### Issue No. 6 April 2017

# **Immunisation Program Update**

# From the manager

The introduction of a Queensland Meningococcal ACWY Vaccination Program recently announced by the Minister for Health reminds us all how quickly changes may be required for our immunisation program schedule. Once again, our sector has demonstrated its capacity to swiftly plan and implement a program in response to a vaccine-preventable disease threat the community. It is a credit to all stakeholders involved in the Immunisation Program that these changes have been implemented professionally and in a timely manner. We provide an overview of the Queensland Meningococcal Vaccination Program in this edition.

Also in this edition we look at a number of important program issues including the essential elements of reporting of adverse events, avoiding vaccine reporting errors and accurate dose reporting to the Australian Immunisation Register.

Please provide us with your feedback comments and suggestions for future editions which can be emailed to immunisation@health.gld.gov.au

Karen Peterson Manager, Immunisation Program

# In this issue



# Zostavax<sup>™</sup>—an update

Zostavax<sup>™</sup>, a vaccine to protect against herpes zoster (shingles) was included on the National Immunisation Program in November 2016. It is funded for people aged 70 years with a 5-year catch-up period for those aged 71–79 years.

A recent check of vaccination records on both VIVAS and the Australian Immunisation Register (AIR) showed that:

- ✓ Records for 146 people had a second dose of Zostavax<sup>™</sup> recorded
- ✓ A person under 50 years of age was vaccinated with 2 doses of Zostavax™

Please check the person's medical history, or for new patients check their vaccination history on AIR prior to vaccinating — you may find the vaccination you are about to give is not necessary. Use the AIR secure site to access a person's history online or call AIR on 1800 653 809.



# **Key points**

How is the herpes zoster vaccine (Zostavax<sup>™</sup>) different to the varicella (chickenpox) vaccines (Varilrix<sup>®</sup> or Varivax<sup>®</sup>)?

The above vaccines all protect against the varicella virus; however, the important difference is that Zostavax<sup>™</sup> contains more virus (approximately 14 times more) than either chickenpox vaccine. This higher viral load is required to elicit an immune response in older adults.

Chickenpox vaccines, i.e. Varilrix<sup>®</sup> or Varivax<sup>®</sup>, if administered to adolescents (≥ 14 years of age) and adults, require two doses at least four weeks apart.

# How many doses of Zostavax<sup>™</sup> should be given?

Give only **one** dose of Zostavax<sup>™</sup>.

### Who can receive Zostavax™?

Zostavax<sup>™</sup> is only registered for use in Australia for people aged 50 years and above. The vaccine is funded for people aged 70 years, with a 5-year catch-up period for those aged 71-79 years.

### Who cannot receive Zostavax™?

- ✓ Anyone under 50 years of age. Zostavax<sup>™</sup> is not registered for people under 50 years of age. Studies into safety and immunogenicity for this age group are limited.
- ✓ Anyone who is immunocompromised. Vaccination with Zostavax<sup>™</sup> is contraindicated as they are at risk of developing disseminated varicella. A person with an immunocompromised condition recently died in Australia following vaccination with Zostavax<sup>™</sup>.

Refer to the list below for further details and Table 1 on page 3 for information about Zostavax™ administration for people on immuno-suppressive therapy. If in doubt, seek advice from a specialist.

In addition to being contraindicated for those with previous anaphylaxis to the vaccine or its components, it is vital all GPs and practice nurses are aware of the following **contraindications**, which include, but are not limited to:

- ✓ haematological or generalised malignancies (including those not on treatment), e.g. lymphoma, acute or chronic leukaemia, Hodgkin's disease
- ✓ solid organ or bone marrow transplant recipients (with exceptions as advised by specialists)

Table 1: Guide to safe doses of immunosuppressive therapy for Zostavax<sup>®</sup> administration

Mechanism of action	Examples	Safe dose*	Comments	
Anti-TNF	Etanercept, Infliximab, Adalimumab	NONE		
IL-1 inhibition	Anakinra	NONE	Immunise 1 month prior to	
Costimulation blockade	Abatacept	NONE	treatment initiation OR 12 months post treatment cessation	
B-cell Depletion/Inhibition	Rituximab	NONE		
Immunomodulators (Antimetabolites)	Azathioprine 6-Mercaptopurine Methotrexate	≤3.0 mg/kg/day ≤1.5 mg/kg/day ≤0.4 mg/kg/week	If on higher dose, immunise 1 month prior to treatment initiation OR 3 months post treatment cessation	
Corticosteroids	Prednisone	Complex	Refer to Immunisation Handbook and NCIRS fact sheet	
T-cell activation inhibition	Tacrolimus, Cyclosporine	NONE	Immunise 1 month prior to	
Others	Cyclophosphamide, Mycophenolate, Sulfasalazine	NONE	treatment initiation OR 3 months post treatment cessation	

**CAUTION:** This is not a complete list of all immunosuppressive medications. If someone is on a combination of medications or if there is any doubt whether Zostavax<sup>®</sup> is safe for your patient, defer vaccination and seek specialist advice.

- ✓ HIV/AIDS (with exceptions as advised by a specialist) or other congenital/acquired immunodeficiencies
- ✓ current or recent high-dose systemic immunosuppressive therapy, e.g. chemotherapy, radiation therapy, oral corticosteroids, disease modifying antirheumatic drugs.

If an immunocompromised person is inadvertently vaccinated using Zostavax<sup>™</sup>, please seek urgent advice from the treating specialist or infectious diseases specialist about the use of anti-virals.

# **Further information**

- ✓ National Centre for Immunisation Research & Surveillance fact sheets:
  - www.ncirs.edu.au/assets/provider resources/f act-sheets/zoster-vaccine-FAQ.pdf
  - http://www.ncirs.edu.au/assets/provider\_resources/fact-sheets/zoster-vaccine-fact-sheet.pdf
- ✓ Australian Immunisation Handbook 10<sup>th</sup> edition, chapter 4.24 at www.immunise.health.gov.au/internet/immuni
  - www.immunise.health.gov.au/internet/immur se/publishing.nsf/Content/Handbook10home~handbook10part4~handbook10-4-24
- ✓ Your local public health unit contact details: www.health.qld.gov.au/systemgovernance/contact-us/contact/public-healthunits

<sup>\*</sup>See Australian Immunisation Handbook, Chapters 3.3.3 and 4.24 <a href="https://www.immunise.health.gov.au/internet/immunise/publishing.nsf/Content/Handbook10-home">www.immunise.health.gov.au/internet/immunise/publishing.nsf/Content/Handbook10-home</a>

# Meningococcal ACWY Vaccination Program

On 19 February 2017, the Honourable Cameron Dick, Minister for Health and Minister for Ambulance Services, announced that the Queensland Government will implement the Meningococcal ACWY Vaccination Program.

Under the program, free meningococcal ACWY vaccine will be offered to all Year 10 students through the Queensland School Immunisation Program in 2017. Free vaccine will also be available to 15 to 19 year olds through their doctor or usual immunisation provider from 1 June 2017 until 31 May 2018.

Meningococcal disease is a severe illness that can cause death or profound life-long disability including brain damage, hearing loss and/or limb loss. The recently announced Meningococcal ACWY Vaccination Program is in response to increased notifications of meningococcal disease

caused by meningococcal strains W and Y in Queensland and other Australian jurisdictions during 2016. The program will target 15 to 19 year olds, who have some of the highest rates of meningococcal carriage.

The Meningococcal ACWY Vaccination Program will use Menveo<sup>®</sup> and Menactra<sup>®</sup> vaccines (Table 2). Both vaccines are presented in vials and require syringes and needles for administration. Providers can order meningococcal ACWY vaccine during May 2017 through the usual monthly vaccine ordering process.

More information about the Meningococcal ACWY Vaccination Program can be found on the Immunisation Program website at <a href="http://www.qld.gov.au/health/conditions/immunisati">http://www.qld.gov.au/health/conditions/immunisati</a> on/adolescents

Table 2: How to prepare and administer meningococcal ACWY vaccine

# MENVEO® (GlaxoSmithKline) Requires reconstitution Each dose (o.5ml) of Menveo® is presented as a: Vial containing the meningococcal A component as a white to off-white powder, and a Vial containing the meningococcal CWY liquid as a clear solution Add the contents of the MenCWY vial to the MenA vial; shake the vial vigorously until the powder has dissolved. Following reconstitution the product should be used as soon as possible. To be administered by intramuscular injection.

### MENACTRA® (Sanofi Pasteur)

- Each dose (o.5ml) of Menactra® vaccine contains meningococcal ACWY antigens.
- The vaccine is presented in a vial as a clear to slightly turbid liquid.
- To be administered by intramuscular injection.



# Adverse events following immunisation (AEFI)

An adverse event following immunisation (AEFI) is a serious, uncommon or unexpected event following immunisation. These events may be caused by the vaccine or may occur by chance after immunisation (i.e. it would have occurred regardless of vaccination). Mild events, such as fever, pain or redness at the site of injection, can commonly occur after vaccination and should be anticipated.

Reporting an AEFI is an important part of surveillance to monitor vaccine and immunisation program safety.

To notify Queensland Health of an AEFI go to www.health.qld.gov.au/publications/clinicalpractice/guidelines-procedures/aefi-reportingform.pdf

Adverse Event Following Das Report Boo Most Immunisation Reporting Form TGA 10 no.: Queensland Government Vaccination provider details Gender: Male Female Unknown Practice/clinic/newider name . or Age: Year Month Street Address Name of parent/guardian (if relevant) Medical practitioner Registered Nurse Is the person of Aboriginal or Tomes Strait Islander origin?

4boriginal Torres Strait Islander (TSI)

Aboriginal and TSI Not Aboriginal or TSI Other, please specify Other, please specify...... As for vaccination provider (above) treet Address Was the person ill at the time of vaccination? hone: Office: ..... Practice Name (if relevant) | Medical practitioner | Registered nurse | Vaccinated person | Parent/guardian | Other, please specify.... r information following an adverse event please contact your local Public Health Un rter, agree to be contacted for further follow up regarding this adverse event if necessary. (es 4o Please advise the parent/patient that contact details will be used to follow up if information is needed

If you complete and submit the Queensland Health AEFI form, you do not need to complete a Therapeutic Goods Administration (TGA) form. Queensland Health will notify the TGA to enable national monitoring and reporting of AEFI.

### **KEY POINTS**

- ✓ The Public Health Act 2005 requires that all immunisation providers report any adverse events following immunisation directly to Queensland Health.
- ✓ Please note that medical practices using software programs, such as SmartVax, Vaxtracker or STARSS to record AEFIs must also report AEFIs to Queensland Health using the <u>AEFI</u> <u>Reporting Form</u>. (See images below).

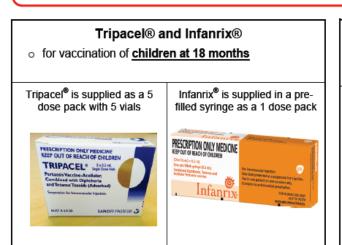
Vaccine (brand name)	Dose	Betch n	o. Date	Time	Route of	Injection site
	no.		o. given	given	edministration	
					HID HIM HI	
					0   IM   S	C RA LA
					0   IM   S	
					ID   IN   U	
					HID HIM H	
					0   IM   9	
						J RL LL
Adverse event details						
Onset of event: Date/						
Description of events, including timeline	of occurrences (plea	ase provide a	separate page if nee	ded):		
					······	
					······	
		<b>.</b>				
					······	
Management of events (tick as many as			Outcome:			
Nurse assessment Medical asses	sment		Have the symptom			
Hospital emergency department			Yes - By what da	ate/ time?		
Hospital admission: number of days (	f applicable)		Date/	/	Time	
date of discharge/			☐ No – Symptoms	are ongoin	g as of	
None Unknown 0ther, please	specify		Date/	/	Time	
			Please describe on	going symp	itoms	
Please specify the treatment / care provi	ded (eg antibiotics,	adrenaline,				
advice, counselling, etc):				•		
			Unknown			
			Once completed in	mmodiately	send the form to:	
			Email: CDIS-NOCS			Email
		····	OR Fax: 3328 9434			
······					vent Following Imm	unisation reports are
			reparted promptly.			
Office use only - Public Health Unit						
Is follow-up of the patient required? 🔲	No 🔲 Yes-Timefr	ame for follow	v up 🔲 Same day	☐ Next we	orking day 🔲 Nex	t 60 days
Details:						
Signature			Date/	/		
Privacy statement						
The Information Privacy Act 2000 sets out them	eys inwhich a health ag	ency can collec	personal information to	r the purpose	of reporting Adverse E	vents following
Immunisation (AER). The Public Health A.d. 200						
follow up is required following an adverse event (AEFI) reports collects details such as the vaccin						
medical history relevant for follow up following and recorded for each AEFI report. A athorised Q	the adverse event, detail	is of the provide	ar who administered the	Vaccine, repo	rier details and vaccina	dion details are requeste
			prometion for the perpo	ase of clinical	rottow up and mosilio-i	ag, Personal information
not be accessed by or given to any other person	or organisation without	permission uni	ess permitted or require	d by law. For it	mornation about how	Queenstand Health prote

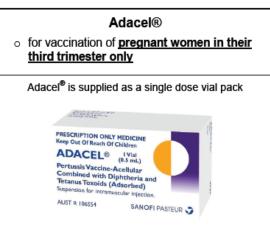
# Right person, right vaccine, right dose

Table 3: Example of administering the right vaccine for the age of the person

o Have you counted stock of all vaccine brands for your monthly orders?

Make sure you have the right vaccine for the age of the person being vaccinated





# Dose numbers – a quick guide to correct reporting

It is important that the right dose number is reported to the Australian Immunisation Register (AIR). This is especially important for children and adolescents whose record may show as overdue if there is an error with the dose number reported to AIR.

Table 4 provides a quick guide to help determine the correct dose number to report.

To amend dose numbers on AIR, notify AIR by email through the AIR secure site. Alternatively, if family assistance payments are affected, phone AIR on 1800 653 809.

Table 4: Determining the correct dose number to report

Vaccine	Report dose number as:				
Hepatitis B birth dose (Only when given between birth and seven days of age; usually administered in hospital)	Birth dose. Given by another provider				
Hepatitis B A child <10 years who has received 3 doses is considered up-to-date for hepatitis B immunisation if they received a birth dose and there is a minimum interval of 4 months between the first dose (may or may not be the birth dose) and the third dose.	First dose is <b>Dose 1</b> (or <b>birth dose</b> ) Second dose is <b>Dose 2</b> Third dose is <b>Dose 3</b> – given after 4 months of age <b>Note:</b> i. The minimum interval between dose 1 and 2 is one month. For the correct number of doses required for children and adolescents ≥10 years refer to the online version of <i>The Australian Immunisation Handbook</i> .  ii. The above dose numbering will not apply to a child who is immunised according to the National Immunisation Program schedule, i.e. vaccinated using InfanrixHexa <sup>®</sup> at 2, 4 and 6 months of age (which may or may not include a hepatitis B birth dose) and would be reported as Dose 1, 2 and 3.				
Diphtheria / tetanus / pertussis (DTPa) at 18 months of age*		Child's date of birth			
Given as <i>Infanrix</i> ™ or <i>Tripacel</i> ™		Vaccination	Born before 01/10/2014	Born on or after 01/10/2014	
		18 months DTPa	Dose 3	Dose 4	
		4 years DTPa-IPV	Dose 4	Dose 5	
Meningococcal C / haemophilus influenzae type B (Hib) vaccine at 12 months of age	Do	ose 1			
Given as Menitorix™					
Measles / mumps / rubella / varicella vaccine given at 18 months of age	Do	ose 2			
		030 <b>2</b>			
Given as Priorix Tetra™ or ProQuad™  Note: Dose 1 of		000 2			

# National Influenza Immunisation Program 2017

The Australian Technical Advisory Group on Immunisation (ATAGI) provides the following advice for immunisation providers regarding the administration of seasonal influenza vaccines in 2017.

It is important to read this information in conjunction with *The Australian Immunisation Handbook* 10th edition which is available at <a href="https://www.immunise.health.gov.au/internet/immunise/publishing.nsf/Content/Handbook10-home">www.immunise.health.gov.au/internet/immunise/publishing.nsf/Content/Handbook10-home</a>

- ✓ Annual vaccination is the most important measure to prevent influenza and its complications.
- ✓ Annual influenza vaccination is recommended for any person ≥6 months of age who wishes to reduce the likelihood of becoming ill with influenza.
- ✓ Only quadrivalent influenza vaccines (QIV) formulations are available in Australia in 2017. Age restrictions apply according to vaccine brand as outlined in Table 5 on page 9: National Influenza Immunisation Program 2017 vaccines registered for use by age group.
- ✓ QIVs are funded on the National Immunisation Program (NIP) in 2017 for the following groups:
  - Aboriginal and/or Torres Strait Islander children aged 6 months to <5 years</li>
  - Aboriginal and/or Torres Strait Islander persons aged ≥15 years
  - All persons aged ≥65 years
  - All persons aged ≥6 months who have certain medical conditions which increase the risk of influenza disease complications; for example, severe asthma, lung or heart disease, low immunity or diabetes (refer to Table 6 on page 10).
  - Pregnant women (during any stage of pregnancy).
- ✓ Influenza vaccination is also strongly recommended, but not funded, for other groups

- who are at increased risk of influenza and its complications (refer to notes below).
- ✓ Persons with egg allergy, including anaphylaxis, can be safely vaccinated with influenza vaccines. Persons with a history of anaphylaxis to egg can be vaccinated with a full vaccine dose in medical facilities with staff experienced in recognising and treating anaphylaxis.
- ✓ Recent evidence suggests protection against influenza may start to decrease from 3 to 4 months following vaccination and early vaccination needs to be balanced with this. While influenza continues to circulate, it is never too late to vaccinate.
- ✓ Providers are reminded to report all vaccinations to the Australian Immunisation Register.

The influenza virus strains included in the 2017 seasonal influenza vaccines are:

- ✓ A (H1N1): an A/Michigan/45/2015 (H1N1)pdm09 like virus (new strain differs from strain in 2016 vaccine)
- ✓ A (H3N2): an A/Hong Kong/4801/2014 (H3N2) like virus
- ✓ B: a B/Brisbane/60/2008 like virus
- ✓ B: a B/Phuket/3073/2013 like virus

# Important note

Annual influenza vaccination is also strongly recommended for the following persons though they are not eligible for funded vaccine:

- ✓ Aboriginal and/or Torres Strait Islander children aged 5 years to <15 years
  </p>
- ✓ persons with Down syndrome
- ✓ persons with class III obesity (body mass index ≥40 kg/m2)
- ✓ persons with chronic liver disease
- ✓ children aged 6 months to <5 years
  </p>

Table 5: National Influenza Immunisation Program 2017 vaccines registered for use by age group

Queensland Health

### National Influenza Immunisation Program 2017

- Afluria Quad™ is NOT registered for use in any person under 18 years
   Adult (o.5omL) doses CANNOT be halved to make a paediatric dose.
- Only FluQuadri Junior™ can be used for children aged 6 months to <3 years of age.
- Influenza vaccines are NOT registered for use in any infant under 6 months of age.

	VACCINES REGISTERED FOR USE BY AGE GROUP					
Age group	FluQuadri Junior™ 0.25mL Sanofi Pasteur	FluQuadri™ o.5omL Sanofi Pasteur	Fluarix Tetra™ o.5omL GSK	Afluria Quad™ o.5omL Sequirus		
<6 months	No	No	No	No		
6 months to <3 years	✓	No	No	No		
≥3 to 18 years	No	1	1	No		
≥18 years	No	1	1	1		

	NUMBER OF DOSES AND VOLUME PER DOSE BY AGE				
Age	Dose volume	Number of doses required in the first year of receiving influenza vaccine	Number of doses required if previously received any doses of influenza vaccine		
6 months to <3 years	0.25mL	2	1		
≥3 to <9 years	o.5omL	2	1		
≥9 years	o.5omL	i*	i*		

<sup>\*</sup> Two doses, at least 4 weeks apart, are recommended for persons with certain immunocompromising conditions (i.e. haematopoietic stem cell transplant or solid organ transplant) receiving influenza vaccine for the first time post transplant (irrespective of their age).



Australian Technical Advisory Group on Immunisation (ATAGI) advice for immunisation providers regarding the administration of seasonal influenza vaccines in 2017 - http://www.im munise.health.gov.au/internet/immunise/publishing.nst/Content/ATAGI-advice-influenza-vaccines-providers

- ✓ residents of aged care and long-term residential care facilities
- ✓ persons who may transmit influenza to children or adults at increased risk of influenza complications (e.g. healthcare workers)
- √ homeless people
- ✓ persons involved in the commercial poultry or pork industry, or in culling poultry or pigs during periods of confirmed avian or swine influenza activity
- ✓ persons providing essential services
- ✓ persons travelling during the influenza season, especially if it is known before travel that influenza is circulating in the destination region.

# **Further information**

The full ATAGI statement can be found at www.immunise.health.gov.au/internet/immunise/p ublishing.nsf/Content/ATAGI-advice-influenzavaccines-providers

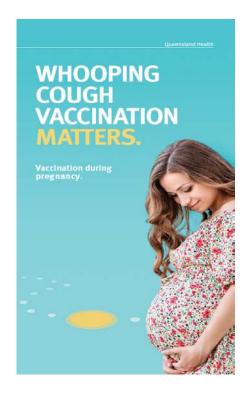
Table 6: Medical conditions associated with an increased risk of influenza disease complications and for which individuals are eligible for free vaccine under the NIP

Category	Vaccination strongly recommended for individuals with the following conditions
Cardiac disease	Cyanotic congenital heart disease Congestive heart failure Coronary artery disease
Chronic respiratory conditions	Severe asthma Cystic fibrosis Bronchiectasis Suppurative lung disease Chronic obstructive pulmonary disease Chronic emphysema
Chronic neurological conditions	Hereditary and degenerative CNS diseases Seizure disorders Spinal cord injuries Neuromuscular disorders
Immunocompromising conditions	Immunocompromised due to disease or treatment Asplenia or splenic dysfunction HIV infection
Diabetes and other metabolic disorders	Type 1 or 2 diabetes Chronic metabolic disorders
Renal disease	Chronic renal failure
Haematological disorders	Haemoglobinopathies
Long-term aspirin therapy in children aged 6 months to 10 years	These children are at increased risk of Reye syndrome following influenza infection

# YES - It is still funded!

# Whooping cough vaccine is free for pregnant women

- Immunisation providers are reminded that diphtheria/tetanus/pertussis (dTpa) vaccine is provided free for women in their third trimester of pregnancy.
- ✓ Women should get the dTpa vaccination during every pregnancy (preferably between 28 and 32 weeks) to protect the baby, even if they have had the vaccine before.
- Immunisation providers can order vaccine from Queensland Health in their regular vaccine orders.
- An information sheet and consent form is available from the Queensland Health Immunisation Program.



# Immunisation records and data explained: a guide for immunisation providers

# Second edition available online now!

The guide has been updated and expanded to include:

- ✓ information about the Australian Immunisation Register (AIR)
- ✓ how to report immunisation events and other information for all ages
- √ how to use the AIR encounter screen
- ✓ advice about 'No Jab, No Pay' and Centrelink

This edition will only be available as a download from the Queensland Health website at

https://www.health.qld.gov.au/\_\_data/assets/pdf\_file/0017/445013/immunisation-records-data-explained.pdf

