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Is there a place for diabetic tube feeding formulations?

Disease Specific Feeds for Diabetes - The Evidence

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Enteral nutrition - glycemic control - gastric emptying

INTRODUCTION

- ◆ ~ 3% population in the UK have diabetes
- ◆ At least 10% of hospital population have diabetes
- ◆ 'Diabetes feeds' available in USA and Europe
- ◆ Currently unavailable in UK
- ◆ What is the evidence for their use?

Aims of Nutrition Support in Diabetes

To Avoid:-

- Hyperglycaemia
- Hypoglycaemia
- Hyperinsulinaemia
- Hypertriglyceridaemia
- Overfeeding
- Refeeding syndrome

ADA Evidence Based Recommendations

- ◆ Standard enteral formula or lower CHO feed
- ◆ * Energy 25-35 Kcal/kg body weight
- ◆ * Protein 1.0g/kg body weight
1.5g/kg body weight
- ◆ Lipids > 30% of total energy requirements
- ◆ Avoid overfeeding

Gastric Emptying

- ◆ 30-50% of patients with long standing diabetes are estimated to have delayed gastric emptying
- ◆ Gastric emptying is influenced by
 - degree of hyperglycaemia,
 - meal composition,
 - activity in the autonomic nervous system
 - hormonal activity

Points To Consider (Trials)

- ◆ Healthy patients with diabetes were included in the studies
- ◆ Small amount consumed orally
- ◆ Small number of studies published with small number of patients in each study
- ◆ Heterogeneity of the subjects
- ◆ Comparison of a reduced carbohydrate feed to a very high CHO formula
- ◆ No long term studies

Further research

- ◆ Assessment of requirements (BMI)
- ◆ Fibre (particularly soluble fibre)
- ◆ Metabolic requirements of patients
- ◆ Further research on the GI index of feeds
- ◆ Method of feeding - bolus 'v' pump
- ◆ Effect of impaired gastric emptying
- ◆ Studies greater than 3 months
- ◆ Numbers of patients being fed long term

Other Issues That Need Consideration

- ◆ **Requirements** of patients during acute phase of illness 'v' long term phase
- ◆ **Cost**
 - Direct
 - Indirect
- ◆ **Quality of Life**
 - No studies on the effect of long term feeding
 - Assessment tools do not apply to patients in this situation

Conclusion?

- * **D**oesn't come out with hard answers
- * **O**ne feed will not suit all
- * **E**valuate research
- * **S**ome evidence of clinical benefit in the long term
- * **N**ot add clinical benefit over good management in acute setting
- * **O**n-going monitoring of patient
- * **T**here needs to be further discussion