

Communicable Diseases Weekly Report

Week 45, 5 to 11 November 2017

In summary, we report:

- [Legionellosis](#) – four cases reported
- [Hepatitis A](#) – two cases reported
- [Hepatitis C](#) – one newly acquired case reported
- [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 four notifications of legionellosis (Legionnaires' disease) in this reporting week ([Table 1](#)). Three of the case notifications were related to *Legionella pneumophila* 1 (LP1), including two cases where the infections were acquired while travelling overseas. The source of the third LP1 case exposure is unknown but does not appear related to any previous notified case. The fourth legionellosis case notified was caused by *L. longbeachae*, which was likely acquired during unprotected exposure to garden potting mix.

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

Two new cases of hepatitis A infection were reported this week ([Table 1](#)). One case is thought to be related to the ongoing hepatitis A outbreak reported in Sydney, while the other is thought to have acquired the infection while overseas. On average, there are three cases reported in NSW per month, and most cases usually acquire their infection overseas.

From July 25 to November 11, 2017, there have been a total of 30 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 28 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 28 cases is 41 years (range 21 to 69 years). Twenty-seven of the 28 cases are male, with 15 reporting being men who have sex with men (MSM). Two of the 28 cases travelled outside Australia during their incubation (exposure) period. These 28 cases are residents of South Eastern Sydney Local Health District (LHD) (10), Sydney LHD (7), Northern Sydney LHD (3), Central Coast LHD (2), Western Sydney LHD (2), South Western Sydney LHD (2), Illawarra Shoalhaven 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 two remaining cases have molecular typing results pending; both cases are male. One reports MSM activity during their exposure period and is known to have travelled to Sydney during his incubation period. The other case is known to have had household contact with a confirmed outbreak case.

It is suspected that the earlier outbreak 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](#).

Hepatitis C

One case of newly acquired hepatitis C infection was notified in this reporting week (Table 1). There were also three newly acquired cases reported in the previous week. Although the four cases (one woman and three men) are all aged in their early twenties, they are from four different local health districts across NSW and there is no indication of any common exposure. One of the cases was likely infected via injection drug use. Potential sources of the infection for the other cases are still being investigated by the local public health units.

Hepatitis C is caused by a virus that infects the liver and can lead to long-term liver disease, cirrhosis and liver cancer. Hepatitis C virus (HCV) is transmitted from person to person when the blood of an infected person enters the bloodstream of an uninfected person.

In Australia, spread is mostly through sharing needles and other injecting equipment contaminated with blood from an infectious person. Needle and syringe program outlets throughout NSW supply clean injecting equipment to encourage people to protect themselves from acquiring hepatitis C. The use of sterile injecting equipment also protects against hepatitis B and HIV infections, as well as preventing serious bacterial bloodstream infections.

Most people do not experience symptoms when they are infected with hepatitis C. When symptoms do occur, they usually develop within one to three months of infection and can include mild flu-like illness, jaundice (yellowing of eyes and skin), dark urine, loss of appetite, abdominal pain, nausea, vomiting or fatigue. More commonly, hepatitis C is diagnosed through screening asymptomatic people or investigating signs or symptoms of chronic liver disease. Following infection, about a quarter of people clear the virus from their bloodstream spontaneously. Those who do not clear the virus have chronic hepatitis C infection.

Effective new treatments, called direct acting antivirals (DAAs), are now subsidised on the Pharmaceutical Benefits Scheme for the treatment of adults with chronic hepatitis C. DAAs have a cure rate of over 95% and have few side effects. They need to be taken for only 12 weeks for most people (24 weeks for some) and are available in tablet form for most cases. Hepatitis C treatment improves people's liver health by stopping liver damage caused by HCV. Following treatment some of the damage that has already occurred may repair. Successful treatment clears the virus so that the person can no longer transmit HCV to another person. People living with hepatitis C are strongly recommended to see their general practitioner about accessing hepatitis C treatment.

The NSW Hepatitis C Strategy 2014-2020 aims to reduce hepatitis C infections in NSW and improve the health outcomes of people living with hepatitis C, by reducing sharing of injecting equipment among people who inject drugs by 25% and increasing the number of people accessing hepatitis C treatment. Follow the link for information from the PBS on [hepatitis C treatments](#).

Follow the links for further information about [hepatitis C](#), the [NSW Hepatitis C Strategy 2014- 2020](#) and the [2016 Annual Data Report](#) of the NSW Hepatitis B and C Strategies 2014-2020.

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 5 - 11 November 2017, by date received*

		Weekly		Year to date			Full Year	
		This week	Last week	2017	2016	2015	2016	2015
Bloodborne Diseases	Hepatitis C - Newly Acquired	1	3	35	25	28	25	29
Enteric Diseases	Cryptosporidiosis	8	8	1190	927	781	1184	1040
	Giardiasis	50	58	2673	3104	3002	3480	3413
	Hepatitis A	2	4	59	34	67	41	72
	Listeriosis	2	1	17	32	22	36	26
	Rotavirus	49	75	1965	553	875	750	1033
	Salmonellosis	66	67	3257	3959	3511	4544	4022
	Shigellosis	3	5	198	267	151	310	172
	Typhoid	1	1	50	32	38	37	41
Other Diseases	Acute Rheumatic Fever	2	1	16	13	3	14	4
Respiratory Diseases	Influenza	167	378	102887	34457	29980	35540	30295
	Legionellosis	4	4	122	114	88	134	96
	Tuberculosis	15	17	436	450	394	534	445
Sexually Transmissible Infections	Chlamydia	580	539	24794	22678	19764	25994	22525
	Gonorrhoea	149	155	7962	6042	4731	7004	5395
Vaccine Preventable Diseases	Adverse Event Following Immunisation	4	2	250	231	171	258	186
	Meningococcal Disease	2	2	83	63	40	70	46
	Mumps	2	3	100	57	49	67	65
	Pertussis	99	85	4798	9417	9199	10956	12078
	Pneumococcal Disease (Invasive)	16	17	630	481	453	544	494
Vector Borne Diseases	Barmah Forest	2	3	114	30	177	35	184
	Dengue	5	7	250	423	292	481	344
	Ross River	4	14	1598	396	1544	542	1635
Zoonotic Diseases	Q fever	2	1	173	190	232	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.