



COVID-19 vaccination guidance to help prevent Hypovolaemia, Postural Hypotension and Acute Kidney Injury (AKI) in those at risk

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OFFICIAL

In some people, COVID-19 vaccination may be associated with prominent constitutional symptoms, such as vomiting, diarrhoea and decreased oral fluid intake, especially in the first 1-2 days following the vaccine.

The impact of associated decreased volume status may lead to decreased blood pressure, postural hypotension and falls, as well as acute kidney injury (AKI). Decreased volume may manifest as decreased urine output with or without an obvious decrease in blood pressure. Some vaccinees may have symptoms and signs of postural hypotension including dizziness upon standing. There is also an increased risk of falls particularly in the frail and elderly.

Blood pressure may be found to be lower than usual or there may be a significant drop upon sitting or standing (drop of >20mmHg systolic). Blood tests may show a decrease in the eGFR and a rise in the serum creatinine. In extreme cases, it may precipitate acute tubular necrosis and the need for supportive measures such as dialysis.

People especially susceptible to low blood pressure, postural hypotension, and AKI in the setting of dehydration or hypovolaemia include the following groups:

- The frail, debilitated or cognitively impaired
- Those using diuretics e.g. frusemide, hydrochlorothiazide, spironolactone
- Those using ACE inhibitors or Angiotensin Receptor Blockers (ARBs)
- Those using non-steroidal anti-inflammatory drugs (NSAIDs)
- Patients with cardiac failure or severe liver disease
- Patients with existing kidney disease
- Patients with a kidney transplant

How to minimise the risk of dehydration, decreased blood pressure, falls related to postural hypotension, and acute kidney injury (AKI)

It is important to remind those at risk to maintain adequate oral hydration at home when the above symptoms occur and to seek urgent medical attention when vomiting makes this impossible or when diarrhoea is severe.

Anti-hypertensives and/or diuretics may need to be temporarily withheld until volume status and blood pressure have improved.

An assessment of renal function and other metabolic parameters (various electrolytes) may be necessary in the emergency department along with the need for electrolyte and fluid replacement intravenously.

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If significant renal impairment develops or there are unusual features such as proteinuria or haematuria noted, review by a nephrologist is strongly recommended.

There are reports of glomerulonephritis possibly arising from mRNA vaccines, however these cases are extremely rare, and causality with the vaccines has not been clearly established.

Reporting an immediate adverse event following immunisation (AEFI) at place of vaccination

Clinics using CVMS

- Record all medically attended AEFI in CVMS as an adverse event report.
 - Medically attended events are defined as a visit to general practitioner, emergency department, or hospital admission.
 - Report will automatically be forwarded to SAEFVIC & followed up if required.
- If the adverse event is serious, IMMEDIATE notification is also required – see red box below

Clinics not using CVMS

- All medically attended AEFI to be reported to SAEFVIC via online reporting at www.saefvic.org.au or by using the QR code
 - Medically attended events are define as a visit to the general practitioner, emergency department or hospital admission
- If the adverse event is serious, IMMEDIATE notification is also required – see red box below



Serious or unexpected AEFI

Serious or unexpected AEFI require urgent direct notification in addition to routine reporting via CVMS or online [SAEFVIC form](#).

Serious adverse events requiring urgent reporting

AEFI that result in:	<ol style="list-style-type: none">1. Manage the AEFI by usual clinical pathways2. Immediately notify via phone:
<ul style="list-style-type: none">Transfer to hospital careCPRDefibrillator useLife-threatening incidentsDeath	<ul style="list-style-type: none">→ Business hours (Mon – Fri, 9AM – 5PM) Call SAEFVIC 1300 882 924 (Option 1)→ Out of Hours Call Victorian Vaccine Control Centre (VVCC) 1800 675 398 (Options 3-1-2)
Vaccine administration errors	<ol style="list-style-type: none">3. Submit an AEFI report online to SAEFVIC

Reporting a delayed AEFI outside place of vaccination

Vaccinees are advised to seek medical attention from their local general practitioner or emergency department should a delayed AEFI occur. Following medical attention, clinicians should report an AEFI to SAEFVIC via usual practices online www.saefvic.org.au. Vaccinees may also choose to report directly via the Victorian Coronavirus Hotline on 1800 675 398 or the National Coronavirus Hotline on 1800 020 080 or to SAEFVIC. Vaccinees can find more information online at <https://saefvic.online/report> or by using the QR code.