## IMPACT® FAMILY OF FORMULAS Selected Bibliography

- Aida T et al. Preoperative immunonutrition decreases postoperative complications by modulating prostaglandin E2 production and T-cell differentiation in patients undergoing pancreatoduodenectomy. Surg 2014;155:124-133.
- 2. Alito Aprelino M and de Aguilar-Nascimento JE. Multimodal perioperative care plus immunonutrition verses traditional care in total hip arthroplasty: a randomized pilot study. *Nutrition Journal* 2016; 15:34.
- Atkinson S et al. on behalf of the Guy's Hospital Intensive Care Group. A prospective, randomized, double-blind, controlled clinical trial of enteral immunonutrition in the critically ill. Crit Care Med 1998;26(7):1164-1172.
- Barker LA et al. Preoperative immunonutrition and its effect on postoperative outcomes in well-nourished and malnourished gastrointestinal surgery patients: a randomized controlled trial. *Eur J Clin Nutr 26* June 2013; DOI:10.1038/ejcn.2013.117.
- 5. Beduya R et al. The Use of IMPACT® in Wound Healing. Internal Report.
- 6. Bertrand J et al. Impact of Preoperative Immunonutrition on Morbidity Following Cystectomy for Bladder Cancer: A Case-Control Pilot Study. *World J Urol* 2014;32:233-237.
- 7. Bower RH et al. Early administration of a formula (IMPACT®) supplemented with arginine, nucleotides, and fish oil in intensive care unit patients: Results of a multicenter, prospective, randomized, clinical trial. *Crit Care Med* 1995;23(3):436-449.
- Bozzetti F et al. Postoperative complications in gastrointestinal cancer patients: The joint role of the nutritional status and the nutritional support. *Clin Nutr* 2007;26:698-709.
- **9.** Braga et al. Benefits of early postoperative enteral feeding in cancer patients. *Infusionsther Tranfusionsmed.* 1995;22:280-284.
- **10.** Braga M et al. Immune and nutritional effects of early enteral nutrition after major abdominal operations. *Eur J Surg.* 1996;162:105-112.
- **11.** Braga M et al. Artificial nutrition after major abdominal surgery: impact of route of administration and composition of the diet. *Crit Care Med* 1998;26(1):24-30.
- **12**. Braga M et al. Perioperative immunonutrition in patients undergoing cancer surgery. Results of a randomized double-blind Phase 3 Trial. *Arch Surg* 1999;134:428-433.
- Braga M et al. Artificial nutrition after major pancreatic resection. Results of a prospective randomized clinical trial. JPEN 1999;23(1):S2.
- **14.** Braga M et al. Nutritional approach in malnourished surgical patients: A prospective randomized study. *Arch Surg* 2002;137(2):174-180.
- **15**. Braga M et al. Preoperative oral arginine and n-3 fatty acid supplementation improves the immunometabolic host response and outcome after colorectal resection for cancer. *Surgery* 2002;132(5):805-814.
- **16.** Braga M et al. Preoperative immunonutrition: cost-benefit analysis. *JPEN* 2005;29(1 Suppl):S57-S61.
- **17.** Braga M et al. Hospital resources consumed for surgical morbidity: effects of preoperative arginine and n-3 fatty acid supplementation on costs. *Nutrition* 2005;21:1078-1086.
- **18.** Braga M. Immunonutrition: from laboratory to clinical practice. *Nutrition* 2007;23:368-370.
- Celik JB et al. The role of immunonutrition in gynecologic oncologic surgery. Eur J Gynaecol Oncol 2009;30:418-421.
- 20. Cerra FB et al. Improvement of immune function in ICU patients by enteral nutrition supplemented with arginine, RNA, and menhaden fish oil is independent of nitrogen balance. *Nutrition* 1991;7(3):193-1991.
- **21.** Chapman JS et al. Post-operative Enteral Immunonutrition for Gynecologic Oncology Patients Undergoing Laparotomy Decreases Wound Complications. *Gyn Onc* 2015;137:523-528.
- 22. Chendrasekhar A et al. Evaluation of an enhanced diet in patients with severe closed head injury. *Crit Care Med* 1997;23(1 Suppl):A80.
- Chevrou-Séverac H et al. Cost-effectiveness analysis of immunemodulating nutritional support for gastrointestinal cancer patients. *Clin Nutr* 2014;33(4):649-654.

- 24. Clemmer TP et al. Introduction of immune-enhancing enteral formulas correlates with reduction in nosocomial infection rates in an intensive care unit. *JPEN* 2000;24(1):p0024.
- 25. Daly JM et al. Enteral nutrition with supplemental arginine, RNA, and omega-3 fatty acids in patients after operation: Immunologic, metabolic, and clinical outcome. Surgery 1992;112(1):56-67.
- Daly JM et al. Enteral nutrition during multimodality therapy in upper gastrointestinal cancer patients. Ann Surg 1995;221(4):327-338.
- Drover JW et al. Perioperative use of arginine-supplemented diets: a systematic review of the evidence. J Am Coll Surg 2011;212(3):385-399.
- 28. Egberg D et al. Effects of consumption of an oral supplement with added marine oil n-3 fatty acids, arginine and nucleotides on plasma phospholipids. JPEN 2005;29:S25.
- 29. Falewee MN et al. Reduced infections with perioperative immunonutrition in head and neck cancer: Exploratory results of a multicenter, prospective, randomized, double-blind study. *Clin Nutr* 2014;776-784.
- **30.** Farber MS et al. Reducing costs and patient morbidity in the enterally fed intensive care unit patient. *JPEN* 2005;29(1 Suppl):S62-S69.
- **31.** Farreras N et al. Effect of early postoperative enteral immunonutrition on wound healing in patients undergoing surgery for gastric cancer. *Clin Nutr* 2005;24:55-65.
- **32.** Felekis D et al. Effect of Perioperative Immuno-Enhanced Enteral Nutrition on Inflammatory Response, Nutritional Status, and Outcomes in Head and Neck Cancer Patients Undergoing Major Surgery. *Nutr and Cancer* 2010; 62(8):1105-1112.
- 33. Finco C et al. Prospective randomized study on perioperative enteral immunonutrition in laparoscopic colorectal cancer. Surgical Endoscopy 2007;21(7):1175-1179.
- **34.** Fujitani K et al. Prospective randomized trial of preoperative enteral immunonutrition followed by elective total gastrectomy for gastric cancer. *Brit J Surg* 2012;99:621-629.
- **35.** Galban C et al. An immune-enhancing enteral diet reduces mortality rate and episodes of bacteremia in septic ICU patients. *Crit Care Med* 2000;28(3):643-648.
- **36.** Gianotti L et al. Effect of route of delivery and formulation of postoperative nutritional support In patients undergoing major operations for malignant neoplasms. *Arch Surg* 1997;132:1222-1230.
- 37. Gianotti L et al. A prospective, randomized clinical trial on perioperative feeding with an arginine-, omega-3 fatty acid-, and RNA-enriched enteral diet: effect on host response and nutritional status. JPEN 1999;23:314-320.
- **38.** Gianotti L et al. A randomized controlled trial of preoperative oral supplementation with a specialized diet in patients with gastrointestinal cancer, *Gastroenterology* 2002;122(7):1763-1770.
- **39.** Giger U et al. Preoperative Immunonutrition Suppresses Perioperative Inflammatory Response in Patients with Major Abdominal Surgery-A randomized Controlled Pilot Trial. *Annals of Surgical Oncology* 2007;14(10):2798-2806.
- 40. Gomez-Sanchez MB et al. Evaluation of perioperative nutritional therapy in patients with gastrointestinal tract neoplasms. *Nutr Hosp* 2011;26(5):1073-1080.
- Hamilton-Reeves JM et al. Effects of Immunonutrition for Cystectomy on Immune Response and Infection Rates: A Pilot Randomized Controlled Clinical Trial. *Eur Urol* 2016;69(3):389-392.
- **42**. Harrison LE et al. Early postoperative enteral nutrition improves peripheral protein kinetics in upper gastrointestinal cancer patients undergoing complete resection: a randomized trial. *JPEN* 1997;21:202-207.
- **43.** Hasselmann M et al. Enteral feeding supplemented with arginine, fish oil and nucleotides (IMPACT®) reduces infection rate and improves immunitary status in critically ill patients. *Intensive Care Med* 1997;23(1):S136.
- **44.** Horie H et al. Favorable Effects of Preoperative Enteral Immunonutrition on a Surgical Site Infection in Patients with Colorectal Cancer Without Malnutrition. *Surg Today* 2006;36:1063-1068.

## IMPACT® FAMILY OF FORMULAS Selected Bibliography

- 45. Iwase H et al. Nutritional Effect of Oral Supplement Enriched in n-3 Fatty Acids, Arginine, RNA on Immune Response and Leukocyte-platelet Aggregate Formation in Patients Undergoing Cardiac Surgery. Nutr Met Ins 2014;7:39-46.
- **46.** Jiang ZM et al. The role of immune enhanced enteral nutrition on plasma amino acid, gut permeability and clinical outcome. *Acta Academiae Medicinae Sinicae* 2001;23:515-518.
- **47.** Kaspar KM et al. Specialized nutrition improves outcomes of surgery despite country-specific rates of complications. *Eur Soc Intern Care Med 18th Annual Congress*, September 25-28, 2005; S106: Abstract 402.
- **48.** Kemen M et al. Early postoperative enteral nutrition with arginine, omega 3 fatty acids and ribonucleic acid-supplemented diet versus placebo in cancer patients: An immunological evaluation of IMPACT<sup>®</sup>. *Crit Care Med* 1995;23(4):652-659.
- **49.** Mack L et al. Gastric Decompression and Enteral Feeding Through a Double-Lumen Gastrojejunostomy Tube Improves Outcomes After Pancreaticoduodenectomy. *Ann Surg* 2004; 240:845-851.
- 50. Marano L et al. Clinical and immunological impact of early postoperative enteral immunonutrition after total gastrectomy in gastric cancer patients: A prospective randomized study. Ann Surg Oncol 2013;20(12):3912-3918.
- Maruyama T et al. Immunonutritional diet modulates natural killer cell activation and Th17 cell distribution in patients with gastric and esophageal cancer. Nutr 2011;27:146-152.
- 52. Mauskopf JA et al. Immunonutrition for patients undergoing elective surgery for gastrointestinal cancer: Impact on hospital costs. WJSO 2012;10:136 doi:10.1186/1477-7819-10-136.
- 53. McCarthy M et al. Perioperative Immunonutrition in Head and Neck Cancer: A Pilot Study Abstract. Presented at Clinical Nutrition Week 2007.
- 54. Nakamura K et al. Influence of preoperative administration of n-3 fatty acidenriched supplement on inflammatory and immune responses in patients undergoing major surgery for cancer. Nutrition 2005;21:639-649.
- 55. Okamoto Y et al. Attenuation of the systemic inflammatory response and infectious complications after gastrectomy with preoperative oral arginine and omega-3 fatty acids supplemented immunonutrition. World J Surg 2006;33:1815-1821.
- **56.** Plank LD et al. Pre- and postoperative immunonutrition in patients undergoing liver transplantation: a pilot study of safety and efficacy. *Clin Nutr* 2005;24:288-296.
- Rodrigo Casanova MP and Garcia Pena JM. Influence of the composition of the enteral nutrition on the infection of the critical patient. *Nutr Hosp* 1997;2:80-84.
- Rooney K et al. Effects of a specialized enteral formula in burn patients JADA 1995;95(9):A16.
- **59.** Rowan NR et al. Utility of a Perioperative Nutritional Intervention on Postoperative Outcomes in High-Risk Head and Neck Cancer Patients. *Oral Onc* 2016;54:42-46.
- 60. Saffle JR et al. Randomized trial of immune-enhancing enteral nutrition in burn patients. J of Trauma: Injury, Infection, Critical Care 1997;42(5):793-800.
- **61.** Schilling J et al. Clinical outcome and immunology of postoperative arginine, omega-3 fatty Acids, and nucleotide-enriched enteral feeding: A randomized prospective comparison with standard enteral and low calories/low fat IV solutions. *Nutrition* 1996;12(6):423-429.
- **62**. Senkal M et al. Early postoperative enteral immunonutrition: Clinical outcome and cost-comparison analysis in surgical patients. *Crit Care Med* 1997;25(9):1489-1496.
- 63. Senkal M et al. Outcome and cost-effectiveness of perioperative enteral immunonutrition in patients undergoing elective upper gastrointestinal tract surgery: A prospective randomized trial. Arch Surg 1999;134:1309-1316.

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- **64.** Senkal M et al. Preoperative oral supplementation with long-chain omega-3 fatty acids beneficially alters phospholipid fatty acid patterns in liver, gut mucosa, and tumor tissue. *JPEN* 2005;29(4):236-240.
- **65.** Shirakawa H et al. Compliance with and effects of preoperative immunonutrition in patients undergoing pancreaticoduodenectomy. *J Hepatobiliary Pancreat Sci* 2011: DOI: 10.1007/s00534-011-0416-3.
- **66.** Snyderman CH et al. Reduced postoperative infections with an immuneenhancing nutritional supplement. *Laryngoscope* 1999;109:915-921.
- **67.** Sorensen D et al. Perioperative immunonutrition in head and neck cancer. *The Laryngoscope* 2009;119:1358-1364.
- **68**. Strickland A et al. Is the use of specialized nutritional formulas a costeffective strategy? JPEN 2005;29(1 Suppl):S81-S91.
- **69.** Suzuki D et al. Effects of perioperative immunonutrition on cell-mediated immunity, T helper type 1 (Th1)/Th2 Differentiation, and Th17 response after pancreaticoduodenectomy. *Surg* 2010;148:573-581.
- **70.** Takeuchi H et al. Clinical Significance of Perioperative Immunonutrition for Patients with Esophageal Cancer. *World J Surg* 2007;31:2160-2167.
- Talabiska DG et al. A modified enteral formula may reduce infectious complications in elderly intensive care patients. FASEB J 1993;7(3):A378.
- **72**. Taylor RM et al. Nutrition support in critically ill children. *Clin Nutr* 2003;22(4):365-369.
- **73.** Tepaske R et al. Effect of preoperative oral immune-enhancing nutritional supplement on patients at high risk of infection after cardiac surgery: a randomized placebo controlled trial. *Lancet* 2001;358:696-701.
- 74. Tepaske R et al. Glycine does Not Add to the Beneficial Effects of Perioperative oral Immune-Enhancing Nutrition Supplements in High-risk Cardiac Surgery Patients. JPEN 2007;31(3):173-180.
- **75.** Tepaske R et al. Perioperative Immunonutrition in "High Risk" Cardiac Surgery Patients Improves Immunological Parameters and Clinical Outcome. *Presented at the European Society of Surgical Infection Meeting*, Oslo, June 1997.
- **76.** Thornblade LW et al. Preoperative immunonutrition and elective colorectal resection outcomes. *Presented at American Society of Colon and Rectal Surgeons* 2016.
- 77. Tsujinaka T et al. Effect of Preoperative Immunonutrition on Body Composition in Patients Undergoing Abdominal Cancer Surgery. Surg Today 2007;37:118-121.
- **78.** Tugrul S et al. The effects of immunonutrition on the development of nosocomial infections and on clinical outcomes in critically ill patients. *Turkish J Trauma & Emerg Surg* 2004;10:89-96.
- **79.** Turnock A et al. Perioperative immunonutrition in well-nourished patients undergoing surgery for head and neck cancer: Evaluation of inflammatory and immunologic outcomes. *Nutrients* 2013;5:1186-1199.
- **80.** Waitzberg DL et al. Post surgical infections are reduced with specialized nutrition support. *World J Surgery* 2006;30:1592-1604.
- 81. Weimann A et al. Influence of arginine, omega-3 fatty acids and nucleotidesupplemented enteral support of systemic inflammatory response syndrome and multiple organ failure in patients after severe trauma. *Nutrition* 1998;14(2):165-172.
- 82. Wollschlager C et al. Lipid, arginine and RNA supplemented enteral formula (IMPACT<sup>®</sup>) alters airway colonization in intubated patients. *Am Rev Resp Dis* 1990;141:334A.
- **83.** Xu J et al. Preoperative enteral immunonutrition improves postoperative outcome in patients with Gastrointestinal cancer. *World Journal of Surgery* 2006;30:1284-1289.

