

Communicable Diseases Weekly Report

Week 01, 31 December 2017 to 6 January 2018

In summary, we report:

- [Shiga toxigenic *Escherichia coli*](#) – two new cases
- [Hepatitis A](#) – two new cases
- [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.

Shiga Toxigenic *Escherichia coli* (STEC) infection

Two cases of Shiga Toxigenic *Escherichia coli* (STEC) infection were notified in this reporting week (Table 1). Both cases are in young men living in the Southern NSW Local Health District. Follow-up of these cases is continuing but there have been no risk exposures in common identified to date.

Escherichia coli (*E. coli*) are bacteria commonly found in the gastrointestinal tract of people and animals. Many types of *E. coli* are harmless but some can produce toxins, called Shiga toxins (hence the acronym STEC) or verocytotoxins, which can result in severe disease in humans. STEC strains are carried by animals, particularly cattle.

People are infected when they come into contact with the faeces of an infected animal or person, either directly or indirectly through consuming contaminated food (e.g. undercooked hamburgers, unwashed salad vegetables, unpasteurised milk or milk products), drinking or swimming in contaminated water, person-to-person contact, or contact with animals on farms or petting zoos.

STEC infection causes a diarrhoeal illness, often with abdominal cramps, nausea and vomiting. The Shiga toxin may cause bleeding in the bowel so people with STEC gastroenteritis often have bloody diarrhoea.

STEC infections are also one cause of haemolytic uraemic syndrome (HUS), a severe and sometimes life-threatening illness characterised by haemolytic anaemia (a type of anaemia where the red blood cells break up), acute kidney failure (uraemia), and a low platelet count (thrombocytopenia). Children with STEC infections are more likely to develop HUS than adults.

STEC infections may be prevented by safe food handling and food storage, and good hand hygiene. This includes:

- washing your hands thoroughly with running water and soap before eating and preparing food, after touching pets and farm animals, and after using the toilet or changing nappies
- only using clean knives and cutting boards when preparing ready-to-eat foods
- thoroughly cooking all foods made from minced meat (e.g. hamburger patties and sausages)
- washing all fruit and vegetables before eating, and
- not eating or drinking unpasteurised dairy products.

For further information see the [STEC and HUS factsheet](#) and the [STEC notification data page](#).

Hepatitis A

Two new cases of hepatitis A infection were reported this week ([Table 1](#)). Both of these cases are thought to have been acquired their infections while overseas. On average, there are three cases reported in NSW per month, and usually most cases have acquired their infection overseas.

From 25 July to 6 January 2018, there have been a total of 35 cases of hepatitis A reported in adults in NSW under investigation as part of a locally transmitted outbreak. This includes one new case identified in the previous reporting week.

Molecular typing of the viruses isolated from 31 of these cases has shown that they share an identical partial genome sequence, meaning that the cases are all part of the same outbreak. The median age of the 31 cases is 41 years (range 21 to 69 years). Twenty-nine of the 30 cases are male, with 16 reporting being men who have sex with men (MSM). Four of the 31 cases travelled outside Australia during their exposure period. These 31 cases are residents of South Eastern Sydney Local Health District (LHD) (10), Sydney LHD (8), Northern Sydney LHD (3), Central Coast LHD (3), Western Sydney LHD (2), South Western Sydney LHD (2), Hunter New England LHD (2) and Illawarra Shoalhaven LHD (1). Three of the six cases who live outside Sydney reported travel to Sydney during their exposure period.

The four remaining cases have molecular typing results pending; three are male, and two identify as MSM. 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](#)).

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 exposure 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 31 December 2017 to 6 January 2018, by date received*

		Weekly		Year to date			Full Year	
		This week	Last week	2018	2017	2016	2017	2016
Bloodborne Diseases	Hepatitis D	1	0	1	0	0	19	20
Enteric Diseases	Cryptosporidiosis	8	4	8	28	13	1266	1184
	Giardiasis	31	15	30	40	61	2994	3480
	Hepatitis A	2	2	2	2	0	74	41
	Rotavirus	15	9	15	22	20	2318	750
	STEC/VTEC	2	2	2	4	3	53	65
	Salmonellosis	87	36	82	70	111	3685	4544
	Shigellosis	3	2	3	9	6	232	310
	Typhoid	2	1	2	1	1	55	37
Respiratory Diseases	Influenza	132	48	122	127	78	103858	35540
	Legionellosis	2	1	2	3	3	137	134
	Tuberculosis	6	2	6	10	8	505	534
Sexually Transmissible Infections	Chlamydia	363	229	327	447	425	28961	25994
	Gonorrhoea	148	104	148	151	102	9243	7004
	LGV	2	0	2	0	1	49	60
Vaccine Preventable Diseases	Adverse Event Following Immunisation	1	0	1	2	1	267	258
	Meningococcal Disease	1	1	1	2	1	91	70
	Pertussis	61	34	60	152	385	5361	10956
	Pneumococcal Disease (Invasive)	3	4	3	6	12	681	544
Vector Borne Diseases	Chikungunya	1	0	1	1	1	47	39
	Dengue	4	1	4	3	5	298	485
	Malaria	2	0	2	2	0	68	59
	Ross River	5	5	5	48	12	1650	594
Zoonotic Diseases	Q fever	1	1	1	1	4	201	231

* 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.