Immediate reactions to COVID vaccines

Immediate reactions to COVID vaccines are usually due to fainting or an allergy.

Recognise signs and symptoms of anaphylaxis early:

### Skin/mucosa
- Itchiness
- Skin rash (hives)
- Swelling of eyes, lips, tongue, face, or hands/feet
- Widespread redness
- Nasal congestion

### Respiratory
- Wheeze or cough
- Throat tightness/stridor
- Shortness of breath
- Hoarseness
- Oxygen saturation < 92%
- Trouble swallowing/drooling

### Cardiovascular
- Low blood pressure
- Dizziness
- Weakness
- Collapse
- Chest pain
- Palpitations

### Gastrointestinal
- Nausea
- Vomiting
- Diarrhoea
- Cramps/bloating

**IM adrenaline is safe. When in doubt, treat as anaphylaxis.**

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### Treat as anaphylaxis when signs or symptoms are:
- Generalised (i.e. generalised hives or ≥ 2 body systems involved) or
- Serious or life-threatening, even if only single body system (e.g. hypotension, respiratory distress, or significant swelling of the tongue or lips).

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### Treat suspected anaphylaxis

1. Lie client down and raise legs, unless severe stridor in which case sit client up, leaning forward.
2. **Call for help:** ask colleague to inform supervisor and doctor, if available. Ask colleague to call emergency medical services and report suspected anaphylaxis.
3. Give **adrenaline** 0.5mL (1:1000 solution) IM into mid outer thigh immediately. Repeat every 5 minutes if needed.
4. Insert IV line and check BP:
   - If BP < 90/60 despite adrenaline: give sodium chloride 0.9% 1-2L IV rapidly. Then, if BP still < 90/60, give further sodium chloride 0.9% 500mL IV rapidly, repeat until systolic BP > 90. Stop if breathing worsens.
   - Give oxygen, if available, 8-10L/min via facemask, up to 100% oxygen, as needed.
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### Adjunctive treatment:
6. If persistent wheeze or difficulty breathing despite adrenaline, also give salbutamol 2-3 puffs via spacer and face mask. Repeat as needed.
7. If severe symptoms or if known asthma, and wheeze persisting after other anaphylaxis symptoms/signs have resolved, give promethazine 25-50mg IM and hydrocortisone 200mg IM/slow IV.

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### Refer all cases of suspected anaphylaxis.
If delay in referral: take blood, within 2 hours of symptoms onset, to confirm vaccine-related anaphylaxis (tryptase sampling):
- Collect blood in 2x yellow topped tubes (SST) and send with client. If delay > 4 hours, store tubes on ice.

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### Monitor and treat other allergic reactions
- Monitor for longer (at least 30 minutes) to pick up any other symptoms that may develop:
- If rash only, with no other associated symptoms and patient remains well, pseudoallergic self-limiting rash likely: reassure client and advise oral antihistamines.
- Advise to seek urgent health care if any of the following develop: swelling of face, lips or tongue; difficulty breathing, abdominal pain, nausea or vomiting.

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### Report
Report electronically using the **Med Safety app** or
- Complete a NDoH Case Reporting Form (CRF) for an AESI* if anaphylaxis, or an AEFI** if other allergic reaction, and send to aefi@health.gov.za.
- Report to sub-district/district office and provincial EPI manager within 24 hours.

### Replace all medications/equipment used and seal emergency kit.

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*AESI - Adverse Event of Special Interest | **AEFI - Adverse Event Following Immunisation

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Created for the Western Cape Department of Health by the Knowledge Translation Unit.