Perioperative Nutrition – Decision Tree

1. Well nourished patients

- Minor / Intermediate elective surgery
  - Normal diet up to 6 hours before surgery
  - Clear fluids up to 2 hours before surgery
  - Normal diet and oral fluids post operatively unless specific contraindication
  - Consider micronutrient supplements and reducing alcohol intake pre operatively

- Major elective surgery
  - Surgery within an appropriate ERAS programme including oral preoperative complex carbohydrate loading unless having immunonutrient regimen. Non insulin dependent diabetics may also have this regimen
  - Consider micronutrient supplementation and reducing alcohol intake prior to admission
  - Consider immunonutrition for 5-7 days preoperatively (especially upper GI oncology patients)
  - Normal diet for up to 6 hours before surgery and clear fluids up to 2 hours before surgery
  - Normal diet and oral fluids post operatively per ERAS protocol unless specific contraindication

The BAPEN Principles of Good Nutritional Practice (Decision Trees) have been prepared to assist health care professionals in the decision making processes surrounding nutritional care. Users of these materials may only do so on the condition that they exercise their own professional knowledge and skills. BAPEN does not owe a duty of care and cannot accept liability to anyone using these Decision Trees.
2. Undernourished patients

Minor / Intermediate elective surgery

- Formal dietetic assessment
- Delay elective surgery as clinically appropriate
- Determine cause of undernutrition
- Correct macronutrient and micronutrient deficiencies (beware refeeding syndrome and use NICE guidance7)
- Normal diet up to 6 hours before surgery and clear fluids up to 2 hours before surgery
- Normal diet and oral fluids post op unless specific contraindication

Major elective surgery

- Delay elective surgery as clinically appropriate

- Formal dietetic assessment
- Involve nutrition support team

Intestinal failure8

- Parenteral nutrition11 for macronutrient and micronutrient supplementation. Beware refeeding syndrome and use NICE guidance
- PPN whilst central access being arranged (PICC or central catheter)

- Exclude / treat occult or overt sepsis and continue to feed for 7 days minimum

Surgery within an ERAS programme where appropriate including preoperative complex carbohydrate loading (includes non insulin dependent diabetics)

- Consider immunonutrition for 5-7 days pre operatively especially in upper GI oncology patients

Remember malnutrition predisposes to anastomotic leaks. If surgery cannot be delayed or only a short period of nutritional supplementation possible consider the need to tailor surgery to a more conservative approach including avoidance of anastomoses or defunctioning of an anastomosis as appropriate
References

7. NICE CG032 Guideline Feb 2006 Nutrition support in adults. Oral nutrition support, enteral tube feeding and parenteral nutrition
8. The surgical management of patients with acute intestinal failure. ASGBI issues in professional practice. September 2010

Further Reading
