cui LH, Wang XH, Peng LH, Yu L, Yang YS. [The effects of early enteral nutrition with addition of probiotics on the prognosis of patients suffering from severe acute pancreatitis]. <i>Zhonghua Wei Zhong Bing Ji Jiu Yi Xue.</i> 2013 Apr;25(4):224-8.
8.0 PN vs Standard Care	1	Doig GS, Simpson F, Sweetman EA, Finfer SR, Cooper DJ, Heighes PT, Davies AR, O'Leary M, Solano T, Peake S; for the Early PN Investigators of the ANZICS Clinical Trials Group. Early Parenteral Nutrition in Critically Ill Patients With Short-term Relative Contraindications to Early Enteral Nutrition A Randomized Controlled Trial. <i>JAMA.</i> 2013;309(20):2130-2138.

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<p>9.2 PN Type of Lipids</p>	<p>4</p>	<p>Hall TC, Bilku DK, Al-Leswas D, Neal CP, Horst C, Cooke J, Metcalfe MS, Dennison AR. A Randomized Controlled Trial Investigating the Effects of Parenteral Fish Oil on Survival Outcomes in Critically Ill Patients With Sepsis: A Pilot Study. <i>JPEN J Parenter Enteral Nutr.</i> 2014 Jan 9. [Epub ahead of print]</p>
		<p>Burkhart CS, Dell-Kuster S, Siegemund M, Pargger H, Marsch S, Strebel SP, Steiner LA. Effect of n-3 fatty acids on markers of brain injury and incidence of sepsis-associated delirium in septic patients. <i>Acta Anaesthesiol Scand.</i> 2014 Mar 24. [Epub]</p>
		<p>Gultekin G, Sahin H, Inanc N, Uyanik F, Ok E. Impact of Omega-3 and Omega-9 fatty acids enriched total parenteral nutrition on blood chemistry and inflammatory markers in septic patients. <i>Pak J Med Sci.</i> 2014 Mar;30(2):299-304.</p>
		<p>Grau-Carmona T, Bonet-Saris A, García-de-Lorenzo A, Sánchez-Alvarez C, Rodríguez-Pozo A, Acosta-Escribano J, Miñambres E, Herrero-Meseguer JI, Mesejo A. Influence of n-3 Polyunsaturated Fatty Acids Enriched Lipid Emulsions on Nosocomial Infections and Clinical Outcomes in Critically Ill Patients: ICU Lipids Study. <i>Crit Care Med.</i> 2014 Sep 15. [Epub ahead of print]</p>
<p>9.4a PN Glutamine</p>	<p>4</p>	<p>Carroll PV, Jackson NC, Russell-Jones DL, Treacher DF, Sönksen PH, Umpleby AM. Combined growth hormone/insulin-like growth factor I in addition to glutamine-supplemented TPN results in net protein anabolism in critical illness. <i>Am J Physiol Endocrinol Metab.</i> 2004 Jan;286(1):E151-7.</p>
		<p>Pérez-Bárcena J, Marsé P, Zabalegui-Pérez A, Corral E, Herrán-Monge R, Gero-Escapa M, Cervera M, Llompарт-Pou JA, Ayestarán I, Raurich JM, Oliver A, Buño A, García de Lorenzo A, Frontera G. A randomized trial of intravenous glutamine supplementation in trauma ICU patients. <i>Intensive Care Med.</i> 2014 Feb 21. [Epub ahead of print]</p>
		<p>Grintescu IM, Luca Vasiliu I, Cucoreanu Badica I, Mirea L, Pavelescu D, Balanescu A, Grintescu IC. The influence of parenteral glutamine supplementation on glucose homeostasis in critically ill polytrauma patients-A randomized-controlled clinical study. <i>Clin Nutr.</i> 2014 May 28. pii: S0261-5614(14)00137-X.</p>
		<p>**Koksal GM, Erbabacan E, Tunali Y, Karaoren G, Vehid S, Oz H. The effects of intravenous, enteral and combined administration of glutamine on malnutrition in sepsis: a randomized clinical trial. <i>Asia Pac J Clin Nutr.</i> 2014;23(1):34-40.</p>
<p>9.4b EN and PN Glutamine</p>	<p>1</p>	<p>**Koksal GM, Erbabacan E, Tunali Y, Karaoren G, Vehid S, Oz H. The effects of intravenous, enteral and combined administration of glutamine on malnutrition in sepsis: a randomized clinical trial. <i>Asia Pac J Clin Nutr.</i> 2014;23(1):34-40.</p>

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9.4c Enteral vs IV Glutamine New section	1	Uranjek J, Vovk I, Kompan L. Effect of the route of glutamine supplementation (enteral versus parenteral) on intestinal permeability on surgical intensive care unit patients: A pilot study. <i>Surgical practice</i> . 2013;17:153-160.
10.4a Optimal glucose control: insulin therapy	1	Aron A, Wang J, Collier B, Ahmed N, Brateanu A. Subcutaneous versus intravenous insulin therapy for glucose control in non-diabetic trauma patients. A randomized controlled trial. <i>J Clin Pharm Ther</i> . 2013 Feb;38(1):24-30.
11.1 Combined Vitamins and Trace Elements	2	Nogueira CR, Borges F, Lameu E, Franca C, Ramalho A. Effects of supplementation of antioxidant vitamins and lipid peroxidation in critically ill patients. <i>Nutr Hosp</i> . 2013 Sep-Oct;28(5):1666-72. *Bloos [unpublished data]
11.2 PN Selenium alone or in combination	2	Woth G, Nagy B, Mérei Á, Ernyey B, Vincze R, Kaurics Z, Lantos J, Bogár L, Mühl D. The effect of Na-selenite treatment on the oxidative stress-antioxidants balance of multiple organ failure. <i>J Crit Care</i> . 2014 Oct;29(5):883.e7-11. *Bloos [unpublished data]
11.3 IV Vit C New section	1	Fowler AA 3rd, Syed AA, Knowlson S, Sculthorpe R, Farthing D, DeWilde C, Farthing CA, Larus TL, Martin E, Brophy DF, Gupta S; Medical Respiratory Intensive Care Unit Nursing, Fisher BJ, Natarajan R. Phase I safety trial of intravenous ascorbic acid in patients with severe sepsis. <i>J Transl Med</i> . 2014 Jan 31;12:32.
12.0 Vitamin D	1	Amrein K, Schnedl C, Holl A, Riedl R, Christopher KB, Pachler C, Urbanic Purkart T, Waltensdorfer A, Münch A, Warnkross H, Stojakovic T, Bisping E, Toller W, Smolle KH, Berghold A, Pieber TR, Dobnig H. Effect of High-Dose Vitamin D3 on Hospital Length of Stay in Critically Ill Patients With Vitamin D Deficiency: The VITdAL-ICU Randomized Clinical Trial. <i>JAMA</i> . 2014 Sep 30. [Epub ahead of print].
Total # unique RCTs	41	
Total topics to update	22	

*Article is included in two topics

**Article is included in three topics