

Communicable Diseases Weekly Report

Week 31, 1 August to 7 August 2016

In summary, we report:

- [Leprosy](#) – one new case reported
- [Meningococcal conjunctivitis](#) – one new case reported
- [Summary of notifiable conditions activity in NSW](#)

For further information on infectious diseases on-line see [NSW Health Infectious Diseases](#). Also see [NSW Health Infectious Diseases Reports](#) for links to other surveillance reports.

Leprosy

There was one new case of leprosy (also known as Hansen's disease) notified this week in an adult male originally from India. This is the first case notified so far this year. Leprosy is a rare disease in Australia. Since 2000, there have been 37 confirmed leprosy cases notified in NSW, an average of two cases notified per year. The majority of leprosy cases notified were acquired overseas.

Leprosy is a chronic infection of the skin and peripheral nerves caused by the bacterium *Mycobacterium leprae*. The organism multiplies very slowly and the incubation period of the disease varies from months to 30 years, with an average of 4 years for tuberculoid leprosy and 10 years for lepromatous leprosy. Left untreated, leprosy can lead to progressive and permanent damage of nerves which can lead to loss of sensation in the extremities and paralysis of the muscles in the hand, feet and face.

Leprosy is not highly infectious. People at risk are generally in close and frequent contact with someone with the infection. The exact mechanism of transmission is not well understood, although person to person spread via nasal droplets is believed to be the main route. It's important to note that leprosy is curable with multi-drug therapy and once a person begins appropriate treatment they quickly become non-infectious.

There are two forms of leprosy: lepromatous and tuberculoid. The clinical presentation is different for each. The host immune response is also important in determining the clinical symptoms.

In lepromatous leprosy, there is a high bacterial load and more disseminated disease throughout the body. Skin nodules, papules, macules and diffuse infiltrations are symmetrical on both sides of the body and are usually numerous and extensive. The skin lesions may or may not have loss of sensation and may be hyperpigmented. The nasal mucosa and eyes may be involved. Nerve involvement occurs and can result in loss of sensation or weakness.

In tuberculoid leprosy there is a lower bacterial load and skin lesions are single or few. The skin lesions are sharply demarcated, show loss of sensation or increased sensitivity and are not symmetrical. Nerve involvement tends to be severe. When loss of sensation occurs, injuries (such as burns or fractures) may go unnoticed.

The incidence of leprosy worldwide is declining due to various factors including socioeconomic development, the use of Bacillus Calmette–Guérin vaccine and high treatment coverage with multi-drug therapy.

Follow the link for further information from the [leprosy factsheet](#) and [leprosy notifications data](#).

Leprosy is a nationally notifiable disease and all cases are reported to the World Health Organization (WHO). WHO has a 'Final Push' strategy for the worldwide elimination of leprosy; further information can be obtained from [WHO Leprosy Elimination](#) site.

Meningococcal conjunctivitis

One case of meningococcal conjunctivitis was notified this week (Table 1). The case was in a child resident in the Sydney region who had been overseas during some of the exposure period (1 – 7 days before onset). Meningococcal infections can cause a range of manifestations including meningitis, septicaemia, septic arthritis, conjunctivitis and urethritis.

While not considered invasive meningococcal disease (IMD), cases of meningococcal conjunctivitis are still reported to facilitate public health response as conjunctivitis may precede invasive disease, and the contacts of people with meningococcal conjunctivitis require the same public health preventive measures as occurs with invasive cases.

A total of 33 cases of IMD have been reported so far in 2016 based on onset date, including four fatal infections. In the same period of 2015 there were 25 cases notified and no deaths. Cases in 2016 have occurred in both adults and children with an age range of 0 to 88 years.

IMD is caused by infection with the bacterium *Neisseria meningitidis*. The bacteria are spread through direct contact of mucous membranes with the organism, such as exposure to respiratory droplets from the nose and throat of an infected person.

Close contact may result in the bacteria becoming established and reproducing in the throat of the exposed person but in most people this does not cause any symptoms. In only a very small proportion of people the bacteria may invade from the throat to other parts of the body, causing disease.

IMD typically involves meningitis (infection of the lining of the brain), septicaemia (infection of the blood) or both. Up to 10 per cent of IMD infections are fatal even with appropriate antibiotic treatment, and survivors may be left with long-term complications.

There are several serogroups of *Neisseria meningitidis* which can cause invasive disease. The most common serogroups in Australia are B, C, W and Y. Since the introduction of a serogroup C vaccine in 2003 most cases in NSW have been caused by serogroup B. However, since 2015 there has been an increase in cases caused by serogroup W in NSW and other jurisdictions.

To date in 2016 in NSW, 13 cases of IMD have been caused by serogroup B compared to 12 by serogroup W. Other cases in 2016 have been caused by serogroup Y (4) and C (1), or an unknown serogroup (3).

Vaccination against meningococcal C infection is included in the national immunisation schedule with vaccination due at 12 months of age. Combined vaccines against the A, C, Y and W serogroups are generally only recommended for travellers to countries where these are more common and for some people with certain high risk conditions that predispose them to developing IMD such as people without a spleen.

A vaccine against some serogroup B strains has recently become available in Australia; it is recommended for young children and adolescents but is not part of the National Immunisation Program.

Follow the links for more information on [meningococcal disease](#) and [vaccination](#).

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 1 to 7 August 2016, by date received *

		Weekly		Year to date			Full Year	
		This week	Lastweek	2016	2015	2014	2015	2014
Enteric Diseases	Cryptosporidiosis	11	9	776	646	282	1038	429
	Giardiasis	68	48	2401	2229	1838	3415	2942
	Hepatitis E	1	0	13	9	28	20	38
	Rotavirus	9	11	296	220	263	1036	714
	STEC/MTEC	1	1	28	13	27	29	31
	Salmonellosis	87	73	3189	2752	2879	4044	4274
	Shigellosis	5	2	188	103	137	172	212
	Typhoid	1	0	26	28	30	41	44
Respiratory Diseases	Influenza	1881	1322	9747	5552	5124	30303	20888
	Legionellosis	3	0	84	66	47	96	72
	Tuberculosis	5	6	260	252	260	445	475
Sexually Transmissible Infections	Chlamydia	447	443	15514	13466	13918	22548	22899
	Gonorrhoea	137	146	4176	3195	2925	5401	4876
Vaccine Preventable Diseases	Meningococcal Disease	1	2	32	25	20	46	37
	Mumps	1	1	27	35	56	63	82
	Pertussis	147	183	6389	4500	1183	12083	3051
	Pneumococcal Disease (Invasive)	18	16	284	257	273	495	511
Vector Borne Diseases	Dengue	6	8	309	213	290	343	378
	Malaria	3	4	34	24	66	47	87
	Ross River	2	2	343	1335	375	1638	673
Zoonotic Diseases	Q fever	4	2	127	137	109	265	190

* 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.