

Communicable Diseases Weekly Report

Week 42, 15 October to 21 October 2017

In summary, we report:

- [Legionellosis](#) – two new linked cases reported
- [Hepatitis A](#) – one new case and update on Sydney outbreak
- [Summary of notifiable conditions activity in NSW](#)

For further information see NSW Health [infectious diseases page](#). This includes links to other NSW Health [infectious disease surveillance reports](#) and a [diseases data page](#) for a range of notifiable infectious diseases.

Legionellosis

There were three notifications of legionellosis (Legionnaires' disease) in this reporting week ([Table 1](#)); one case of *Legionella longbeachae* and two linked cases of *Legionella pneumophila 1* (LP1). The case of *L. longbeachae* infection is thought to be due to unprotected exposure to potting mix.

The linked LP1 cases were in two older men who live at the same retirement village in Oatlands. Both cases required hospitalisation. A third case in a male resident of the same facility has been reported more recently.

Preliminary investigations into this cluster have not implicated any cooling towers in western Sydney. The Western Sydney Public Health Unit has put control measures in place for other potential sources of *Legionella* at the Village, and is continuing its investigations. Residents, staff and visitors of the village are being advised to look out for symptoms. See the [media release](#) for further information.

When legionellosis cases are identified, NSW Health public health unit staff interview patients and their families about their illness and possible exposures, including all locations where they travelled, worked, stayed or visited during the 2 to 10 days before the onset of illness. These locations are then mapped and compared closely with the exposures reported by other patients who have recently been diagnosed with Legionnaires' disease.

Legionellosis is a type of pneumonia and the symptoms include fever, chills, cough and shortness of breath. Some people also have muscle aches, headache, tiredness, loss of appetite and diarrhoea. Risk factors for legionellosis include increasing age (most cases are aged over 50 years), smoking, and immunosuppression as a result of chronic medical conditions, cancer or taking high-dose corticosteroid medicines. People with legionellosis often have severe symptoms and infection is associated with a 10 to 15 per cent mortality rate.

Legionellosis is caused by infection with *Legionella* bacteria. There are around 50 different species of *Legionella* bacteria but most infections in NSW are caused by *L. pneumophila* or *L. longbeachae*.

Legionellosis is not spread from person to person, but can occur from inhaling contaminated water aerosols or dust. *L. longbeachae* is found in potting mix, compost and soils and infection is associated with gardening and the use of potting mix. To prevent legionellosis it is recommended that people handling potting mix wet the mix beforehand to reduce dust, wear gloves and a mask, and wash their hands after handling potting mix or soil.

L. pneumophila is found in water and can contaminate air conditioning cooling towers, spas, plumbing systems and other bodies of warm water. Outbreaks are sometimes associated with contaminated cooling towers that are part of air conditioning systems in large buildings.

Regular inspection, disinfection and maintenance of cooling towers and plumbing systems limit the growth of bacteria and prevent outbreaks of Legionnaires' disease.

The NSW *Public Health Act 2010* and the Public Health Regulation 2012 control various man-made environments and systems which are conducive to the growth of *Legionella* bacteria and which are capable, under the right conditions, of transmitting legionellosis.

Follow the link for more information on the [regulatory control of Legionnaires' disease](#).

Follow the links for more information on [Legionnaires' disease](#) and on [notifications of Legionnaires' disease](#).

Hepatitis A

One new case of hepatitis A infection was reported this week ([Table 1](#)). The case was in a man aged in his 40s who is thought to have acquired the infection locally and who may be linked to the recent hepatitis A outbreak reported in Sydney. On average, there are three cases reported in NSW per month, and most cases usually acquire their infection overseas.

From July 25 to October 21, 2017, there have been a total of 29 cases of hepatitis A reported in adults in NSW under investigation as part of a locally transmitted outbreak.

Molecular typing of the viruses isolated from 25 of these cases has shown that they share an identical common partial genome sequence, meaning that the cases are all part of the same outbreak. The median age of the 25 cases is 44 years (range 21 to 69 years). Twenty-four of the 25 cases are male, with 12 reporting being men who have sex with men (MSM). Two of the 19 cases travelled outside Australia during their incubation (exposure) period. These 25 cases are residents of South Eastern Sydney Local Health District (LHD) (10), Sydney LHD (6), Northern Sydney LHD (3), Central Coast LHD (2), Western Sydney LHD (1), Illawarra Shoalhaven LHD (1), South Western Sydney LHD (1) and Hunter New England LHD (1). Two of the four cases who live outside Sydney reported travel to Sydney during their exposure period.

The molecular typing of hepatitis A viruses in this cluster shows they are very similar to a strain currently circulating in Europe associated with a large, multi-country outbreak. Since June 2016, 1,500 confirmed hepatitis A cases and 2,660 probable or suspected cases have been reported in Europe, predominantly among MSM (see the [ECDC report](#)).

The four remaining cases have molecular typing results pending; all four cases are males and the median age is 40.5 years (range 28 to 61 years). Three of these four cases report MSM activity during their exposure period. These four cases are residents of Sydney LHD (1), South Western Sydney LHD (1), Western Sydney LHD (1) and Hunter New England LHD (1). The case who lives outside of Sydney is known to have had household contact with a confirmed outbreak case who lives in Sydney.

It is suspected that the earlier cases and some of the later cases have been exposed to a common source as they share overlapping incubation periods. Secondary cases have also been identified, with evidence that some infections have been transmitted from person to person. Men who engage in sexual activity with other men (MSM) are being reminded to get vaccinated as anal sex and oral-anal sex have been identified as risk factors for infection (see [media release](#)). Despite extensive investigation, to date no food item or other possible exposure has been found in common with all the cases. NSW public health units are continuing to investigate possible sources of infection in conjunction with the NSW Food Authority (see the related [media release](#)).

Hepatitis A is a viral infection of the liver. Symptoms include feeling unwell, lack of appetite, aches and pains, fever, nausea, and abdominal discomfort, followed by dark urine, pale stools and jaundice (yellowing of the skin and eyes). The illness usually lasts from one to three weeks. People who experience these symptoms are advised to see their GP.

Infected people can transmit the virus to others from two weeks before the development of symptoms until one week after the appearance of jaundice. The virus is spread by the faecal-oral route, including through the consumption of contaminated food or water or by direct contact with an infected person. While infectious, people diagnosed with hepatitis A should avoid preparing food or drink for other people, sharing utensils or towels, or having sex for at least one week after onset of jaundice.

There is no specific treatment for hepatitis A and people sometimes require hospitalisation for supportive care. A safe and effective vaccine is available, with two doses spaced at least six months apart shown to provide high levels of protection against infection for many years. Hepatitis A vaccination is routinely recommended for people at higher risk of infection and those who are at increased risk of severe liver disease. These include travellers to countries where hepatitis A is common (most developing countries), some occupational groups, men who have sex with men, people with developmental disabilities and people with chronic liver disease.

People exposed to hepatitis A can be protected from developing the disease if they receive the vaccine or protective antibodies within two weeks of exposure.

Follow the links for NSW Health [hepatitis A notification data](#) and the NSW Health [hepatitis A fact sheet](#).

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 15 October – 21 October 2017, by date received*

		Weekly		Year to date			Full Year	
		This week	Last week	2017	2016	2015	2016	2015
Enteric Diseases	Cryptosporidiosis	11	7	1165	893	725	1184	1040
	Giardiasis	47	32	2519	2953	2809	3480	3413
	Hepatitis A	1	3	53	32	64	41	72
	Rotavirus	113	149	1774	447	738	750	1033
	STEC/VTEC	1	0	44	43	16	65	29
	Salmonellosis	58	40	3045	3778	3295	4544	4022
	Shigellosis	9	5	184	251	147	310	172
	Typhoid	1	1	48	31	37	37	41
Other Diseases	Acute Rheumatic Fever	2	0	13	12	3	14	4
Respiratory Diseases	Influenza	2003	1814	101854	33393	29605	35540	30295
	Legionellosis	3	1	101	107	83	134	96
	Tuberculosis	7	5	391	418	351	534	445
Sexually Transmissible Infections	Chlamydia	496	488	23036	21111	18295	25994	22525
	Gonorrhoea	176	128	7411	5596	4436	7004	5395
Vaccine Preventable Diseases	Adverse Event Following Immunisation	7	3	234	210	156	257	186
	Haemophilus influenzae type b	1	1	7	4	5	5	5
	Measles	1	2	31	10	7	16	9
	Meningococcal Disease	1	4	76	59	37	70	46
	Mumps	1	1	88	55	45	67	65
	Pertussis	92	78	4514	8753	7817	10956	12078
	Pneumococcal Disease (Invasive)	19	19	578	444	427	544	494
Vector Borne Diseases	Barmah Forest	2	1	95	30	171	35	184
	Dengue	5	2	222	401	275	481	344
	Malaria	1	1	59	46	34	59	47
	Ross River	10	10	1445	383	1496	542	1635
Zoonotic Diseases	Q fever	1	1	160	177	209	230	264

*** 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 chronic blood-borne virus case reports are not included here but are available from the [Infectious Diseases Data](#) webpage.