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COVID-19 Vaccine Recommendations for Patients with Liver Disease

Based on the AASLD Expert Panel Consensus Statement: Vaccines To Prevent COVID-19 Infection In Patients With Liver Disease

Coronavirus disease 2019 (COVID-19) is the illness caused by the SARS-CoV-2 virus. Multiple studies show that older individuals and patients with risk factors such as chronic liver disease, cirrhosis, heart disease, obesity, and weakened immune systems from other diseases or medications may be at higher risk of death from COVID-19. Three vaccines have received Emergency Use Authorization (EUA) from the U.S. Food and Drug Administration (FDA). AASLD is committed to providing information for patients with liver disease and liver transplant recipients.

COVID-19 Vaccines

The Pfizer/BioNTech vaccine is indicated for patients 16 and over. The Moderna vaccine is indicated for patients 18 and over. Both are given in two doses, 3-4 weeks apart. The Johnson & Johnson is a single dose for patients 18 and older. All are intramuscular. Common side effects reported are injection site pain, headache, fatigue, body aches, and fever that are generally mild and self-limited.

Pediatric Considerations in COVID-19 Vaccination

There are multiple vaccine trials underway for children under 12. Ask your health care provider about the vaccine for children with liver disease and those post-liver transplant.

Very few people should not get the vaccination. The overall safety, and benefit of COVID-19 vaccines is favorable compared to the risk of becoming ill with COVID-19. In addition, vaccinating a large percentage of the population is important to establish “herd immunity” and preventing further spread of the infection.

Preferred COVID-19 vaccines for patients with liver disease

At this time, there is insufficient data to recommend one COVID-19 vaccine (i.e., Pfizer/BioNTech, Moderna, or Johnson & Johnson) over another. They are all considered safe and effective and AASLD recommends being vaccinated with the first vaccine type that is available to you.

Pre-vaccination and Post-vaccination serological testing

We do not recommend pre-vaccination or post-vaccination testing for SARS-CoV-2 antibodies. Although the presence of antibodies in the blood may indicate prior exposure or vaccine response, it is unclear whether this provides an effective immune response that prevents disease and for how long.

Administration and timing of vaccination

For the two dose vaccines, we recommend completing both mRNA COVID-19 vaccine doses in the timeline recommended by the manufacturer.

Vaccination in patients with autoimmune hepatitis or other autoimmune diseases

We recommend administration of the vaccine to patients with autoimmune hepatitis and/or chronic liver disease patients with autoimmune diseases including those receiving steroids or other immunosuppressive drugs.

Use of fever reducers for post-vaccination treatment

We support the use of fever reducers such as low dose acetaminophen post-vaccination to treat reactions as needed.

Concurrent medication timing or use

We recommend continuing all current medications before or after receiving the vaccine. People who receive monoclonal antibodies or convalescent plasma for the treatment of COVID-19 should wait at least 90 days from the last dose to be vaccinated.

History of anaphylaxis

We recommend vaccination in all patients unless there is a history of prior anaphylaxis to the mRNA COVID-19 vaccine or any of its components. Prior anaphylaxis to any other allergen (including venom, food, and medication) does not preclude the use of a COVID-19 vaccine. The incidence of serious adverse events is low. Vaccine clinics will ask questions about prior anaphylaxis and will ask the persons receiving the vaccine to be observed for 15-30 minutes after the injection.

Avoiding exposure to COVID-19 post-vaccination - In patients with chronic liver disease or those post-transplantation, the efficacy of the vaccine is unknown. Therefore, we recommend that everyone continue behaviors to reduce the risk of SARS-CoV-2 exposure (e.g., masking, hand hygiene, social distancing, etc.) regardless of vaccination status. The CDC guidelines are continually updated and all should monitor these updates, although until more information is available, immunosuppressed patients and those with chronic liver disease should continue to exercise caution while community prevalence of SARS-CoV-2 remains high.

Side effects of COVID-19 vaccination and symptoms of true infection - The symptoms of COVID-19 and a vaccination reaction can be alike. However, high fevers, coughing, or shortness of breath are not common after vaccination. Most side effects of vaccination go away within 1-2 days. If they do not, contact your health care provider.

Conclusion

There are currently three highly effective and generally safe vaccines for COVID-19, and likely more to follow. The CDC currently recommends that all people over the age of 16 should receive vaccines to prevent future COVID-19. Each of the vaccines are recommended for all patients with chronic liver disease and immunosuppressed organ transplant recipients. AASLD recommends prioritizing patients with cirrhosis, liver cancer, patients receiving immunosuppression such as liver transplant recipients and living liver donors for COVID-19 vaccination based upon vaccine availability. The clinical impact of SARS-CoV-2 viral variants is a rapidly evolving area, and until further studies are available, **COVID-19 vaccination should not be withheld or deferred in any patient because of efficacy or safety concerns.** All COVID-19 vaccine recipients are recommended to use masking, good hand hygiene, and social distancing and follow the updated CDC guidelines.

Where to Find More Information

Information continues to evolve about the relationship between COVID-19 and the Liver, and new information is accumulating rapidly. Keep checking back to the AASLD site as well as the Centers for Disease Control and Prevention (CDC) for further updates.

- **COVID-19 and the Liver from AASLD:**
<https://www.aasld.org/about-aasld/covid-19-and-liver>
- **CDC's vaccine resource page:**
<https://www.cdc.gov/coronavirus/2019-ncov/vaccines/index.html>
- **Liver disease and COVID-19 from the CDC:**
<https://www.cdc.gov/coronavirus/2019-ncov/need-extra-precautions/liver-disease.html>

