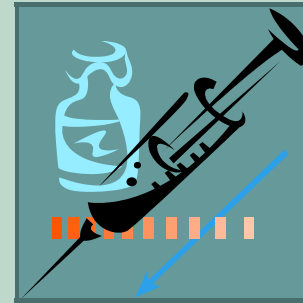
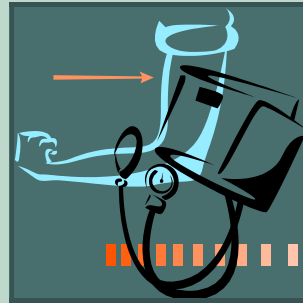
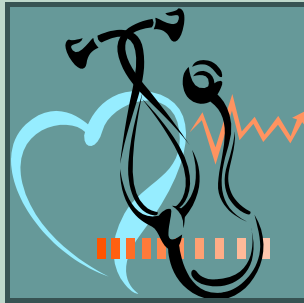


ANAPHYLAXIS

Following Vaccination of Adults



A Severe Adverse Event

Target audience

This information package is for nurse immunisers responsible for vaccinating adults only.



If you vaccinate children please refer to the [Australian Immunisation Handbook](#) for specific information on anaphylaxis management for children.

Adverse Event Following Immunisation



Adverse event following immunisation (AEFI) is any untoward medical occurrence that follows immunisation

- Local reactions
- Vaccine specific reactions
- Program errors
- Coincidental effects

Most AEFI are minor

Adverse Events

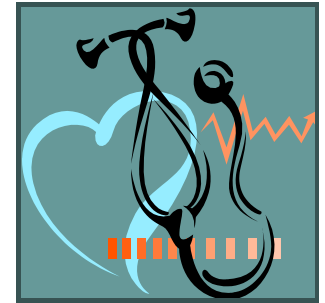
Following vaccination:

- Local reactions - least severe, most common
- Pain or redness at site of injection
- Systemic reactions - less common
- Fever
- Allergic reactions - rare but severe

Anaphylactic reaction - Rapid onset- usually begin within 15 minutes of vaccination but can occur within hours of vaccine administration

VACCINE RECIPIENTS SHOULD REMAIN IN VICINITY OF PLACE OF VACCINATION FOR AT LEAST 15 MINUTES

Anaphylaxis



- Rare
- Can be fatal
- Must distinguish between anaphylaxis, convulsions and fainting
- If diagnosis is unclear - consider anaphylaxis and administer adrenaline promptly

Vasovagal Episode (Fainting) Clinical Features



- Onset - immediate, usually within minutes of or during administration of vaccine
- Skin - generalise pallor, cool & clammy
- Respiratory - normal, may be shallow but not laboured
- Cardiovascular - bradycardia, with **STRONG CAROTID** pulse
- Hypotension - usually transient, corrects in supine position or head down
- Neurological - light-headedness, loss of consciousness, improves once supine or head down

Vasovagal Episode - Management

- Lie the person down
- If the person is unconscious, roll them on their side. Check they are breathing and have a pulse
- If possible, elevate the person's feet above the height of their head
- Loosen belts, tight clothing
- Offer reassurance
- If the person does not regain consciousness within one/two minutes seek medical advice
- Assess for injuries if person has fallen before lying down

Anaphylaxis - Clinical Features

- Onset - usually within 15 minutes of administration of vaccine, may be within hours
- Skin - itchiness, generalised redness, urticaria, localised oedema of deeper layers of skin or subcutaneous tissues
- Respiratory - cough, wheeze, stridor, tachypnoea, cyanosis, rib recession
- Cardiovascular - tachycardia, WEAK/absent central pulse
- Hypotension - sustained and no improvement without specific treatment
- Neurological - severe anxiety, distress, loss of consciousness
- no improvement in supine position

FACE

Rash, hives or welts

Swelling of lips, tongue,
eyes and face

AIRWAY

Difficulty breathing,
swallowing or speaking

THINK F.A.S.T.

if signs & symptoms of serious allergic reaction
then act.....

STOMACH

(Food Allergies)

Abdominal pain

Vomiting

TOTAL BODY

Rash, swelling, weakness,
paleness, sense of doom, loss
of consciousness

Allergic Reaction



Face and lip swelling



Local reaction: Swelling/redness at the site of injection

Allergic Reaction



Allergic Reaction



Anaphylaxis - Management

- If unconscious - lie on left side and maintain airway
- Rapid administration of ADRENALINE
- If no improvement in patients condition by 5 minutes repeat dose of ADRENALINE every 5 minutes until improvement occurs
- Administer oxygen by facemask at a high flow rate (if available)
- Send for assistance - never leave patient alone
- Begin CPR if required

Document event including times and doses of adrenaline administered

Adrenaline Dosage - Adult



- Adult dose (over 50kg) - 0.5ml

Or

- Adrenaline 1:1000 = 0.01 ml/kg body weight, up to maximum of 0.5 ml

(1mL syringe should be used if drawing up small doses as this improves measurement accuracy)

- Deep intramuscular injection (The anterolateral thigh is the preferred site)

- Repeat every 5 minutes until there is clinical improvement

Observe after Recovery



- All cases should be observed for a minimum of 4 -6 hours after apparent recovery
- Many allergy specialists recommend a minimum of 12 hours observation post recovery, based on evidence that severe "rebound" symptoms are observed in up to 20 % of patient with anaphylaxis after apparent early recovery.

(Source: <http://www.allergy.org.au>)

Comparison table Vasovagal or Anaphylaxis

Vasovagal episode	Anaphylaxis
ONSET –Immediate— usually within minutes of or during vaccine administration	Usually within 5 minutes but can be within hours of vaccine administration
SKIN—Generalise pallor, cool clammy skin	Itchy skin, generalised redness, urticaria, localised oedema of deeper layers of skin or subcutaneous tissues
RESPIRATIONS -Normal respirations, may be shallow but not laboured	Cough wheeze, stridor, tachypnoea, cyanosis, rib retraction
CARDIOVASCULAR— Bradycardia, with a STRONG CENTRAL pulse	Tachycardia, WEAK/absent central pulse
HYPOTENSION— usually transient, corrects in supine position or head down	Sustained and no improvement without specific treatment
NEUROLOGICAL—Light-headedness, loss of consciousness, improves once supine or head down	Severe anxiety, distress, loss of consciousness—no improvement in supine position

Reporting AEFI

- Any serious or unexpected adverse event should be promptly reported although no time limit has been set to report an event
- All events suspected of having a direct relation to vaccination can be reported
- Any person may report an AEFI (medical and non medical) however as much detail about the event as possible is required

Reporting AEFI

- Where do I report a AEFI?

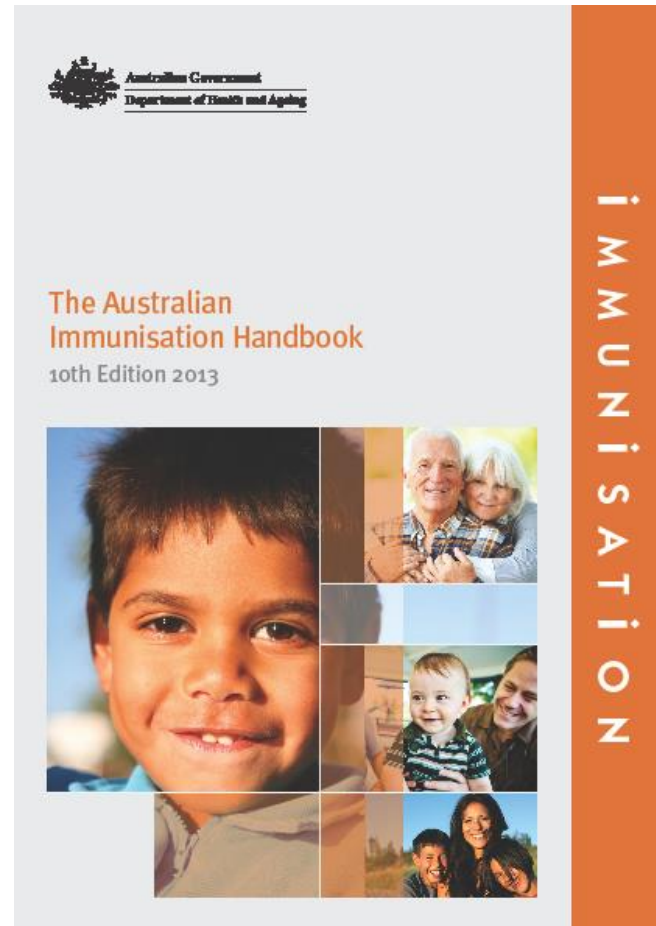
- In Victoria all AEFI are reported to

SAEFVIC 03 9345 4143 or online at www.saefvic.org.au

Patients and doctors in rural, regional or outer metropolitan areas in Victoria can have an online video consultation with SAEFVIC, using a web-based system similar to Skype. Consultations are bulk-billed and there are no costs to the patient or the doctor

For further Information

The Australian
Immunisation
Handbook
10th Edition 2013



<http://www.health.gov.au/internet/immunise/publishing.nsf/Content/Handbook10-home>

References /Disclaimer

References:

- Australian Government, *Immunise Australia*
<http://www.immunise.health.gov.au> [accessed April 2018]
- Australian Government, *The Australian Immunisation Handbook, 10th Edition* (2013), Canberra ACT

Disclaimer:

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Acknowledgements

Developed by:

Mary Smith (2006)
Regional Infection Control Consultant
Grampians
Department of Health
Victoria

Updated by:

Sarah Hibberd (2014), (2018)
Infection Control
Clinical Nurse Consultant
Djerriwarrh Health Service
Bacchus Marsh
Victoria

Further resources can be found at
<http://infectioncontrol.grampianshealth.org.au>
(Follow the infection control links)