

# CONTENTS

<b>PREFACE</b> .....	13
Editor's remarks .....	13
<b>1. INTRODUCTION</b> .....	15
<b>2. MALNUTRITION</b> .....	19
2.1. Prevalence of Malnutrition .....	19
2.2. Simple starvation .....	22
2.3. Stress starvation .....	24
2.4. Influence of malnutrition on physiological function .....	28
2.5. Diagnosis of malnutrition .....	30
<b>3. SUBSTRATES USED IN PARENTERAL AND ENTERAL NUTRITION</b> .....	39
3.1. Energy .....	39
3.2. Carbohydrates .....	42
3.3. Lipids .....	44
3.4. Proteins and amino acids .....	48
3.5. Water and electrolytes .....	57
3.6. Trace elements in parenteral and enteral nutrition .....	63
3.7. Vitamins in enteral and parenteral nutrition .....	68
3.8. Role of antioxidants in nutritional support .....	74
3.9. Fibre and short chain fatty acids .....	79
<b>4. METHODS OF NUTRITIONAL SUPPORT</b> .....	85
4.1. Enteral nutrition .....	85
4.1.1. Ways of enteral nutrition delivery .....	85
4.1.1.1. Sipping .....	85
4.1.1.2. Transnasal access .....	86
4.1.1.3. Endoscopic access (PEG and PEJ) .....	90
4.1.1.4. Surgical access – gastrostomy, needle catheter jejunostomy .....	92
4.1.2. Diets for enteral nutrition .....	94
4.1.2.1. Home made diets .....	95
4.1.2.2. Polymeric formulas .....	96
4.1.2.3. Elemental and oligomeric diets .....	98
4.1.2.4. Special formulas .....	100
4.1.3. Enteral nutrition complications .....	106

4.2. Parenteral nutrition .....	111
4.2.1. Peripheral parenteral nutrition .....	111
4.2.2. Central parenteral nutrition .....	116
4.2.3. Composition of nutritional admixtures and formulas for parenteral nutrition .....	126
4.2.4. Different systems for parenteral nutrition .....	135
4.2.5. How to prepare AIO mixture .....	137
4.2.6. Stability of AIO mixtures .....	140
4.2.7. Special substrates for parenteral nutrition .....	144
<b>5. NUTRITIONAL SUPPORT IN DIFFERENT CLINICAL SITUATIONS .....</b>	<b>149</b>
5.1. Nutritional support in severe malnutrition .....	149
5.2. Perioperative nutrition .....	153
5.3. Nutritional support in trauma, sepsis and critical care .....	155
5.4. Nutritional support in inflammatory bowel disease .....	164
5.5. Nutritional support in liver disease .....	169
5.6. Nutritional support in renal disease .....	173
5.7. Nutritional support in cardiac and pulmonary diseases .....	179
5.8. Nutritional support in acute and chronic pancreatitis .....	183
5.9. Nutrition support in GI fistulas .....	188
5.10. Nutrition support in extensive gut resections .....	192
5.11. Nutritional support in diabetic patient .....	195
5.12. Nutritional support during pregnancy .....	197
5.13. Nutritional support in burn patient .....	200
5.14. Parenteral nutrition in paediatrics .....	205
5.15. Home artificial nutrition .....	213