

Book review

Artificial Nutrition Support in Clinical Practice. Edited by Jason Payne-James, George Grimble and David Silk. 2nd edition. Greenwich Medical Media, 2001. Hardback. £125. ISBN 1 9001 51979.

In our 'healthy' population, there is major public concern that the excess consumption of dietary energy over energy expenditure is causing obesity and overweight, leading to increased risks of cardiovascular disease, diabetes and cancer. Yet, in this same society, malnutrition, as suggested by underweight, is a common problem of patients in hospitals and nursing homes.

This malnutrition in hospital patients relates both to the quantity of the diet consumed and also the quality of that diet. Most studies, which have assessed the incidence of malnutrition in hospital patients have used anthropometry to indicate low body fat and muscle stores and therefore suggest an inadequate dietary intake of energy and possibly protein. However a diet adequate in energy may not be adequate in other macro- or micronutrients. There is less information on the quality of the diet consumed by hospital patients as it is difficult to assess dietary intake accurately and the biochemical markers, used to assess micronutrient status in healthy people, may in themselves be altered by disease.

Malnutrition in hospital patients decreases their quality of life, increases medical complications and drug use, and the associated increased length of hospital stay increases the costs of clinical care. All practical measures should therefore be taken, so as to reduce the incidence and severity of malnutrition in hospitalized patients.

The causes of malnutrition as seen in hospitalized patients are multifactorial and complex. Disease may increase the metabolic requirements for dietary energy and other nutrients whilst decreasing the intake and availability of these nutrients through anorexia, nausea, vomiting and diarrhoea and decreased absorption, altered metabolism and increased losses of body fluids or excretion. Therefore, to reduce the incidence of malnutrition effectively in hospital patients, clinicians need to understand the fundamentals of metabolism in health, the consequences of disease, how these can be ameliorated by diet and the limitations of these interventions.

The title of this book *Artificial Nutrition Support in Clinical Practice* understates the width and scope of the subject of nutrition covered. This book, edited by Payne-James, Grimble and Silk, is an excellent compilation of topics relevant to nutritional support. Each chapter is written by experts in their field. They have reviewed the current knowledge of the subject comprehensively and referenced their text. The initial chapters cover the metabolism of energy and protein, the physiology of nutrient absorption,

metabolism in the liver and gut, the metabolic response to starvation, injury and sepsis, the effects of cytokines, nutritional requirements in adults and children, appetite control in health and indicate the effect of malnutrition, nutrition support and disease on these factors. These chapters are relevant to all nutritionists, dietitians, biochemists, physiologists, clinicians and any others who want to update their current scientific knowledge of human nutrition in health and the possible consequences of disease.

As would be expected in a book on this topic, there is a chapter on malnutrition in hospitals, its incidence as reported in various studies, and the reduction in the length of hospital stay that can be achieved if patients are given nutritional support. There are comprehensive chapters on the theory of providing enteral and parenteral nutrition as well as the very practical aspects of nutrition support including the possible access routes, the initiation of the feeding regimen, the amount and frequency of feeding, the types of formula to use, monitoring of patient's nutritional status, the possible complications and the special issues that relate to paediatric nutritional support and home enteral and parenteral feeding.

The final chapters review the nutritional support of patients with diseases where nutritional support is an essential part of the treatment of these diseases. These include liver, renal, and respiratory diseases, pancreatitis, HIV, trauma and sepsis and burns, the elderly, and patients with cancer and short bowel syndrome. Each of these chapters highlights the particular nutritional challenges in providing nutritional support to such patients and the possible solutions.

My criticism of this book relates to the abbreviations used. Each chapter, as it was written by its expert, has its own abbreviations. It would have been helpful, if at the beginning of each chapter there was a list of the abbreviations used.

This book is not for the layman. However, it is a book that should be used to update knowledge of all health professionals where nutrition is a key part of their patients' treatment. This includes doctors, dietitians and nutrition nurses. It should be a reference book in libraries and departments serving doctors, nutrition nurses and dietitians. This book should also be used to underpin the teaching of nutritional metabolism and nutrition support to dietetics students in their pre-registration years. However, at £125 per copy it is too expensive to expect individual students to purchase this book.

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DOI: 10.1079/BJN2002584