Queensland Health

Immunisation Program Update

Issue No. 5
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From the manager

Welcome to our first issue of the Update for 2017. In this issue we turn our attention to influenza. Preparations for flu season commence at the start of each year.

The annual influenza immunisation program is the busiest time of the year for the Immunisation Program. Improving the uptake of influenza vaccination for groups at higher risk especially pregnant women and Aboriginal and Torres Strait Islander populations for whom funded vaccine is provided, is once again a main objective.

The impact of influenza on particular population groups can be more severe than others for a range of reasons. In this issue we look at the disproportionate burden of influenza related disease in Aboriginal and Torres Strait Islander populations.

Immunisation is important as it not only protects vaccinated individuals but also others in the community who are not, or cannot be immunised.

As usual we will be encouraging everyone in the community to have their influenza vaccination when this year's vaccines become available. Join us in promoting the importance of influenza vaccination across the entire community and make sure you get your influenza vaccination this year to protect yourself, your patients and other members of your community.

From all in the Immunisation Program Team, best wishes for a very successful year ahead.

Karen Peterson
Manager, Immunisation Program

In this issue

Preparing for the 2017 influenza immunisation program

What to do now?

- ✓ Discard any influenza vaccine left over from last year's influenza season.
- ✓ Review your vaccine fridge capacity. Is there enough space to safely store influenza vaccine along with all other vaccines? Is your vaccine management protocol up to date? Do your staff members know about the vaccine management protocol, the importance of cold chain and how to respond to a cold chain breach?
- ✓ Make sure all staff members know who is eligible for funded influenza vaccine.
- ✓ Look out for further information which will be distributed over the coming months.

NB: A date for vaccine supply has not yet been announced. Don't book patients in for influenza vaccination until you have been advised of the date for vaccine delivery.

What influenza vaccines will be available in 2017?

The Australian Technical Advisory Group on Immunisation (ATAGI) has advised that only quadrivalent influenza vaccines (QIV) will be available in Australia in 2017. The following table details which influenza vaccines are registered for particular age groups:

Who can receive funded influenza vaccine?

- ✓ Pregnant women (in any trimester)
- ✓ Indigenous children aged 6 months to <5 years
- ✓ Indigenous people aged ≥15 years
- ✓ Any person aged >65 years
- ✓ Any person aged ≥6 months with a medical condition that places them at increased risk of complications from influenza.

Table 1: Influenza vaccines for particular age groups

Registered age group	Vaccine name			
	FluQuadri Junior 0.25mL Sanofi Pasteur	**FluQuadri** 0.50mL Sanofi Pasteur	**Fluarix Tetra** 0.50mL GSK	**Afluria Quad** 0.50mL Sequirus
<6 months	***NB: No influenza vaccine is registered for use in this age group***			
6 to 35 months	✓	✗	✗	✗
≥3 to 18 years	✗	✓	✓	✗
≥18 years	✗	✓	✓	✓

NB: Afluria Quad is not registered for use in anyone under 18 years of age.
Only Flu Quadri Junior (0.25mL) can be used for children aged 6 to 35 months. A 0.50mL vaccine dose **cannot** be halved for a paediatric 0.25mL dose.

Return to contents

Pregnant women – influenza vaccination and dTpa vaccination

All pregnant women should be offered influenza vaccination. Those in their third trimester (between 28 and 32 weeks) should also be encouraged to have dTpa vaccine, which can be given at the same time.

Influenza vaccination protects pregnant women who are at increased risk of flu-related morbidity and mortality. Their baby is also protected for the first six months after birth through the transfer of maternal antibodies from vaccination.

Composition of influenza vaccine 2017

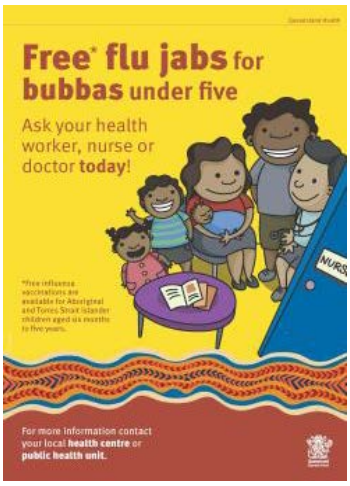
If you are interested to find out how the World Health Organization determines the composition of the annual influenza vaccine, information is available on their website at www.who.int/influenza/vaccines/virus/recommendations/2017_south/en/

Influenza virus strains included in the 2017 southern hemisphere quadrivalent influenza vaccines are:

- ✓ A (H1N1): an A/Michigan/45/2015 (H1N1) pdmo09-like virus
- ✓ 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 (new strain that differs from strain in 2016 vaccine)

Influenza burden of disease and recommended influenza vaccination for Aboriginal and Torres Strait Islander populations

The Aboriginal and Torres Strait Islander population first experienced influenza after the arrival of settlers from Britain almost 230 years ago. The introduction of influenza as with other vaccine-preventable diseases had a devastating effect on the population. Today, Aboriginal and Torres Strait Islander communities remain at higher risk for serious flu-related illness.



Data examined after the 2009 swine influenza pandemic revealed Aboriginal and Torres Strait Islander communities were disproportionately affected compared with the non-Indigenous population with higher morbidity rates, higher hospitalisation rates and higher mortality rates (6.6, 6.2 and 5.2 times higher respectively) than for mainstream population. A study reported in 2009 in the New England Journal of Medicine found that while Indigenous people accounted for 2.5% of the Australian population, they accounted for 9.7% of patients admitted to intensive care units with H1N1 influenza.

A 2016 review of influenza epidemiology in Australia undertaken by researchers at the National Centre for Immunisation Research and

Return to contents

Surveillance examined notifications, hospitalisations and deaths from influenza. The reviewers concluded that the "burden of disease from influenza is highest at the extremes of life and is significantly higher amongst Indigenous people of all ages."

The Australian Immunisation Handbook, 10th edition recommends annual influenza vaccination for all Aboriginal and Torres Strait Islander children over six months of age especially children six months to under five years of age and those ≥15 years of age. Aboriginal and Torres Strait islander children are at greater risk of influenza and its complications than non-Indigenous children. The risk of influenza complications for Aboriginal and Torres Strait Islander children aged 5–14 years is not as high as the risks for Indigenous children in other age groups. However, annual influenza vaccination of children in the 5-14 years age group can offer individual protection against influenza as well as potential indirect protection for other members of their household. All Aboriginal and Torres Strait Islander adults are also recommended to receive annual influenza vaccine. Under the National Immunisation Program (NIP), Aboriginal and Torres Strait Islander children from 6 months to less than five years of age, and young people and adults from 15 years upwards are eligible for funded influenza vaccine each year.

Influenza vaccination for Aboriginal and Torres Strait Islander families is essential to prevent influenza related illness across the population. Immunisation not only protects those who are immunised but also other vulnerable community members who are not or cannot be immunised.

New resources to help with on time vaccination against rotavirus

The oral vaccine **RotaTeq™** is included in the National Immunisation Program for children in Queensland at 2, 4 and 6 months of age for protection against rotavirus disease and associated illness.

Why is vaccination against rotavirus important?

- ✓ Rotavirus is the major cause of severe dehydrating gastroenteritis in infants and young children and is more likely to lead to hospitalisation.
- ✓ Rotavirus vaccination gives similar protection to that offered by natural infection but does not cause disease.
- ✓ On-time rotavirus vaccination is especially important for Aboriginal and Torres Strait Islander infants and young children who are three to five times more likely to be hospitalised if infected with rotavirus than non-Indigenous children.

Why is the timing of rotavirus vaccination important?

- ✓ The peak age for contracting severe rotavirus gastroenteritis is between 6 and 24 months of age, although Indigenous children are susceptible from an earlier age.
- ✓ Rotashield®, a rotavirus vaccine used in the USA in 1997-1998 was shown to be associated with an increased risk of intussusception and was withdrawn from the market. For this reason, the clinical trials for the two oral vaccines used in Australia (RotaTeq™ and Rotarix™) were limited to the first and third doses given to young infants. Therefore the vaccines are not recommended for use in older infants as this age group was not included in the clinical trials.

Return to contents

- ✓ Intussusception is rare and the cause is typically unknown. The benefits of preventing gastroenteritis caused by rotavirus are much greater than the small risk of intussusception. This risk is estimated at approximately six additional cases per every 100,000 infants vaccinated.
- ✓ Vaccinating on time and completing the full course of three doses of RotaTeq™ ensures early and full protection.

(Information drawn from *The Australian Immunisation Handbook*, 10th edition and the rotavirus vaccines factsheet produced by the National Centre for Immunisation Research and Surveillance (NCIRS) available on the NCIRS website: www.ncirs.edu.au/assets/provider_resources/fact-sheets/rotavirus-fact-sheet.pdf.)

Dosing schedule for RotaTeq™

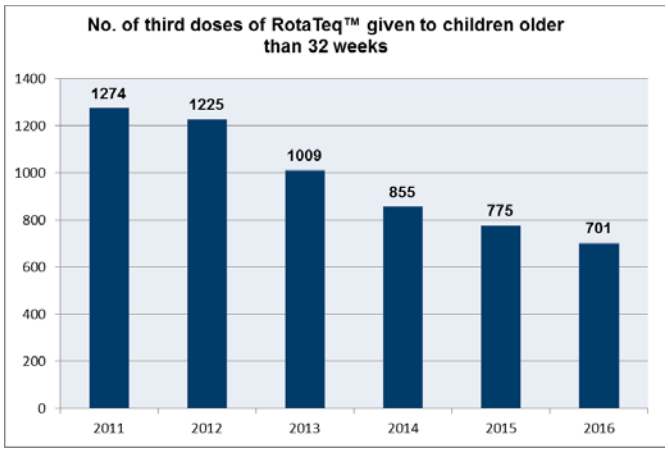
Immunisation providers should be aware that there are age restrictions for administration of RotaTeq™. These age restrictions are detailed below in Table 2. Refer to *The Australian Immunisation Handbook, section 4.17* for further information.

Table 2: Age limits for the administration of RotaTeq™

Age at first dose	Age at second dose	Age at third dose
6—12 weeks	10—32 weeks	14—32 weeks
Upper age limit for receipt of the 1st dose is immediately prior to turning 13 weeks of age	*The 2nd dose of vaccine preferably given by 28 weeks to allow for 4 weeks minimum interval before 3rd dose.* *Infants presenting for 2nd dose after 29 weeks of age, 2nd and final dose can be given if upper age limit of 32 weeks has not been reached.*	*Upper age limit for 3rd dose is immediately prior to turning 33 weeks of age.*
NB: Minimum interval between doses is at least 4 weeks		

Data from the Queensland Health immunisation database (Fig.1) shows that between 2011 and 2016 the number of RotaTeq™ doses given "too late" (third dose given at greater than 32 weeks) has declined. Nevertheless in 2016, 701 children were given their third dose of RotaTeq™ after they turned 32 weeks of age. Greater vigilance is required to prevent these occurrences.

Figure 1: No of 3rd dose of RotaTeq™ given after 32 weeks of age.



Source: VIVAS

New RotaTeq™ resources

New resources including the RotaTeq™ dosing wheel to help clinicians calculate vaccination dates, cut-off dates and dosage intervals for RotaTeq™ are now available from the vaccine manufacturer, SeqirusTM.

To order these resources contact SeqirusTM on 1800 008 275 and ask for an order form.

Get the RotaTeq™ eWheel App or go online

The RotaTeqTM eWheel App calculates the 6 week, 4 month and 6 month vaccination dates based on the infant's date of birth. The app is available via download from iTunes or Google Play.

Return to contents

A web-based version is also available at www.rotawheel.com.au. Your APHRA number is required to access the online version.

The School Immunisation Program Forum

On 1 December 2016, over 80 people involved in the School Immunisation Program (SIP) throughout Queensland gathered in Brisbane to discuss delivery of the 2017 SIP. A major focus of the day was the discussion and practical application of recent amendments to the *Public Health Act 2005* and new resources for the SIP.

In 2017, under the *Public Health Act 2005*, school principals will be required to provide student and parent information to the contracted school immunisation providers for the purpose of following up students who do not return a consent card. Under these new arrangements, the contracted school immunisation providers will be able to follow up directly with the parents of students who have not returned their consent card. This direct relationship with the school immunisation provider may also help families to resolve any concerns or questions they may have about their child's immunisation needs.

The 2017 SIP resources have been rebranded and include:

- a new consent pack
- Year 6 immunisation reminder postcard
- Year 7 immunisation reminder and clinic dates postcard
- school posters, and
- information resources for students.

For more information contact your local SIP Coordinator at one of the following Public Health Units:

Telephone numbers for Public Health Unit School Immunisation Program Coordinators	
Darling Downs	4699 8240
Gold Coast	5687 9000
Metro North	3624 1111
Metro South	3176 4000
Rockhampton	4920 6989
Sunshine Coast	5409 6600
Townsville/Cairns/Mackay	4433 6934
West Moreton	3818 4700
Wide Bay	4303 7500

Return to contents

Reporting vaccines to AIR (clarification)

In our last edition of the *Immunisation Program Update* (Issue #4) we listed "Vaccines that can be recorded on AIR". The list detailed the vaccines that can now be reported to the Australian Immunisation Register (AIR). These are additional to the vaccines previously reported to ACIR (Australian Childhood Immunisation Register) which can and should still be reported to AIR.

Recording NIP Scheduled 18-Month Booster

NB: The 18-month booster for dTpa (Infanrix™ or Tripacel™) should be recorded as dose 4 not dose 1.

Other news

New feature available for the online version of The Australian Immunisation Handbook

Individual PDF versions of each chapter of The Australian Immunisation Handbook are now easily accessible. These print-friendly versions reflect the same look as the hardcopy. Visit www.immunise.health.gov.au/internet/immunise/publishing.nsf/Content/Handbook10-home and click on the 'print chapters' as indicated on image below.

Return to contents