Communicable Diseases Weekly Report

Week 33   12 August 2013 – 18 August 2013

In summary, we report:

- **Infant botulism** – one new case reported
- **Multi-drug resistant TB** – increase in cases in 2013
- **Enterovirus infections** – Emergency Department activity now near usual range
- **MERS coronavirus** – two new Saudi cases reported
- **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 and enterovirus surveillance reports, see the NSW Health Infectious Diseases Reports webpage.

Infant botulism

One new case of infant botulism was reported this week (Table 1), the second case reported this year. The case was reported in a five month old infant who presented with muscle weakness. The infection was due to a serotype B strain. The local Public Health Unit is investigating the case for possible sources of exposure. There is no history of consumption of infant formula.

Botulism is a rare but serious illness that causes paralysis. The paralysis is caused by nerve toxins made by *Clostridium botulinum* bacteria. Botulism can result from eating food that has been contaminated with the toxin (foodborne botulism) or ingesting food, dust or soil that contains the bacteria that produce the toxin (intestinal botulism) or contaminating a wound with the bacteria (wound botulism). Intestinal botulism affecting children under 12 months of age is known as infant botulism. Botulism is not known to spread from person to person.

Children under twelve months of age are most at risk of intestinal botulism. Intestinal botulism in adults is very rare but more likely in those with suppressed immune systems or bowel disorders.

Human-derived botulism immune globulin for intravenous use (BabyBIG®) is licensed by the US Food and Drug Administration for treatment of infant botulism caused by *C. botulinum* serotype A or B. BabyBIG® is made and distributed by the California Department of Public Health (24-hour telephone number (USA): 0011-1-510-231-7600; www.infantbotulism.org).

A small supply of trivalent equine botulinum antitoxin for the treatment of botulism in older children and adults is available through the National Medical Stockpile. Clinicians can make requests for emergency access to the botulinum antitoxin through their local Public Health Unit (1300 066 055).

Follow the link for further information on botulism data.

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Multi-drug resistant tuberculosis

Six cases of multi-drug resistant tuberculosis (MDR-TB) have been reported in NSW to date in 2013, compared to just three cases for the whole of 2012. All of the cases in 2013 were acquired overseas in countries with a high incidence of TB. People with TB are defined as having MDR-TB when their isolates demonstrate resistance to at least isoniazid and rifampicin, the two most common first-line drugs for the treatment of TB.

Due to the clinical and public health complexity of MDR-TB, an expert panel is convened to review all new cases of MDR-TB in NSW, in order to ensure the best possible treatment is provided and necessary steps to eliminate the spread of infection are implemented.

Drug resistance is one of the most significant challenges to TB prevention and control activities. The World Health Organization estimated that in 2011 there were approximately 310,000 cases of MDR-TB amongst persons notified with pulmonary TB globally. MDR-TB accounts for approximately 3.7 percent of new TB cases and 20 percent of previously treated TB cases globally. In Australia 2.4 percent of all TB cases in 2008 were MDR-TB, and in NSW between 2009 and 2011, 1.9 percent of all notified TB cases were MDR-TB.

For more information on TB refer to the NSW TB Program website, which includes links for further information on TB notifications data and recent TB epidemiology.

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Enterovirus infections

Enterovirus infections (other than poliomyelitis) are not notifiable in NSW. NSW Health monitors enterovirus activity through NSW Emergency Department (ED) presentations for "meningitis or encephalitis" and for hand-foot-and-mouth disease (HFMD).

Enterovirus infections can rarely lead to meningitis or encephalitis but there are also a range of other causes for these illnesses. HFMD can be caused by a range of enteroviruses.

In the past few weeks, ED presentations for "meningitis or encephalitis" and for HFMD have declined further to be just above their usual ranges for this time of year (Figures 1 and 2).

Figure 1. Total weekly counts of ED presentations for meningitis/encephalitis, for 2013 (black line), compared with each of the 5 previous years (coloured lines), all ages, for 59 NSW hospitals.
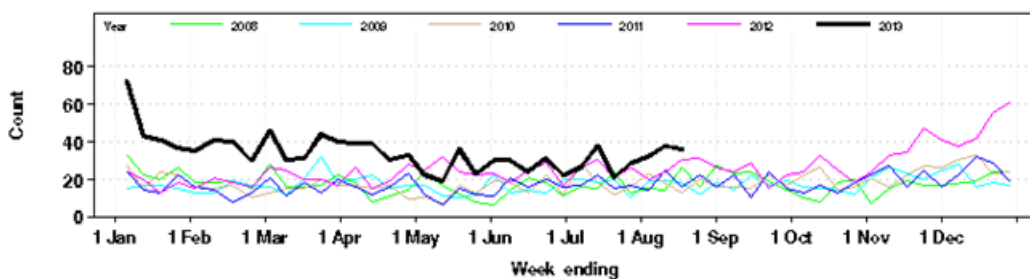
Figure 2: Total weekly counts of ED presentations for HFMD for 2013 (black line), compared with each of the 5 previous years (coloured lines), children aged under 5 years, for 59 NSW hospitals.
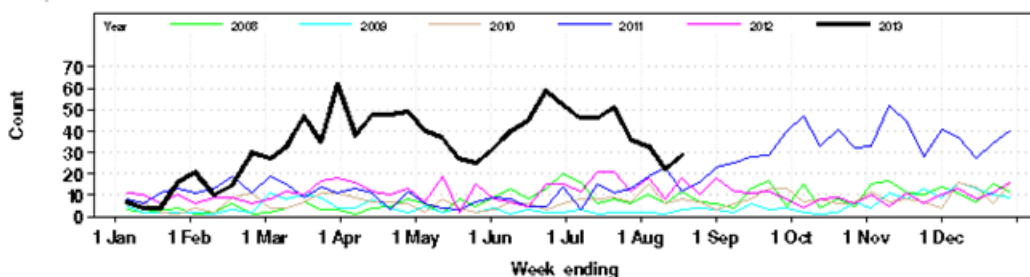
Follow the link for more information on enterovirus infections.

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MERS coronavirus (MERS-CoV) update

The Saudi Ministry of Health has reported two new laboratory-confirmed cases of MERS-CoV infection this week. Both cases were in residents of the Riyadh region. Both cases were in women aged in their fifties who had chronic medical conditions and who required intensive care unit admissions. Source: Ministry of Health, Saudi Arabia 18 August 2013 [in Arabic, translated].

These cases are in addition to the 94 laboratory-confirmed cases of infection with MERS-CoV, including 46 deaths, so far reported by the World Health Organization (WHO).

WHO has also recently issued MERS-CoV travel advice for pilgrims to the Hajj and Umrah in Saudi Arabia this year. For further travel advice see the NSW Health Hajj travel advice factsheet.

For more information and links see the NSW Health MERS-CoV website.

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Summary of notifiable conditions activity in NSW

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

Table 1. NSW Notifiable conditions activity for the period 12 August 2013 – 18 August 2013 (by date received)

		This week	Last week	Year to date			Full Year	
				2013	2012	2011	2012	2011
Enteric Diseases	Botulism	1	0	2	0	0	0	2
	Cryptosporidiosis	1	7	972	513	255	655	354
	Giardiasis	43	40	1533	1409	1703	2015	2377
	Listeriosis	2	2	26	22	13	36	20
	Rotavirus	10	5	252	520	485	1761	1208
	Salmonellosis	47	36	2350	1903	2720	2943	3567
	Shigellosis	3	1	78	88	85	131	126
Respiratory Diseases	Influenza	538	387	2829	5597	3718	8038	5791
	Legionellosis	2	2	65	81	77	105	104
	Tuberculosis	5	5	227	251	322	440	538
Sexually Transmissible Infections	Chlamydia	354	393	13380	13799	13130	21261	20448
	Gonorrhoea	77	68	2757	2600	1644	4114	2818
Vaccine Preventable Diseases	Adverse Event Following Immunisation	5	1	390	195	265	262	352
	Meningococcal Disease	3	4	26	48	45	68	72
	Pertussis	50	34	1473	4240	8331	5996	13411
	Pneumococcal Disease (Invasive)	23	11	313	330	324	563	530
Vector Borne Diseases	Barmah Forest	5	4	308	219	370	344	471
	Chikungunya	2	1	11	0	7	1	11
	Dengue	6	5	160	203	92	289	148
	Malaria	2	1	57	42	55	68	82
	Ross River	9	4	374	466	489	596	591
Zoonotic	Q fever	1	2	92	82	87	123	145

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.