



DEPARTMENTAL POLICY & PROCEDURE

Entity Name & Region: Clinical Nutrition Service-WR

Subject: Guidelines For The Use Of Immuno-Nutrition Formula

Original Date: Version 1 November 2000

Effective: August 2012

Reference: 028010-06 Version-7

Replaces Number: NUT-01-01-06 Version 5

Targeted Employees/Departments: Clinical Dietitians, Nursing Staff & Medical Staff

1. Purpose:

1.1 To define the criteria and guidelines to be met for a patient to be managed on an Immuno-Nutrition rich formula.

2. Definitions:

2.1 Immuno-Nutrition Formula: Formula containing nutrients (Omega-3 polyunsaturated fatty acids (n-3 PUFA), Glutamine, Arginine, S-Amino Acids and Nucleotides) that enhance the immune system. It may provide a means of modulating the inflammatory response to injury and infection, and thus improves clinical outcome.

2.2 QCPR: QuadraMed Computerized Patient Record

3. Policy Statements:

3.1 Ideally the selection of the most appropriate immunonutrient formula should be directed by laboratory testing to would enable rapid and accurate assessment of the patient's immune status.

3.2 Since clinicians lack an “immunometer” nutritional decision-making is typically guided by the patient's diagnostic category in conjunction with relevant practice guidelines.

3.3 All Clinical Dietitians must follow the criteria of recommended the Immuno-Nutrition rich formula for the patient.

4. Procedures:

4.1 A referral must be made through the electronic system QCPR to the Clinical Dietitian for assessment of the need for immunonutrient formula.

4.2 In order to benefit from immunonutrient formula, patients must fill one of the following criteria:

4.2.1 Critically ill medical and surgical patients with:

4.2.1.1 Pre and post operative elective upper GI surgical



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4.2.1.2 Major neck surgery for cancer (Laryngectomy, Pharyngectomy)

4.2.1.3 Major abdominal cancer surgery (Esophagectomy, Gastrectomy, and Pancreatoduodenectomy)

4.2.1.4 Abdominal trauma index scores more than 20

4.2.1.5 Trauma/severe trauma

4.2.1.6 Burns (total body surface area more than 30%)

4.2.1.7 Head and neck cancer

4.2.1.8 Patients on mechanical ventilation (who are not severely septic)

4.2.1.9 Patients who are likely to be deficient in (Omega-3 polyunsaturated fatty acids (n-3 PUFA), Glutamine, Arginine, S-Amino Acids and Nucleotides).

4.3 Contraindications for the use of immunonutrient formula:

4.3.1 Patients on mechanical ventilation who are **severely septic**.

4.3.2 Critically ill patients with severe Systemic Inflammatory Response Syndrome (SIRS).

4.3.3 Critically ill patients with organ failure.

4.3.4 Patients on immunosuppressive therapy.

4.3.5 Critically ill patients with very severe illness who do not tolerate more than 700 milliliters (mls) enteral formulae per day.

4.4 In order to achieve the desired outcome it is essential to ensure that the feeding regimen meets the following guidelines:



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4.4.1 The optimal duration of administration is at least three (3) days, preferably five to ten (5–10) days:

4.4.1.1 Preoperative feeding minimum of five to seven (5-7) days prior to surgery.

4.4.1.2 Postoperative feeding should commence as soon as possible, preferably within the first twenty-four (24) hours (hrs).

4.4.2 At least 700 mls/d and 50%-65% goal calories met within forty-eight to seventy-two (48-72) hours (hrs) of goal energy requirements should be delivered to receive optimal therapeutic benefit from Immunonutrition formulas.

4.5 Patients should receive standard enteral formulations if the above criteria are not met for Immunonutrition.

5. Equipments/Forms:

5.1 QCPR

6. Related References:

6.1 Gianotti et al Gastroenterology 2002; 122: 1763-1770.

6.2 Braga et al Arch Surg 2002; 137 – 180.

6.3 Stechmiller et al Am J Crit Care 2004 3(1) 17-23.

6.4 Canadian Clinical Practice Guidelines (CCPG) for nutritional support in mechanically ventilated critically ill adults (updated in 2009).

6.5 European Society for Parenteral and Enteral Nutrition (ESPEN) guidelines on enteral nutrition in intensive care (published in 2006).

6.6 Society of Critical Care Medicine and American Society of Enteral and Parenteral Nutrition (SCCM/ASPEN) nutritional guidelines for critically ill adults (published in 2009).



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6.7 National Institute for Health and Clinical Excellence (NICE) Guidelines: “Nutrition Support in Adults: Oral Nutrition Support, Enteral Tube Feeding and Parenteral Nutrition”, issue date: February-2006.

6.8 Dietitians Association of Australia: Parenteral Nutrition Manual for Adults in Health Care Facilities”, Nutrition Support Interest Group-September 2011.

7. Appendices:

None

8. Recommendations:

None