PREFACE

Catabolic responses to surgical procedures are in large due to inadequate nutrition and not obligatory consequences of operative stress. Surgical procedures in general often lead to hypercatabolic state. Because the requirement of proteins, mineral and other elements change significantly during surgical conditions, the role of nutrition cannot be underestimated. Our goal is to integrate scientific foundations and clinical wisdom in providing a rational approach to the nutritional needs of the patients by developing a low cost kitchen based kitchen-based polymeric protein rich two (*EnS* and *EnM*) enteral diets with *substrate enriched* with glutamine (Soy, *GEnS* and Milk, *GEnM* enriched) and comparing the their efficacy with routine hospital (*EnR*) enteral nutrition enriched with/without glutamine (*GEnR*) in surgical gastrointestinal patients.

This thesis is divided into **5** parts

Chapter 1 presents a concise overview with specific objectives of the study

Chapter 2 deals with the detailed review of literature on the various aspects of nutrition in surgical gastrointestinal conditions including role on specific immunonutrients by emphasing on the recent available literature

Chapter 3 discusses the patients and methods adopted for the study.

Chapter 4 presents the findings of the various studies (Sections I, II, III) carried out and discusses the results obtained. The findings are presented below.

Section I: This section discusses the observations of the survey conducted in selected hospitals in order to understand the gastrointestinal disease profile in Ahmedabad, Gujarat.

Section II: This section discusses the observations between pre and post-operative nutritional status of the patients on routine hospital diet (*EnR*) and two

kitchen-based protein rich diets [Soya (*EnS*), Milk (*EnM*)] with its overall impact on nutritional status and decreasing length of stay.

Section III: This section discusses the therapeutic efficacy of Polymeric kitchen based protein rich enteral diets [soy (*GEnS*), milk (*GEnM*)] and routine- hospital enteral diet [*GEnR*] with *substrate enriched glutamine* in improving overall nutritional status and decreasing length of stay.

Chapter 5 presents an overall summary of the results along with the concluding remarks.

The figures and tables are numbered consequently through out the thesis.

Bibliography highlights a consolidated list of references in alphabetical order.

The salient features have been presented at the following Scientific meetings

- Indian Dietetic Association [IDA] (*Two abstracts*), The XXXVII Annual National Convention, Indore, 3rd and 4th December 2005.
- Indian Society for Parenteral & Enteral Nutrition [ISPEN], (*Two abstracts)* The 11th National Scientific Convention, Lucknow, November 2005.

Parts of the present study have been published in National Journals

- Choudhury J, Mani U V, Narwaria M [*2005]* A study on jejunal feeding of post-operative gastrointestinal patients with kitchen-made polymeric diet. Indian Journal of Clinical Practice (IJCP) 16(5) 10 –19.
- Choudhury J, Mani U V, Narwaria M [*2006*] Still hungry in hospital: pre and post-operative hospital nutrition of gastrointestinal patients- An indicative study. Indian Journal of Clinical Practice (IJCP) 16(11) 33 -39.
- Choudhury J, Mani U V, Narwaria M [*2006*] A comparative study between therapeutic efficacy of kitchen-based protein enriched polymeric enteral diets with routine hospital enteral nutrition in surgical gastrointestinal patients. Indian Journal of Clinical Practice (IJCP) 16 (12) 10 -16.