Issue 35 – November 2011

Sharp and to the Point

Quarterly newsletter produced by the Immunisation Section, SA Health

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This newsletter is produced quarterly by the Immunisation Section. If you have any feedback or comments on what you would like to see in future editions; or would like to receive further copies or have your name removed from our mailing list, please contact Sara Almond on phone 1300 232 272, fax (08) 8226 7197 or email sara.almond@health.sa.gov.au.

What's new in adult pertussis immunisation overseas?

The Advisory Committee on Immunization Practice (ACIP) provides advice and develops written recommendations on all aspects of the immunisation program in the United States of America. The committee consists of immunisation experts, members of federal agencies who are responsible for immunisation programs in the US and representatives of other organisations with related immunisation expertise.

In June 2011, the ACIP recommended pregnant women who have not previously received a booster dose of diphtheria, tetanus, pertussis (dTpa) vaccine, should receive a booster during the late 2nd trimester or 3rd trimester of pregnancy rather than after delivery.

Infants who are too young to have received at least 2 doses of pertussis vaccine are at increased risk of severe disease and complications. The goal of this recommendation is to better protect newborn babies from pertussis by directly protecting the mother and indirectly protecting the unborn baby through maternal antibody transfer.

This recommendation is being considered but **has not** been adopted in Australia at this time.

An updated Product Information (PI) for Boostrix® has been released by GlaxoSmithKline (GSK). The PI now provides information about giving a second dose of Boostrix vaccine. Studies demonstrated that administering a dose of Boostrix vaccine 10 years after a previous dose was immunogenic with >99% of subjects protected against diphtheria and tetanus and seropositive for pertussis antigens. However no re-vaccination recommendations are in place in Australia at this stage.

Further information can be found at
http://www.gsk.com.au/resources.ashx/vaccineproductschilddataproinfo/273/FileName/2977438BC4ED31CBA772FD96F83EADF6/Boostrix_(Preservative_free)_PI_Version_4.0.pdf

Reminder – Ordering your vaccines
When ordering vaccines you must list the number of vaccines held in your fridge down the left hand side of the form. Vaccine orders that are incomplete cannot be processed and you will be required to resubmit your order which may result in a delay receiving your vaccines.

Government of South Australia
SA Health

Early flu season in 2011: Moving from B to A!

Report from the Disease Surveillance and Investigation Section, CDCB, Department of Health

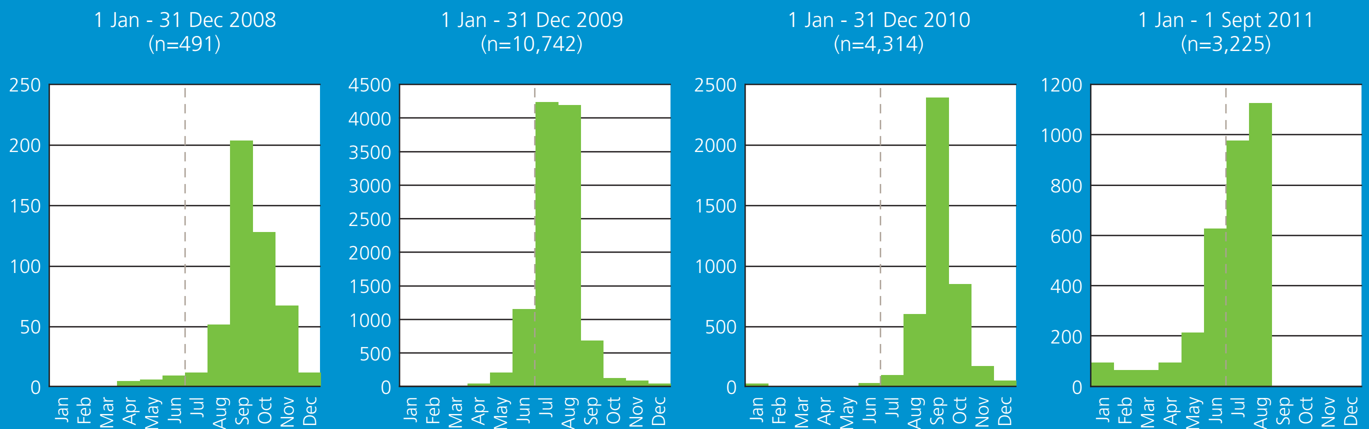
Influenza is a viral infection of the nose, throat and lungs. Symptoms include fever, headache, myalgia, fatigue, runny nose, sore throat and cough. It takes 1 to 3 days for a person to develop symptoms after infection. Once infected, people are infectious from about 24 hours prior to symptom onset. Adults can infect others for 3 to 5 days from onset of symptoms and young children can infect others for up to 21 days. Influenza vaccination is available. As the virus is constantly changing the vaccination is altered yearly to provide protection against predicted circulating strains of the virus[1, 2].

There are three types of influenza virus which are recognised; A, B, and C. Influenza type A is associated with widespread epidemics. Influenza type B is less frequently associated with regional or wide spread epidemics. Influenza type C causes mild illness and is more likely to occur sporadically, though minor localized outbreaks have been reported in Australia. Seasonal influenza of varying severity and size occurs every year, usually between May and September[2].

South Australia has a comprehensive public health surveillance system which combines results from laboratory testing with clinical and epidemiological data provided by treating doctors. As part of routine notification, doctors are required to report characteristics including case demographics, onset of disease, symptoms, hospitalisation, Indigenous status, and influenza vaccination status.

Between 1 January 2011 and 1 September 2011, there were 3,225 cases notified in South Australia, compared to 684 cases notified for the same period last year. The four graphs below show the epidemic curves for influenza in South Australia for the past four years (2008-2011). The graphs highlight that the influenza season can commence at different times of the year. In 2008 and 2010, the peak of cases was observed in September. In 2009, the year of the influenza A H1N1 pandemic, the peak was observed in July. This year an early start to the influenza season has been observed, with notifications increasing in June. The early high numbers of cases indicate a high level of influenza circulating in the community.

Notified cases of influenza by date of onset



Bat Lyssavirus found in Melbourne

A flying fox has been found to be carrying Australian Bat Lyssavirus (ABL) in Melbourne. It is the 10th case of the virus being discovered in Flying Foxes in Victoria since 1996. Dr Rosemary Lester, Victoria's Chief Health Officer, claims transmission of ABL to humans has never occurred in Victoria, with only 2 human infections in Australia, both from Queensland.

Vaccination is available for anyone who may become infected and must be given as soon as possible after exposure. Treatment and vaccination is the same as that for rabies as the viruses are closely related.

Reference:

http://news.theage.com.au/breaking-news-national/melbourne-warning-on-bat-virus-20110713-1hdqm.html

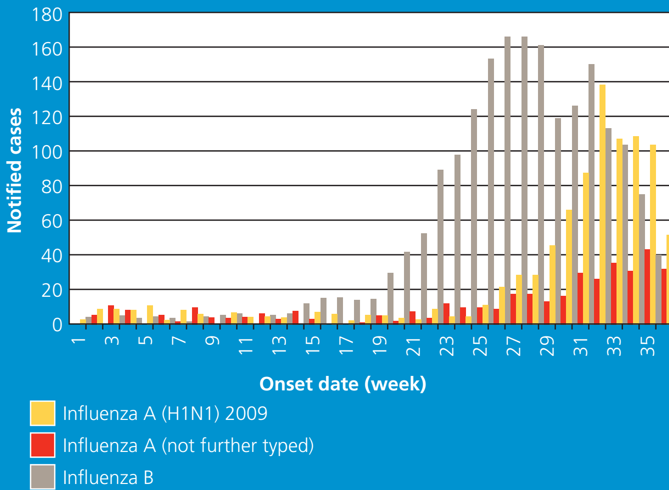
Hepatitis B immunisation for UK

Britain is considering adding hepatitis B vaccine to its immunisation schedule as disease incidence dramatically increases. It is reported the number of hepatitis B infections has almost doubled in the past 10 years. Increases are thought to be the result of increased levels of unprotected sex and migration from Africa, South East Asia, Russia and parts of Albania, countries where the virus is more prevalent.

Currently funded hepatitis B vaccine is only offered to high risk groups in the UK. The British Medical Association is calling for the rollout to occur without delay, pointing out Britain is behind other western countries such including the U.S, Canada, Australia, Germany, France, Italy, Portugal and Greece by refusing to vaccinate all babies.

Reference:

http://www.dailymail.co.uk/health/article-2017831/Hepatitis-B-jab-set-given-babies-infections-soar.html

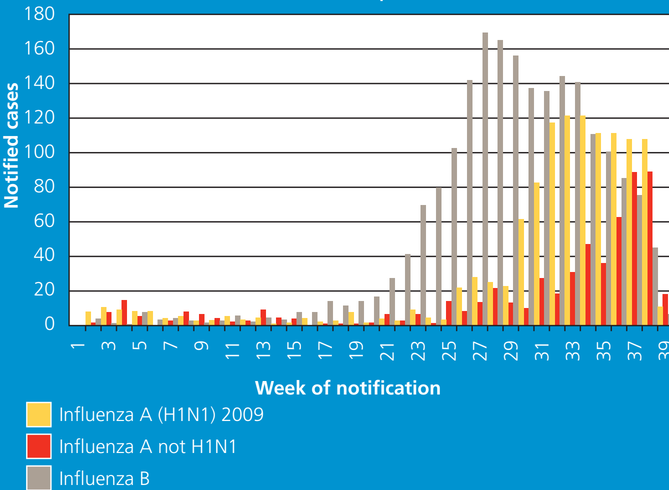


Graph 2 shows the notified cases of influenza for this year broken down into subtype. Influenza B was the dominant strain early in the season that peaked in week 27. Since then, influenza A H1N1 2009 has increased and is currently the predominant strain circulating in South Australia.

The notification data demonstrate the epidemiology of influenza reported in South Australia. This information guides public health control measures, assists with future pandemic influenza planning, and directs future policy. This surveillance data, along with samples collected from patients, contribute to monitoring influenza strains which could promptly identify antigenic, genomic and drug-sensitivity changes in the virus and advise on the most appropriate and effective strains to be included in vaccines. To obtain these outcomes, the South Australian Communicable Disease Control Branch relies on the support of the medical profession to continue to test, report and follow up with public health measures for cases of influenza.

References:

1. Communicable Disease Control Branch, Department of Health. South Australia, ed. You've got what? Prevention and control of notifiable and other infectious diseases in children and adults. 4th ed http://www.health.sa.gov.au/pehs/youve-got-what.htm
2. Heymann D, editor. Control of Communicable Disease Manual. Washington: American Public Health Association; 2004.



Reminder!

A current Medicare card is required to be eligible to receive funded vaccines from the National Immunisation Program (NIP).

Reciprocal arrangements with other countries, for example the UK and New Zealand, only cover necessary medical treatment from ill health or injury and not immunisation.

People not eligible for Medicare cards are advised to take out health insurance prior to entering Australia, and must pay for the vaccines.

Rabies – last seen in Australia

The first laboratory confirmed case of human or animal rabies in Australia was in November 1987. A 10 year old boy died of encephalitis and a diagnosis of rabies had been made 4 months earlier.

The child had been travelling throughout India, Pakistan, Nepal, Thailand and Singapore for 8 months in 1986. He remained well until the development of a headache in June 1987. This was closely followed by a fever, vomiting and chills. Over the next week he developed pain in his right arm, anorexia, delirium, became uncoordinated and developed weakness in his legs and double vision. His condition deteriorated requiring intubation on the 12th day of illness, with the development of seizures on day 14. He became comatose on day 19 and died 4 days later.

Extensive interviews with family members revealed he had been injured by two animals in the two years before his death. The first was a scratch by a domesticated dog, two months before his illness. The dog was later tested but proved to be negative for the virus. The other known injury was a monkey bite on his finger which occurred while travelling through Northern India, 16 months before the onset of his illness,

Rabies post exposure prophylaxis was recommended for nine health care workers and four family members and friends who had potentially been exposed to saliva or nerve tissue during his illness.

The reported data indicate this was an imported case, the likely cause being the monkey bite 16 months prior to illness onset, but other potential injuries could not be ruled out.

The only previous report in Australia was a poorly documented case in Tasmania in 1867 involving a child and a dog.

References:

http://www.cdc.gov/mmwr/preview/mmwrhtml/00000037.htm
www.ncbi.nlm.nih.gov/pmc/articles/PMC2634648/

Focus on...

Prevenar 13 and Invasive Pneumococcal Disease

Invasive Pneumococcal Disease in Australia and the emergence of the serotype 19A

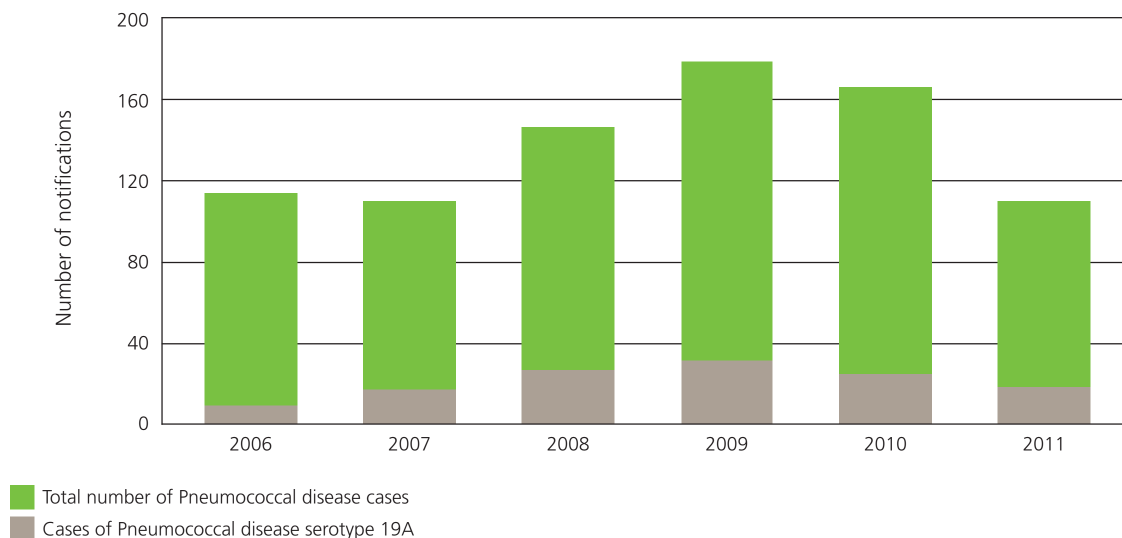
Prevenar®, a 7-valent pneumococcal conjugate vaccine (7vPCV), was first introduced onto the Australian National Immunisation Program for Aboriginal or Torres Strait Islander children in 2001. The schedule was subsequently expanded from January 2005 onwards to include all other children. Since the introduction of Prevenar there has been a dramatic 74% decrease in overall incidence of Invasive Pneumococcal Disease (IPD) for children aged less than 2 years.

Although there is decreasing incidence of IPD from serotypes covered in Prevenar, Australia is experiencing an increase in other serotypes not covered by the vaccine, with serotype 19A emerging as the leading cause of IPD in Australia for all children less than 2 years.

This increase has been particularly significant in the non-Aboriginal group within this cohort and is of particular importance given this is also the serotype associated with multi-antibiotic resistant IPD.

The proportion of serotype 19A pneumococcal disease in South Australia has doubled since 2006 and the total proportion of 19A serotype for 2011 (year to date) is greater than the total proportion of 19A serotype for all of 2010 – see chart below.

Proportion of serotype 19A cases compared with the total number of Pneumococcal disease 2006-2011 YTD



Total number of Pneumococcal disease cases

Cases of Pneumococcal disease serotype 19A

SOURCE: South Australian Health, CDCB, Disease Surveillance and Investigation Section, July 2011.

Prevenar 13

A new pneumococcal conjugate vaccine has been approved for use in Australia. Prevenar 13® is a 13 valent pneumococcal conjugate vaccine (13vPCV) that offers protection against an additional 6 serotypes of pneumococcal disease when compared to Prevenar®. One of the additional serotypes it protects against is 19A. The 2011 Product Information for Prevenar 13® estimates the vaccine will cover 93.3% of serotypes causing IPD and 90% of serotypes causing antibiotic resistant IPD in Australia.

Prevenar 13® replaced Prevenar® on the NIP on 1st July 2011 across Australia with the exception of the Northern Territory (NT) which was using Synflorix®. However, the NT will replace Synflorix® with Prevenar 13® from 1st October 2011 onwards.

Prevenar 13® Supplementary Program

The Prevenar 13® Supplementary Program commenced on the 1st October 2011 and end on the 30th September 2012

To provide additional protection for children during the years they are most at risk, a supplementary dose of Prevenar13® is being offered to all children 12-35 months who have previously received Prevenar® only.

To be eligible children need to be aged 12 to 35 months from 1st October 2011 and **not have received a previous dose of Prevenar 13® or Synflorix® vaccine.**

A schedule with details on the supplementary program has been distributed to all immunisation providers.

Reporting the Supplementary dose on the ACIR

For those children who receive the Supplementary dose of Prevenar 13, this dose needs to be recorded as a 4th dose on the ACIR

Although medically at risk children are recommended Pneumovax 23 at 4 years of age, the ATAGI also recommend children aged 3-4 years of age receive a single dose of Prevenar13® at least 8 weeks before they receive the Pneumovax 23, although it is not funded for this age group.

Age	Prevenar 7® vaccination status	Recommendation for Prevenar 13®	Comments
12 to 35 months	Fully immunised	Give 1 supplementary dose	**Medically at risk** Those who have received 4th dose Prevenar 7® are eligible to receive a supplementary dose of Prevenar 13®. Pneumovax 23® is still recommended at 4 years of age for this group. **Aboriginal children** The NIP recommends Pneumovax 23® for all Aboriginal children at 2 years of age. • The supplementary dose of Prevenar 13® can be administered in place of Pneumovax 23®, where Pneumovax 23® has not yet been given. • Where Pneumovax 23® has been given there should be an interval of 8 weeks before administering Prevenar 13®.
12 to 23 months	Partially immunised	Complete course using Prevenar 13®	No supplementary dose required as Prevenar 13® is administered as catch up in accordance with table 1.3.9 p34 Handbook 9th ed.
24 to 35 months	Partially immunised	Give supplementary dose of Prevenar 13®	Catch up not necessary as all children in this age group are eligible for the supplementary dose.

Invasive Pneumococcal disease and Aboriginal children

Aboriginal children experience a broader range of pneumococcal serotypes and continue to suffer with higher rates of pneumonia. The initial onset of disease is also at an earlier age, with 25% of cases occurring before 3 months of age and 50% of cases occurring before 7 months of age.

On October 1 2009 the Northern Territory Department of Health replaced Prevenar® with Synflorix® (10 valent pneumococcal conjugate vaccine) but they will change from Synflorix to Prevenar 13 from October 1st 2011.

The future

Future directions for pneumococcal vaccination include a Menzies School of Health Research study which is currently recruiting for research focusing on high-risk Aboriginal infants. The study is aimed at reducing some of the uncertainty around what is the best way to provide greater pneumococcal protection for this high risk group. It will specifically examine an early combination schedule of Synflorix® at 1 and 2 months of age with Prevenar 13® at 4 and 6 months of age and will attempt to establish if this combination provides greater protection than a single vaccine schedule.

Reference list

Williams S, Mernagh P, Lee M, et al. Changing epidemiology of invasive pneumococcal disease in Australian children after introduction of a 7-valent pneumococcal conjugate vaccine. MJA 2011; 194:116-120.

Johnson, D, 2011, The Epidemiology of Childhood Pneumonia, Public Health Bulletin, vol. 7, no 3, pp.37-40, viewed 6th September

Kaplan S, Barson W, Lin P, et al. Serotype 19A is the most common serotype causing invasive pneumococcal disease in children. Viewed 16 August 2011,<http://pediatrics.aappulications.org/content/125/3/429.full

O'Grady, KF, et al.2009, Effectiveness of 7 –valent pneumococcal conjugate vaccine against radiologically diagnosed pneumonia in indigenous infants in Australia, Bulletin of the World Health Organization, World Health Organization, viewed 6th September 2011,http://www.who.int/bulletin/volumes/88/2/09-068239/en/index.html

Menzies School of Health, Should Aboriginal children get both pneumococcal vaccines? Power point presentation National Pneumococcal Meeting July 2009 viewed via the web 6th Sept 2011.

Responding to parents requesting to delay or separate vaccines

Occasionally parents request delaying or separating immunisations as they fear too many are offered at the same time, especially in the first 6 months of life.

Research indicates that this practice has no benefit to a child's development and can put children at risk of acquiring preventable infections.

The research, conducted by Michael Smith and Charles Woods, both paediatric infectious disease specialists, examined data from the US Vaccine Safety Datalink. The research looked at the results of intelligence, speech, and behaviour tests conducted several years following childhood immunisations, comparing a group receiving immunisations on time and a group who received delayed immunisations.

"This study suggests that delaying vaccines does not give infants any advantage in terms of brain development" Dr Smith claimed.

The analysis found the children who received vaccines on time did slightly better on intelligence test and were a little faster on a test requiring children to name things, but there was not a single variable where the delayed group did better.

Dr Paul Offit, vaccine expert and head of the Division of Infectious Diseases at the Children's Hospital of Philadelphia, commented on the study claiming;

"The viral material in vaccines for babies is literally a drop in the ocean compared to how much bacteria a baby's immune system copes with each day. One bacterium typically will have from 2,000 – 6,000 antigens, while five or six vaccines given to a baby will have about 150 antigens in all"

http://online.wsj.com/article/SB10001424052748704113504575264421687548864.html

Innovation and Best Practice in Immunisation

Congratulations to Therese McCourt, from Pika Wiya

Pika Wiya in the Pitjantjatjara language means: Pika "Pain" Wiya "No"

The Pika Wiya Health Service Aboriginal Corporation was established in the 1970s and provides culturally appropriate health services to Aboriginal & Torres Strait Islander communities in the Pt Augusta and Flinders Ranges area.

Nurse coordinated Immunisation Clinics are provided in Port Augusta and the Davenport Community, and in outreach locations at Nepabunna, Copley, Leigh Creek, Hawker and Quorn.

The Immunisation Section would like to take this opportunity to congratulate this team approach in increasing and sustaining immunisation coverage rates in this area.

Pictured are Child Health Team members (left to right) Lyn Milera, Therese McCourt and Veronica Brady.

The Immunisation Section will send a gift hamper to the provider who fits the values of innovation and best practice in immunisation. Please send nominations to Sara Almond at the Immunisation Section- 1300 232 272 or email sara.almond@health.sa.gov.au

Need help with translations?

The "Google Translator" is available on the Google website and can translate English into over 50 other languages.

The site allows written text to be translated from English into a comprehensive list of other languages, and vice versa. The information is immediately translated into a written version of the required language.

For people who struggle with written text, there is a "Listen" button which, once pressed, generates a computer voice that reads out the written text in the desired language.

This is a free service available on: http://translate.google.com/#es|en|

Reminder! – Pneumovax 23

The Therapeutic Goods Administration (TGA) temporary suspension for re vaccination with Pneumovax 23 remains in place at time of printing.

SA Health notified immunisation providers of the suspension in April 2011 while the TGA and the Australian Technical Advisory Group on Immunisation (ATAGI) and the States and Territories collect and analyse adverse event data.

For further information go to: http://www.tga.gov.au/safety/alerts-medicine-pneumovax-110416.htm

New Cold Chain Resources

A safe and effective vaccine management system needs to be in place at service provider level to ensure the community receive potent vaccines. The Immunisation Section has produced the following resources to assist providers in cold chain management:

Fridge stickers "Stop-Do you need to open it" are available in both electrostatic and sticker versions to suit glass fronted and solid door fridges.

The "Stop-authorised person only to adjust dial" sticker is designed for modified domestic and bar fridges.

Both can be ordered on the Resource Order Form available on the website:

http://www.health.sa.gov.au/pehs/immunisation-index.htm

or by phoning the Immunisation Section on 1300 232 272

Cold Chain Back Up Plan

The Immunisation Section recently conducted a study into cold chain breaches in general practice. The study showed that the majority of vaccine losses occur as a result of heat exposure from power outages.

Having an alternate means of vaccine storage will allow providers to continue to store vaccines between the recommended temperatures of 2° C and 8° C in the event of a power failure and this will help reduce vaccine losses.

A resource to assist all providers in creating a back up plan can now be found on our website:

http://www.health.sa.gov.au/pehs/immunisation-index.htm

Reminder!

When providing a supplementary dose of Prevenar 13 submit data to ACIR as dose 4.

What's New

Get the Articles: Know the Journal!

The National Centre for Immunisation Research and Surveillance (NCIRS) holds weekly Journal Club forums where NCIRS staff review relevant and topical articles relating to immunisation, both in Australia and overseas. To access summaries from the Journal Club, click on the below link:

http://www.ncirs.edu.au/immunisation/journal-club/2011/index.php

Below are 2 examples of the latest summaries:

Invasive pneumococcal disease: association between serotype, clinical presentation and lethality.

Rodríguez MA, González AV, Gavín MA, et al. Vaccine 2011;29(34):5740-6.

Link to abstract: http://www.ncbi.nlm.nih.gov/pubmed/21683112

This article looks at the serotypes affecting IPD epidemiology, and the characteristics of IPD due to the different pneumococcal serotypes. The study looks at the incidence rates and the impact following the introduction of 7vPCV pneumococcal vaccine in Australia and other developed countries.

Presented by Dr Sanjay Jayasinghe, Senior Policy Officer, NCIRS

Attitudes and beliefs of parents concerned about vaccines: impact of timing of immunization information.

Vannice KS, Salmon DA, Shui I, et al. Pediatrics 2011;127 (Suppl 1):S120-6.

Link to abstract: http://www.ncbi.nlm.nih.gov/pubmed/21502250

This study looked at whether providing information material to mothers with concerns about vaccines, before the 2 month immunisation, influenced their attitude and beliefs about vaccine safety. Attitudes and beliefs about five questions on vaccine safety were assessed both before and after the review, and information on the preference for timing of receipt of materials was also sought.

Presented by Kirsten Ward, Immunisation Programs Evaluation Program Officer, NCIRS

Further article of interest:

Walsh, Nancy, Staff Writer, MedPage Today (08/31/11)
"Rotavirus Vaccine Prevents Diarrhoea in Older Kids, Too"
http://www.medpagetoday.com/Pediatrics/Vaccines/28292

Roger I. Glass, MD, PhD, August 2011**"Unexpected Benefits of Rotavirus Vaccination in the United States"**

Journal of Infectious Diseases, 2011 Oct;204(7):975-7

http://jid.oxfordjournals.org/content/early/2011/08/29/infdis.jir477.extract

Research from the Centers for Disease Control and Prevention has found that the rotavirus vaccine has had an impact on hospital admissions for diarrhoea related illness in older children. The study, published in the Journal of Infectious Diseases, claims the vaccine has prevented approximately 66,030 hospitalisations among people under 25, and saved around $204 million. The findings support the suggestion that vaccination of babies (who are key to sustaining community transmission) could indirectly affect disease burden in the older age groups.

PBAC rejects funding Boostrix for new parents

The Pharmaceutical Benefits Advisory Committee (PBAC) has rejected the submission from GSK to fund Boostrix on the National Immunisation Program for parents of newborns. A meeting held in July 2011 made the decision on the basis of uncertain clinical effects and highly uncertain cost effectiveness.

The recommendation for parents of newborns and other family or close contacts of the baby to receive a dTpa vaccine was included in the NHMRC Australian Immunisation Handbook 9th Edition 2008, and was made based on evidence available at the time. The cost effectiveness of this strategy will form part of the considerations for recommendations in the next edition of the Immunisation Handbook. Review of the next edition of the handbook is currently underway.

Those states and territories currently funding a cocooning strategy may look at other options in light of the PBAC decision.

Reference:

http://www.health.gov.au/internet/main/publishing.nsf/Content/1146FA3518E6D7D2CA2578F00009B061/$File/July%202011%20PBAC%20Outcomes%20-%201st%20time%20rejections.pdf

http://www.medicareaustralia.gov.au/provider/pbs/index.jsp

CDCB – New Medical Specialist

We would like to take this opportunity to welcome Dr Albert Lessing who has recently joined the Specialist Services Section at the Department of Health's Communicable Disease Control Branch (CDCB).

Albert's Bachelor of Medicine and Bachelor of Surgery (MBChB) was awarded with distinction in South Africa after which he was further educated in London and Oxford with dual accreditation in Internal Medicine as well as Infection and Microbiology.

He has also been awarded Fellowships by the Royal Colleges, in Medicine and Pathology, in London. He is currently working as a registered Physician in Infectious diseases in South Australia and also reports to the Director of CDCB. His infection interests are wide and varied and he hopes to complement the able and multi-skilled public health workforce at the Branch.

More…'to the Point', he believes the monthly reds served at the National Wine Center, which hosts the Australian Society Infectious Diseases (ASID) SA-Branch meetings, to be of excellent quality.

Questions and Answers

Q Can any Immunisation Provider order vaccines given in the School Based Immunisation Program (SBIP)?

A The SBIP is delivered to Year 8 and Year 9 students by public immunisation providers, which in most cases are local councils. Students who refuse/request not to have vaccines administered through the SBIP can go to their own provider i.e. GPs. Practices that order these vaccines will need to discuss the request with one of the Immunisation Nurses on 1300 232 272, so arrangements can be made to address each specific case. Following vaccination, providers are required to complete the SBIP "Record of Immunisation" card to ensure SA Health receives all statistical data for this program.

Q What is the recommendation for a second dose of hepatitis A vaccine if the first dose was received several years previously?

A As with any vaccination, it is not necessary to recommence the vaccination schedule. The recommendation would be to complete the course with dose 2 as soon as possible. A single dose of monovalent hepatitis A vaccine provides protective antibodies for at least a year, the second dose is recommended to increase the duration of protection (refer to page 144 of the Handbook).

For more information please contact Immunisation Section on 1300 232 272 or by emailing Sara.Almond@health.sa.gov.au **www.health.sa.gov.au/pehs/immunisation-index.htm**

http://www.gilf.gov.au/

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