New guidance on the management of liver blood tests

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In December 2017 the British Society of Gastroenterology (BSG), with the RCGP, published new guidance for managing abnormal liver blood tests\(^1\), updating their earlier guidelines from 2000.

The guidelines are highly relevant to primary care and provide:

- Information on a range of blood tests that are useful in assessing liver disease, including:
  - bilirubin
  - albumin
  - alkaline phosphatase
  - aspartate aminotransferase
  - alanine aminotransferase
  - γ-Glutamyltransferase
  - clotting tests
  - platelet count

- Advice on the interpretation and management of abnormal results for each test and their relevance to both hepatic and non-hepatic pathology

- A summary of the clinical situations where GPs might consider liver blood testing:
  - investigation of non-specific symptoms
  - symptoms and signs suggesting chronic liver disease
  - conditions associated with a high risk of developing liver disease including risk factors for chronic viral hepatitis
  - monitoring potentially hepatotoxic drugs
  - a family history of liver disease
  - alcohol misuse
  - suspected non-alcohol-related fatty liver disease (NAFLD)

- Clinical responses to abnormal liver blood tests

- Relevant history

- Appropriate clinical examination

- Information on the clinical patterns associated with abnormal liver blood test results

- Cholestasis (the condition where substances normally excreted in bile are retained either through impaired secretion by hepatocytes or by obstruction of bile flow in intra- or extrahepatic bile ducts)

- Isolated raised bilirubin

- Failure of liver synthetic function

- Hepatitis

- Alcohol-related liver disease

- 'Red flag' symptoms and signs requiring urgent referral
• Managing diagnostic uncertainty

• Algorithms for the investigation and management of:
  - abnormal liver blood tests
  - NAFLD
  - alcohol-related fatty liver disease

**Key points from the guidance**

GPs should consider liver blood tests in the circumstances listed above but should be more cautious when there are vague symptoms that do not point to liver disease (or other conditions where the tests may be indicated such as bone disease). In these circumstances, minor liver blood test abnormalities are common and their clinical significance often unclear.

In alcohol misuse, standard liver blood tests are not effective in diagnosing or excluding liver disease. NICE guidance published in 2016\(^2\) is to use transient elastography (TE, proprietary name Fibroscan®) to screen for liver disease in men who drink more than 50 units per week and women who drink more than 35 units per week. Currently access to TE testing in primary care is limited.

Most patients with chronic viral hepatitis B or C are symptom-free, and it is estimated that half of those who are infected are unaware of their diagnosis. Testing for hepatitis B and/or C is recommended when risk factors for these infections are identified, such as being brought up in a high prevalence country, a history of injecting drug use and close contact with an infected person\(^3\).

Screening for NAFLD in those with risk factors (including obesity and type 2 diabetes) is not currently recommended by NICE\(^4\). However, NAFLD should be suspected when fatty liver is found on ultrasound scan, and after other causes including alcohol misuse and medications have been excluded. Fibrosis in NAFLD can be assessed using scoring systems such as the FIB-4 test and NAFLD fibrosis score, which use liver blood test results and other simple metrics such as age and BMI as part of algorithm. Other options include the proprietary ELF blood test\(^4\), although this is not yet widely available in primary care.

Abnormal liver tests should be followed up with a full history and examination and further investigations as needed, focusing on patterns of abnormality such as hepatitic pattern, cholestatic pattern, isolated raised bilirubin, abnormalities of liver synthetic function and red-flag patterns (synthetic failure, suspected malignancy and marked cholestasis).

View the British Liver Trust/RCGP Liver Clinical Priority Toolkit

**References**


2. NICE (2016) NG50: Cirrhosis in over 16s; assessment and management

3. NICE (2012). PH 43 Hepatitis B and C testing: people at risk of infection

4. NICE 2016. NG49 Non-alcoholic fatty liver disease (NAFLD): assessment and management. NICE guideline 49