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COVID-19 VACCINATION IN PATIENTS WITH GASTROINTESTINAL AND LIVER DISORDERS

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What is new? Update October 2021

Since the last update in June 2021, there are several new areas of updated advice regarding COVID-19 vaccines:

1. The Australian Technical Advisory Group on Immunisation (ATAGI) has released [advice on third primary dose of COVID-19 vaccines](#) to achieve an optimal level of immunity for those who are severely immunocompromised considering the likelihood of severe COVID-19 if infected, poor vaccine response and reports of waning immunity in the months after the two doses. A third dose is part of the primary series needed to produce an immune response that is protective. A booster strengthens immune memory where immunity is waning over time. Current recommendations pertain only to a third dose:

General Recommendations

- a. mRNA vaccines which include Pfizer (Comirnaty) or Moderna (Spikevax) are the preferred choice of 3rd primary dose even if the first two doses were Astra-Zeneca (Vaxzevria) unless there is a contraindication to mRNA vaccines.
- b. Where there is a contraindication to mRNA vaccines a third Astra-Zeneca dose is preferred.
- c. Using the same mRNA vaccine as the first two doses is recommended although using the alternative mRNA vaccines is reasonable.
- d. Third primary dose should be ideally administered 2 to 6 months after the second dose.
- e. A minimum of 4 weeks between the second and third dose may be considered in exceptional circumstances (i.e.. Where the patient is planned for intensification of immunosuppression).
- f. If greater than 6 months has elapsed since the second dose and the patient fulfils the criteria for a third dose the patient should still receive the third dose (NB: this is technically a booster).

Who Should Get A Third COVID-19 Vaccine Dose:

- a. Solid organ transplant patients on immunosuppression.
- b. IBD/Liver patients on the following immunosuppression: High dose corticosteroids i.e. >20mg/d Prednisolone for ≥ 14 days in a month or pulse corticosteroid therapy, Azathioprine >3mg/kg/d, 6-Mercaptopurine >1.5 mg/kg/d, Cyclosporine, tacrolimus.
- c. IBD – Third dose not routinely recommended for patients on monotherapy with TNF-α inhibitors, anti-integrins, anti-IL1, anti-IL6, anti-IL17, anti-IL23 antibodies.
- d. Gastrointestinal malignancies, HCC: Third dose if receiving chemotherapy or radiotherapy but not for immunotherapy with immune checkpoint inhibitors.
- e. Patients receiving multiple immunosuppressants where the cumulative effect is considered to be severely immunosuppressive. This clause gives room for physician discretion in recommending a third dose even if the condition is not listed in Box1 of ATAGI recommendations.

- COVID-19 vaccination is now available for patients aged 12 years and older.
- a. COVID-19 vaccination is recommended for **all** patients 12 years and older who have co-morbidities including those with IBD and liver disease.
 - b. Both Pfizer and Moderna mRNA vaccines are approved for individuals ≥ 12 years.
3. Moderna vaccine is approved in Australia with the advantage of access through pharmacies.
- a. In addition to Pfizer vaccine, Moderna is another mRNA vaccine, approved for use in young people aged 12 and older.
 - b. Rare reports of mostly self-limited myocarditis/pericarditis associated with mRNA vaccines but the overall benefits outweigh the risks as COVID-19 can cause more severe myocarditis.
4. Pregnancy and Breastfeeding:
- a. Moderna and Pfizer are both [approved for use in pregnancy](#).
 - b. COVID-19 in pregnancy increases the risk of pre-eclampsia, preterm birth and still birth
 - c. COVID-19 vaccination is strongly recommended in unvaccinated women who are pregnant, breastfeeding or planning a pregnancy.
 - d. Pfizer – 2 doses, 3-6 weeks apart.
 - e. Moderna – 2 doses, 4-6 weeks apart.
5. Astra-Zeneca vaccine continues to be a strong contributor to the overall high vaccination rates around Australia despite the initial hesitancy in the community due to reports of vaccine induced thrombocytopenia and venous thrombosis. [The statement from ATAGI on use of vaccines in outbreak settings](#) is a valuable resource.
- a. The dosing interval of 3 months has been reduced in outbreak settings to 4-8 weeks, making it easier to achieve double-vaccinated status even with AZ.
 - b. The risk of venous thrombosis with AZ in people over >60yrs is extremely rare compared to the real risk of venous thrombosis with COVID-19 itself.
6. A word on Booster doses: The recent [ATAGI statement](#) **only refers to 3rd primary doses for those with severe immunosuppression** who have had 2 primary doses of vaccine but likely to have had a suboptimal response due to their severe immunosuppression.

This is not to be confused with the concept of booster doses for those who are already optimally vaccinated following 2 doses. Due to the concerns related to the Delta strain and other variants and reports of waning immunity months after full vaccination, booster doses of vaccines are being administered to the broader population in other countries including in the United Kingdom. This may be adopted in Australia in future.

However, the prevailing advice, including from the WHO, is that it is important to optimally vaccinate all the eligible population first before committing to booster doses. We will update the members when we receive further information regarding the widespread administration of boosters. In the future, this may be for those with relatively low immunity due to chronic diseases (IBD or chronic liver disease), for healthcare workers and perhaps the broader population.

It is expected that ATAGI will provide preliminary advice on the need for, and timing of, additional vaccine doses for the broader population by the end of October.

We recommend that GESA members encourage their patients to take up COVID-19 vaccination when it becomes available to them. Patients and clinicians should keep themselves up-to-date with evolving knowledge in this field and follow recommendations from the [Australian Government Department of Health](#). We await real-world data regarding the efficacy and safety of COVID-19 vaccination in our vulnerable patients with GI and liver disease.

If you have missed previous detailed GESA advice regarding COVID-19 vaccines, please check the [GESA website section on all things related to COVID-19](#), including [Advice on COVID Vaccination in patients with Gastrointestinal and Liver diseases from June 2021](#). Due to the rapid evolution of the pandemic and management strategies some of the provided information may no longer be current, so please check the latest information from the [Australian Government website](#).

Disclaimer

The Gastroenterological Society of Australia (GESA) provides the above advice to guide gastroenterologists and hepatologists who provide care for patients with chronic liver diseases, transplant recipients and IBD during the COVID-19 pandemic. This advice should be modified to fit the context of individual medical practice based on the local policies of the relevant health facilities. Given the rapidly evolving situation, this advice is subject to change, and we will make efforts to update them as needed. Please check the Australian Government website for the latest information on COVID-19 vaccines.