

Communicable Diseases Weekly Report

Week 38, 19 September to 25 September 2016

In summary, we report:

- [Ross River virus](#) – continuing cases and flood risk
- [Cryptosporidiosis](#) – five cases linked to petting zoos
- [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.

Ross River virus

There were eight notifications of Ross River virus (RRV) infection reported this week, up from three notifications in the previous week ([Table 1](#)). Mosquito numbers are likely to still be low at this time of year and some of the RRV notifications may represent cases of past infection. However, recent flooding in parts of central NSW increases the risk of an early start to the arbovirus ('arthropod-borne' virus) season in some areas.

During periods of flooding, mosquito numbers can rapidly increase and cause nuisance as well as increase the risk of transmission of RRV and other arboviruses. For advice see the NSW Health fact sheet [Advice on Mosquito Control During Floods and Public Events](#). For general health advice related to floods and storms see [Maintaining Health During and After Floods and Storms](#).

RRV is one of a group of arboviruses characterised by transmission through the bite of infected mosquitoes. Some people who are infected with the virus do not develop symptoms, while others experience flu-like symptoms that include fever, chills, headache and aches and pains in the muscles and joints.

Patients often report that their joints can become swollen, and joint stiffness may be particularly noticeable in the morning. A rash may also appear on the torso, arms or legs. The rash and other symptoms usually resolve after 7 to 10 days, although some people may experience symptoms such as joint pain and tiredness for many months.

There are no vaccines to protect against the arboviruses that cause human infections in NSW; therefore prevention relies on measures to avoid being bitten by mosquitoes and to reduce mosquito breeding near homes. Mosquitoes that carry these viruses are usually most active in the hours after sunset and again around dawn, but may bite throughout the day.

People should remember to cover up and take care to reduce the risk of a serious mosquito-borne infection by following some simple precautions:

- Use an effective repellent on exposed skin areas. Re-apply repellent every few hours, according to the instructions, as protection wears off from perspiration, particularly on hot nights or during exercise.
- The best mosquito repellents contain diethyl toluamide (DEET) or picaridin. Repellents containing oil of lemon eucalyptus (OLE; also known as extract of lemon eucalyptus) or para menthane diol (PMD) also provide adequate protection. Some products (e.g. citronella) provide only short periods of protection.
- Topical repellents are not recommended for use on children below the age of 3 months.
- Note that prolonged or excessive use of repellents can be dangerous, particularly on babies and young children. Avoid putting repellent near eyes and mouth, spread sparingly over the skin, and rinse off once you are indoors.

- Provide mosquito netting, where necessary – both indoors and outdoors.
- Cover up as much as possible with loose fitting clothing and sensible footwear. Avoid tight clothes.
- Cover your clothes with repellent as mosquitoes can bite through material, but be careful as some repellents stain clothes.
- Use mosquito coils outdoors and plug-in devices with vaporising mats indoors.

For more information, see the following NSW Health fact sheets and resources:

- NSW Health [Mosquitoes are a Health Hazard](#) factsheet with tips on prevention
- NSW Health [Fight the Bite! campaign posters and media resources](#)
- NSW Health [Ross River virus notifications data](#).

Cryptosporidiosis

There were 12 cases of cryptosporidiosis notified this reporting week which is above the previous 5-year average of four cases per week for the same period (Table 1). Five cases reported exposure to petting zoos prior to their symptom onset, and three cases mentioned the same petting zoo. All of the petting zoos mentioned were referred to local environmental health officers for further investigation. Signage and hygiene practices were reviewed and changes implemented where required. Other risk factors identified for recent cases included overseas travel (three cases), contact with dairy farms (two cases) and exposure to a family member with a similar illness (one case).

Cryptosporidiosis is a diarrhoeal disease caused by the parasitic protozoan, *Cryptosporidium* spp. These microscopic parasites are transmitted as environmentally hardy cysts (oocysts) shed from infected humans and animals (including dogs, cats, livestock and wildlife), and can survive for up to six months in moist environments. They are spread through the faecal-oral route directly from person to person, from animal to person, or by ingesting contaminated food or water.

Cryptosporidiosis outbreaks have been linked to sources such as contaminated drinking water, swimming pools, spa pools, and to petting infected animals.

Infection may be asymptomatic, but illness usually presents as profuse watery diarrhoea and abdominal cramps after a seven day incubation period (range 1-12 days). Nausea, vomiting, fever, dehydration and weight loss may also be present. Although symptoms typically resolve within 1 to 2 weeks, some people may experience recurrence of symptoms for up to a month, and chronic or extra-intestinal infections may occur in people who are immunocompromised. Patients are infectious while they excrete oocysts, which may continue for several weeks after diarrhoea stops.

Children who have diarrhoea should be kept home from school, preschool, childcare or playgroup until at least 24 hours after the diarrhoea has completely stopped. Carers of the sick, children, or the elderly should avoid all contact with these groups for at least 48 hours after complete resolution of symptoms.

For more information, see the following NSW Health fact sheets and guidance:

- [Cryptosporidiosis fact sheet](#)
- [Petting zoos and personal hygiene fact sheet](#)
- [Cryptosporidiosis control guidelines for public health units](#).

The NSW Department of Primary Industries also provides [guidance and standards for exhibiting animals](#), including steps to minimise the risk of zoonotic disease transmission.

Summary of notifiable conditions activity in NSW

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

Table 1. NSW Notifiable conditions from 19 to 25 September 2016, by date received *

		Weekly		Year to date			Full Year	
		This week	Last week	2016	2015	2014	2015	2014
Enteric Diseases	Cryptosporidiosis	12	5	842	684	303	1038	429
	Giardiasis	45	44	2765	2566	2172	3415	2942
	Rotavirus	12	6	352	463	396	1036	714
	STEC/VTEC	3	2	34	13	27	29	31
	Salmonellosis	66	51	3561	3055	3227	4042	4273
	Shigellosis	8	7	228	130	160	172	212
Respiratory Diseases	Influenza	1831	2534	30298	25570	18738	30304	20888
	Legionellosis	2	2	98	79	51	96	72
	Tuberculosis	6	7	339	311	335	445	475
Sexually Transmissible Infections	Chlamydia	438	435	18943	16308	16906	22548	22899
	Gonorrhoea	75	105	4982	3945	3531	5401	4876
Vaccine Preventable Diseases	Adverse Event Following Immunisation	6	9	191	135	206	186	258
	Meningococcal Disease	1	3	55	32	23	46	37
	Mumps	1	1	36	39	67	63	82
	Pertussis	252	269	7875	6404	1619	12083	3051
	Pneumococcal Disease (Invasive)	11	16	390	364	374	495	511
Vector Borne Diseases	Dengue	4	4	347	248	320	343	378
	Malaria	1	1	39	31	74	47	87
	Ross River	8	3	366	1434	456	1638	673
Zoonotic Diseases	Brucellosis	2	0	9	9	3	10	3
	Psittacosis	1	0	4	1	8	3	13
	Q fever	5	2	152	179	136	265	190

* Notes on Table 1: NSW Notifiable Conditions activity

- Data cells represent the number of notifiable disease 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 in the current reporting week 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.