

Care of Patients with Liver Disease during the COVID-19 Pandemic

The European Association for the Study of the Liver (EASL) and the European Society of Clinical Microbiology and Infectious Diseases (ESCMID) published a Position Paper on the 'Care of patients with liver disease during the COVID-19 pandemic' to help healthcare providers when reallocating resources to manage the care of people with liver disease and those who have had liver transplants. The world is still learning about the impact of SARS-CoV-2 (the virus that causes COVID-19) on liver diseases, and until we have evidence to guide decisions about care, this expert opinion is important. This document is a lay summary of the guidance in the EASL-ESCMID Position Paper and is intended to be read alongside local and national guidance about COVID-19.

The lay summary covers:

- How healthcare providers are minimising COVID-19 transmission
- What changes to expect in your care during the pandemic
- What to expect if you get COVID-19
- Prioritisation of patients for some tests and procedures

Minimising the risk of COVID-19 transmission

During the COVID-19 pandemic, healthcare providers may need to reorganise *where* and *how* care is provided by reducing your physical contact with your medical team in hospital. This is to minimise the risk of your exposure to SARS-CoV-2.

You may find that hospitals arrange waiting areas differently and put new systems in place to help protect you from the virus. Where it is possible, and if hospitals have the right resources, you may even have some appointments by phone or video.

In some cases, your General Practitioner (GP) or local hospital will work with your hospital specialist to take over some of your care and monitoring, and you may be asked to go to a different hospital than usual. Clear communication is critical between specialist centres, local healthcare providers, general practitioners and patients for this to work well.

What to expect during the COVID-19 pandemic

People who have liver disease

Doctors must balance the risks of harmful infection of the virus against the risks and benefits of delaying or changing your care.

Expect:

- some routine appointments and tests to be rearranged for a later date (including some cancer monitoring and varices screening);
- non-invasive tests might be used to assess your risk for varices (veins in your gullet).

If you have liver cancer or advanced liver disease (decompensated cirrhosis) with complications such as jaundice, hepatic encephalopathy, ascites, or variceal bleeding, expect:

- the usual guidelines to be followed for your care but with minimal face-to-face care;
- the most urgent cases to be prioritised for liver transplantation and any in-hospital assessments to be kept to a minimum;
- an emphasis on the importance of vaccinations for *Streptococcus pneumoniae* and influenza;
- an emphasis on reducing the risk of spontaneous bacterial peritonitis and hepatic encephalopathy;
- to be tested for SARS-CoV-2 if you develop serious liver complications;
- to be admitted to hospital early if you have COVID-19.

Special situations

Viral hepatitis

Viral hepatitis is not thought to increase the risk of severe COVID-19. However, expect your doctor to send your ongoing antiviral prescriptions by mail.

NAFLD/NASH

If you have fatty liver disease (NAFLD) or NASH, your doctor will take into account additional risks that you may have, including diabetes, hypertension and obesity.

Autoimmune liver disease

If you take medicine for autoimmune liver disease, it is important *not* to reduce your dose. Your specialist will only consider this under some circumstances. It is also important to have vaccinations for *Streptococcus pneumoniae* and influenza.

People waiting for a liver transplant

Expect:

- to be tested for SARS-CoV-2 just before the transplant operation (as well as testing of the donor liver);
- to be told about the additional risks associated with COVID-19 and transplantation;
- to give your consent to liver transplantation and the potential in-hospital risk of COVID-19 infection;
- living donor liver transplants to be considered on a case-by-case basis.

People who have had a liver transplant

Expect:

- the usual guidelines to be followed for your care and medications (including the dose of your immunosuppressant medicine) but with minimal face-to-face care;
- an emphasis on importance of vaccinations for *Streptococcus pneumoniae* and influenza;
- routine tests to be handled by your GP if your condition is stable.

What to expect if you get COVID-19

Care in hospital

Expect to be admitted into hospital if you are at higher risk of a more severe COVID-19 course. Older age, having hypertension, diabetes or obesity increase the risk. It is suspected, but not certain, that the presence of cirrhosis, liver cancer or having had a liver transplant increases the risk of catching the infection and/or having a more severe COVID-19 course.

Treatment considerations

- Antiviral drugs are being tested to treat COVID-19. There is already scientific understanding about how some of these drugs work and how they might affect people with liver disease or people who have had a liver transplant. The EASL–ESCMID Paper suggest that doctors consider including liver disease patients in early antiviral experimental treatment programmes for COVID-19.
- It is important to prevent paracetamol (acetaminophen) overdosing.
- Non-steroidal anti-inflammatory drugs (NSAIDs) are not suitable for people with cirrhosis or portal hypertension.
- The EASL–ESCMID Paper advises that treatment for cirrhosis-associated complications such as portal hypertension, ascites, hepatic encephalopathy, and spontaneous bacterial peritonitis should be continued.
- Some treatments for liver cancer may be temporarily withdrawn while you have COVID-19.
- In patients who have COVID-19 and have had a liver transplant, the doses of some of your usual medicines may be temporarily reduced if you are given antiviral therapy for COVID-19.

Tests and Procedures

Some tests and procedures for liver patients may be delayed depending on resources at your hospital, the COVID-19 risk, and your individual circumstances. The following chart shows how your doctor may prioritise this care:

Tests and Procedures	Liver Patients without COVID-19	Liver Patients with COVID-19
Esophagogastroduodenoscopy (EGD) for variceal screening	Patients at highest risk of a bleed may be prioritised.	These procedures should be limited to emergencies:
Therapeutic endoscopic retrograde cholangiography (ERC)	Dilatation or stent replacement should be performed for people who have had a liver transplant or who have primary sclerosing cholangitis, but individual risk–benefit should be considered carefully.	<ul style="list-style-type: none"> gastrointestinal bleeding bacterial cholangitis other life-threatening conditions
Ultrasound (liver cancer surveillance)	May be delayed. People with elevated alpha-fetoprotein levels, advanced cirrhosis, chronic hepatitis B and NASH/diabetes may be prioritised.	Should be performed after recovery from COVID-19.
Liver biopsy	<p>May be delayed for</p> <ul style="list-style-type: none"> biopsies to understand stage of disease for people with NAFLD and chronic viral hepatitis biopsies to diagnose disease in people with mildly raised liver blood tests <p>Cases will be prioritised where cancer is suspected and where some liver blood tests are very high without a clear reason.</p> <p>Where autoimmune liver disease is suspected, treatment may begin without a biopsy in some cases.</p>	Should be performed after recovery from COVID-19.

Lay version written by Martine Walmsley and Maria Buti, and reviewed by ERN RARE-LIVER patient associations. Based on:

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