Health
Hunter New England
Local Health District

Hunter New England Population Health Communicable Diseases Report

November 2015

Pertussis

Pertussis epidemics occur every 3-4 years in Australia. In 2016, there has been a significant state wide increase in pertussis notifications, particularly in primary school aged children. This is thought to be due to waning immunity. Pertussis notifications in the Hunter New England region reflect this trend, with notifications reaching their highest numbers since 2011. Immunisation remains the best strategy for the prevention of pertussis, especially pertussis deaths in babies <6 months of age.

Pertussis immunisation schedule

The current NSW immunisation schedule recommends a 3-dose primary schedule of pertussis containing vaccine (Infanrix Hexa) at 2, 4 and 6 months of age, followed by two booster doses, one prior to starting school (Infanrix-IPV at 4 years) and one in high school (Boostrix in year 7). The first dose in the primary schedule can be given as early as **6 weeks**.

From early 2016, an additional **funded** booster at **18 months of age** will be added to the immunisation schedule.

Protecting babies- Pertussis immunisation for pregnant women

Boostrix is currently recommended and **funded** for use in women in the 3rd trimester of **each** pregnancy, regardless of the time elapsed between pregnancies. Vaccination in pregnancy protects the newborn through the transfer of pertussis antibodies across the placenta. Both cohort and case-control studies have demonstrated the effectiveness of this intervention.

Pertussis testing

As per NSW Ministry of Health pertussis control guidelines, **only symptomatic patients should be tested**. The interpretation and meaning of positive pertussis results in asymptomatic patients is unclear. The diagnostic method of choice for pertussis is nucleic acid testing (commonly known as PCR) using nasopharyngeal aspirates or rayon tipped swabs. The sensitivity of PCR is optimal in the three weeks following cough onset, however PCR may be positive up to 5 weeks or longer.

Pertussis treatment, prophylaxis and exclusion

Oral Azithromycin or Clarithromycin or Trimethoprim+Sulfamethoxazole are recommended for the treatment and prophylaxis of pertussis, however Azithromycin syrup may be difficult or expensive to obtain.

Prophylaxis only needs to be provided to **whole households** when there is an **asymptomatic** infant <6 months of age in the household, to protect that infant from pertussis. If you are unsure, please contact Population Health on 49246477. Patients with pertussis are infectious up to three weeks after cough onset. Infectious pertussis cases should be excluded from child care, school and work until they have completed five full days of antibiotics or three weeks has elapsed since cough onset.

Immunisation News

Vaxtracker used for real-time safety surveillance of vaccines in Australian children

Vaxtracker is an online surveillance system where parent's and carers report how their child has responded to a recently administered vaccine. A link to a short survey is sent by email or SMS three days after vaccination, allowing for early detection of possible safety problems associated with the vaccine.

Thankyou HNE GP clinics and Aboriginal Medical Services for participating in the Influenza Vaxtracker program in 2015. As a result of their hard work, we have been able to demonstrate, through the national AusVaxSafety surveillance system, that the influenza vaccines registered for use in children aged 6 months to five years of age were safe and well tolerated. Check out Eurosurveillance for the full report.

The DTPa vaccine for 18 month olds will be part of the Immunisation schedule in early 2016. We are looking for additional clinics to participate in this important surveillance program. Contact Patrick Cashman or Sally Munnoch at support@vaxtracker.net for further information

Human Parechovirus

Human parechovirus (HPeV) has been detected in a number of neonates and young infants admitted to NSW hospitals during October and November 2015, including Hunter New England. Suspect HPeV infections in neonates or young infants with sepsis-like illness and fever >38.0^{c} and irritability, rash, distended abdomen, diarrhoea, tachycardia, tachypnoea, encephalitis, hepatitis or myoclonic jerks. Children under 3 months of age are most likely to develop severe disease, but older infants may also be at risk. Testing in NSW is available through Pathology North. The preferred specimens are CSF and stool.

MERS-CoV Update

Sporadic cases and small household/nosocomial clusters continue to occur in Saudi Arabia. Clinicians are urged to remain vigilant and consider MERS-CoV infection in patients who have a febrile respiratory illness and have travelled to the Middle East in the previous 14 days and contact public health immediately.

Ebola Update

A small family cluster (3 cases) with one death has been detected in Liberia which had previously been Ebola free. The source is currently under investigation and up to 160 contacts are being monitored. Sierra Leone was declared Ebola free on 7 November and Guinea has reported zero cases for two consecutive weeks.

Table 1. Summary of selected notifiable conditions (YTD* by year), HNE 2011 – 8 November 2015

Year to date	2015	2014	2013	2012	2011
Pertussis	915	351	226	538	670
Influenza	2593	2783	428	1086	963
Meningococcal Disease	7	9	11	8	13
Rotavirus	60	56	77	268	118
Cryptosporidiosis	109	44	125	75	39

*YTD Year to date for each year (reporting delays may result in changes to 2015 figures)

Population Health contact details (note, 1300 066 055 will find your local PHU)
Wallsend Office 4924 6477 Tamworth Office 6764 8000
Report prepared by Tove Fitzgerald ToveLysa.Fitzgerald@hnehealth.nsw.gov.au