

ERN RARE LIVER statement on SARS-CoV2 booster vaccinations

In many countries booster vaccinations have become available, and therefore patients and families ask questions as to whether and when to receive a booster vaccine.

As the evidence is scarce, and even more so in the field of rare diseases, it is not simple to give sound and scientifically based advice. Furthermore, availability of vaccines may differ. It remains a priority to vaccinate all unvaccinated at-risk people. Nonetheless, here we give some recommendations to the best of our knowledge as of November 2021:

- As vaccines are now widely available, all adults should be vaccinated twice
- In children, the decision to vaccinate must be weighed against the risks individually, but generally children from the age of 12 onwards should receive at least one vaccine shot, preferably two
- In children below the age of 12, the vaccine has not yet been licensed in Europe, but very recently in the US. Even in Europe, the vaccine can be given on the basis of an individual risk assessment. Our advice would be to vaccinate younger children only if they either suffer from advanced cirrhosis or are otherwise severely immunocompromised. This includes children after liver transplantation. However, in young children with autoimmune hepatitis (AIH), vaccination does not seem to be necessary unless there is already advanced cirrhosis, or immunosuppressive drugs are given at high doses.

Booster (third dose) vaccines:

- Some patients do not mount a good immune response to the vaccines. This is true for all licensed vaccines
- Decreased response have in particularly been described for organ transplant recipients and patients with haematological malignancies.
- Some autoimmune hepatitis patients, even some without immunosuppressive therapy, appear to mount a weaker response
- Antibody titres and also T-cell response decrease with time, probably leading to a slow decrease in protection
- Therefore: if possible, it makes sense to check the anti-SARS-CoV2 antibody levels (more than four weeks) after full vaccination, and to give a third dose to all patients not showing a good antibody response (at least 100 IU)
- For other liver disease patients, more than six months after the second vaccination, measuring the antibody titres, or simply opting for a third dose is reasonable, but not mandatory. An individual discussion with the liver disease specialist is to be recommended.
- The choice of vaccine for the booster dose is free, and may differ from country to country according to availability and licensing. From a medical point of view, all licensed vaccines could be given as booster vaccine, independent of the vaccine preparation used initially.
- If there have been specific side-effects after the primary vaccination, you should discuss with your doctor choosing an alternative vaccine for the booster immunization.