Communicable Diseases Weekly Report

Epi-Week 1 30 December 2013 – 5 January 2014

In summary, we report:

- **Measles** – three new cases
- **Human parechovirus update** – declining activity
- **Australian bat lyssavirus** – bat exposures and post-exposure prophylaxis changes
- **Summary of notifiable conditions activity in NSW**

For further information on infectious diseases and alerts see the Infectious Diseases webpage.

Follow the A to Z of Infectious Diseases link for more information on specific diseases.

For links to other surveillance reports, including influenza reports, see the NSW Health Infectious Diseases Reports webpage.

Measles

Three measles cases were notified in this reporting week (Table 1). Public health authorities have investigated these cases and their contacts to control the risk of further transmission.

Two of the measles cases were in infants under 12 months of age, and so were too young to have been vaccinated. The first of these was an infant from South Eastern Sydney Local Health District (LHD) who is believed to have been exposed to a measles case at the 'World Supremacy Battlegrounds' Hip Hop festival in Sydney (see media release). More than a dozen measles cases associated with this event have now been identified in multiple jurisdictions in Australia and in New Zealand.

The second case was an infant from South Western Sydney LHD who likely acquired measles when taken to visit relatives in Nepal. On the family's return to Sydney the infant was taken to two health facilities before the diagnosis was suspected, potentially exposing over 200 contacts.

The third measles case was an unvaccinated teenager who flew from the Philippines to Sydney on 29 December 2013 while infectious. Public health units in NSW and in other jurisdictions followed up close flight contacts to provide information on measles prevention and control. The case had also twice visited a general practice and a local shopping centre while infectious, as well as the Westmead hospital emergency department.

Measles is highly infectious and is spread easily through the air. Symptoms can include fever, tiredness, runny nose, cough and sore red eyes which usually last for several days before a red, blotchy rash appears. Complications can range from an ear infection and pneumonia to swelling of the brain.

Children should receive two doses of vaccine, one at 12 months and the second at 18 months. Children over 18 months who have not had their second dose of measles vaccine can be vaccinated now. Anyone born during or after 1966 should have two doses of vaccine (at least 4 weeks apart).

NSW Health urges everyone planning international travel to ensure they are up to date with their vaccinations (including measles) prior to their departure.

Follow the link for further information on measles disease notifications.

Follow the link for further information on measles vaccination (external link).

Back to top

Human parechovirus

NSW Health has continued to receive reports of young infants who have been diagnosed with parechovirus infection but there are indications that activity is declining.

As reported in previous weekly reports, since November 2013, active surveillance for parechovirus infection in infants has been implemented in NSW. In this reporting period there have been 9 laboratory-confirmed cases of parechovirus from across NSW in infants under one year old, compared to the weekly average of 18 cases in the preceding four weeks.

The public health real-time emergency department surveillance system (PHREDSS) is also continuing to monitor for presentations with fever or unspecified infection in under one year-olds as a non-specific indicator of parechovirus activity in the community. The number of emergency department of presentations this week for fever/unspecified infection in children aged under one year decreased to 229 but remained above the usual range for this time of year (Figure 1a).

The number of presentations in under one year-olds that were admitted also decreased but remained above usual levels, with 61 admissions compared to an average of 48 for the same period in previous years (Figure 1b). Admissions peaked in the first week of December 2013.

Figure 1a. Total weekly counts of Emergency Department presentations for fever or unspecified infection, for the year to 5 January 2014 (black line), compared with each of the 5 previous years (coloured lines), children aged under 1 year, for 59 NSW hospitals.

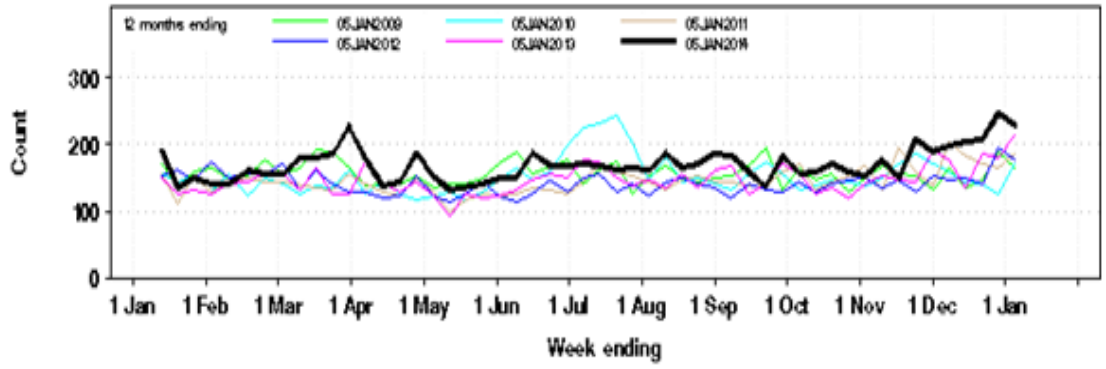
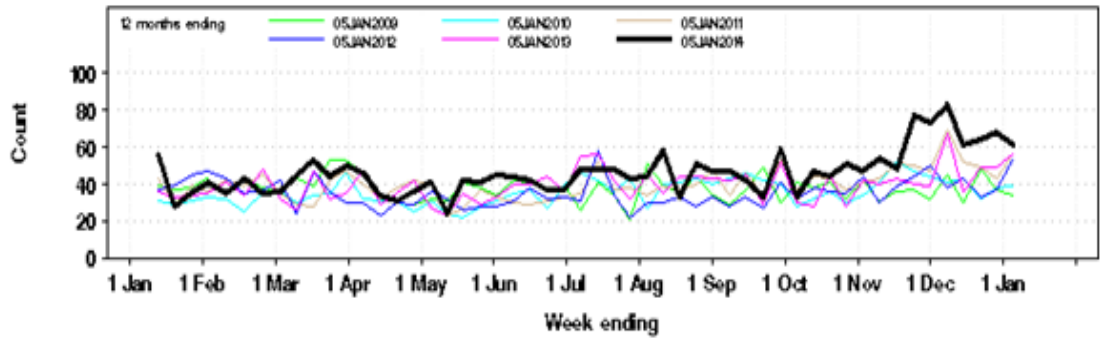


Figure 1b. Total weekly counts of emergency department presentations for fever or unspecified infection that were admitted, for the year to 5 January 2014 (black line), compared with each of the 5 previous years (coloured lines), children aged under 1 year, for 59 NSW hospitals.



Parechovirus infection usually causes mild respiratory or gastrointestinal symptoms, however occasionally it may lead to more severe symptoms. Some infected babies get quite unwell quickly, but typically recover in a few days. Parechovirus is usually spread from person to person through contact with respiratory droplets, saliva or faeces from an infected person.

There is no vaccine to protect from parechovirus infection so maintaining good personal hygiene is the best protection. People who are unwell with colds, flu-like illness or gastro illness should stay away from small babies. If you are caring for a small baby and are unwell, wash your hands or use an alcohol-based hand rub before touching or feeding the baby.

For further information see the parechovirus factsheet and media release (29 Nov 2013).

Back to top

Australian bat lyssavirus

In this reporting week there were eight people notified to public health units across NSW who had been potentially exposed to Australian bat lyssavirus (ABLV) via a bite or scratch from a bat, including several where the bat was subsequently and found to be infected with ABLV. However, not all bats that have bitten or scratched a person are available to be tested for ABLV. A further six people were notified following bites or scratches from dogs or monkeys while travelling overseas.

Many of the bat exposures in NSW occur in people who try to assist bats after they have become entangled in fruit tree nets or fences, or when they are stressed during periods of hot weather.

ABLV belongs to the lyssavirus genus of viruses and is closely related to rabies virus. There have been three known human cases of ABLV infection; all resulted in death. All three cases were in Queensland and the infection was acquired from a bat bite. The most recent case was in an eight year old child in February 2013.

Evidence of ABLV infection has been found in all four species of flying foxes found in Australia, and in Australian insectivorous microbats. Infected bats may not demonstrate any abnormal behaviour and infection can occur in bats of any age. While ABLV is not common in bats, any Australian bat should be considered to be potentially infected with ABLV.

ABLV cause a rabies-like disease in humans. Early symptoms are flu-like which progress to paralysis, delirium, convulsions and death, usually within two weeks.

The best protection against ABLV infection is to avoid contact with flying foxes or other bats. Only people who have been fully vaccinated against rabies, use protective equipment and have been trained in bat handling should touch a bat. Injured or trapped bats should be reported to the local Wildlife Information Rescue and Education Service (WIRES) network on 1300 094 737 or at www.wires.org.au.

Anyone who is bitten or scratched by a bat should immediately wash the wound thoroughly with soap and copious water for at least five minutes and then apply an antiseptic such as povidone-iodine or alcohol. Urgent medical care should be sought so that rabies immunoglobulin can be injected into the wound (in the case of a bite), and a course of four doses of rabies vaccine given over two weeks (administered for both bites and scratches). Medical practitioners should contact their local public health unit for advice and to arrange immunisation.

Rabies immunoglobulin (RIg) is administered with rabies vaccine for post-exposure prophylaxis for people who have been bitten by an animal at risk of rabies in rabies-endemic countries, or from the bite of a bat in Australia. RIg may be recommended for scratches in certain circumstances, such as if the scratch was on the head or neck, if the animal was behaving abnormally, or if the animal subsequently tests positive for rabies or ABLV.

RIg is in short supply globally and Australia has exhausted its supply of the registered human RIg product (Imogam). Patients will be offered an equivalent but unregistered product, KamRAB, manufactured in Israel. KamRAB has the same dosage, strength and route of administration as the registered human RIg product.

KamRAB is being made available under the Therapeutic Goods Administration (TGA) Special Access Scheme via local public health units (PHUs) until supplies of the registered product are re-established. As KamRAB is a blood product, the TGA requires patients or their parent/guardian to provide informed consent before KamRAB is administered. GPs are required to return completed Special Access Scheme forms and blood products consent forms to the local PHU. GPs are asked to report any adverse event directly to the local PHU.

Further information on KamRAB and its administration will soon be provided on the NSW Health Immunisation Programs website.

Follow the link for further information on rabies and ABLV infection.

Back to top

Summary of notifiable conditions activity in NSW

The following table summarises notifiable conditions activity over the reporting period (Table 1).

Table 1. NSW notifiable conditions from 30 December 2013 to 5 January 2014, by date received.

		This week	Last week	Year to date			Full Year	
				2014	2013	2012	2013	2012
Enteric Diseases	Cryptosporidiosis	9	8	7	17	4	1132	655
	Giardiasis	23	15	12	19	17	2244	2013
	Hepatitis E	1	0	0	0	0	16	10
	Listeriosis	1	1	0	3	0	33	36
	Rotavirus	6	4	4	7	15	506	1761
	STEC/VTEC	1	0	0	1	2	24	14
	Salmonellosis	75	52	64	65	52	3483	2941
	Shigellosis	2	4	2	0	4	136	131
Respiratory Diseases	Influenza	23	17	16	21	12	8396	8039
	Tuberculosis	4	2	2	4	3	391	444
Sexually Transmissible Infections	Chlamydia	179	181	80	233	173	21006	21261
	Gonorrhoea	35	20	14	45	43	4243	4115
Vaccine Preventable Diseases	Measles	3	0	1	0	1	34	172
	Meningococcal Disease	1	0	1	1	3	48	68
	Pertussis	24	31	18	41	133	2368	5996
	Pneumococcal Disease (Invasive)	8	2	3	11	2	492	563
Vector Borne Diseases	Barmah Forest	5	6	1	6	1	437	344
	Dengue	1	3	0	4	4	263	289
	Ross River	7	4	1	3	3	509	596

Notes on Table 1: NSW Notifiable Conditions activity

- Data cells represent the number of case reports received by NSW Public Health Units and recorded on the NSW Notifiable Conditions Information Management System (NCIMS) in the relevant period.
- Data cells in the 'Adverse Event Following Immunisation' category refer to suspected cases only. These reports are referred to the Therapeutic Goods Administration (TGA) for assessment. Data on adverse events following immunisation is available online from the TGA Database of Adverse Event Notifications.
- Only conditions for which at least one case report was received appear in the table. HIV and other blood-borne virus case reports are not included here but are available from the Infectious Diseases Data webpage.

Back to top