Practical implications for primary care: NICE guideline NG50. Cirrhosis in over 16s; assessment and management

These tips highlight those recommendations that are relevant to GPs from the NICE guideline NG50: Cirrhosis in over 16s; assessment and management. The tips are not RCGP guidance; they are a tool to raise awareness of the NICE guideline and to support its implementation. They should always be used alongside the published NICE guidance.

GPs are expected to take NICE recommendations fully into account when exercising their clinical judgement. However, guidance does not override a doctor’s responsibility to make appropriate decisions for each individual patient, in consultation with the individual and/or their guardian or carer. Clinical guidelines are based on the best available evidence and are there to help healthcare professionals in their work, but they do not replace their knowledge and skills.

10 questions a GP should ask themselves and their team about cirrhosis in over 16s:

1) Why is cirrhosis such an important issue for GPs and for public health?

Liver disease is a bigger cause of morbidity and mortality than is widely recognised – it is a major cause of death in the UK, the fifth largest cause of premature death\(^1\), and is the only major cause of mortality with an increasing prevalence\(^2\). People admitted to hospital with liver disease in England are much more likely to die compared to those admitted with other conditions (8.8% compared to 1.4% during 2012)\(^3\). Recently, the Chief Medical Officer has identified liver disease as one of the key issues for population health in England\(^4\).

Cirrhosis occurs as a response to liver inflammation and is the end-stage liver disease related to alcohol misuse, hepatitis B and C infections and non-alcohol-related fatty liver disease (NAFLD) associated with obesity and metabolic syndrome. Most commonly, cirrhosis develops over a period of years following exposure to one or more of these risk factors, though not everyone exposed will develop cirrhosis.

Early recognition of risk factors and support to resolve them can help prevent patients developing cirrhosis. Early diagnosis of cirrhosis can make it possible for patients to access interventions and monitoring that can prevent the development of end stage disease with all the consequences that entails.

2) Which of the patients that I see are at increased risk of cirrhosis?

NICE guidance identifies an increased risk of cirrhosis in people who:

- have hepatitis B virus infection;
- have hepatitis C virus infection;
- misuse alcohol;
- are obese (BMI of 30 kg/m\(^2\) or higher);
- have type 2 diabetes;

The risk of cirrhosis is significantly increased if two or more of these risks are present, and though these are the most common causes of cirrhosis, some patients with autoimmune or genetic liver conditions are also at risk of cirrhosis.

Further information about managing risk factors can be found in other NICE guidelines:

- non-alcoholic fatty liver disease;
- alcohol-use disorders: diagnosis and management of physical complications;
- alcohol-use disorders: prevention; alcohol-use disorders: diagnosis, assessment and management of harmful drinking and alcohol dependence;
- type 2 diabetes in adults;
- obesity;
- hepatitis B (chronic).
3) What is the investigation of choice for screening for and identifying liver fibrosis and cirrhosis?

NICE recommends ‘transient elastography’ (commonly known by the trade name ‘Fibroscan’) as the investigation of choice.

Transient elastography is a simple, non-invasive test. Machines are available that are readily portable, and in some areas elastography is available in community settings. There is no discomfort for the patient and sedation and the test is usually done in less than 10 minutes. It is significantly less expensive than liver biopsy, and has no unwanted effects. The results of the test are available instantly, so clinicians can share results with the patient and use them to make decisions during a routine clinic.

During elastography a 50MHz sound wave is passed through the liver from a small transducer on the end of an ultrasound probe. The probe has a transducer that measures the velocity of the wave as it passes through the liver. This velocity reading is then converted into a measure of liver ‘stiffness’, expressed in kilopascals, and liver stiffness is a proxy measure of liver fibrosis.

4) Who should be offered transient elastography?

NICE guidance suggests that GPs should use transient elastography to diagnose cirrhosis in several circumstances:

- In all people with chronic hepatitis B virus infection (see NICE CG165)
- In all people with chronic hepatitis C virus infection
- In those who are drinking very heavily: men who drink over 50 units of alcohol per week and women who drink over 35 units of alcohol per week and have done so for several months
- In people already known to have alcohol-related liver disease.

Guidance on the assessment of cirrhosis in those at risk from NAFLD and hepatitis B infection is detailed in NICE guidance for these areas. Top Tips for NAFLD are currently available on the Liver Clinical Priority page of the RCGP website.

5) When is liver biopsy indicated for patients at risk of cirrhosis?

Liver biopsy is no longer the first-line investigation for diagnosing cirrhosis, now that transient elastography is available. It is reserved only for those people for whom transient elastography is not suitable.

6) Should I screen patients who may have NAFLD with transient elastography (those who are obese ie BMI >30kg/m2, or those with diabetes or metabolic syndrome)?

NICE guidelines are not to screen for cirrhosis those who are obese (BMI of 30 kg/m2 or higher) or those who have type 2 diabetes, unless they have NAFLD together with advanced liver fibrosis. The assessment of advanced liver fibrosis in NAFLD is covered specifically in NICE guidance on NAFLD. Top Tips for NAFLD are currently available in the liver disease toolkit in the RCGP website.

7) Can a GP refer a patient with relevant risk factors for transient elastography in my area?

GP access to elastography is available in some areas, but not all. Now that it is recommended in NICE guidelines, and its public health and cost-saving benefits are clear, GPs should consider bringing this to the attention of their CCG or equivalent if it is not available for their patients. All Hepatitis C Networks have access to transient elastography and can provide you with details of the nearest service.

8) How useful are routine LFTs in identifying cirrhosis?

Routine LFTs can be surprisingly normal even in the context of advanced cirrhosis. NICE guidance is that GPs do not use routine laboratory liver blood tests to rule out cirrhosis but refer the patient for transient elastography if this is indicated.

9) What do I do for high-risk patients whose transient elastography test comes back normal?

If a patient has risk factors for cirrhosis, but transient elastography is normal, the GP has an opportunity to offer interventions to help prevent cirrhosis, whether this is through healthy eating, weight loss and activity advice in NAFLD, support to reduce alcohol consumption, referral to a hepatologist for those with chronic hepatitis B or C infection or a combination of these.
For some people the risk of developing cirrhosis will remain, and NICE advises offering a re-test 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 chronic hepatitis B infection (see CG165);
- people with NAFLD and advanced liver fibrosis.

10) What should I do if a patient’s transient elastography result comes back confirming liver fibrosis/cirrhosis?

Liver fibrosis/cirrhosis needs specialist assessment, and people diagnosed with cirrhosis on elastography should be referred to a specialist in hepatology.

Specialist follow up may include:

- using the Model for End-Stage Liver Disease (MELD) score to identify those at high risk of developing serious complications of cirrhosis.
- using ultrasound (with or without serum alpha-fetoprotein) every 6 months as surveillance for hepatocellular carcinoma.
- upper gastrointestinal endoscopy to detect oesophageal varices and provide surveillance.
- endoscopic variceal band ligation for the primary prevention of bleeding for people with cirrhosis with medium to large oesophageal varices.
- prophylactic intravenous antibiotics for people with cirrhosis who have upper gastrointestinal bleeding.
- transjugular intrahepatic portosystemic shunt for people with cirrhosis with refractory ascites.
- prophylactic oral ciprofloxacin or norfloxacin for selected people with cirrhosis and ascites.

References


