Highlights from the 15th National Immunisation Conference

June 2016

Magali De Castro
Clinical Director, HotDoc

Image credit: https://www.phaa.net.au/events/event/15th-national-immunisation-conference
Immunisation: the jigsaw – fitting the pieces two decades on (Brisbane 7-9th of June)

The conference celebrates 20 years since the introduction of the series of measures to improve coverage rates under the “Immunise Australia” banner.

Including the start of the Australian Childhood Immunisation Register (ACIR)

Since the introduction of the ACIR, immunisation rates have climbed from 75% in 1997 to 91.4% in 2010.

HPV coverage currently around 66% in Boys and 78% in girls.
Conference Highlights

4 Key areas of interest

Good, clean & reliable data
Good coverage
Effectiveness of vaccines
Safety of vaccines (surveillance)
Comprehensive immunisation data

Recording at point of care and reporting to the register

A lot of work taking place in the data collection space

Need to improve the immunisation register in view of expansion to a whole-of-life register capturing adult immunisations from later this year

The Register will change from ACIR to AIR

Aim is for two-way communication between the AIR and the clinical software packages (but likely a long way away)
Concerns about electronic transmission of data to the ACIR

Clinical software failing to transmit close to 30% of encounters

No adequate prompt to alert staff of failed transmissions

Only discovered when patients/parents contacting the practice regarding ACIR missing information (affects family benefits)

Most reliable way appears to be directly reporting through ACIR website but this is time consuming.

Currently reporting is done:

60% Automatic from clinical software
30% on ACIR website
10% Manual
Vaccine effectiveness

Drastic decrease in vaccine-preventable diseases

Disease eradication (smallpox & polio) with other vaccine-preventable conditions becoming extremely rare

Effect of immunisation (influenza) in children:

16 children vaccinated will prevent 1 influenza-related GP consult
117 will prevent one hospitalisation
2205 will prevent a death

Adult vaccine coverage rates remain a challenge
Vaccine safety

Move towards active surveillance

Gradual shift from passive to active surveillance post vaccination.

Increasing use of SMS to actively check for adverse events following immunisation.

Summary of surveillance reports (from NCIRS):
Incidence of serious events remains low despite an increase in the number of vaccines in the schedule.
Reported adverse events

Most commonly reported reactions:

Injection-site reactions 27%
Fever 18%
Rash 16%
Fainting 5%
Vaccination in pregnancy

Safety of influenza and pertussis vaccination

Study following 9000+ women receiving flu vaccine during pregnancy = No association between mother vaccination and birth weight or gestational age

Pregnant women a high priority group for influenza vaccination and yet an estimated 40% are unvaccinated

Pertussis vax during pregnancy can prevent 91% of infant infections

Uptake of pertussis vaccine in pregnancy rose from 2% in 2014 to 62% in 2015
Coverage

Good data quality is essential

Many ‘overdue’ children are actually up to date and errors or omissions in ACIR reporting are impacting on ‘coverage’

True vaccination refusers only account for 3%. Largely unchanged in the last decade

There is no one way or ‘silver bullet’ when it comes to engaging with vaccine objectors/refusers

For those who are only hesitant, due to perceived lack of information, the recommendation of vaccination by a health professional is still very important
An audit of the quality of immunisation information available online to Australian parents found:

Of 700 pages in google, around 95% supported immunisation and 5% did not.

Issues identified with the information included excessive use of medical terminology in the more reputable publications, often sites lacked transparency of authorship.

There is still a need for immunisation information that is easily found, transparently authored, well-referenced and written in a way that is easily understood.
Immunise Melbourne initiative

Run by the North Western Melbourne PHN where local parents are featured in promotional immunisation communications which are accessible and relatable.

The campaign involves pictures, videos and real stories from parents who have made the decision to immunise.

The concept was originally developed by the Immunisation Alliance WA’s ‘i-imunise’ campaign.

Innovation

Nanopatch vaccine administration technology

New way to administer vaccines. Much lower dose needed.

Preliminary studies showing promising results: more effectiveness immune response and much quicker

Vaccine is dry coated on the nano patch, which makes it stable outside of the fridge (Good for hard-to-reach areas)

Image credit: http://www.brisbanetimes.com.au/content/dam/images/1/1/5/b/i/7/image.related.articleLeadwide.620x349.13caoj.png/1423647941471.jpg
http://www.healthworkscollective.com/sites/healthworkscollective.com/files/imagepicker/68684/Screen%20shot%202013-09-07%20at%206.09.44%20AM.png
BCG vaccine for other uses

MIS BAIR study - Royal Children’s & Mercy hospital in Melbourne

BCG vaccine has been found to have beneficial effects on the immune system over and above its protective effect against TB. 1,400 babies involved in the study.

The vaccine may help prevent infection as well as reduce allergic diseases such as eczema, food allergy, hay fever and asthma.

There are also studies that suggest BCG vaccination protects against the future development of melanoma (up to 60% protective).

Possibly related to replacing early life absence of microbial exposure

Image credit: http://misbair.org.au/about/
Pharmacy-based immunisation programs

Evaluation of the trial in Queensland

Initially limited to influenza vaccination

Trained pharmacists provided 34,000 influenza vaccination doses

15% of patients reported they would not have received the vaccination otherwise

99.4% were happy with the service and would do it again

Patients like the convenience, no appointment, no ‘germy’ waiting room. Some chemists also offered online booking options.

60% of recipients were female 45-55yr

67% were over 65 but happy to pay privately for early access

Program is gradually expanding across Australia for influenza and pertussis (only adult vaccination)
Thank you for participating!

Got a question?
Email: md@hotdoc.com.au
References

**Surveillance of adverse events following Immunisation in Australia, 2014**  
Presenter: Aditi Dey  
The National Centre for Immunisation Research & Surveillance (NCIRS), Sydney, Australia, Pharmacovigilance and Special Access Branch, Therapeutic Goods Administration, Canberra, Australia

**FluMum study: Birth outcomes following influenza and pertussis vaccinations in pregnancy, 2012-2015**  
Presenter: Ms Lisa McHugh  
Menzies School of Health Research, Spring Hill, Brisbane, Australia

**The safety of pertussis and influenza vaccines during pregnancy in Australia**  
Presenter: Annette Regan  
Western Australia Department of Health, Perth Business Centre, Australia, University of Western Australia, Crawley, Australia

**Using SMS technology for real-time surveillance of adverse events following Immunisation**  
Presenter: Darren Westphal  
Prevention and Control Program, Department of Health Western Australia, Perth, Australia...

**Pharmacies as an important piece of the Immunisation jigsaw**  
Presenter: Lisa Nissen  
School of Clinical Sciences, Queensland University of Technology, Brisbane, Australia, Terry White Chemists, Brisbane, Australia, College of Medicine and Dentistry, James Cook University, Townsville, Australia

**When parents won't vaccinate. A qualitative investigation of primary care provider's responses.**  
Presenter: Nina Berry  
Sydney School of Public Health, University of Sydney Australia, Murdoch Children's Research Institute, Parkville, Australia
When parents won't vaccinate. A qualitative investigation of primary care provider's responses.
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Transmitting data electronically to ACIR: How accurate is it?
Presenter: Thais Miles
Central Coast Local Health District, Gosford, Australia, Newcastle Family Practice, Newcastle, Australia

No Jab No Pay - Trials and Tribulations
Presenter: Mrs Angela Newbound
Adelaide PHN, Torrensville Plaza, Australia

A qualitative analysis of the factors associated with vaccine hesitancy among parents
Presenter: Miss Stephanie Enkel
School of Population Health, the University of Western Australia, Crawley, Australia

Immunise Melbourne - Awareness campaign to increase childhood immunisation rates
Presenter: Wendy Reid
Melbourne Primary Care Network, Melbourne, Australia

Audit of the quality of online information available to Australian parents
Presenter: Dr Kerrie Wiley
National Centre for Immunisation Research & Surveillance, Westmead, Australia, University of Sydney, School of Public Health, Sydney, Australia

The Immunisation jigsaw: the pieces and the players
Keynote speaker: Prof Chris Baggoley AO, Chief Medical Officer, Department of Health
References

How Australia monitors coverage and impact of immunisation programs - past, present and future
Keynote speaker: Prof Peter McIntyre, Director, National Centre for Immunisation Research and Surveillance (NCIRS)

Vaccine Safety: 2016 Update
Keynote speaker: Associate Prof Kristine Macartney, Deputy Director, National Centre for Immunisation Research and Surveillance; Associate Professor Discipline of Paediatrics and Child Health, University of Sydney

Vaccine Safety - towards a national adverse event system
Keynote speaker: Dr Alan Leeb
General Practitioner, SmartVax

Vaccine hesitancy and uptake: a global perspective
Keynote speaker: Dr Angus Thomson, Senior Director, Vaccination Advocacy, Sanofi Pasteur, Lyon, France

Vaccine hesitancy in Australia: is it a problem and what can we do?
Keynote speaker: Associate Prof Julie Leask, Associate Prof School of Public Health, University of Sydney

Exploring a new use for an old vaccine
Keynote speaker: Prof Nigel Curtis, Prof of Paediatric Infectious Diseases, Department of Paediatrics, The University of Melbourne; Head of Infectious Diseases Unit, Department of General Medicine, The Royal Children's Hospital Melbourne and Leader, Infectious Diseases and Microbiology Group, Murdoch Children's Research Institute

Nanopatches for Needle Free Improved Vaccines
Keynote speaker: Prof Mark Kendall, Group Leader, Delivery of Drugs and Genes Group, Australian Institute of Bioengineering and Nanotechnology, The University of Queensland