Nutritional advice information for GPs and Hospital Specialists

Key Advice

- Nutritional support is needed for at least 12-16 weeks following transplantation
- Dietician follow-up is available through the post-transplant clinic at SJUH
- New onset diabetes or disturbance of diabetic control is common initially and hypoglycaemic regimes often need frequent adjustment so as not to compromise nutrition support initially. In the long term the usual diabetic dietary advice applies.
- Patients are immunocompromised and receive food safety advice. Lifelong avoidance of some foods is advised
- Grapefruit and its juice can interact with medication and should be avoided
- High potassium can result from medication and in the early post-transplant days foods rich in potassium may be restricted if hyperkalaemic. In the longer term this is not indicated.

General advice

- Following liver transplantation energy and protein requirements are increased up to 50% for 12-16 weeks post surgery. Aggressive nutritional support is needed during this period. Almost 100% of patients who receive liver transplants have protein energy malnutrition.
- Most patients will require nutritional support products (ACBS - Advisory Committee on Borderline Substances - listed) for one to two months post discharge. The liver specialist Dietitian will write to you regarding this request on discharge. These products can normally be discontinued by month 3 post transplantation. Patients are reviewed regularly in post transplant clinic where their supplements will gradually be reduced following reassessment.
- Occasionally patients are discharged with nasogastric tubes, PEG or jejunostomy tubes still being used for feeding. General practitioners may be asked to prescribe the enteral feed. The feeding equipment, feed and pump will be provided by the ward for the first week and
instructions sent for an ongoing supply. There will be liaison with the local hospital dietetic department regarding follow up and supply with changeover arrangements planned if feeding systems different to the Leeds contract.

**Diabetes**

- New onset diabetes is not uncommon especially in patients who are on prednisolone and tacrolimus. Basic diabetic dietary guidance is given to patients in hospital including advice on incorporation of sip feeds into their daily intake. However, nutritional support is the utmost priority in the immediate post transplant period. Use of oral hypoglycaemic or insulin regimens may need to be adjusted regularly as oral dietary intake increases and sip feeds are discontinued.

**Food safety after transplantation**

- Immunocompromised patients need life long food safety guidelines to prevent food borne infections. They are educated regarding this in hospital and have written guidelines on food safety. Further information is available from the Leeds Liver Unit patient information Book 2 (link to website) but as a brief guide:

**Foods to avoid post transplant**

- Unpasteurised milk, probiotics or bio yoghurt
- Undercooked eggs, meat, chicken and avoidance of reheated meat/chicken
- Shellfish purchased loose or any raw fish
- French or Swiss cheese e.g. Brie, Stilton, Camembert
- Unwashed fruit and vegetables, avoid salad bars or pre packed salads
- Still bottled water

**Grapefruit avoidance**

- Grapefruit affects the absorption of most immunosuppressive drugs. Therefore all patients on immunosuppressive drugs are advised to avoid grapefruit and its juice.

**Hyperkalaemia**

- Hyperkalemia is a fairly common side effect of tacrolimus and ciclosporin. All transplant patients have information on how to follow a low potassium diet in their discharge advice. They are contacted if the level is over 5.8 mmmol/l and advised how to follow this whilst the
hyperkalaemia is medically managed. Long term dietary potassium restriction when no longer necessary can be detrimental to nutritional status and restricts vital micronutrients. Patients should be advised to relax the potassium restriction once normal levels are achieved.

Weight gain

- For various reasons excessive weight gain is seen in some patients after liver transplantation. Long term outcomes may be affected by this and patients should seek advice if their weight is becoming problematic. Healthy eating, cardioprotective dietary advice and regular exercise is encouraged after the initial healing period after surgery is over.

Further reading


Guideline provenance

This information sheet has been written by the specialist liver dieticians at St James's University Hospital as part of the WEYHN Network Development Project. The nutritional guidance contained in this sheet has been reviewed by consultant hepatologists in Leeds and sent for comments to a GP reference group in April 2011 prior to final release for WEYHN use.

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