



## A summary of prescribing recommendations from NICE guidance

# Non-alcoholic Fatty Liver Disease

## NICE NG49: 2016

This guideline covers identifying, assessing and managing NAFLD in children (1 to 15 years), young people (16 to 17 years) and adults (≥ 18 years).

	Definition of terms
NAFLD	non-alcoholic fatty liver disease
ELF	enhanced liver fibrosis
HCC	hepatocellular carcinoma
MELD	model end stage liver disease
BMI	body mass index
IV	intravenous
U	unlicensed

### Assessment and diagnosis

- ◆ Be aware that NAFLD is more common in people who have:
  - > type 2 diabetes, **OR**
  - > metabolic syndrome.

### Diagnosis

- ◆ Take an alcohol history to rule out alcohol-related liver disease. [See NICE pathway:Cirrhosis.](#)
- ◆ **Do NOT** use routine liver blood tests to rule out NAFLD.

### Children and young people

- ◆ Offer liver ultrasound to test for NAFLD if they:
  - > have type 2 diabetes or metabolic syndrome **AND**
  - > do not misuse alcohol.
- ◆ Offer liver ultrasound to retest every 3 years if they:
  - > have a normal ultrasound, **AND**
  - > have type 2 diabetes or metabolic syndrome, **AND**
  - > do not misuse alcohol.
- ◆ Diagnose NAFLD if:
  - > ultrasound shows they have fatty liver, **AND**
  - > other suspected causes of fatty liver have been ruled out.

### Referral

- ◆ Refer children with suspected NAFLD to a relevant paediatric specialist in hepatology in tertiary care.

### NAFLD; assessment for advanced liver fibrosis

- ◆ Offer people with NAFLD testing for advanced liver fibrosis:
  - > consider using the ELF test.
- ◆ **Do NOT** use routine liver blood tests to assess for advanced liver fibrosis.
- ◆ Diagnose people with advanced liver fibrosis if they have an ELF score of ≥10.51, **AND** NAFLD.
- ◆ Explain to people with an ELF score <10.51:
  - > that they are unlikely to have advanced liver fibrosis, **AND**
  - > they will be offered retesting every 3 years to adults and every 2 years to children and young people, **AND**
  - > that this is sufficient for regular monitoring, **AND**
  - > no interim tests are needed.
- ◆ Give advice about lifestyle modifications they may be able to make.

### Referral

- ◆ Refer adults and young people diagnosed with advanced liver fibrosis to a relevant specialist in hepatology.

### Monitoring

- ◆ Monitor adults and young people >16 years with NAFLD and advanced liver fibrosis for cirrhosis. [See NICE pathway:Cirrhosis.](#)
- ◆ Be aware that NAFLD is a risk factor for type 2 diabetes, hypertension and chronic kidney disease.

- ◆ Be aware that in people with type 2 diabetes, NAFLD is a risk factor for atrial fibrillation, myocardial infarction, ischaemic stroke and death from cardiovascular causes.

### Treatment and management

#### Lifestyle advice

- ◆ Offer advice on physical activity and diet to people who are overweight or obese. [See NICE guideline:Obesity, Preventing excess weight gain.](#)
- ◆ Consider lifestyle interventions for people regardless of BMI.
- ◆ Explain to people:
  - > there is some evidence that exercise reduces liver fat content.
  - > who drink alcohol the importance of staying within the national recommended limits for alcohol consumption. [See NICE pathway:Alcohol-use disorders](#)

### Pharmacological interventions

#### NAFLD

- ◆ **Do NOT** offer omega-3 fatty acids because there is not enough evidence to recommend their use.
- ◆ People taking statins should keep taking them.
- ◆ Consider stopping statins **only** if liver enzyme levels double within 3 months of starting statins, including in people with abnormal baseline liver blood results.

#### Advanced liver fibrosis

##### Adults

- ◆ In secondary or tertiary care settings only, consider pioglitazone<sup>U</sup> or vitamin E<sup>U</sup> for adults with or without diabetes.
- ◆ Before prescribing, take into account any comorbidities and the risk of adverse events associated with these conditions.
- ◆ When prescribing pioglitazone, exercise particular caution if the person is at high risk of adverse effects of the drug (heart failure, bladder cancer, bone fracture). Known risk factors for these conditions including increased age should be carefully evaluated before treatment.
- ◆ **Do NOT** offer or continue pioglitazone if any of the following are present:
  - > current or history of heart failure,
  - > hepatic impairment,
  - > diabetic ketoacidosis,
  - > current, or history of, bladder cancer,
  - > uninvestigated macroscopic haematuria.

##### Children and young people

- ◆ Specialists in tertiary care settings may consider vitamin E<sup>U</sup> for children with or without diabetes.
- ◆ In secondary or tertiary care settings only, consider vitamin E<sup>U</sup> for young people with or without diabetes.

#### Reviewing treatment

- ◆ Offer to retest people 2 years after starting a new pharmacological therapy to assess whether treatment is effective.
- ◆ Consider using the ELF test to assess effectiveness.
- ◆ If a person's ELF test score has risen stop current therapy. In adults, consider switching to the alternative pharmacological therapy (vitamin E<sup>U</sup> or pioglitazone<sup>U</sup>).

# Cirrhosis

## NICE NG50, 2016

This guideline covers assessing and managing suspected or confirmed cirrhosis in persons aged  $\geq 16$  years.

### Assessment and diagnosis

- ◆ Be aware there is an increased risk of cirrhosis in people who:
  - > have hepatitis B virus infection,
  - > have hepatitis C virus infection,
  - > misuse alcohol,
  - > are obese (BMI of  $\geq 30\text{kg/m}^2$ ),
  - > have type 2 diabetes.

### Diagnosis

- ◆ Discuss with the person the accuracy, limitations and risks of the different tests for diagnosing cirrhosis.
- ◆ **Do NOT** use routine laboratory liver blood tests to rule out cirrhosis.
- ◆ Offer transient elastography to diagnose cirrhosis for:
  - > people with hepatitis C virus infection,
  - > men who drink  $> 50$  units of alcohol per week and women who drink  $> 35$  units of alcohol per week and have done so for several months,
  - > people diagnosed with alcohol-related liver disease.
- ◆ Offer either transient elastography or acoustic radiation force impulse imaging (whichever is available) to diagnose cirrhosis for people with NAFLD and advanced liver fibrosis. [See NICE pathway:NAFLD](#)
- ◆ Consider liver biopsy to diagnose cirrhosis in people for whom transient elastography is not suitable.
- ◆ For recommendations on diagnosing cirrhosis in people with hepatitis B virus infection: [See NICE pathway:Hepatitis B \(chronic\)](#).
- ◆ **Do NOT** offer tests to diagnose cirrhosis for people who are obese (BMI of  $\geq 30\text{kg/m}^2$ ) or who have type 2 diabetes, unless they have NAFLD and advanced liver fibrosis (as diagnosed by a score of  $\geq 10.51$  using ELF test). [See NICE pathway:NAFLD](#).
- ◆ Ensure that healthcare professionals who perform or interpret non-invasive tests are trained to do so.
- ◆ Offer retesting for cirrhosis every 2 years for:
  - > people diagnosed with alcohol-related liver disease,
  - > people with hepatitis C virus infection who have not shown a sustained virological response to antiviral therapy,
  - > people with NAFLD and advanced liver fibrosis.
- ◆ For recommendations on reassessing liver disease in hepatitis B virus infection: [See NICE pathway:Hepatitis B \(chronic\)](#).

### Referral

- ◆ Refer people:
  - > diagnosed with cirrhosis to a specialist in hepatology,
  - > who have, or are at high risk of, complications of cirrhosis to a specialist hepatology centre.

### Monitoring

#### Risk of complications

- ◆ Calculate MELD score every 6 months for people with compensated cirrhosis.
- ◆ Consider using a MELD score of  $\geq 12$  as an indicator that the person is at high risk of complications of cirrhosis.

#### Hepatocellular carcinoma

- ◆ Offer ultrasound (with or without measurement of serum alpha-fetoprotein) every 6 months as surveillance for HCC for people with cirrhosis who do not have hepatitis B virus infection.

- ◆ For people with cirrhosis and hepatitis B virus infection: [See NICE pathway: Hepatitis B \(chronic\)](#).
- ◆ **Do NOT** offer surveillance for HCC for people who are receiving end of life care.

#### Oesophageal varices

- ◆ After a diagnosis of cirrhosis, offer upper gastrointestinal endoscopy to detect oesophageal varices.
- ◆ For people in whom no oesophageal varices have been detected, offer surveillance using upper gastrointestinal endoscopy every 3 years.

#### Managing complications

- ◆ Offer endoscopic variceal band ligation for the primary prevention of bleeding for people with cirrhosis who have medium to large oesophageal varices.
- ◆ Offer prophylactic IV antibiotics for people with cirrhosis who have upper gastrointestinal bleeding.
- ◆ Review IV antibiotic prescriptions in line with [NICE pathway: Antimicrobial stewardship - prescribing IV antimicrobials](#).
- ◆ Consider a transjugular intrahepatic portosystemic shunt for people with cirrhosis who have refractory ascites.
- ◆ Offer prophylactic oral ciprofloxacin<sup>u</sup> or norfloxacin<sup>u</sup> for people with cirrhosis and ascites with an ascitic protein of  $\leq 15\text{g/litre}$ , until the ascites has resolved.



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**Recommendations** – wording used such as ‘offer’ and ‘consider’ denote the [strength of the recommendation](#).

**Drug recommendations** – the guideline assumes that prescribers will use a drug’s [Summary of Product Characteristics \(SPC\)](#) to inform treatment decisions.