

NUTRITION IN CANCER AND CRITICAL CARE

4 Credits (Th)

Objectives:

The course will enable the students to:

1. Understand the physiology, metabolism and special requirements of the critically ill.
2. Be familiar with the special nutritional support techniques and feeding formulations to meet their nutritional needs.

Contents:

| Module No | Objectives | Topic and Details | No of credits |
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| 1 | <ol style="list-style-type: none">1. To understand the different nutritional support systems, indications for use, their administration, and complications.2. To know about the composition of different formulations used in enteral and parenteral nutrition. | <p>Nutritional support systems and other life – saving measures for the critically ill.</p> <p>Enteral and parenteral nutrition support. Role of immune enhancers, conditionally essential nutrients, immune suppressants, and special diets in critical care.</p> <p>Enteral Nutrition :</p> <ol style="list-style-type: none">i). Various sites for Enteral nutritionii). In brief, discussion on Ryle's tube and its careiii). Types of feeds, advantages and disadvantage of home-based feeds, Commercial formula feeds.iv). Incorporation of easily digestible foods.v). Requirements of nutrients according to problems eg. Renal, respiratory etc. | 1 |

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| | | <p>Total Parental Nutrition</p> <p>i). The importance of TPN</p> <p>ii). Long term effect of its use</p> <p>iii).Site of TPN and its care</p> <p>iv).Composition</p> <p>Diet related ethical issues in the terminally ill.</p> <p>Nutritional Support System and Complications including refeeding syndrome and rehabilitation diets.</p> <p><i>Evaluation: Market survey on availability, composition and price of EN and TPN formulations</i></p> | |
| 2 | <p>1. To explain the pathophysiologic and metabolic consequences of cancer</p> <p>2. To understand the preventive and therapeutic role of diet and nutritional care.</p> | <p>Nutrition and Cancer</p> <p>Etiology and Pathogenesis of carcinogenesis</p> <p>Metabolic and Nutritional Alterations in Malignancy</p> <p>Interrelationships of nutritional status and systemic effects of cancer, Cancer cachexia</p> <p>Nutritional impacts of cancer therapy</p> <p>Types of therapy</p> <p>Bone Marrow Transplant and its nutritional care</p> <p>Nutritional support of the Cancer patient</p> <p><i>Evaluation: Review of Recent research on role of therapeutic nutrition in cancer</i></p> | 1 |

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| 3 | <p>1.To understand the pathophysiologic, metabolic and clinical aspects of various critical care conditions</p> <p>2. Know the specific nutritional requirements and management of the conditions</p> | <p>Patho-physiological, clinical and metabolic aspects, special nutritional requirements, nutritional goals and monitoring the therapy in critical illnesses, nutritional screening and nutritional status assessment of the critically ill, recommendations and guidelines of expert groups, role of immune enhancers, conditionally essential nutrients:</p> <p>CV complications, stroke,</p> <p>Respiratory failure</p> <p>Multi organ failure</p> <p>Hepatic failure</p> <p>Surgery and its complications</p> <p>Sepsis and burns</p> <p><i>Evaluation: Review of evidence – based guidelines for the above conditions</i></p> <p><i>Discussion and presentation on evidence-based guidelines</i></p> | 2 |
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References:

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2. Shils, M.E., Olson, J.A., Shike, M. and Ross, A.C. (Ed) (1999): Modern Nutrition in Health and Disease. 9th Edition, Williams and Wilkins.
3. Shikora, S.A. and Blackburn, G.L. (Ed) (1999). Nutritional Support – Theory and Therapeutics, Chapman and Hall, ITP (International Thomson Publishing).
4. Mahan, L.K. and Escott – Stump, S. (2000): Krause’s Food Nutrition and Diet Therapy, 10th Ed. W.B. Saunders Ltd.
5. Phillips, G.D. and Lodgers C.L. (1986). Parenteral and Enteral Nutrition. A Practical Guide. Churchill Livingstone.

6. Kinney, J.M. and Borum, P. R. (editors) (1989) Perspectives in Clinical Nutrition. Urban and Schwarzenberg.
7. Torosian, M. H. (editor) (1995) Nutrition for the Hospitalised Patient. Basic Science & Principles of Practice.
8. Keynes, W. M. and Fowler, P.B.S. (1984) Clinical Endocrinology. William Heinemann Medical Books, London.
9. Shields, R. (editor) (1992) Bailliere's Clinical Gastroenterology, Bailliere Tindall London
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