

Communicable Diseases Weekly Report

Week 11, 14 March to 20 March 2016

In summary, we report:

- [Tuberculosis](#) – World TB Day, March 24.
- [Acute Rheumatic Fever and Rheumatic Heart Disease](#) – one new confirmed case
- [Hepatitis C – newly acquired](#) – two new confirmed cases
- [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.

NSW Health Marks World TB Day

World TB Day, falling on March 24 each year, commemorates the day in 1882 when Dr Robert Koch announced to the scientific community that he had discovered the cause of tuberculosis, the TB bacillus. At the time of Koch's announcement in Berlin, TB was raging through Europe and the Americas, causing the death of one out of every seven people. World TB day is designed to build public awareness that TB is still epidemic in much of the world and remains a significant public health challenge.

The theme of this year's World TB Day is "Unite against TB". Each year there are over 9 million new cases of TB worldwide. Of these, approximately 3 million don't get the care they need, often due to factors such as poverty, stigma, conflict and lack of access to basic health services. Globally, TB is the leading infectious disease cause of death; 1.5 million deaths in 2014, more than other infectious diseases like HIV/AIDS or malaria.

World TB Day highlights global efforts to find, treat and cure the 3 million people who don't get the care they need and accelerate progress towards the World Health Organization (WHO) goal of ending TB by 2035.

Since the 1980's Australia has maintained one of the lowest rates of TB in the world. Despite this approximately 1,300 new cases of TB are reported in Australia annually; with 442 of these cases notified in NSW in 2015. This included 10 cases of multi-drug resistant TB (MDR). MDRTB is a growing problem worldwide.

Despite Australia's success in reducing TB, there is no room for complacency. Global connectivity through air travel and migration means that TB will remain a public health concern in Australia until worldwide control of TB is achieved.

The NSW TB Program provides a comprehensive multidisciplinary service for the prevention and control of TB in NSW, a service that is vital to maintaining Australia's success in reducing the burden of TB and preventing local transmission of the disease. The NSW TB Program consists of a network of specialised TB services (Chest Clinics) located across the state, providing free, confidential, accessible and culturally appropriate services to all – to ensure everyone in NSW gets the TB care they need.

Further information is available from: [NSW TB Program website](#)

World Health Organization: [WHO Global Tuberculosis Report 2015](#)

Stop TB Partnership: [Stop TB Partnership](#)

Acute Rheumatic Fever and Rheumatic Heart Disease

One case of acute rheumatic fever (ARF) was reported this week in a boy of Pacific Islander ancestry from South Western Sydney LHD. He presented with classic symptoms, including carditis, polyarthritis, erythema marginatum, subcutaneous nodules and fever. This was his first presentation with ARF, and he has subsequently also been diagnosed with rheumatic heart disease (RHD).

ARF is a rare but serious inflammatory complication of infection with group A *Streptococcus* (GAS) and may follow a sore throat. Polyarthritis (pain and swelling in several joints) is the most common symptom of ARF. Other signs and symptoms may include carditis (inflammation of the heart), chorea (jerky limb movements arising from inflammation of the brain), erythema marginatum (a distinctive skin rash) and subcutaneous nodules. Fever is also typically present. Episodes of ARF can cause permanent damage to the heart valves leading to RHD.

ARF most commonly affects children aged 5 – 14 years, and higher rates of ARF and RHD occur in some groups, including Aboriginal and Torres Strait Islander people, Maori and Pacific peoples and people born outside of Australia, particularly those from South-east Asia and Africa. Higher rates are also seen in women and in people living in disadvantaged conditions and where access to health services is poor.

There is no specific treatment for an acute episode of ARF. Supportive treatment can be given with the aim of reducing joint pain, swelling, and fever. However, people diagnosed with ARF require long-term follow-up, including administration of benzathine penicillin G every 21-28 days for a minimum of 10 years. This is given to prevent repeat GAS infections, which may lead to repeat episodes of ARF and worsening valvular disease. People with ARF also require annual doctor and dental review and an echocardiogram every two years. People with RHD may require more frequent clinical review.

NSW Health is establishing a register for people diagnosed with ARF and RHD to assist patients and their doctors manage adherence to regular penicillin prophylaxis and clinical reviews. Notification of people diagnosed with ARF and RHD aged less than 35 years is the first step in accessing the NSW RHD Register.

Further information is available from [NSW Health](#) and [RHD Australia](#).

Hepatitis C – newly acquired

Two cases of newly acquired hepatitis C were notified this week, both were men in the 25-44 year age group with well-recognised risks for acquisition.

Hepatitis C is a virus that infects the liver and can lead to long-term liver disease, cirrhosis and liver cancer. Populations at high risk for hepatitis C infection include people who have ever injected drugs, people in custodial settings, HIV positive men who have sex with men, and people from regions with high hepatitis C prevalence.

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, abdominal pain, nausea, vomiting or fatigue. More commonly, hepatitis C is diagnosed through screening asymptomatic people or investigating signs or symptoms of liver disease. Following infection, about a quarter of people clear the virus from their bloodstream spontaneously.

For people who do not spontaneously clear hepatitis C infection, new direct-acting antiviral treatments (DAAs) are available. DAAs clear hepatitis C virus from the blood much more effectively than older, interferon-based treatments, they are simpler to take, have fewer side-effects, and don't need to be taken for as long. Clearing the virus is associated with better health outcomes and loss of infectiousness.

Hepatitis C is usually spread through blood-to-blood contact. In developed countries like Australia, spread is mostly through sharing needles and other injecting equipment contaminated with blood from an infectious person. Less commonly, hepatitis C can be spread in other ways, such as tattooing, body piercing, acupuncture, through sex toys, sharing personal items like razors, and from mother-to-child.

Although there is no vaccine to prevent hepatitis C infection, spread of hepatitis C virus can be prevented by

- Always using clean needles and injecting equipment and never sharing needles. Clean injecting equipment is available through the [NSW Needle and Syringe Program](#) and [Medically Supervised Injecting Centre](#)
- Receiving tattoos, body piercing or acupuncture from premises that use disposable equipment and understand infection control procedures.

For further information on new treatments see [Hepatitis NSW factsheet](#)

Follow the link for more information on [hepatitis C notifications data](#).

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 14 to 20 March 2016, by date received *

		Weekly		Year to date			Full Year	
		This week	Last week	2016	2015	2014	2015	2014
Enteric Diseases	Cryptosporidiosis	37	34	317	316	145	1038	429
	Giardiasis	89	106	1050	961	751	3414	2942
	Hepatitis A	2	0	13	33	30	71	80
	Listeriosis	3	1	12	6	8	26	23
	Rotavirus	9	4	134	97	89	1036	714
	Salmonellosis	113	111	1559	1481	1398	4045	4275
	Shigellosis	6	8	70	49	88	172	212
	Typhoid	1	3	20	15	16	41	44
Respiratory Diseases	Influenza	125	154	1437	916	700	30296	20887
	Legionellosis	3	7	24	23	18	95	72
	Tuberculosis	6	5	95	83	101	442	474
Sexually Transmissible Infections	Chlamydia	459	479	5543	5405	5594	22544	22898
	Gonorrhoea	114	99	1290	1285	1141	5399	4875
Vaccine Preventable Diseases	Adverse Event Following Immunisation	5	8	40	42	78	182	256
	Meningococcal Disease	1	0	12	6	4	46	37
	Pertussis	234	232	3342	1378	514	12076	3052
	Pneumococcal Disease (Invasive)	4	5	61	51	57	494	511
	Rubella	1	0	3	3	2	7	10
Vector Borne Diseases	Dengue	9	5	93	114	121	340	378
	Ross River	16	32	199	662	105	1641	673
Zoonotic Diseases	Q fever	5	3	51	55	59	267	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.