



Communicable Diseases Intelligence

Bulletin number 80/7
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Contents:

Mumps vaccine
Hepatitis B in laboratory staff
Laboratory associated typhoid fever
Chloramphenicol-resistant S. typhi

Virus reporting scheme - 690 new reports. Patterns indicated by reports include:

- Ross River virus - 61 reports compared with 30, 18, 14 and 6 for the previous four reporting periods. Of the total, 54 were from Queensland, all but one being local. Three reports from Western Australia comprised two cases from Wyndham and one from Darwin (Northern Territory).
- Echovirus infections - the number of reports of type 11 continues to decrease (9 reports compared with 18 in period 6 and 22 in period 5). However there were 10 reports of echovirus type 22, eight of which were from Victoria (compared with an average of two for each of the last three reporting periods), five reports of echovirus type 25, all from Queensland, and seven of type 30, all from Victoria.

Other reports of interest:

- The Royal Alexandra Hospital for Children in Sydney reports the identification, by Fairfield Hospital, Melbourne, of an enterovirus, candidate strain "acosta", from the faeces of an eight month old boy with ataxia. The sample was collected in January 1979. This is the second known identification of the acosta strain in Australia. The first, also identified by Fairfield Hospital, was from the faeces of a three month old Melbourne girl in June 1979.
- Rises in titres to both varicella zoster (1/16-1/256) and herpes simplex (< 1/8-1/128) were obtained from blood samples from a 25 year old male in Canberra suffering from persistent headache, loss of balance, dysarthria and signs consistent with cerebellar dysfunction. He had no skin lesions, but the illness required hospitalisation for four days. He had had a similar episode approximately six months previously in Asia.

Since cross reactions occur between herpes simplex and varicella zoster in complement fixation tests, a diagnosis was made of cerebellitis, presumably due to varicella zoster (i.e. shingles).

- Rhinovirus - Fifteen of the 18 reports were from Victoria - one from the myocardium and nasopharynx of a "cot death" and another from the nasopharynx of an eight year old boy with pericarditis.

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MUMPS VACCINE

(Based on recommendation of the United States "Immunization Practices Advisory Committee" (ACIP) - Source: MMWR February 29, 1980)

Introduction

Mumps is primarily a disease of young, school-age children; only about 15% of reported cases occur in adolescents and adults. It is generally self-limited, but it may be moderately debilitating. Benign meningeal signs appear in up to 15% of cases, but permanent sequelae are rare. Nerve deafness is one of the most serious of the rare complications involving the central nervous system (CNS).

Orchitis (usually unilateral) has been reported as a complication in up to 20% of clinical mumps cases in postpubertal males, although sterility is very rare. Symptomatic involvement of other glands and organs has been observed less frequently.

There are limited experimental, clinical, and epidemiologic data that pancreatic damage may result from injury caused by direct viral invasion. However, further research is indicated to determine whether mumps infection contributes to the pathogenesis of diabetes mellitus.

Naturally acquired mumps infection, including the estimated 30% of cases that are subclinical, confers durable immunity.

Mumps virus vaccine

Live mumps virus vaccine is prepared in chick-embryo cell culture. Since it was introduced in December 1967, more than 40 million doses have been distributed in the United States. The vaccine produces a sub-clinical non-communicable infection with very few side effects.

Parotitis after vaccination has been reported rarely. Allergic reactions, including rash, pruritus, and purpura, have been associated temporarily with mumps vaccination but are uncommon and usually mild and of brief duration. Very rarely, effects of CNS involvement, such as febrile seizures, unilateral nerve deafness, and encephalitis within 30 days of mumps vaccination, are reported. No deaths have been reported among patients with such complications, and almost all have recovered completely. It should be emphasized that reports of nervous system illness following mumps vaccination do not necessarily connote an etiologic relationship between the illness and the vaccine. The frequency of CNS dysfunction following mumps vaccination is lower than the observed background incidence of CNS dysfunction in the normal population.

More than 90% of persons susceptible to mumps develop measurable antibody which, although of considerably lower titre than that following natural infection, is protective and long-lasting. The duration of vaccine-induced immunity is unknown, but observations over 12 years of vaccine use indicate both continuing protection against infection and the presence of antibody.

Vaccine usage

(See also "General Recommendations on Immunization" reproduced in CDI 80/5 - Ed.)

General recommendations - Susceptible children, adolescents, and adults may be vaccinated against mumps, unless they have documentation of (1) physician-diagnosed mumps or laboratory evidence of immunity, or (2) adequate immunization with live mumps virus vaccine when 12 or more months of age. Persons born before 1957 are likely to have been infected naturally and generally may be considered immune.

Since there is no evidence that persons who have previously either received the vaccine or had mumps are at enhanced risk from receiving live mumps vaccine, testing for susceptibility before vaccination is unnecessary. Furthermore, such testing is usually either unreliable (mumps skin test) or non-specific (complement fixation antibody test). Those tests which are reliable (neutralization, ELISA, and radial hemolysis antibody tests) are not readily available.

Dosage: A single dose of vaccine in the volume specified by the manufacturer should be administered subcutaneously.

Age: Live mumps virus vaccine is recommended for all children at any age after 12 months. It should not be administered to younger infants because persisting maternal antibody may interfere with seroconversion. The vaccine may be administered either by itself or in combination with measles and/or rubella vaccines. (See editorial comment below - Ed.) The combined vaccine is preferred for routine use in young children because of convenience and economy. When given in a combined vaccine that includes measles antigen, it should be administered when a child is about 15 months of age to achieve the maximum rate of measles seroconversion. Mumps vaccine can be of particular value for children approaching puberty and for adolescents and adults, especially males, who have not had mumps.

Use of vaccine following exposure - When given after exposure to mumps, live mumps vaccine may not provide protection. However, if the exposure did not result in infection, the vaccine should induce protection against subsequent infection.

Neither mumps immune globulin nor immune serum globulin (ISG) has been of established value in postexposure prophylaxis, and neither is recommended.

Precautions and contraindications

Pregnancy - Although mumps virus is capable of infecting the placenta and foetus, there is no good evidence that it causes congenital malformation in humans. Mumps vaccine virus also has been shown to infect the placenta, but the virus has not been isolated from the foetal tissues from susceptible women who were vaccinated and underwent elective abortions. However, because of the theoretical risk of foetal damage, it is prudent to avoid vaccinating pregnant women.

Allergies - Live mumps vaccine is produced in chick-embryo cell culture. It has not been reported to be associated with allergic reactions, and there is no evidence to indicate it should not be given to persons with allergies to eggs, chickens, and feathers. Some vaccines contain trace amounts of antibiotics to which patients may be allergic. Those administering vaccines should review the label information carefully

before deciding whether patients with known allergies to such antibiotics can be vaccinated safely. Live mumps virus vaccine does not contain penicillin.

Recent administration of immune serum globulin - Passively acquired antibody can interfere with the response to live, attenuated virus vaccines. Therefore, administration of mumps vaccine should be deferred until approximately 3 months after passive immunization.

Immune deficiency conditions - Live mumps virus vaccine should not be given to persons with severe febrile illness; those with congenital immunodeficiency; those with leukaemia, lymphoma, or generalized malignancy; or those receiving immunosuppressive therapy.

Other - There is no proven association between mumps vaccination and pancreatic damage or subsequent development of diabetes mellitus.

Editorial comment

There is currently no nationwide mumps immunisation campaign in Australia, although mumps virus vaccine is available through normal pharmaceutical outlets. The combined mumps/measles and mumps/measles/rubella (MMR) vaccines are not available, and it is unlikely that the MMR vaccine will be licenced for use in Australia due to the policy of administering rubella vaccine only to females aged 10 years or over.

ACUTE HEPATITIS B IN LABORATORY STAFF : 1972-79

(Based on the U.K. "Communicable Disease Report" (CDR 79/48.)

Whilst there was an increase in the total number of acute hepatitis B cases reported to CDR in the U.K. during the period 1972-79 there was a decrease in the number reported from laboratory staff.

The increase in the total number of cases in the first six years probably reflects physicians' growing awareness of the possibility of type B virus as a cause of sporadic hepatitis, the availability of diagnostic laboratory tests together with an increase in sensitivity of routine test methods. In contrast, type B infection has always been recognised as a possible cause of hepatitis in laboratory staff and so the opposite trend in the number of infections in this group probably represents a real decline in incidence though the numbers are small.

Since September 1973 specific anti-hepatitis B immunoglobulin (anti-HBIG) has been generally available for prophylaxis after accidental inoculation or contamination with material containing hepatitis B surface antigen. Nevertheless, of the 20 laboratory workers with acute hepatitis B who must have acquired their infections after anti-HBIG became available, only three had reported laboratory accidents and received anti-HBIG. Of the three, subtype studies showed that in one case the acute hepatitis could not have resulted from the reported accident: only two were apparent failures of prophylaxis. During the period many laboratory workers who received anti-HBIG after reported accidents did not develop hepatitis.

LABORATORY-ASSOCIATED TYPHOID FEVER

(Based on MMWR 79(44), 521-522 and 79(50):593-594.)

Twenty-five cases of laboratory-associated typhoid fever have been reported to the Center for Disease Control, Atlanta (CDC) since Jan. 1977. Nine of these 25 cases were in students conducting laboratory exercises in medical technology or microbiology courses; two cases were in technologists working with cultures isolated from clinical specimens; the remainder were associated with strains provided through proficiency exercises. While these 25 cases constitute only 2% of all reported typhoid cases in the United States since January 1977, they represent 10% of the reported domestically acquired cases that were not associated with outbreaks or carriers.

The editorial commented that while laboratory-associated typhoid fever was well-recognized 30 years ago, recently there has been little mention of this problem. Laboratory-associated typhoid fever serves as a marker for other, less well-described, laboratory-acquired enteric infections, and suggests that such infections may not be uncommon. Laboratory infections with salmonellae and other Class 2 pathogens are most commonly associated with ingestion or accidental self-inoculation of the infectious agent. Less frequently, infections in laboratory personnel may result from exposure to aerosols generated by such activities as grinding, loop-flaming, centrifuging, and blending, and from aerosols resulting from forceful pipetting or spills.

Most of these 25 laboratory-acquired infections of typhoid fever presumably resulted from poor safety practices, and thus could have been avoided by adherence to proper microbiological technique, personal hygiene, and good safety practices. Mouth pipetting should not be permitted under any circumstances. Eating, drinking, and smoking must be prohibited in the laboratory. Hands should be washed after handling potentially infectious materials, and work surfaces should be decontaminated with an acceptable germicide after completion of bench activities and immediately after spills. All laboratory wastes should be decontaminated by experienced personnel, and accidents or exposures should be reported immediately to supervisors for appropriate medical appraisal and surveillance. Non-laboratory workers should not be present in a microbiology laboratory.

The editorial noted that potential pathogens have been included in proficiency exercises and proficiency-testing programs on the grounds that trained microbiologists charged with the responsibility for isolation and identification of pathogenic agents should be tested on their ability to do so. The need for inclusion of such agents in a general microbiology course is less clear. When possible, microorganisms for testing and teaching purposes should have low virulence for humans. Bacteria with multiple or unusual antibiotic-resistance patterns should be avoided unless this characteristic is an essential part of the learning exercise. An atypical antibiotic resistant strain may complicate treatment in the event of an accidental infection and may potentiate transmission.

The Bacteriology Division in the Bureau of Laboratories at CDC is

currently evaluating 3 strains of Salmonella typhi reported to have reduced virulence. Such strains must be otherwise typical if they are to be used for teaching purposes. Several potentially useful non-toxicogenic strains of Vibrio cholerae will be similarly evaluated. The results of these evaluations and the procedure for distributing suitable teaching strains will be reported, when available. Such strains should decrease the likelihood of laboratory-acquired infections or decrease the severity of disease, but they cannot be used as a substitute for laboratory safety. Adherence to adequate safety practices is just as essential with strains of diminished virulence as with a fully virulent strain.

CHLORAMPHENICOL-RESISTANT SALMONELLA TYPHI VI-PHAGE TYPE E1

(From WER of 14 March 1980.)

Salmonella typhi Vi-phage type E1 was isolated in Australia in October 1978 from the blood and faeces of two related patients. The patient developed typhoid whilst holidaying abroad and S. typhi was isolated on their return to Australia. The strains from the blood of each patient were sensitive to antibacterial drugs whereas the strains from faeces were resistant to ampicillin, chloramphenicol, streptomycin, sulphonamides and tetracyclines (R-type ACSSuT). It was stated that the patients had not received antibiotic therapy prior to the isolation of the strains from both blood and faeces and responded rapidly to treated with ampicillin and chloramphenicol, administered intravenously. (CDI 78/23)

Sensitive and resistant strains were referred to the WHO Collaborating Centre for Phage Typing and Drug Resistance of Enterobacteria, where it was shown that the resistances were plasmid-encoded and were carried on a single autotransferring plasmid of compatibility group N. An unusual feature of these cases was the concomitant isolation of sensitive strains from the blood and resistant strains from the faeces of the two patients. The most likely explanation is that the patients were infected with a drug-sensitive strain of S. typhi which spread systemically, with the development of enteric fever. The drug resistance plasmid was acquired subsequently in the bowel, which demonstrates the ability of the typhoid bacillus to acquire resistance plasmids in vivo in the absence of antibiotic selective pressure.

Outbreaks of chloramphenicol-resistant S. typhi have occurred in Mexico, South-East Asia and India. In all cases chloramphenicol resistance was encoded by plasmids of compatibility group H₁, and it would appear that whenever chloramphenicol-resistant strains of S. typhi spread epidemically, the R factor involved is of group H₁. This is the first example of the occurrence in S. typhi of a group N plasmid coding for chloramphenicol resistance.

There is no evidence to suggest that the chloramphenicol-resistant strains isolated in Australia have spread, and in the two cases described here the presence of a group N resistance plasmid in the strains isolated from the faeces did not impair the response of the patients to intravenous antibiotic therapy.

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AUSTRALIA - COMMUNICABLE DISEASES INTELLIGENCE

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REPORTING PERIOD - 20-3-80 - 2-4-80 BULLETIN NUMBER 80-7
 VIRAL IDENTIFICATIONS FROM CONTRIBUTING LABORATORIES

VIRUS OR VIRAL ANTIGEN	ICPMR (NSW)/ WVH (ACT)	RAHC (NSW)	PBH/ POW (NSW)	FAIR- FIELD (VIC)	RCH (VIC)	IMVS (SA)	STATE LAB (QLD)	STATE LAB (WA)	total
0100 ADENOVIRUS NOT TYPED.....	3	2	5	1	1	5	15		32
0101 ADENOVIRUS TYPE 1.....						2			2
0102 ADENOVIRUS TYPE 2.....					1	5		1	7
0103 ADENOVIRUS TYPE 3.....								3	3
0104 ADENOVIRUS TYPE 4.....						1			1
0105 ADENOVIRUS TYPE 5.....			1		1	1			3
0107 ADENOVIRUS TYPE 7.....				1	1				2
0110 ADENOVIRUS TYPE 10.....	1								1
0115 ADENOVIRUS TYPE 15.....	1								1
0119 ADENOVIRUS TYPE 19.....								5	5
0131 ADENOVIRUS TYPE 31.....						2			2
0199 ADENOVIRUS TYPING PENDING.....		2				2			6
0201 INFLUENZA A VIRUS.....	3								3
0203 INFLUENZA B VIRUS.....					1		1		2
0301 PARAINFLUENZA VIRUS TYPE 1.....					1				1
0302 PARAINFLUENZA VIRUS TYPE 2.....			1		5	1	2		9
0303 PARAINFLUENZA VIRUS TYPE 3.....		2			4	1			7
0400 RESPIRATORY SYNCYTIAL VIRUS (RS)....					1	1	3		5
0500 RHINOVIRUS (ALL TYPES).....	1			1	14	1	1		18
0600 MYCOPLASMA PNEUMONIAE.....	1	1				2	2		6
0700 ORNITHOSIS-PSITTACOSIS.....	3		1	4		4			12
0800 COXSACKIEVIRUSES GROUP A - NOT TYPED.....							1		1
0816 COXSACKIEVIRUS A16.....	1								1
0903 COXSACKIEVIRUS B3.....	1	1							2
0904 COXSACKIEVIRUS B4.....	1						3		4
1009 ECHOVIRUS TYPE 9.....	2								2
1011 ECHOVIRUS TYPE 11.....	1		2	1		1	4		9
1022 ECHOVIRUS TYPE 22.....			2		8				10
1023 ECHOVIRUS TYPE 23.....			1					1	2
1025 ECHOVIRUS TYPE 25.....							5		5
1026 ECHOVIRUS TYPE 26.....							2		2

AUSTRALIA - COMMUNICABLE DISEASES INTELLIGENCE

②

REPORTING PERIOD - 20-3-80 - 2-4-80 BULLETIN NUMBER 80-7
 VIRAL IDENTIFICATIONS FROM CONTRIBUTING LABORATORIES-CONTINUED

VIRUS OR VIRAL ANTIGEN	ICPMR (NSW)/ WVH (ACT)	RAHC (NSW)	PHH/ POW (NSW)	FAIR- FIELD (VIC)	HCH (VIC)	IMVS (SA)	STATE LAB (QLD)	STATE LAB (WA)	Total
1030 ECHOVIRUS TYPE 30.....				7					7
1099 ECHOVIRUS TYPING PENDING.....							1		1
1101 POLIOVIRUS TYPE 1.....					1			1	2
1102 POLIOVIRUS TYPE 2.....					1		1		2
1104 POLIOVIRUS-VACCINAL STRAIN.....						1			1
1200 MUMPS VIRUS.....	2	1	3	3		1	2		12
1300 HERPES VIRUS GROUP-NOT TYPED.....				1		4			5
1301 HERPES SIMPLEX VIRUS-NOT TYPED.....	13	1	1		1	1	18	40	75
1302 EPSTEIN-BARR VIRUS (EB VIRUS).....	2					1		1	4
1303 VARICELLA-ZOSTER VIRUS.....	3		2	1		1			7
1306 HERPES SIMPLEX TYPE 1.....	4		1	22		6			33
1307 HERPES SIMPLEX TYPE 2.....	57		2	18		10			87
1399 HERPES VIRUS TYPING PENDING.....			4						4
1401 COXIELLA BURNETI.....	13						16		29
1521 MEASLES VIRUS.....					1	1	1		3
1522 RUBELLA VIRUS.....						1	3		4
1530 HEPATITIS A VIRUS.....	1							1	2
1532 HEPATITIS B ANTIGEN.....	7		7	27		18	5	5	69
1535 HEPATITIS A ANTIBODY.....	2					14			16
1541 CHLAMYDIA A - TRIC TYPE.....	10		7					31	48
1556 CMV - CYTOMEGALOVIRUS.....	8	1	5	2	1		2	4	23
1564 ROTAVIRUS.....			9	3	2	1			15
1599 ENTEROVIRUS TYPING PENDING.....		1	5		7				13
ROSS RIVER VIRUS.....						4	54	3	61
DENGUE.....							1		1
Total.....	141	12	59	92	56	91	143	96	690

AUSTRALIA - COMMUNICABLE DISEASES INTELLIGENCE

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PERIOD : 20/3/80 to 2/4/80 ---- 80/7
 Viral Identifications by Clinical Information Table 1.
 Code 00,99 -No ill or data; 01,02,11,12 -Respiratory; E3 -Enceph-
 alitis; M3 -Meningitis; 04 -Paralysis; 05,13 -CNS other unspec.;
 07,49 -GI; 17,47 -Hepatic; 19 -CVS; 89 -Urinary; 06 -Skin/mucous.

VIRUS OR VIRAL ANTIGEN	No-ill or data	Respir atory	Enceph alitis	Mening -itis	Para- lysis	CNS other unspec	GI	Hepa -tic	CVS	Urin -ary	Skin/ muc memb
0100 ADENOVIRUS NOT TYPED.....	2	15				1	4				3
0101 ADENOVIRUS TYPE 1.....							2				
0102 ADENOVIRUS TYPE 2.....		1					6				
0103 ADENOVIRUS TYPE 3.....	1						1				
0104 ADENOVIRUS TYPE 4.....							1				
0105 ADENOVIRUS TYPE 5.....							2				
0107 ADENOVIRUS TYPE 7.....							1				
0119 ADENOVIRUS TYPE 19.....	4										
0131 ADENOVIRUS TYPE 31.....	2										
0201 INFLUENZA A VIRUS.....	1	2									
0203 INFLUENZA B VIRUS.....		1									
0301 PARAINFLUENZA VIRUS TYPE 1....		1									
0302 PARAINFLUENZA VIRUS TYPE 2....		9									
0303 PARAINFLUENZA VIRUS TYPE 3....		7									
0400 RESPIRATORY SYNCYTIAL VIRUS (RS)		4	1	1							
0500 RHINOVIRUS (ALL TYPES).....		5									
0600 MYCOPLASMA PNEUMONIAE.....		6									
0700 ORNITHOSIS-PSITTACOSIS.....		8									
0800 COXSACKIEVIRUSES GROUP A - NOT TYPED.....											1
0816 COXSACKIEVIRUS A16.....											1
0903 COXSACKIEVIRUS B3.....		1				1					
0904 COXSACKIEVIRUS B4.....					2		1		1		
1009 ECHOVIRUS TYPE 9.....		2									
1011 ECHOVIRUS TYPE 11.....					4		1				
1022 ECHOVIRUS TYPE 22.....	2						2				
1023 ECHOVIRUS TYPE 23.....	7						1				

AUSTRALIA - COMMUNICABLE DISEASES INTELLIGENCE

(4)

PERIOD : 20/3/80 to 2/4/80 30/7
 Viral Identifications by Clinical Information Table 1.

Code 00,99 -No ill or data; 01,02,11,12 -Respiratory; E3 -Enceph-
 alitis; M3 -Meningitis; 04 -Paralysis; 05,13 -CNS other unspec.;
 07,49 -GI; 17,47 -Hepatic; 19 -CVS; 89 -Urinary; 06 -Skin/mucous.-CONTINUED

VIRUS OR VIRAL ANTIGEN	No-ill or data	Respir atory	Enceph alitis	Mening -itis	Para- lysis	CNS other unspec	GI	Hepa -tic	CVS	Urin -ary	Skin/ muc memb
1025 ECHOVIRUS TYPE 25.....	4	1					1				
1026 ECHOVIRUS TYPE 26.....	2										
1030 ECHOVIRUS TYPE 30.....		1		7							
1101 POLIOVIRUS TYPE 1.....		1									
1102 POLIOVIRUS TYPE 2.....							1				
1104 POLIOVIRUS-VACCINAL STRAIN....							1				
1200 MUMPS VIRUS.....				2							
1301 HERPES SIMPLEX VIRUS-NOT TYPED	20	3	3	1						2	30
1302 EPSTEIN-BARR VIRUS (EB VIRUS) .		1									
1303 VARICELLA-ZOSTER VIRUS.....	2										5
1306 HERPES SIMPLEX TYPE 1.....	2	2									17
1307 HERPES SIMPLEX TYPE 2.....											1
1401 COXIELLA BURNETI.....	9	4									
1521 MEASLES VIRUS.....			2	1		1					
1522 RUBELLA VIRUS.....											3
1530 HEPATITIS A VIRUS.....								2			
1532 HEPATITIS B ANTIGEN.....	26						2	41			
1535 HEPATITIS A ANTIBODY.....								16			
1541 CHLAMYDIA A - TRIC TYPE.....	31										
1556 CMV - CYTOMEGALOVIRUS.....	8	3				1				3	
1564 ROTAVIRUS.....	2						12	1			
ROSS RIVER VIRUS	4										25
Total.....	129	78	6	18		4	39	60	1	5	86

AUSTRALIA - COMMUNICABLE DISEASES INTELLIGENCE

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PERIOD : 20 / 3 / 80 to 2 / 4 / 80 ... 80 / 7
 Viral Identifications by Clinical Information Table 2.
 Code 10 -Eye; 59 -Genital; 39 -Endo/sal gland;
 38 -RES; 29 -Muscle/joint; 69 -Congenital; P8 -PUO;
 68 -Fever/malaise; 09 -Other; A1 -SIDS ...

VIRUS OR VIRAL ANTIGEN	Eye	Gen-ital	Endo/sal gland	RES	Muscle/joint	Con-genital	PUO	Fever/mal-aise	Other	SIDS
0100 ADENOVIRUS NOT TYPED.....			1	1			1	1	1	
0102 ADENOVIRUS TYPE 2.....								1		
0103 ADENOVIRUS TYPE 3.....	1		1							
0105 ADENOVIRUS TYPE 5.....								1		
0107 ADENOVIRUS TYPE 7.....	1									
0110 ADENOVIRUS TYPE 10.....	1									
0115 ADENOVIRUS TYPE 15.....	1									
0119 ADENOVIRUS TYPE 19.....	1									
0203 INFLUENZA B VIRUS.....					1					1
0700 ORNITHOSIS-PSITTACOSIS.....							3	1		
0903 COXSACKIEVIRUS B3.....							1			
1009 ECHOVIRUS TYPE 9.....								2		
1011 ECHOVIRUS TYPE 11.....							1	2		
1022 ECHOVIRUS TYPE 22.....									1	
1023 ECHOVIRUS TYPE 23.....							1			
1101 POLIOVIRUS TYPE 1.....									1	1
1102 POLIOVIRUS TYPE 2.....										1
1200 MUMPS VIRUS.....			9				1		2	
1301 HERPES SIMPLEX VIRUS-NOT TYPED	1	14						2		
1302 EPSTEIN-BARR VIRUS (EB VIRUS) .			1				2			
1306 HERPES SIMPLEX TYPE 1.....		12								
1307 HERPES SIMPLEX TYPE 2.....		86								
1401 COXIELLA BURNETI.....							7	13		
1521 MEASLES VIRUS.....								1		
1522 RUBELLA VIRUS.....					2					
1541 CHLAMYDIA A - TRIC TYPE.....	2	15								
1556 CMV - CYTOMEGALOVIRUS.....		1	1			1	2	3	1	
ROSS RIVER VIRUS					57					
DENGUE (TYPE 3)					1					
Total.....	6	128	13	1	61	1	19	27	7	2

DISEASE	N.S.W.	VIC	QLD	S.A.	W.A.	TAS.	N.T.	A.C.T.	Total	CUMULATIVE TOTAL TO DATE FOR YEAR
Salmonella infections	1	26	29	72	27	8	27			190
Shigella infections			6	7	10		15	4		42
Smallpox										—
Syphilis	62	10	104	17	15		32	1		241
Tetanus										—
Trachoma										—
Tuberculosis (all forms)		38	30	7	14		4			93
Typhoid fever		1			2					3
Typhus (all forms)										—
Vibrio parahaemolyticus infections										—
Yellow Fever										—
Yersinia enterocolitica infections										—

Data collected under the Notifiable Diseases Returns may bear little or no correlation to that collected under the CDI laboratory scheme. Whilst the latter is a sampling program, the Notifiable Diseases data is dependent upon voluntary reporting by medical practitioners etc.