Communicable Diseases Weekly Report

Week 41, 7 to 13 October 2018

In summary, we report:

- Hepatitis D – three new cases in two weeks
- Influenza – end of the 2018 influenza season
- 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.

Hepatitis D

A new case of hepatitis D was notified during this reporting period and two cases in the previous week (Table 1); all had previously been notified with hepatitis B. All three notifications were for adults resident in the Sydney metropolitan area; two females and one male. No links between the cases have been identified.

Hepatitis D is an infection of the liver caused by hepatitis D virus (HDV). It occurs only in people with hepatitis B. HDV is unable to infect a cell by itself and needs co-infection with hepatitis B virus in order to replicate. Like hepatitis B, HDV infection can clear spontaneously, or can result in chronic infection.

HDV infection can be acquired at the same time as hepatitis B virus infection, or can occur as a superinfection in a person with chronic hepatitis B. When acquired at the same time as hepatitis B, the resulting illness can be very severe but the HDV is more likely to be cleared spontaneously than when HDV infection occurs as a superinfection. People with chronic hepatitis B who also have chronic hepatitis D have a higher risk of developing severe liver disease and cirrhosis (scarring of the liver) than those infected with hepatitis B alone.

Hepatitis D is not commonly identified in Australia, with an average of 13 cases reported in NSW each year between 2008 and 2017. Both cleared and chronic infections are notifiable at diagnosis. Globally it is estimated that 5% of the 240 million people with hepatitis B have evidence of exposure to HDV. A study of 2,314 Victorian residents with hepatitis B found 4.75% had antibodies to HDV and 40% of these had active infection[1]

The symptoms of hepatitis D are those of all viral hepatitis infections and include: loss of appetite, nausea sometimes with vomiting, abdominal pain, fatigue, yellowing of the skin and eyes (jaundice), dark urine and pale stools. Acute hepatitis D can be misdiagnosed as an exacerbation of chronic hepatitis B.

Hepatitis D virus is found in the blood and is spread in similar ways to hepatitis B. Infection can occur through sharing injecting equipment, needle stick or sharps injuries, and through sexual contact.

As infection with hepatitis D can only occur with hepatitis B, immunisation against hepatitis B also prevents hepatitis D. Hepatitis B vaccination is part of the routine childhood immunisation program, with a dose due at birth, 6 weeks, 4 months and 6 months of age.

[1] Shadur B, MacLachlan J, Cowie B. Hepatitis D virus in Victoria 2000-2009 *Intern Med* 2013 Oct:43(10):1081-7

There is no medication or vaccine to prevent hepatitis D super-infection in people with chronic hepatitis B. Prevention of hepatitis D superinfection can only be achieved through education to reduce exposure to infectious blood. Under the NSW Hepatitis B and C Strategies 2014-2020, NSW Health aims to reduce sharing of injecting equipment among people who inject drugs by 25 per cent by 2020.

For more information on hepatitis D see the World Health Organization hepatitis D fact sheet.

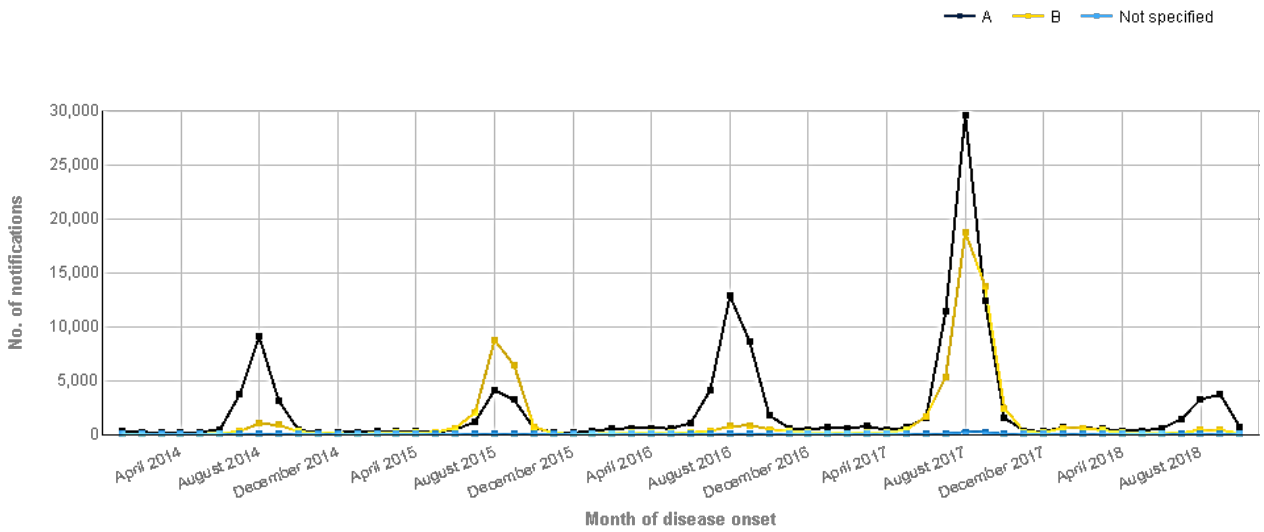
Follow the links to the NSW Health website for more information on hepatitis B and hepatitis B vaccination.

Influenza

Influenza activity continued to decline across NSW in this reporting week (Table 1), and has since passed below the activity threshold that marks the end of the 2018 influenza season. The season began in the week ending 5 August and extended for nine weeks. The peak of influenza activity was in the week ending 9 September.

Influenza activity in the community this year has been mild overall, particularly compared to the 2017 influenza season but also compared to activity in other recent years (Figure 1). In the year up to 13 October 2018 there were just 14,374 notifications of laboratory-confirmed influenza compared to 101,427 notifications for the same time period in 2017.

Figure 1. Influenza (A, B, Not specified) notifications in NSW residents, by month of disease onset. January 2014 to October 2018 (year to date).



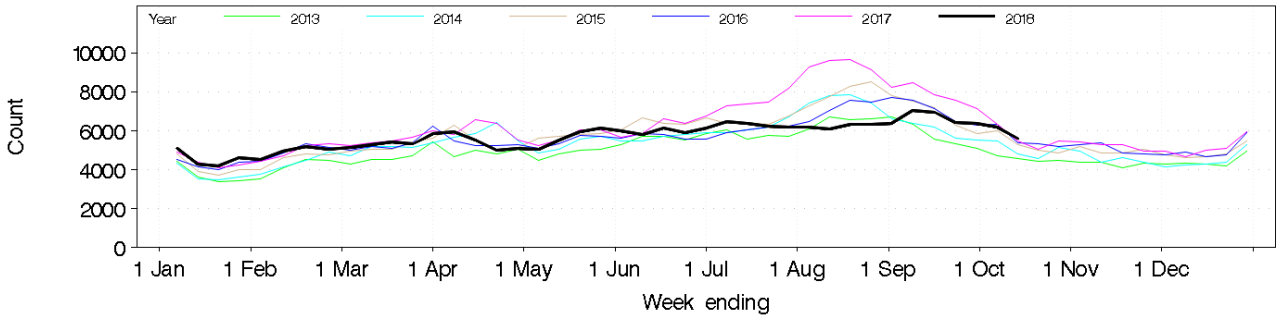
The influenza A(H1N1) strain was the most common strain identified of the four strains that circulated (two A strains and two B strains). Interim analyses suggest that the influenza strains used in the 2018 influenza season vaccines were well matched to the circulating strains.

Presentations to NSW public hospital emergency departments increase every year over the winter months. However, the impact of influenza infections and related respiratory illnesses was much reduced this winter compared to 2017 and the previous three years (Figure 2).

Weekly presentations for influenza-like illness peaked this year on 10 September, with elevated seasonal influenza-related activity extending for 11 weeks, shorter than the 14 weeks of elevated activity in 2017.

For further information see the NSW Health influenza surveillance reports. Note that influenza surveillance reports are issued weekly during the influenza season and monthly during the inter-seasonal period. For further information on influenza see the NSW Health influenza website.

Figure 2. Total weekly counts of emergency department presentations for any respiratory illness, fever and unspecified infections, for 2018 (black line, year to date) compared with each of the 5 previous years (coloured lines), persons of all ages, for 60 NSW hospitals.



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 7 to 13 October 2018, by date received*

		Weekly		Year to date			Full Year	
		This week	Last week	2018	2017	2016	2017	2016
Bloodborne Diseases	Hepatitis B - Newly Acquired	1	0	19	10	11	12	13
	Hepatitis D	1	2	10	18	14	21	20
Enteric Diseases	Cryptosporidiosis	10	3	593	1155	869	1266	1184
	Giardiasis	40	44	2136	2583	2904	3134	3480
	Rotavirus	11	22	655	1767	416	2319	750
	STEC/VTEC	1	3	41	43	40	53	65
	Salmonellosis	40	31	2610	2984	3705	3680	4533
	Shigellosis	19	3	329	177	241	235	310
Other Diseases	Acute Rheumatic Fever	1	0	23	13	10	20	16
Respiratory Diseases	Influenza	375	532	14807	99905	32860	103853	35540
	Legionellosis	1	0	107	98	107	138	134
	Tuberculosis	5	5	413	412	399	543	533
Sexually Transmissible Infections	Chlamydia	588	446	24780	22754	20577	28973	25988
	Gonorrhoea	210	194	8482	7252	5450	9171	6993
Vaccine Preventable Diseases	Adverse Event Following Immunisation	2	3	244	243	206	279	262
	Mumps	3	1	63	94	48	128	67
	Pertussis	142	140	3778	4428	8494	5365	10956
	Pneumococcal Disease (Invasive)	9	17	543	559	435	683	545
Vector Borne Diseases	Dengue	2	2	210	232	395	306	485
	Malaria	4	0	57	59	46	68	59
	Ross River	9	10	486	1549	415	1653	595
Zoonotic Diseases	Q fever	4	4	167	170	174	210	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 (i.e. by report date). Note that notifiable disease data available on the NSW Health website are reported by onset date so case totals are likely to vary from those shown here.
- 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.