Nutritional advice information for GPs and Hospital Specialists

Key Advice

- Risk factors for NAFLD are shared with the metabolic syndrome
- Even if it has not caused advanced liver disease it needs active management because of the risk factors for morbidity associated with cardiovascular disease.
- The key aspects of management are

  **Active weight management, avoiding crash dieting**
  - Aim for a reduction of 10% from baseline weight over 6-12 months
  - Aim for Calorie restriction to achieve 0.5-1kg/wk (1-2lb) week
  - Avoid weight loss that exceeds 1.5kg/wk - crash diets must be avoided as can worsen liver function

  **Alcohol restriction**
  - There is no known safe limit for alcohol intake for patients with NAFLD and even low levels of intake may be harmful

  **Exercise**
  - Encourage exercise for 30 minutes per day minimum.

  **Management of the other features of the metabolic syndrome**

If your patient has cirrhosis due to this condition please see our guidance on compensated and decompensated cirrhosis.

Non-alcoholic fatty liver disease (NAFLD): general information

- Non-alcoholic fatty liver disease (NAFLD) is a spectrum of fatty liver diseases in which there is a build up of fat in liver cells. These range from simple steatosis (fatty liver) to non-alcoholic steatohepatitis (NASH) to end-stage liver disease including cirrhosis. NASH is an inflammatory fibroising disease which can eventually lead to cirrhosis.
- NAFLD is often considered as the hepatic consequence of the metabolic syndrome.
• The Metabolic Syndrome is defined as the presence of 3 of the following (International Diabetes Federation consensus):
  o Central obesity with abdominal circumference >94cm(M) or >80cm (F)
  o Hypertension ≥ 130/85 mmHg or on treatment
  o Hypertriglyceridemia: Fasting triglyceride >1·7 mmol/l or current use of fibrates
  o Low HDL-cholesterol < 1·03mmol/l (M); < 1·29 mmol/l (F)
  o Glucose intolerance or known type 2 diabetes mellitus

• Consequently the presence of NAFLD is also strongly associated with increased cardiovascular risk and its incidence is rising with the increasingly obese UK population. This is why it can never be considered as not serious, even if the liver aspect itself is not at the more fibrotic end of the spectrum.

• People are therefore more likely to develop NAFLD if they:
  o are overweight, particularly central obesity (apple shaped body habitus)
  o have high blood cholesterol or triglyceride levels
  o have type 2 diabetes
  o have been diagnosed with insulin resistance
  o have hypertension

• In addition to the above, a high BMI above 28 kg/m² and type 2 diabetes (rather than glucose intolerance) are recognised risk factors for more advanced NAFLD (NASH and cirrhosis).

**General Advice**

• In all patients, except those with cirrhosis, weight reduction and exercise advice is strongly recommended.

• If necessary, lowering weight to a BMI between 25-30 kg/m² for obese patients and to 25 kg/m² or normal range for overweight patients. This might be considered ambitious and unsustainable in some patients: 10% weight reduction in 6 months to one year should be the initial target weight loss.

• Changing behaviour with respect to diet and weight is well recognized to be difficult with a high failure rate at achieving and maintaining weight loss for multi-factorial reasons. Dietary intervention is most likely to be successful if accompanied by behaviour modification therapy, cognitive behavioural therapy (not widely available for this purpose - check your area’s
services) and use of support groups e.g Weightwatchers and Slimming World which avoid rapid or crash dieting with over-restriction of calories. In the absence of formal services for this purpose, GPs should encourage use of such weight loss agencies and local weight management services as appropriate.

- Aim for Calorie restriction to achieve 0.5-1kg/wk (1-2lb) week and avoid weight loss that exceeds 1.5kg/wk. Crash diets must be avoided as they can worsen liver function.
- Give food group advice as illustrated in the eatwell plate. (The network website has an easy access page you can print for patients with this).
- Eating plenty of fruit and vegetables - aim for 5 portions per day
- Eating slow-release starchy foods (low GI), e.g. bread and potatoes
- Avoiding refined sugars and saturated fats, e.g. chocolate, cakes and biscuits
- Advise reducing or stopping alcohol (there is no known safe limit for alcohol intake in patients with NAFLD).
- Advise taking regular exercise, such as walking or swimming for at least 30 minutes a day.
- Patients with NAFLD will require prescription and treatment of each aspect of the metabolic syndrome. In known diabetics it is important to maintain as tight glycaemic control as possible. Maximise the use of oral hypoglycaemic drugs and insulin and review regularly.
- If blood cholesterol is high, patients are insulin resistant or hypertensive, giving dietary advice as well as medical treatment may be necessary. The network is developing advice on prescribing statins in patients with liver disease and this should be available in 2012.
- Obesity can also speed the damage associated with other conditions such as alcoholic liver disease and can decrease the effectiveness of treatments for hepatitis C.
- As long as patients don’t have advanced disease such as cirrhosis (see the WEYHN nutrition advice sheets for compensated and decompensated cirrhosis), then the eatwell plate advice will benefit most patients. [http://www.eatwell.gov.uk/](http://www.eatwell.gov.uk/)
The eatwell plate, developed by the Food Standards Agency will help patients to get a feel of how much to eat from each food group to keep a good balance.

To eat healthily, patients need to get the right balance between different foods. For most people, a well-balanced diet is one that is low in fat, sugar and salt and high in fibre. The diet should also contain enough protein and a wide range of vitamins and minerals.

To get further healthy eating and weight reducing advice the following web sites are useful:

- www.bda.uk.com/foodfacts
- www.diabetes.org.uk
- www.teenweightwise.com
- www.bdaweightwise.com

**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, Bradford and Hull and sent for comments to a GP reference group in August 2011 prior to final release for WEYHN use.

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