Australian Rheumatology Association

Advice for GPs and other Health Professionals caring for patients with autoimmune inflammatory rheumatic diseases (AIRD) in the COVID-19 (Coronavirus) pandemic
22 April 2021

This document provides an update on the information published in October 2020.

The Australian Department of Health has identified patients with AIRD as potentially vulnerable to COVID-19, hence they are included in Phase 1b of the National vaccine rollout which commenced on the 22 March 2021.

What do we now know about patients with AIRD who have contracted COVID-19?

- As of 31 March 2021, COVID-19 infection has been reported in 34 Australian patients with AIRD (https://rheum-covid.org/map).
- Current available evidence suggests that most people with AIRD recover from COVID-19.
- Factors associated with COVID-19 related death include general and disease-specific factors. This has been investigated in a study of 3729 patients with AIRD through the COVID-19 Global Rheumatology Alliance (https://rheum-covid.org/) recently published in Ann Rheum Dis (https://ard.bmj.com/content/early/2021/03/07/annrheumdis-2020-219498)
    - Older age, male sex, cardiovascular disease and chronic lung disease were associated with COVID-19-related death (in keeping with data from the general population)
    - Moderate/high disease activity, prednisolone >10mg daily, rituximab, sulfasalazine and some immunosuppressants were associated with COVID-19-related death. Methotrexate and tumour necrosis factor inhibitors were not shown to have a negative impact.
- Therefore the priority should be to **maintain adequate disease control in patients with AIRD while minimising glucocorticoids.** Glucocorticoids have been associated with higher odds of hospitalisation.
- A number of medications used to treat rheumatic diseases, such as hydroxychloroquine, glucocorticoids (dexamethasone), tocilizumab and baricitinib have been trialled as treatments for severe COVID-19. Only dexamethasone and tocilizumab have been shown to be effective in the treatment of severe COVID-19 infections. Regardless, ALL patients on these medications should **take the same precautions as all members of the community.**
    - If patients with AIRD develop symptoms of any significant infection, they should contact their rheumatology team for specific advice. **Decisions to pause treatment should be made on a case-by-case basis.**

What information should you consider in discussing COVID-19 vaccination with your patients?

- **Patients with AIRD are recommended to receive the COVID-19 vaccination and they can have either the Astra Zeneca or the Pfizer vaccine in line with the current ATAGI guidelines; https://www.health.gov.au/resources/publications/covid-19-vaccination-atagi-clinical-guidance-on-covid-19-vaccine-in-australia-in-2021**
- Some people with AIRD who are younger than 50 years may prefer early vaccination with the AstraZeneca vaccine over delayed access to a different vaccine, particularly those who are:
    - at increased risk of exposure to COVID-19 (e.g., quarantine facility or Border Force staff, emergency healthcare workers, people planning to travel outside Australia, or those living in areas of known community transmission) *and*
    - at higher risk of poor COVID-19 outcomes (including those with active or severe AIRD, multiple comorbidities, and/or using immunomodulatory medications associated with a higher risk of severe COVID-19, such as rituximab and/or moderate to high doses of prednisolone)
- The Australian Government consent form asks whether patients are immunocompromised. Ticking "yes" does **not** mean patients cannot receive the COVID-19 vaccination. https://www.health.gov.au/sites/default/files/documents/2021/04/covid-19-vaccination-consent-form-for-covid-19-vaccination-covid-19-vaccination-consent-form_1.pdf

- There are many resources available to assist healthcare professionals and patients make an informed decision regarding COVID-19 vaccination, please refer to:
    - **ARA COVID-19 vaccination patient information sheet;** https://rheumatology.org.au/downloads/20210422%20COVID-19%20Vaccination%20for%20Rheum%20Patients%2022Apr21.pdf
    - **Draft Australian living guideline on COVID-19 vaccination for people with AIRD on immunomodulatory therapies**: https://app.magicapp.org/#/guideline/LqRV3n/rec/EZ6z8E

- Medication considerations for COVID-19 vaccination in patients with AIRD are discussed below
- Following vaccination, people with AIRD should be aware that the risk of COVID-19 infection is reduced but not eliminated and that appropriate physical precautions (e.g., masks, physical distancing, hand hygiene) based on the current community risk should continue to be observed.
- There is a theoretical risk of disease flare following vaccination, so an appropriate mechanism for specialist management of flares should be in place.

What about medication considerations around COVID-19 vaccination?

- **There is currently no clear rationale for any general advice to interrupt or alter treatment regimens in patients with AIRD in relation to vaccination except for rituximab** (see below). This is due to the lack of direct data regarding COVID-19 vaccination, the uncertainty of extrapolating data from other vaccines to COVID-19, and the potential risks associated with widespread interruption of immunomodulatory therapy,
- There is some evidence that responses to vaccination are diminished in people treated with methotrexate. Therefore interruption of methotrexate therapy during COVID-19 vaccination may be considered, but only in patients with stable rheumatic disease at low risk of flare, or those for whom protection from COVID-19 is of particular importance. **This decision to hold methotrexate for one or two doses following each vaccination should be individualised and discussed with the treating Rheumatologist.**
- **If feasible aim to perform COVID-19 vaccination towards the end of a rituximab dosing cycle or before initiation of rituximab therapy.** Rituximab specifically reduces the activity of B-cells, involved in the production of antibodies. There is some evidence that responses to vaccination are diminished in people treated with rituximab. However it is noted that there are no direct data to inform the best approach and the recommended 12-week interval between doses of the AstraZeneca vaccine may make this impractical. Moreover, there is some evidence that people with AIRD on rituximab may be at an increased risk of poor outcomes from COVID-19 infection and therefore some people may elect to proceed with vaccination as soon as practical.
- Similarly, glucocorticoids (particularly at doses $\geq$ 10mg of prednisolone per day) may also reduce the immune response to vaccines and increase the risk of severe COVID-19 disease. An individual approach is advised, based on the individual disease, likely trajectory of glucocorticoid therapy and an estimate of the risk of COVID-19.

What about influenza and pneumococcal vaccination?

- Influenza vaccination is recommended for everyone with AIRD. Whilst influenza vaccination does not protect against COVID-19, it is critical to protecting the health of Australians from influenza.
    - Influenza vaccination should be offered at least 2 weeks apart from COVID-19 vaccination.
- Pneumococcal vaccination status should be reviewed in appropriate patients
    - Medicare restrictions were modified for pneumococcal vaccination on 1 July 2020.
- The Australian Technical Advisory Group on Immunisation (ATAGI) Clinical guidance (https://www.health.gov.au/sites/default/files/documents/2021/03/covid-19-vaccination-atagi-clinical-guidance-on-covid-19-vaccine-in-australia-in-2021_0.pdf) on the use of COVID-19 vaccine states that a minimum 14 day interval is advised between administration of a COVID-19 vaccine and any other vaccine.

This advice is drawn from a number of resources including The British Society of Rheumatology, The Global Rheumatology Alliance, The Department of Health, Australia and is current as of 22 April 2021.