

the use of specialised eating utensils that have been developed to aid patients with strokes or amputations (53). It is also helpful to look at the ways in which lean mass could be maintained through the supervision of a physiotherapist or physical therapist.

NUTRITIONAL SUPPORT IN THE ELDERLY

Oral nutritional support plays an important role in elderly people with good gastrointestinal function and physical activity. Alteration of the appearance of food could raise the interest of the elderly. Changes of taste and smell of the food can be beneficial for the elderly with hyposmia and hypogeusia. Sip feeding with liquid diet with bland or ground foods should always be considered (28). The addition of a nutrient formula to a liquid diet can increase the elderly patient's mean energy intake significantly and change a negative nitrogen balance to a positive one. Improving the nutrient quality of meals delivered to homes by the meals-on-wheels programme, has been a useful approach to reduce the risk of inadequate nutrition in the elderly (54).

Enteral nutritional support

Indications and contraindications. In general, if the gastrointestinal (GI) tract is functioning, enteral nutritional support is preferred over parenteral therapy. Specific contraindications would include uncontrolled GI haemorrhage, obstruction or fistulas distal to the feeding site, peritonitis, ileus, intractable vomiting or insufficient functional small bowel to absorb the delivered nutrients. Intractable diarrhoea and high risk of aspiration are relative contraindications.

Before administering enteral nutritional support, a number of important factors must be considered in selecting a nutritional formula (Table 11) (55).

Enteral nutritional support should be formulated and designed in relation to the specific needs of the elderly patient. These needs will include physiological needs, physical comfort, safety and psychological welfare.

Table 11. Some important factors to be considered in selecting a nutritional formula.

Patient's nutrient requirements:

- consider formula's ratio of protein to total nonprotein calories.
- consider the requirements for vitamins, essential fatty acids, and minerals.

Patient's metabolic limitation:

- consider disease-specific formula for patient's with metabolic dysfunction, such as those caused by hepatic, renal, or cardiac failure.

Functional capacity of the patient's gastrointestinal tract:

- consider special formulas for patients with severe exocrine pancreatic insufficiency, biliary obstruction, short bowel syndrome, severe mucosal abnormality.

Parenteral nutritional support

Generally, elderly patients who have contraindications or cannot be managed safely and effectively with enteral feedings are potential candidates for parenteral alimentation. In some cases, parenteral alimentation can also be used in combination with enteral therapy.

The route of administration can be through a central or peripheral vein. With the introduction of high energy density lipid emulsions, peripheral alimentation is a preferred method for many elderly patients.

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