TRENDS

In October, numbers of infectious diseases notifications from across the State were about the same as, or (for most vaccine-preventable diseases) lower than, in previous years (Figures 4 and 5). Notifications of **hepatitis A**, however, remained almost twice the historical average. Cases were mainly reported from South Eastern Sydney, Central Sydney, and Mid-Western NSW areas. While lower than in past years, reports of **pertussis** have increased in recent weeks (see below). Reports of **measles** cases continue to stream in from the Northern Rivers Area, mainly among unvaccinated children.

PERTUSSIS[1-3]

Reports of pertussis cases in NSW have been increasing in recent months. In October 1996, 103 cases were reported, up from 69 in September and 61 in August. In October 1995, 158 cases were reported. Last month's cases were largely reported from South Eastern Sydney, Northern Sydney, Central Coast and New England areas (Table 2). Among the October cases was a month-old baby who was admitted to hospital and died of the infection. The child's sibling was also diagnosed with pertussis. Here we review this potentially tragic, yet preventable, disease.

The disease

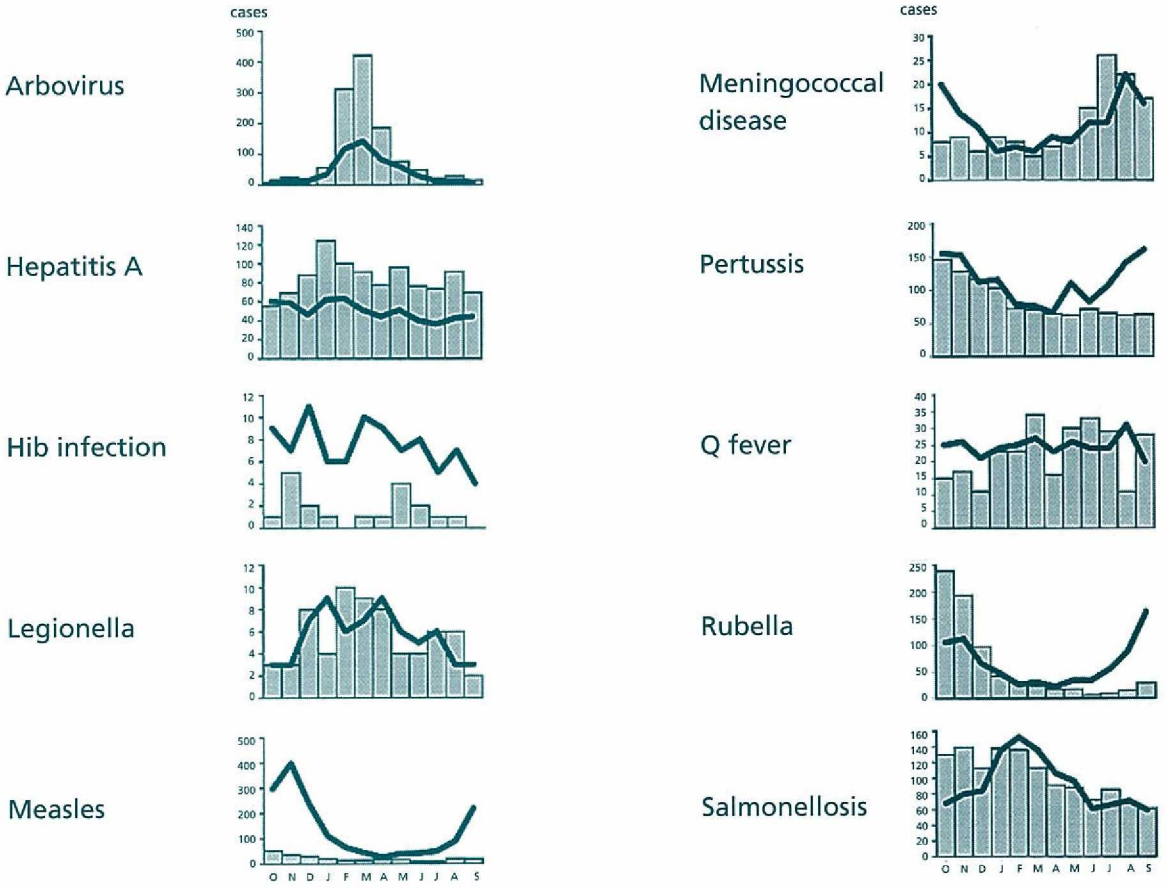
Pertussis causes an estimated 51 million cases and 600,000 deaths a year worldwide, mostly in countries where access to vaccine is limited. In most populations pertussis is endemic, with epidemic cycles occurring every 3-5 years. The disease is most severe in small children. It begins with a catarrhal stage (including rhinorrhoea, tearing, mild conjunctivitis, malaise and low grade fever), and evolves into classic whooping cough. Cough paroxysms include short expiratory bursts followed by an inspiratory gasp that can result in the typical whoop. Not all children will develop a whoop, however. Paroxysms can be severe enough to cause cyanosis, may occur >30 times in a 24-hour period, and tend to be more frequent at night. They may occur spontaneously or after external stimuli such as loud noises or cold air, and typically end with episodes of vomiting. Between paroxysms the patient appears relatively well.

Transmission, diagnosis

Pertussis is transmitted primarily by aerosol droplet from

FIGURE 4

REPORTS OF SELECTED INFECTIOUS DISEASES, NSW, 12 MONTHS TO SEPTEMBER 1996 BY MONTH OF ONSET (WITH HISTORICAL COMPARISON)



infected children or adults, with the highest attack rates seen among people exposed to a coughing patient. Untreated, pertussis is highly communicable early in the disease, and up to three weeks after onset or five days after starting antibiotics. Diagnosis depends on clinical suspicion, and laboratory isolation of *Bordetella pertussis* by nasopharyngeal culture, or serum antibodies in people with suggestive symptoms. Duration of symptoms may be shortened if erythromycin is given early in the disease.

Prevention

Preventive therapy with erythromycin has been shown to be effective in controlling household transmission and outbreaks, and is recommended for contacts of active cases. The patient's household and other close contacts should receive erythromycin for 14 days regardless of immunisation status, within three weeks of illness in the index cases. Care should be taken to ensure all children in contact with cases are fully immunised. The NHMRC recommended schedule now includes a fifth dose of pertussis vaccine (as Triple Antigen) at 4-5 years before the child starts school. This fifth dose is expected to extend the duration of protection of the vaccination, and should lead to fewer cases among school-aged children. Parents of all children entering school or child care facilities are required to provide immunisation certificates or documented evidence of vaccination status. Cases should be excluded from school, other institutions or work for 14 days from the onset of illness or until they receive at least the first five days of a 14-day course of antibiotics. Contacts who are not age-appropriately immunised (i.e. four doses by 18 months, and now five doses by five years of age) may be excluded from child care facilities and preschools.

Notify cases to your Public Health Unit

Doctors and hospitals staff should telephone their Public Health Unit to report suspected cases who have a coughing illness with paroxysms of coughing, inspiratory whoop without other apparent cause, or post-tussive vomiting. Laboratory staff should report all those who test positive for the disease. Public Health Unit staff can assist medical practitioners, schools and child care facilities in ensuring appropriate control measures are taken to prevent further transmission of this serious illness.

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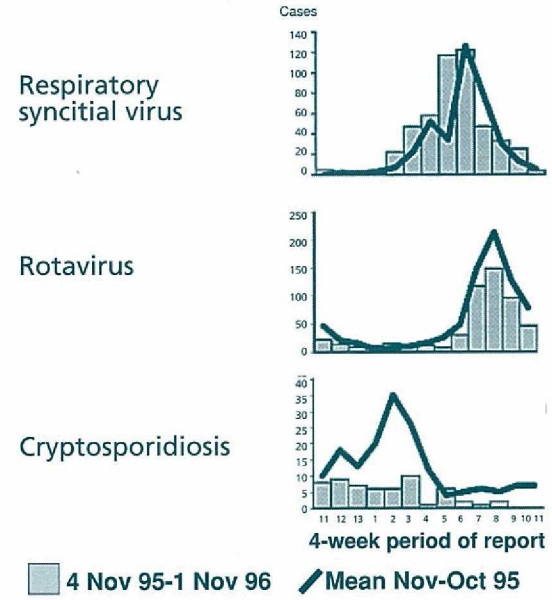
1. Mandell GL, Bennett JE, Dolin R. (Editors). Principles and Practice of Infectious Diseases. 1995; 4 (ed): 2078-2084.
2. Benenson AS (Editor). Control of Communicable Diseases in Man. 15th edition, American Public Health Association, Washington DC, 1990.
3. Oregon Health Division. Whooping Cough Persists. CD Summary 1993; 42:26.

FIGURE 5

LABORATORY REPORTS OF SELECTED INFECTIOUS DISEASES, EASTERN SYDNEY LABORATORY SURVEILLANCE PROGRAM, 13 X 4 WEEK PERIODS (1 YEAR) TO NOVEMBER 1, 1996 (AND HISTORICAL COMPARISON)



MEETINGS

Infectious Diseases Advisory Committee (IDAC)

At its October meeting, IDAC discussed the possible addition of giardiasis and *Vibrio* species infections to the schedule of notifiable diseases. Recommendations will be finalised at the next meeting. The revised Infectious Diseases Surveillance System (IDSS) database should be in operation by February 1997, with the next version ready some months later. IDAC will meet again in February 1997.

TABLE 2

INFECTIOUS DISEASE NOTIFICATIONS FOR NSW IN OCTOBER 1996, RECEIVED BY AREA HEALTH SERVICE

Condition	Area Health Service																	Period	
	CSA	NSA	WSA	WEN	SWS	CCA	HUN	ILL	SES	NRA	MNC	NEA	MAC	MWA	FWA	GMA	SA	Total* for Oct	Year to date
Blood-borne and sexually transmitted																			
AIDS	12	5	3	–	5	2	–	–	19	10	1	–	–	–	–	4	–	61	389
HIV infection	HIV infection is reported bi-monthly																		
Hepatitis B – acute viral	1	–	–	1	–	–	2	–	–	–	–	–	–	–	1	–	1	8	39
Hepatitis B – other	74	54	120	19	115	2	8	6	69	2	3	7	2	8	2	6	4	501	4,322
Hepatitis C – acute viral	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	1	12
Hepatitis C – other	96	57	255	87	137	43	44	37	183	28	30	19	2	32	2	18	17	1,087	7,928
Hepatitis D – unspecified	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	1	8
Hepatitis, acute viral (NOS)	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	4
Gonorrhoea	6	3	3	–	1	1	–	1	34	–	2	–	2	–	–	–	–	53	458
Syphilis	6	3	3	2	7	1	2	–	14	–	3	7	1	2	–	–	–	51	671
Vector-borne																			
Arboviral infection	–	–	1	–	–	–	1	1	–	10	5	2	1	–	–	2	–	23	1,193
Malaria	3	3	1	–	1	–	1	–	5	1	–	–	–	–	–	–	–	15	194
Zoonoses																			
Brucellosis	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	1	1
Hydatid disease	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	13
Leptospirosis	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	1	23
Q fever	–	–	–	–	–	–	1	–	–	1	2	7	7	1	2	–	1	22	242
Respiratory/other																			
Legionnaires' disease	2	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	3	58
Meningococcal (invasive) infection	1	1	3	2	4	–	1	–	–	2	1	–	–	–	–	1	–	16	133
Leprosy	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1
Mycobacterial tuberculosis	6	7	3	1	9	–	2	–	4	–	1	–	1	–	–	–	1	35	367
Mycobacteria other than TB	8	5	3	–	6	4	2	–	7	2	–	–	–	–	–	–	–	37	382
Vaccine-preventable																			
Adverse event after immunisation	–	–	1	–	1	–	–	–	–	–	–	–	–	–	–	–	–	2	39
H.influenzae (invasive) infection	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	12
Measles	1	–	–	–	1	1	1	1	5	9	1	–	–	–	–	–	–	20	173
Mumps	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	1	22
Pertussis	3	17	4	8	8	10	6	2	19	1	3	12	3	3	2	1	1	103	784
Rubella	10	–	6	3	–	–	5	2	2	–	–	–	–	–	–	–	–	28	325
Faecal-oral																			
Cholera	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	3
Foodborne illness (NOS)	–	–	–	–	4	2	–	–	–	–	–	1	–	–	–	–	–	7	102
Gastroenteritis (instit)	8	–	–	–	19	17	–	–	39	–	–	–	–	–	–	–	–	83	467
Hepatitis A	8	3	1	3	2	3	3	–	15	1	–	4	–	7	4	2	2	59	878
Listeriosis	–	–	–	–	–	–	–	–	3	–	–	–	–	–	–	–	–	3	13
Salmonellosis (NOS)	3	20	4	1	5	1	7	4	9	6	1	1	1	3	–	4	–	70	970
Typhoid and paratyphoid	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	1	33

* Includes rates with unknown postcodes.

Abbreviations used in this Bulletin:
CSA Central Sydney Health Area, SES South Eastern Sydney Health Area, SWS South Western Sydney Health Area, WSA Western Sydney Health Area, WEN Wentworth Health Area, NSA Northern Sydney Health Area, CCA Central Coast Health Area, ILL Illawarra Health Area, HUN Hunter Health Area, NRA Northern Rivers Health Area, MNC Mid North Coast Health Area, NEA New England Health Area, MAC Macquarie Health Area, MWA Mid West Health Area, FWA Far West Health Area, GMA Greater Murray Health Area, SA Southern Health Area, OTH Interstate/Overseas, U/K Unknown, NOS Not Otherwise Stated.

Please note that the data contained in this Bulletin are provisional and subject to change because of late reports or changes in case classification. Data are tabulated where possible by area of residence and by the disease onset date and not simply the date of notification or receipt of such notification.