

Use of COVID-19 vaccines in people with chronic liver disease, hepatobiliary cancer, and liver transplant recipients

By end-January 2021, COVID-19, the systemic disease caused by the pandemic spread of Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2), accounted for 2.2 million deaths worldwide and for 100 million individuals infected, according to estimates from the World Health Organization.

This policy statement is intended for the general public, affected communities, and policymakers. In parallel, intended for healthcare professionals, “EASL position paper on the use of COVID-19 vaccines in people with chronic liver diseases, hepatobiliary cancer and liver transplant recipients” has just been published, 6 February 2021, in the *Journal of Hepatology*.

To whom does COVID-19 pose the greatest risk?

People with chronic liver disease (CLD) are at increased risk for a severe course of COVID-19, especially those with cirrhosis in advanced stages, with hepatobiliary cancer, and transplant patients, whether they are candidates for liver transplantation or have already undergone transplantation. This more severe course of COVID-19 translates into increased death rates, including mortality due to liver failure.

What trends are registries currently noting?

International registries report among people with cirrhosis and hospitalised for COVID-19, a case fatality rate of 38%, which may go up to 70% in patients with decompensated cirrhosis, compared with 8% in people with non-cirrhotic liver disease. Patients with hepatobiliary cancer and concomitant CLD or cirrhosis require special consideration, because they may be frail and because their curative cancer treatments may be delayed by COVID-19.



What is the status quo of approved vaccines?

In Europe, several vaccines have been approved for use in specific countries. Three of them – the Pfizer/BioNTech BNT162b2 mRNA, Moderna mRNA-1273, and the AstraZeneca/Oxford ChAdOx1-nCoV-19 vaccines – have proven to be both safe and effective in the general population and have already gained rapid national as well as international regulatory approval.

While specific data on patients with CLD is limited, the risks to them of being vaccinated are expected to be minimal, likewise for patients on immunosuppressive regimens. In fact, there is no evidence of safety concerns for people who are immunosuppressed, for both the mRNA vaccines and for the viral vector vaccine.

What is the aim of this policy statement?

The aim of this policy statement from the European Association for the Study of the Liver (EASL) is to inform concerned parties – policymakers, healthcare professionals, patients, and affected communities – of EASL’s standpoint: we believe that people with chronic liver disease and significant fibrosis, those with hepatobiliary cancer, and those who have had or await liver transplantation, should be considered as prime candidates for receiving the COVID-19 prophylaxis (vaccines), as should all other highly vulnerable people.

The EASL Public Policy and Health Committee (PPHC) hence highlights that:

1. When they are infected by SARS-CoV-2, people with chronic liver disease and liver cirrhosis, and to a lesser degree, patients who have had a liver transplant, have a higher risk of death due to COVID-19 than the risk faced by the general population.
2. The risk of a severe course of COVID-19 for people with liver disease and no or modest fibrosis is comparable to the risk faced by the general population.
3. Non-alcoholic fatty liver disease (NAFLD) patients who also live with obesity and/or type 2 diabetes have an increased risk of severe COVID-19, regardless of the stage of their liver fibrosis.
4. The vaccines may be less effective for people with chronic liver disease who have decompensated cirrhosis and who take immunosuppressive medications (including those who have undergone a liver transplant), but there is no evidence to suggest that the vaccines will be harmful to these groups of patients.
5. There is no specific data about how long the SARS-CoV-2 immune response will last, either natural or vaccine-induced, in people with chronic liver disease.

References

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What are the recommendations of this policy statement?

In this statement, the EASL PPHC makes the following recommendations:

1. The following groups should be prioritised for COVID-19 vaccination, as should all other highly vulnerable people:
 - patients who have advanced liver disease (compensated or decompensated cirrhosis),
 - patients who have undergone a liver transplant,
 - patients who have hepatobiliary cancer,
 - patients with chronic liver disease and are immunosuppressed.
2. People with chronic liver disease with no or modest fibrosis should be vaccinated in accordance with the priorities set for the general population, considering other factors such as their age, and other potential conditions, such as living with obesity or diabetes.
3. The safety and efficacy of COVID-19 vaccines in children and adolescents under the age of 16 (Pfizer/BioNTech) or 18 (Moderna and Oxford-AstraZeneca) have not yet been established. So far, as of the date of publication of this policy statement, there is no data available.
4. Immunisation policies for all people with previous exposure to COVID-19 are still undefined. However, those people who have had COVID-19, regardless of their symptoms, can probably delay vaccination until 6 months after their SARS-CoV-2 infection.