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Department:
Health
REPUBLIC OF SOUTH AFRICA

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| Date: | 9 September 2021 | | |
| To: | **Honourable Minister Dr Joe Phaahla, Minister of Health** | From: | **Ministerial Advisory Committee (MAC) on COVID-19 Vaccines** |

**ADVISORY ON VACCINATION OF IMMUNOCOMPROMISED INDIVIDUALS (OTHER THAN HIV AND ASSOCIATED INFECTIONS)**

## Problem Statement

- Individuals with a compromised immune system are not only vulnerable to COVID-19, but also may have a reduced immune response to COVID-19 vaccines.
- Such individuals may include those taking long-term oral steroid therapy or systemic biologics for autoimmune conditions, have haematological and immune malignancies, receive solid organ and bone marrow transplants, be on renal dialysis, or have a primary immunodeficiency disorder (PID).
- These immunocompromised individuals could experience non-resolving SARS-CoV-2 infections and a reduced vaccine response could give rise SARS-CoV-2 variants of concern (VOC).
- These individuals will require an additional dose as part of the primary series of a COVID-19 vaccine to enhance immune protection and prevent the emergence of VOC.

## Points considered

- VOC can arise in immunocompromised individuals[1] and in patients receiving anti-SARS-CoV-2 therapy[2]
- Immunocompromised adults with different types of autoimmune diseases make substantially lower neutralizing antibody responses to a standard primary series (two doses) of mRNA vaccines when compared to immunocompetent individuals[3-6].
- Solid organ transplant recipients have sub-optimal immune responses to either Johnson and Johnson (Ad26), Pfizer (BNT162b2) or Moderna (1273) mRNA vaccines[7-9]
- Provision of a third dose of an mRNA vaccine to solid organ transplant recipients, with sub-optimal responses, results in an anamnestic immune response[7], but limited possible protection from breakthrough infections; thus these patients remain a vulnerable group even after a third vaccine dose.
- A consensus statement from 18 national and international societies of transplantation programmes advocates prioritised access to vaccination, despite weakened immunity[10].
- The FDA has authorised an additional vaccine dose for “solid organ transplant recipients or those who are diagnosed with conditions that are considered to have an equivalent level of immunocompromise”. https://www.fda.gov/news-events/press-

announcements/coronavirus-covid-19-update-fda-authorizes-additional-vaccine-dose-certain-immunocompromised

- CDC recommends that people with moderate to severe compromised immune systems receive an additional dose of mRNA COVID-19 vaccine at least 28 days after a second dose of Pfizer-BioNTech COVID-19 vaccine. https://www.cdc.gov/coronavirus/2019-ncov/vaccines/recommendations/immuno.html
- French Vaccine Strategy Guidance Council now routinely recommends a third dose in people who are severely immunocompromised. https://solidarites-sante.gouv.fr/grands-dossiers/vaccin-covid-19/covid-19-conseil-d-orientation-de-la-strategie-vaccinale/article/les-avis-du-conseil-d-orientation-de-la-strategie-vaccinale https://solidarites-sante.gouv.fr/IMG/pdf/avis_du_cosv_6_avril_2021pdf.pdf
- The South African Transplantation Society (SATS) estimates that there are 5000 transplant recipients across all organs (heart, liver, lung and kidney) with the majority being renal recipients and approximately 11,500 waitlisted patients across all organs, with around 10,700 on renal dialysis[11]: https://www.journals.ac.za/index.php/ajn/article/view/4458/2548
- SATS have developed a new portal for immunocompromised solid organ transplant recipients and waitlisted patients on dialysis: https://sats.org.za/16-notice/49-transplant-patient-vaccine-prioritisation
- For patients with a PID, the International Patient Organization for Primary Immunodeficiencies (https://ipopi.org/) recommends an interval of 1 month between first and second doses of an mRNA vaccine and a wait-out period of 90 days after COVID-19 infection.

## Recommendations

- Individuals >18 years, including health care workers, who are immunocompromised for any of the reasons outlined above (excluding HIV, which is a separate advisory being developed) should receive an additional Pfizer or Johnson and Johnson vaccine dose at least 28 days after receiving the last dose.
- The additional vaccine dose should be of the same vaccine as the initial dose (or doses).
- Children (12-18 years) who are immunocompromised should be offered the approved number of Pfizer standard two dose schedule and no additional doses at this time as safety not established for additional doses.

## References


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Thank you for consideration of this request.

Kind regards,

**PROFESSOR BARRY SCHOUB**
**CHAIRPERSON: MINISTERIAL ADVISORY COMMITTEE ON COVID-19 VACCINES**
**DATE:** 9 September 2021

**CC:**

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