Health Care Workers and Student Vaccination

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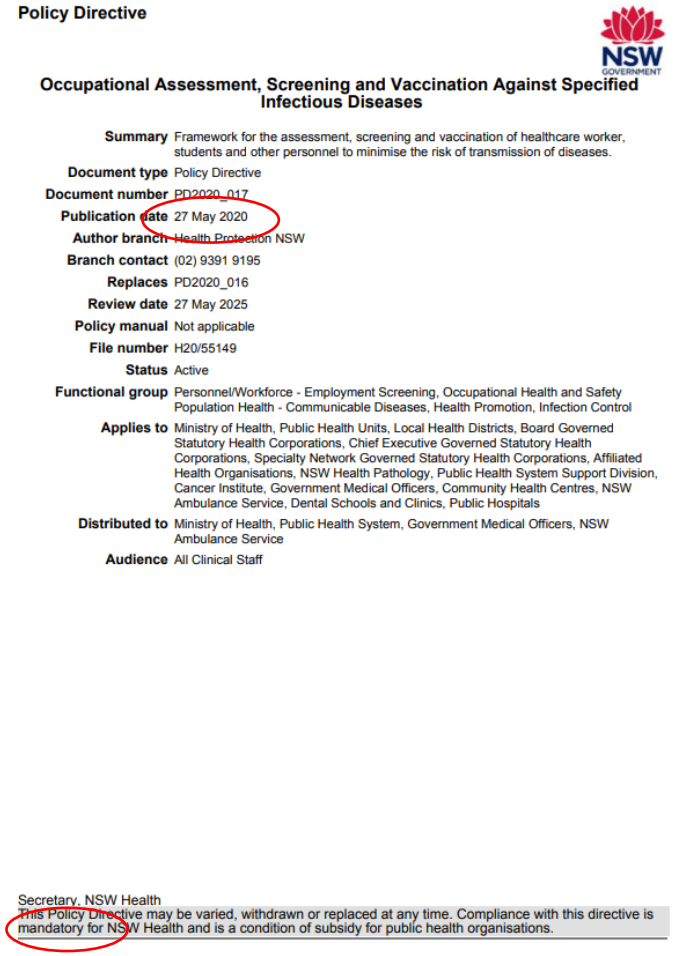
Vaccination Policy

- Covers all workers in NSW Health facilities including students, new recruits, volunteers and agency staff
- Requirements must be met prior to commencement
- Immunisation - Community HealthPathways Hunter New England - to access the Policy and user guide



Policy Directive

NSW GOVERNMENT

Occupational Assessment, Screening and Vaccination Against Specified Infectious Diseases

Summary	Framework for the assessment, screening and vaccination of healthcare worker, students and other personnel to minimise the risk of transmission of diseases.
Document type	Policy Directive
Document number	PD2020_017
Publication date	27 May 2020
Author branch	Health Protection NSW
Branch contact	(02) 9391 9195
Replaces	PD2020_016
Review date	27 May 2025
Policy manual	Not applicable
File number	H20/55149
Status	Active
Functional group	Personnel/Workforce - Employment Screening, Occupational Health and Safety Population Health - Communicable Diseases, Health Promotion, Infection Control
Applies to	Ministry of Health, Public Health Units, Local Health Districts, Board Governed Statutory Health Corporations, Chief Executive Governed Statutory Health Corporations, Specialty Network Governed Statutory Health Corporations, Affiliated Health Organisations, NSW Health Pathology, Public Health System Support Division, Cancer Institute, Government Medical Officers, Community Health Centres, NSW Ambulance Service, Dental Schools and Clinics, Public Hospitals
Distributed to	Ministry of Health, Public Health System, Government Medical Officers, NSW Ambulance Service
Audience	All Clinical Staff

Secretary, NSW Health

This Policy Directive may be varied, withdrawn or replaced at any time. Compliance with this directive is mandatory for NSW Health and is a condition of subsidy for public health organisations.

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Evidence to meet Policy Requirements

Diseases	Vaccination Evidence	Serology Evidence	Other Acceptable Evidence	Comments
Diphtheria, Tetanus & Pertussis	One adult dose of dTpa vaccine within the last 10 years	N/A. Serology will not be accepted	NIL	• **dTpa booster is required 10-yearly** • **DO NOT use ADT vaccine**
Hepatitis B	History of age- appropriate hepatitis B vaccination course	AND Anti-HBs ≥ 10mIU/mL	OR Documented evidence of anti-HBc, indicating past hepatitis B infection, or HBsAg+	• **A completed Hepatitis B Vaccination Declaration (Appendix 9) are acceptable if all attempts fail to obtain the vaccination record. The assessor must be satisfied that a reliable history has been provided and the risks of providing a false declaration or providing a verbal vaccination history based on recall must be explained** • **Positive HBcAb and/or HBsAg result indicate compliance with this policy** • **A further specialist assessment is required for HBsAg+ workers who perform Exposure Prone Procedures**
Measles, Mumps & Rubella (MMR)	2 doses of MMR vaccine at least one month apart	OR Positive IgG for measles, mumps and rubella (Rubella immunity is provided as a numerical value with immunity status as per lab report)	OR Birth date before 1966	• **Two doses of MMR vaccine, given at least 4 weeks apart, should be accepted as compliance with this policy.** • **Do not compare the numeric levels reported from different laboratories. The interpretation of the result given in the laboratory's report must be followed i.e. the report may include additional clinical advice e.g. consideration of a booster vaccination for low levels of rubella IgG detected.** • **DO NOT use MMRV vaccine (not licensed for use in persons ≥ 14 years). If a dose of MMRV vaccine is inadvertently given to an older person, this dose does not need to be repeated** • **Serology is not required following completion of a documented two dose MMR course.** • **Those born before 1966 do not require serology**
Varicella	2 doses of varicella vaccine at least one month apart (or evidence of 1 dose if the person was vaccinated before 14 years of age).	OR Positive IgG for varicella	Australian Immunisation Register (AIR) History Statement that records natural immunity to chickenpox	• **Evidence of one dose of varicella vaccine is sufficient in persons vaccinated before 14 years of age; two doses administered at least one month apart is required when aged 14 years or more when vaccinated.** • **DO NOT use MMRV vaccine (not licensed for use in persons ≥ 14 years)** • **Evidence of one dose of Zostavax in persons vaccinated over 50 years of age**
Influenza	One dose of current southern hemisphere seasonal influenza vaccine by 1 June each year	N/A Serology will not be accepted	NIL	• **Influenza vaccination is required annually for workers in Category A High Risk positions, as specified in Appendix 1 Risk Categorisation Guidelines (see Section 4)** • **Influenza vaccination is strongly recommended for all workers, other clinical personnel in Category A positions and for all students.**
Tuberculosis	**N/A**	**Refer to Section 3.5**	**Refer to Section 3.5**	• **Refer to Section 1.2 Key Definitions** • **Refer to Section 3 TB Assessment and Screening**

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Documentation Requirements

Australian Government Services Australia | medicare

Immunisation history statement

As at: 12 September 2021
For: Jill Citizen
Date of birth: 29 July 2017
Individual Healthcare Identifier (IHI): 8003 60 XX XXXX XXXX
NIP immunisation status: up to date

Schedule	Date given	Immunisation	Brand name given
Birth	30 Jul 2017	Hepatitis B	Engerix-B
2 months	30 Sep 2017	Diphtheria Tetanus Pertussis Hib Hepatitis B Poliomyelitis	
		Pneumococcal	
		Rotavirus	
4 months	30 Nov 2017	Diphtheria Tetanus Pertussis Hib Hepatitis B Poliomyelitis	
		Pneumococcal	Prevenar 13
		Rotavirus	Rotarix
6 months	30 Jan 2018	Diphtheria Tetanus Pertussis Hib Hepatitis B Poliomyelitis	Hexaxim
12 months	30 Jul 2018	Measles Mumps Rubella	MMR II
		Meningococcal ACWY	Nimenrix
		Pneumococcal	Prevenar 13
18 months	30 Jan 2019	Hib	Hiberix
		Diphtheria Tetanus Pertussis	Infanrix
		Measles Mumps Rubella Varicella	Priorix-Tetra
4 years	30 Jul 2021	Diphtheria Tetanus Pertussis Poliomyelitis	Infanrix IPV

Next NIP immunisation/s due	Date due
No vaccines due.	

Notice/s

This individual has received all vaccines required under the National Immunisation Program childhood schedule.

IDEAL

Sample results. Actual results may vary.

PATIENT INFORMATION

REPORT STATUS: FINAL

ORDERING PHYSICIAN

SPECIMEN INFORMATION
SPECIMEN:
REQUISITION:
LAB REF NO:

DOB:
AGE:
GENDER:
FASTING:

Clinical Info:

CLIENT INFORMATION

ACCESA LABS

Order Today
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COLLECTED:
RECEIVED:
REPORTED:

Test Name	Result	Flag	Reference Range	Lab
HEPATITIS B SURFACE ANTIBODY (QUANT)				
HEPATITIS B SURFACE ANTIBODY (QUANT)	800		mIU/mL	EN

Patient has immunity to hepatitis B virus.

This test was performed using the Siemens chemiluminescent method effective November 21, 2013. ...e values from the previous Ortho Vitros ...ld not be used interchangeably.

...oratory Information:

Acceptable – High level documentation required

EXAMPLE OF CARD ONE

Vaccination Record Card for Health Care Workers and Students

NSW

Personal Details (please print) — Please refer to instructions overleaf

Surname: Doe | Given names: Jane
Address: 212 Kenya St, Woolloongong
State: NSW | Postcode: 2536 | Date of Birth: 01/01/1984
Email: Jane.Doe@gmail.gov.au | Staff/student ID No: 252735
Contact numbers: (mobile) 0455555555 (home) — (work) —

Vaccine	Date	Batch No.	Official Certification by Vaccination Provider (clinic/practice stamp, full name and signature)
Adult formulation diphtheria, tetanus, acellular pertussis (whooping cough) vaccine (adult dose of dTpa vaccine)			
Dose 1	27/8/17	AC3781795AL	Attende GTOWLE) STAFF HEALTH ISLHD
Booster 10 years after previous dose			
Hepatitis B vaccine (age appropriate course of vaccinations) **AND** hepatitis B surface antibody ≥ 10mIU/mL **OR** (serology test)			STAFF HEALTH
Dose 1	25/6/2016	L03041	B-le GTOWLE) ISLHD
Dose 2	26/7/2016	L03041	B-le GTOWLE) STAFF HEALTH ISLHD
Dose 3	1/10/2016	MOU2468	B-le GTOWLE) STAFF HEALTH ISLHD
AND			
Serology: anti-HBs	3/4/2017	Result 1000 mIU/mL	B-le GTOWLE) STAFF HEALTH ISLHD
OR Serology: anti-HBc		Result Positive / Negative mIU/mL	
Influenza vaccine (strongly recommended for all health care workers & **mandatory** for Category A High ... workers)			STAFF HEALTH ISLHD
	2/6/2018	AFLBA285AA	B-le GTOWLE)
Measles, Mumps and Rubella (MMR) vaccine (2 doses MMR vaccine at least 1 month apart **OR** positive serology for measles, mumps and rubella **OR** birth date before 1966)			
Dose 1			
Dose 2			
OR			
Serology Measles	3/4/2017 IgG Result	Positive / Detected	B-le GTOWLE)
Serology Mumps	3/4/2017 IgG Result	Positive / Detected	STAFF HEALTH
Serology Rubella	3/4/2017 IgG Result	739.7 IU/mL	ISLHD
Varicella vaccine (age appropriate course of vaccination **OR** positive serology)			
Dose 1			
Dose 2			
OR Serology Varicella	3/4/2017 IgG Result	Positive / Detected	B-le GTOWLE) STAFF HEALTH ISLHD

TB Screening	Date	Batch No. or Result	Given by/Read by (clinic/practice stamp, full name and signature)
Requires TB screening?		YES (NO) (please circle)	B-le GTOWLE) STAFF HEALTH ISLHD
History of BCG vaccination		YES NO (please circle)	
TB screening - Interferon Gamma Release Assay (IGRA) OR Tuberculin Skin Test (TST) performed at NSW TB Services only			
IGRA		Positive / Indeterminate / Negative	
OR			
TST injection			
Reading		Induration mm	
TST injection if 2 step required			
Reading		Induration mm	
Other TB investigations (including chest X ray)			

NB: Please attend a verification session at your local NSW campus to see if you need these tests.

1 of 1

Revised April 2018

Copies of all serology results required

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Hepatitis B practice points

- Age appropriate course
- Pay attention to minimum intervals
- Hepatitis B surface antibodies to confirm immune response
- If not immune booster and further serology required
- HCW will be processed as non-responder by their employer if remain non-immune
- Temporary compliance only in first year for students

Hepatitis B Pathway	Comment
Primary course's • Paediatric course of x3/4 doses (<20 years – Engerix-B and H-B-Vax II paediatric formulations or Infanrix hexa) OR • Adolescent course of x2 doses (11-15 years – Engerix-B and H-B-Vax II adult formulations) OR • Adult course of x3 doses (≥20 years – Engerix-B and H-B-Vax II adult formulations) **NOTE**: NSWH PD2020_017 "an accelerated hepatitis B vaccination schedule must not be accepted" p.23.	Paediatric hepatitis B vaccine schedule (NIP 1 April 2019) • Birth dose (may or may not be given in hospital) • 2 months of age (Infanrix hexa) • 4 months of age (Infanrix hexa) • 6 months of age (Infanrix hexa) Adolescent hepatitis B vaccine schedule • 1st dose: day 0 • 2nd dose: 4-6 months after 1st dose Adult hepatitis B vaccine schedule • A minimum interval of 1 month between the 1st and 2nd dose and; • A minimum interval of 2 months between the 2nd and 3rd dose, and • A minimum interval of 4 months (or 16 weeks) **between the 1st and 3rd dose**
Pathology HBsAb: 4 - 8 weeks after 3rd dose	If HBsAb level <10 mIU/mL proceed with 1st additional dose
Additional Dose • 1st dose	
Pathology HBsAb, HBsAg, HBcAb: 4 weeks after vaccination	If HBsAb level <10 mIU/mL proceed with additional doses If HBsAg or HBcAb positive – natural immunity, no further doses required
Additional Doses • 2nd dose • 3rd dose	Doses are given 1 month apart
Pathology HBsAb: 4 weeks after 3rd dose	If HBsAb level <10 mIU/mL considered a non-responder

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dTpa practice points

- Serology is not accepted
- ADT is not accepted
- dTpa must be within the last 10 years
- If ADT inadvertently given repeat with dTpa at any interval

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MMR practice points

- Serological testing is NOT routinely recommended

However if non-immune what to do?

- 2 doses documented → booster
- 1 dose documented → second dose
- 0 doses documented → two doses
- Absolute minimum interval 28 days between live vaccines

Varicella practice points

- Serological testing is NOT routinely recommended
- Protection should be assumed based on number of documented doses received
- One dose is funded in childhood schedule but two doses recommended for optimal immunity - chance for opportunistic vaccination
- If Zostavax is inadvertently given to <50 it will still count as a valid vaccine, don’t repeat with age appropriate course

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Adverse Events Following Immunisation

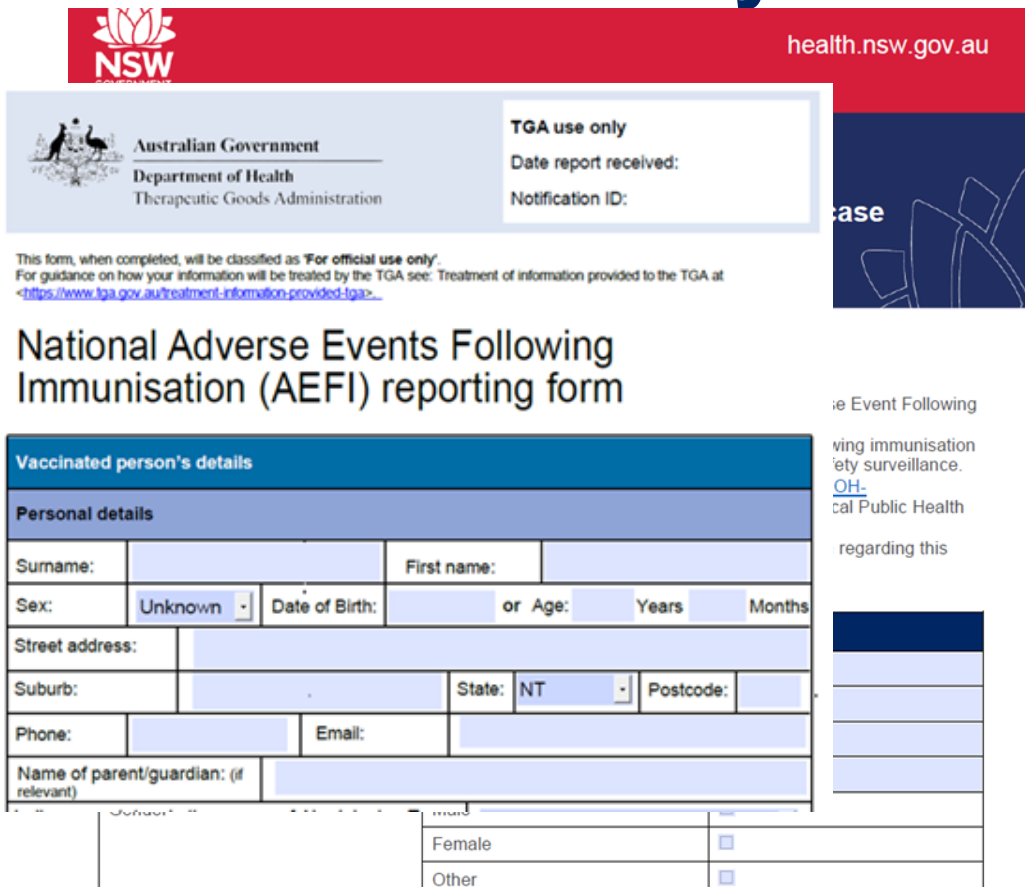
When, how and why report

Reporting AEFI's is important

"Lack of trust in vaccine safety and concern regarding AEFIs plays a significant role in vaccine-hesitancy"

Azarpanah H, Farhadloo M, Vahidov R & Pilote L (2021) BMC Public Health

- Report all uncommon, serious or unexpected AEFI or any event felt to be significant following immunisation to your local public health unit.
- You may use either the National or NSW COVID-19 form



health.nsw.gov.au

Australian Government
Department of Health
Therapeutic Goods Administration

TGA use only
Date report received:
Notification ID:

This form, when completed, will be classified as 'For official use only'.
For guidance on how your information will be treated by the TGA see: Treatment of information provided to the TGA at <https://www.tga.gov.au/treatment-information-provided-tga>.

National Adverse Events Following Immunisation (AEFI) reporting form

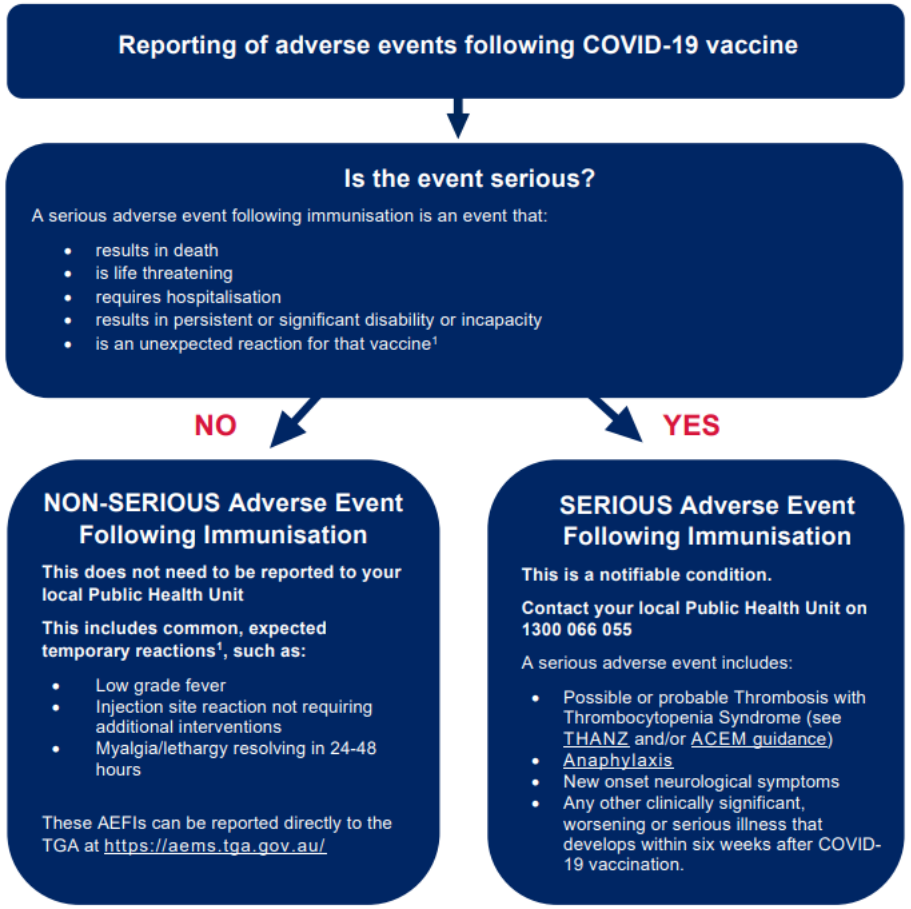
Vaccinated person's details

Personal details

Surname: | First name:
Sex: Unknown | Date of Birth: | or Age: Years Months
Street address:
Suburb: | State: NT | Postcode:
Phone: | Email:
Name of parent/guardian: (if relevant)

Female
Other

What's serious or significant?



Significant (rare) syndromes reported to date internationally include:

- disorders of clotting and haemostasis
- anaphylaxis
- Bell's palsy
- persistent lymphadenopathy
- other new onset neurological disorders.

Note: Many conditions can arise during normal life, whether or not a vaccine is administered. It remains important to report any new or unexpected events so that safety can be appropriately monitored.

[COVID-19 vaccine: Enhanced surveillance and adverse event reporting guidelines (nsw.gov.au)]

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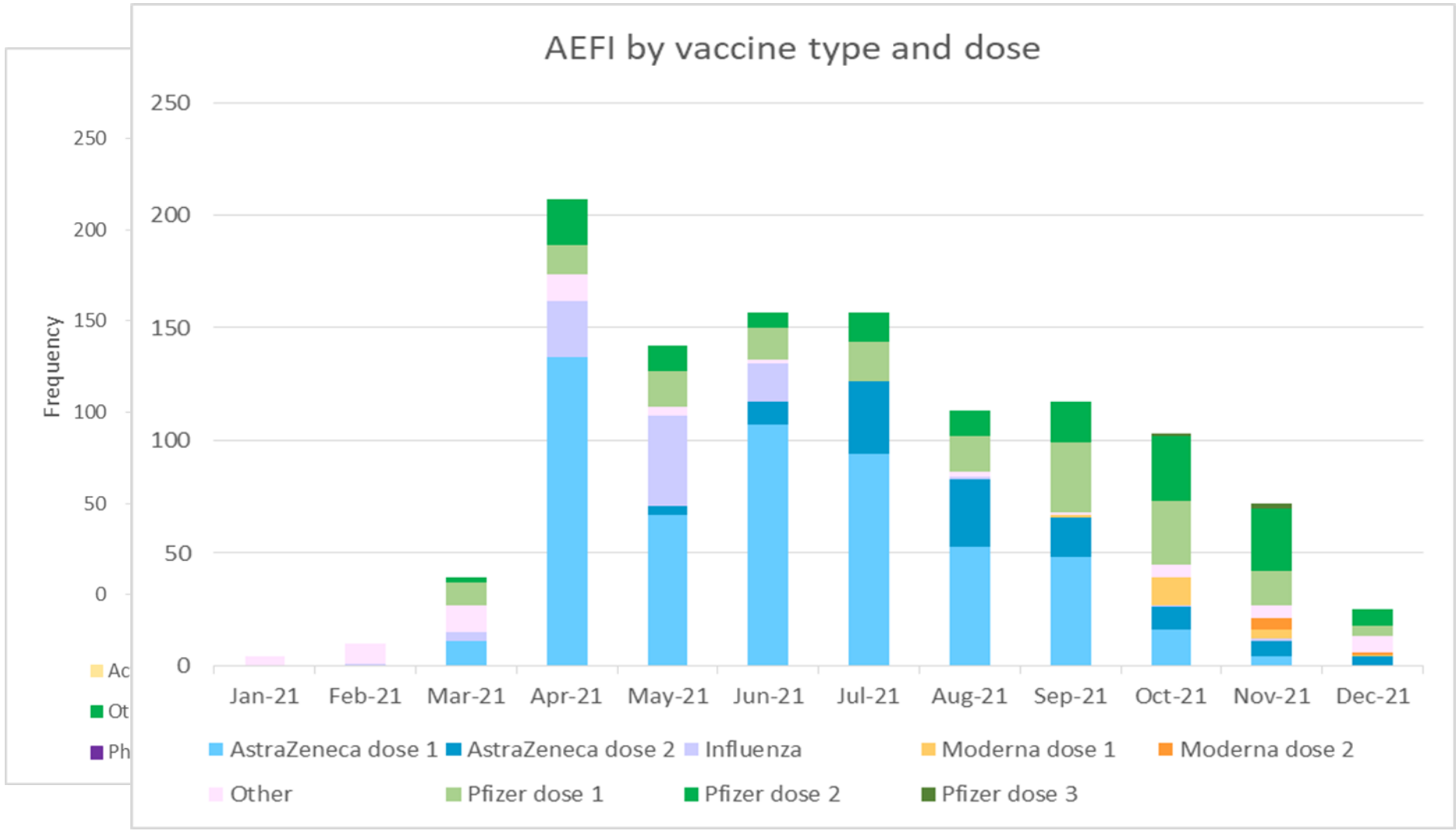
Your reports matter – HNE Reports 2021



Vaccine Safety in Children – COVID-19 Vaccines

- To 29 May 2022, we have received about 4,170 reports from approximately 3.6 million doses of Comirnaty (Pfizer) and Spikevax (Moderna) in 12-17 year olds.
- To 29 May 2022, we have received about 1,460 reports from approximately 2.2 million Comirnaty (Pfizer) doses administered in this age group.
- The most common reactions reported included chest pain, vomiting, fever, headache and abdominal pain.
- 33 reports of suspected myocarditis and/or pericarditis in this age group. Following review of information in the reports, 4 were likely to represent myocarditis and another 6 reports were likely to represent pericarditis.

COVID-19 vaccine weekly safety report - 02-06-2022 | Therapeutic Goods Administration (TGA)

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Reports change policy

Australian Government
Department of Health

New item for cardiac magnetic resonance imaging (MRI) for myocarditis associated with mRNA COVID-19 vaccination - factsheet

Last updated: 16 December 2021

What are the changes?

From 1 January 2022, Medicare Benefits Schedule (MBS) item 63399 is being introduced for cardiac magnetic resonance imaging (MRI) to assist in diagnosing myocarditis that may occur after vaccination with the mRNA COVID-19 vaccines Comirnaty (Pfizer) and Spikevax (Moderna).

The item is for use in circumstances where myocarditis cannot be definitively diagnosed using conventional imaging and other diagnostic tests.

Factsheet-cardiac-MRI-myocarditis-COVID-19-vaccination.16.12.21.pdf (mbsonline.gov.au)

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Transparency matters – Reports of deaths

- The TGA has identified 11 reports where the cause of death was linked to vaccination from 769 reports received and reviewed.
- The deaths linked to vaccination occurred after the first dose of Vaxzevria (AstraZeneca)
- 8 thrombosis with thrombocytopenia syndrome (TTS) cases,
- 2 were linked to Guillain-Barre syndrome (GBS)
- 1 was a case of immune thrombocytopenia (ITP)
- No deaths in children

COVID-19 vaccine weekly safety report - 02-06-2022 | Therapeutic Goods Administration (TGA)

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Expected Reactions

- The common symptoms after influenza vaccination can mimic influenza infection, but are due to the vaccine's interaction with the immune system.
- Less than 15% of people who get influenza vaccine get fever, headache, arthralgia and myalgia. Injection site reactions such as swelling, redness and pain are also common. These side effects may commence within a few hours of vaccination and can last for 1–2 days.
- In clinical trials, people who received adjuvanted influenza vaccine had a higher rate of injection site reactions in the week following vaccination than those who received standard influenza vaccine (around 35% versus 18%).

NCIRS National Centre for Immunisation Research and Surveillance

FactSheet

Influenza vaccines for Australians

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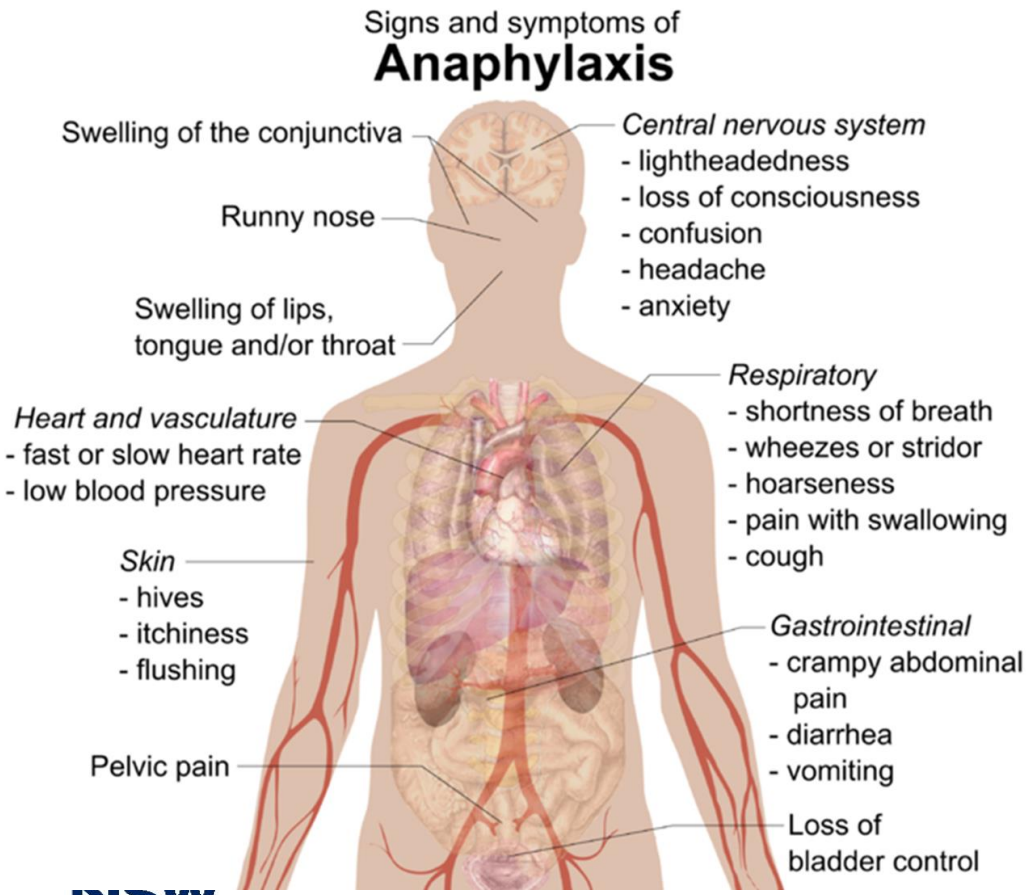
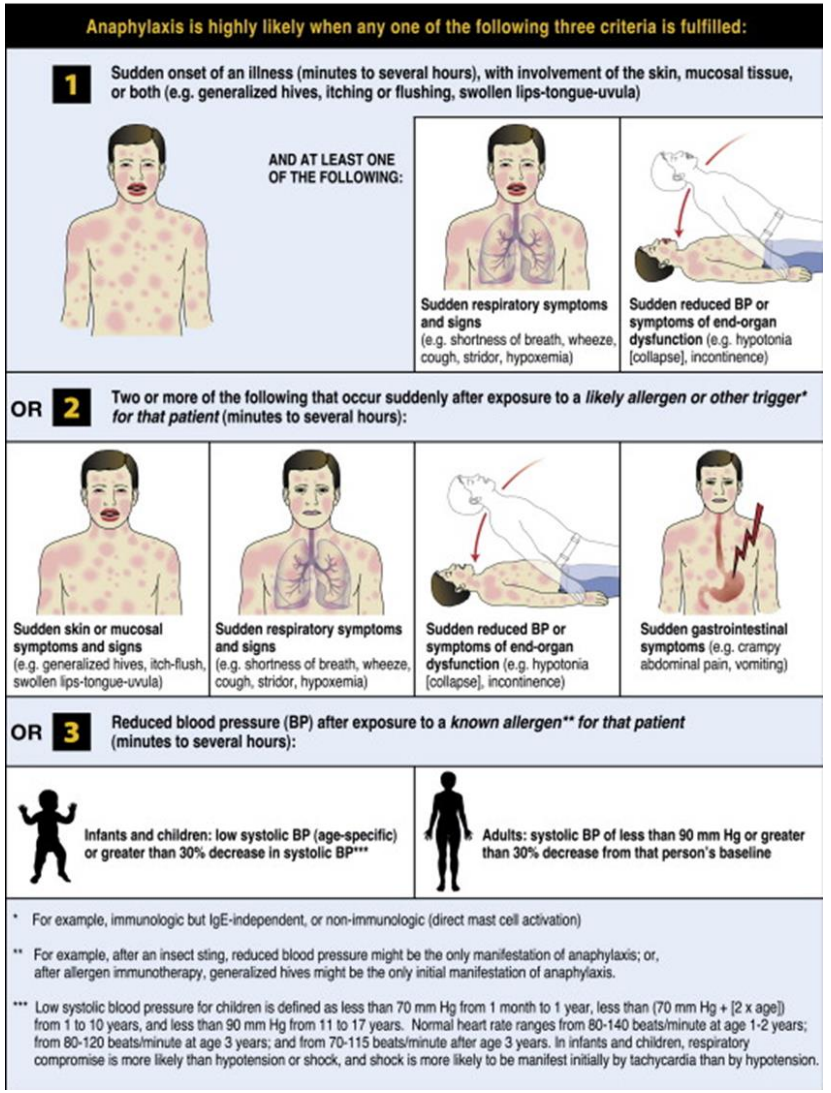
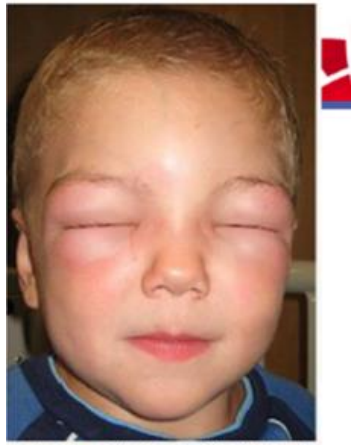
Anaphylaxis

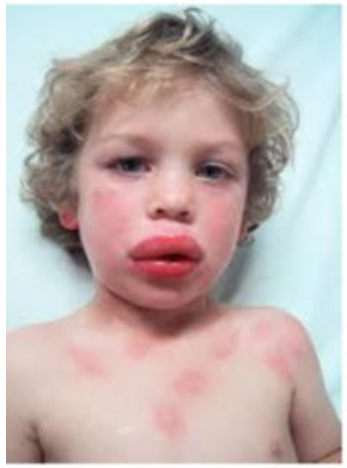
- Anaphylaxis is a life threatening AEFI
- Be prepared, be calm
- You have time to assess







Angioedema of the face such that the boy is unable to open his eyes. This reaction was caused by an allergen exposure.



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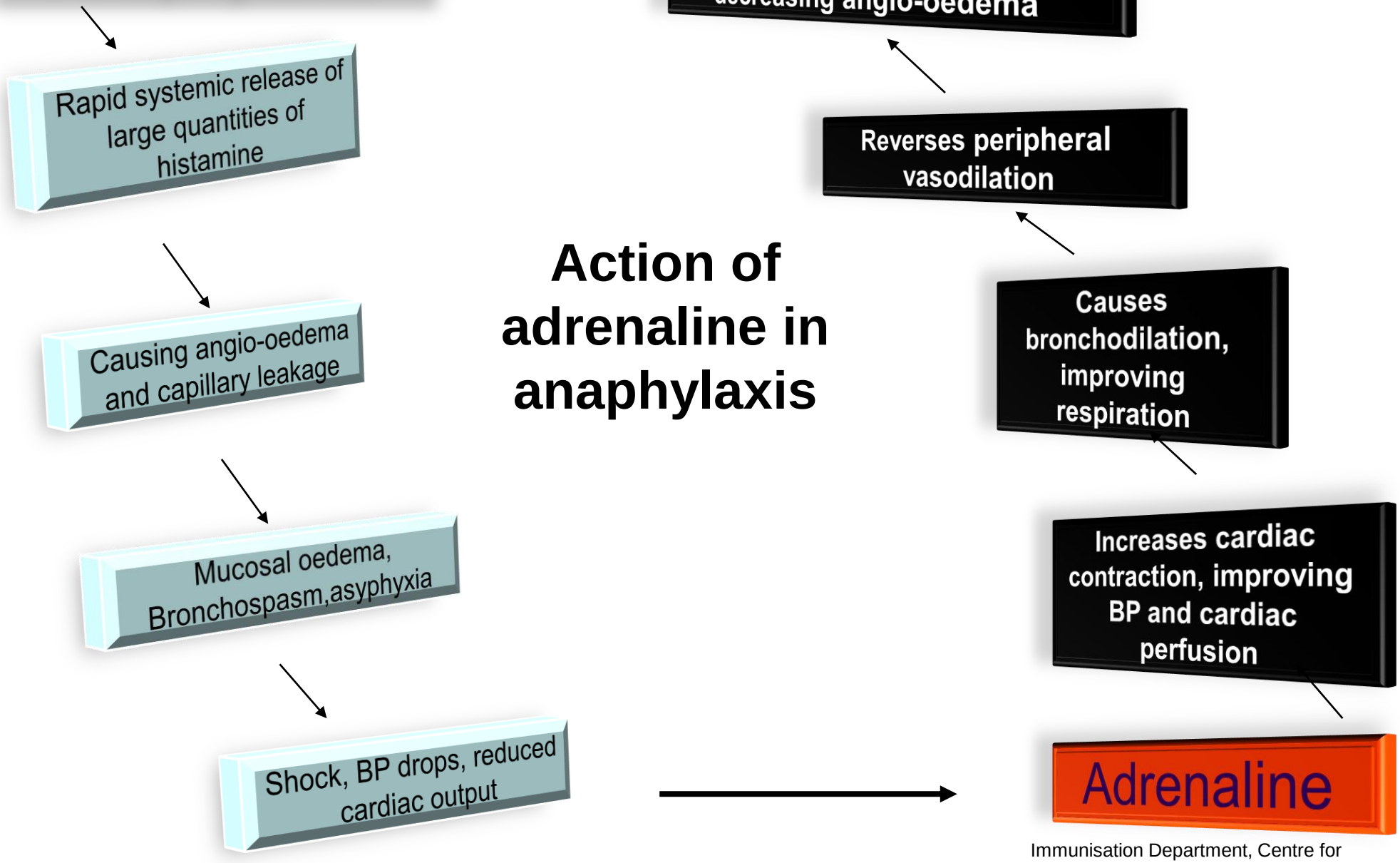
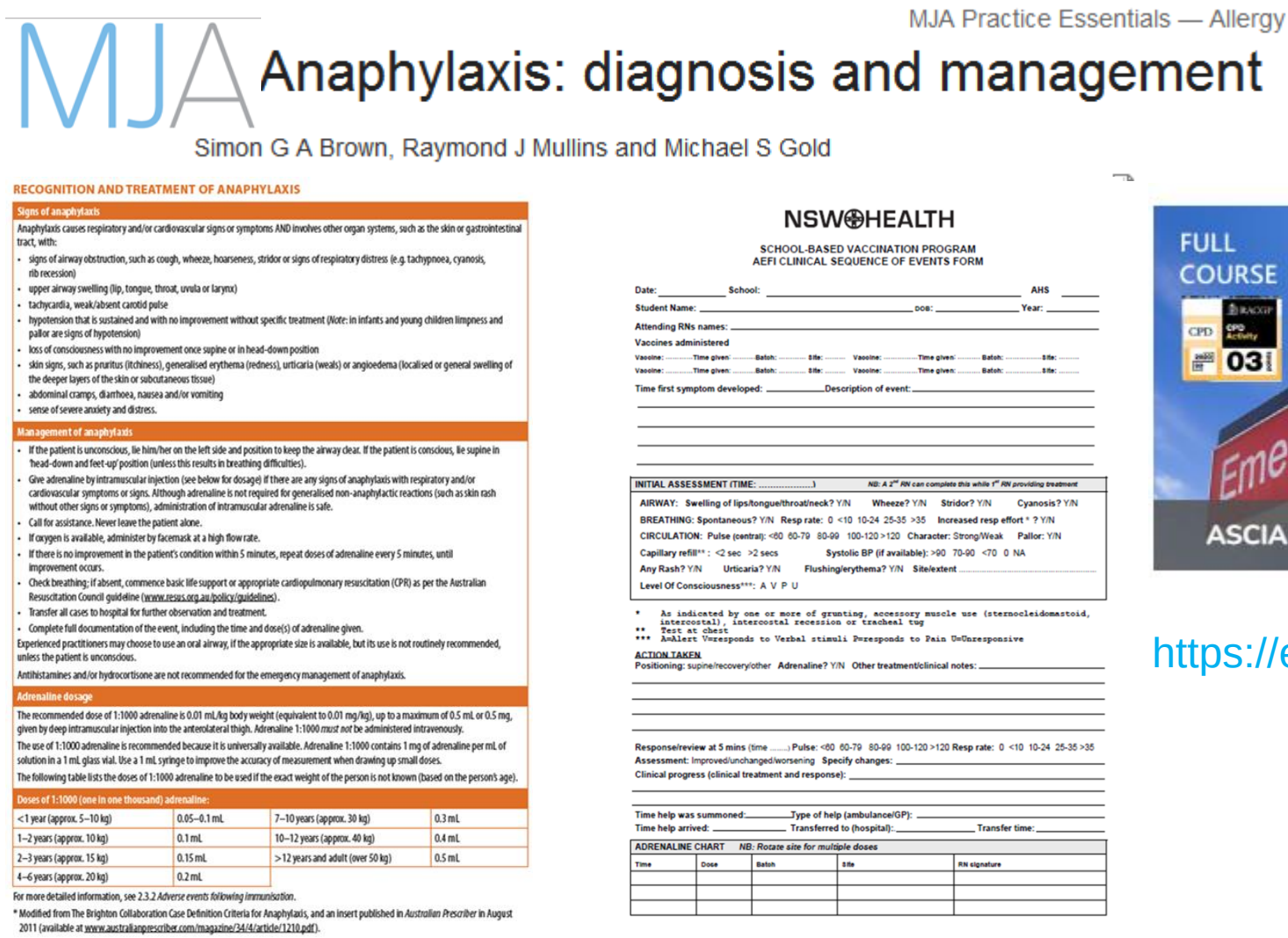
Anaphylaxis



Action of adrenaline in anaphylaxis

Anaphylaxis - resources



MJA Practice Essentials — Allergy

Anaphylaxis: diagnosis and management

Simon G A Brown, Raymond J Mullins and Michael S Gold

RECOGNITION AND TREATMENT OF ANAPHYLAXIS

Signs of anaphylaxis

Anaphylaxis causes respiratory and/or cardiovascular signs or symptoms AND involves other organ systems, such as the skin or gastrointestinal tract, with:

- signs of airway obstruction, such as cough, wheeze, hoarseness, stridor or signs of respiratory distress (e.g. tachypnoea, cyanosis, rib recession)
- upper airway swelling (lip, tongue, throat, uvula or larynx)
- tachycardia, weak/absent carotid pulse
- hypotension that is sustained and with no improvement without specific treatment (*Note*: in infants and young children limpness and pallor are signs of hypotension)
- loss of consciousness with no improvement once supine or in head-down position
- skin signs, such as pruritus (itchiness), generalised erythema (redness), urticaria (weals) or angioedema (localised or general swelling of the deeper layers of the skin or subcutaneous tissue)
- abdominal cramps, diarrhoea, nausea and/or vomiting
- sense of severe anxiety and distress.

Management of anaphylaxis

- If the patient is unconscious, lie him/her on the left side and position to keep the airway clear. If the patient is conscious, lie supine in 'head-down and feet-up' position (unless this results in breathing difficulties).
- Give adrenaline by intramuscular injection (see below for dosage) if there are any signs of anaphylaxis with respiratory and/or cardiovascular symptoms or signs. Although adrenaline is not required for generalised non-anaphylactic reactions (such as skin rash without other signs or symptoms), administration of intramuscular adrenaline is safe.
- Call for assistance. Never leave the patient alone.
- If oxygen is available, administer by facemask at a high flow rate.
- If there is no improvement in the patient's condition within 5 minutes, repeat doses of adrenaline every 5 minutes, until improvement occurs.
- Check breathing; if absent, commence basic life support or appropriate cardiopulmonary resuscitation (CPR) as per the Australian Resuscitation Council guideline (www.resus.org.au/policy/guidelines).
- Transfer all cases to hospital for further observation and treatment.
- Complete full documentation of the event, including the time and dose(s) of adrenaline given.

Experienced practitioners may choose to use an oral airway, if the appropriate size is available, but its use is not routinely recommended, unless the patient is unconscious.

Antihistamines and/or hydrocortisone are not recommended for the emergency management of anaphylaxis.

Adrenaline dosage

The recommended dose of 1:1000 adrenaline is 0.01 mL/kg body weight (equivalent to 0.01 mg/kg), up to a maximum of 0.5 mL or 0.5 mg, given by deep intramuscular injection into the anterolateral thigh. Adrenaline 1:1000 *must not* be administered intravenously.

The use of 1:1000 adrenaline is recommended because it is universally available. Adrenaline 1:1000 contains 1 mg of adrenaline per mL of solution in a 1 mL glass vial. Use a 1 mL syringe to improve the accuracy of measurement when drawing up small doses.

The following table lists the doses of 1:1000 adrenaline to be used if the exact weight of the person is not known (based on the person's age).

Doses of 1:1000 (one in one thousand) adrenaline:

<1 year (approx. 5–10 kg)	0.05–0.1 mL	7–10 years (approx. 30 kg)	0.3 mL
1–2 years (approx. 10 kg)	0.1 mL	10–12 years (approx. 40 kg)	0.4 mL
2–3 years (approx. 15 kg)	0.15 mL	>12 years and adult (over 50 kg)	0.5 mL
4–6 years (approx. 20 kg)	0.2 mL		

For more detailed information, see 2.3.2 *Adverse events following immunisation*.

* Modified from The Brighton Collaboration Case Definition Criteria for Anaphylaxis, and an insert published in *Australian Prescriber* in August 2011 (available at www.australianprescriber.com/magazine/34/4/article/1210.pdf).

NSW HEALTH

SCHOOL-BASED VACCINATION PROGRAM
AEFI CLINICAL SEQUENCE OF EVENTS FORM

Date: _____ School: _____ AHS _____

Student Name: _____ DOB: _____ Year: _____

Attending RNs names: _____

Vaccines administered

Vaccine: _____ Time given: _____ Batch: _____ Site: _____ Vaccine: _____ Time given: _____ Batch: _____ Site: _____

Vaccine: _____ Time given: _____ Batch: _____ Site: _____ Vaccine: _____ Time given: _____ Batch: _____ Site: _____

Time first symptom developed: _____ Description of event: _____

INITIAL ASSESSMENT (TIME: .....) *NB: A 2nd RN can complete this while 1st RN providing treatment*

AIRWAY: Swelling of lips/tongue/throat/neck? Y/N Wheeze? Y/N Stridor? Y/N Cyanosis? Y/N

BREATHING: Spontaneous? Y/N Resp rate: 0 <10 10-24 25-35 >35 Increased resp effort * ? Y/N

CIRCULATION: Pulse (central): <60 60-79 80-99 100-120 >120 Character: Strong/Weak Pallor: Y/N

Capillary refill** : <2 sec >2 secs Systolic BP (if available): >90 70-90 <70 0 NA

Any Rash? Y/N Urticaria? Y/N Flushing/erythema? Y/N Site/extent .....

Level Of Consciousness***: A V P U

* As indicated by one or more of grunting, accessory muscle use (sternocleidomastoid, intercostal), intercostal recession or tracheal tug
** Test at chest
*** AvAlert V=responds to Verbal stimuli P=responds to Pain U=Unresponsive

ACTION TAKEN

Positioning: supine/recovery/other Adrenaline? Y/N Other treatment/clinical notes: _____

Response/review at 5 mins (time .....) Pulse: <60 60-79 80-99 100-120 >120 Resp rate: 0 <10 10-24 25-35 >35

Assessment: Improved/unchanged/worsening Specify changes: _____

Clinical progress (clinical treatment and response): _____

Time help was summoned: _____ Type of help (ambulance/GP): _____

Time help arrived: _____ Transferred to (hospital): _____ Transfer time: _____

ADRENALINE CHART *NB: Rotate site for multiple doses*

Time	Dose	Batch	Site	RN signature

https://etraininghp.ascia.org.au/

https://www.mja.com.au/journal/2006/185/5/2-anaphylaxis-diagnosis-and-management

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Anaphylaxis, Seizure, Syncope, Something Else?

Clinical feature	Vasovagal episode	Anaphylaxis
Onset	• Immediate, usually within minutes of, or during, vaccine administration	• Usually within 15 minutes of vaccine administration, but can occur within hours
Respiratory symptoms or signs	• Normal breathing; may be shallow, but not laboured	• Cough • Wheeze • Hoarseness • Stridor • Signs of respiratory distress, such as abnormally rapid breathing (tachypnoea), cyanosis or rib recession • Upper airway swelling (eg lip, tongue, throat, uvula, larynx)
Cardiovascular symptoms or signs	• Bradycardia • Weak/absent peripheral pulse • Strong carotid pulse • Hypotension — usually transient and corrects in supine position • Loss of consciousness — improves once supine or in head-down position	• Tachycardia • Weak/absent carotid pulse • Hypotension — sustained and no improvement without specific treatment (Note: In infants and young children, limpness and pallor are signs of hypotension) • Loss of consciousness — no improvement once supine or in head-down position
Skin symptoms or signs	• Generalised pallor • Cool, clammy skin	• Pruritus (skin itchiness) • Generalised skin erythema (redness) • Urticaria (weals) • Angioedema (localised or general swelling of the deeper layers of the skin or subcutaneous tissues)
Gastrointestinal symptoms or signs	• Nausea or vomiting	• Abdominal cramps • Diarrhoea • Nausea or vomiting
Neurologic symptoms or signs	• Person feels faint or light-headed	• Person has a sense of severe anxiety and distress

Note: Anaphylaxis features are modified from The Brighton Collaboration Case Definition Criteria for Anaphylaxis.[5] Neurologic symptoms are not listed in this case definition.[5] However, symptoms of anxiety and distress, including feelings of impending doom, are reported in people experiencing anaphylaxis.[6]

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Syncope v Seizure

Differentiating seizure from syncope: some helpful and unhelpful features

Unhelpful features: - often thought to indicate seizure but can occur in syncope

- Twitching and jerking
- Incontinence (reflect full bladder at the time of the event)
- Pallor
- Bitten tip of tongue
- Fatigue after the event

Helpful features – indicate a seizure

- Confusion after the event lasting >2 minutes
- Deeply bitten lateral border of the tongue
- Tonic then clonic movement lasting >1 minute
- Deep cyanosis

https://www.bmj.com/content/334/7585/153.full

Something Else – Vocal cord dysfunction

Clinical Communications

Vocal cord dysfunction/inducible laryngeal obstruction(s) mimicking anaphylaxis during SARS-CoV-2 (COVID-19) vaccination

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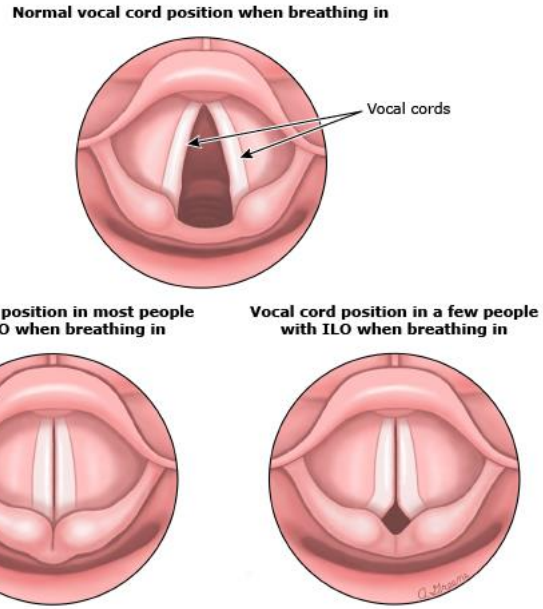
Clinical Implications

Dyspnea, tachypnea, and throat tightness following vaccination provoke concern for anaphylaxis, but these symptoms are also characteristic of vocal cord dysfunction/inducible laryngeal obstruction. We report the first case series of vocal cord dysfunction/inducible laryngeal obstruction occurring in the context of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) (coronavirus disease 2019 [COVID-19]) vaccination.

AZD1222) vaccine. Symptoms included dyspnea in all cases, a sensation of throat closure (8 of 10), and tachypnea with increased respiratory effort (8 of 10). Hoarse voice was present in 3; stridor and wheeze were present in 2 patients. In 6 patients, symptoms began within 30 minutes of the dose. All patients presented to an emergency department, and a provisional diagnosis of anaphylaxis was made by the treating physicians in all cases.

One individual had Brighton diagnostic certainty level 1 anaphylaxis with rapid onset of facial and upper airway angioedema, hypotension, and elevated tryptase (22 μg/L, upper limit of normal 11.4 μg/L). This patient was admitted to the hospital; respiratory syncytial virus was detected and subsequent inpatient laryngoscopy performed in the intensive care unit for nonresolving stridor demonstrated obvious inspiratory vocal cord adduction indicating VCD/ILO. In the other patients, laryngoscopy was not performed and symptomatic treatment was administered leading to symptom resolution.

Following specialist allergist assessment, 9 of the 10 individuals, including the patient with anaphylaxis, received a second dose of the same vaccine that caused their reaction in a monitored hospital setting. Symptoms recurred in 8 of the 9 patients who rec



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The Brighton Collaboration anaphylaxis definition includes symptoms of respiratory distress, tachypnea, hoarse voice, stridor, and a sensation of throat closure.[1] These features significantly overlap with manifestations of vocal cord dysfunction/inducible laryngeal obstruction(s) (VCD/ILO), a disorder characterized by intermittent laryngeal obstruction.[2] We have recently proposed cardinal VCD/ILO phenotypes, including incident-associated VCD/ILO, which may be linked to vaccination.[3]

In conclusion, clinicians should be aware that VCD/ILO can mimic anaphylaxis and that the 2 conditions may overlap. Differentiation of anaphylaxis from VCD/ILO is critical in the setting of vaccination, especially during the ongoing pandemic because diagnosing an individual with vaccine-related anaphylaxis has critical implications for future vaccination and their ability to benefit from this important treatment.

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Summary

- You have time
- Communication matters
- Refer for further investigation
- Serum tryptase helps

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