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Communicable Diseases Intelligence

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Contents:

VIRUS REPORTING SCHEME - A total of 1076 reports were processed this period, since the notifications from two laboratories were delayed in the mail. Influenza A infections have still only been reported from Melbourne (24 cases from Fairfield Hospital (4 of H_1N_1 subtype and 18 of H_3N_2 subtype); 13 cases from Royal Children's Hospital) and Perth (9 cases, one with pericarditis). Conversely, two cases of influenza B in children aged 11 and 14 years were reported by the Institute of Clinical Pathology and Medical Research (ICPMR), Sydney, and two cases in adults aged 37 and 50 years by the State Health Laboratory Services (SHLS), Perth. The Perth laboratory also isolated parainfluenza virus type 4 from two children aged two and seven years with croup. The six isolations of this serotype to date in 1984, and the four reported in 1983, were all from Western Australia. Although the epidemic behaviour, age and sex distribution of severe illness caused by parainfluenza serotypes 1-3 are well characterised, the behaviour of serotype 4 is less defined since the disease caused is usually so mild that it does not require medical attention.

. Norwalk-like, small round structured viruses were detected by electron microscopy at Fairfield Hospital in two of seven faeces specimens referred from Hamilton Hospital, Victoria, where an outbreak of gastroenteritis, that began in late July, occurred among geriatric patients, nursing home staff and the community in general. The two positive specimens were from female patients aged 83 and 88 years. The illness had an incubation period of 3-7 days with symptoms of abdominal pain, vomiting and diarrhoea. The unavailability of reagents continues to hamper epidemiological investigation of Norwalk outbreaks. Despite the implementation of control measures, the propagation of such viral gastroenteritis is not uncommon because of the high level of transmissibility of the agent. Also many personnel, including food handlers, continue to work despite acute gastrointestinal illness.

. Epstein-Barr IgM antibody was detected by immunofluorescence by ICPMR, Sydney, and SHLS, Perth, in two males aged 19 and 16 years respectively presenting with encephalitis. The encephalitis seen with infectious mononucleosis may be acute in onset and rapidly progressive, but is usually associated with complete recovery.

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SALMONELLA SURVEILLANCE - NON-HUMAN ISOLATES (AUSTRALIA 1983)

(Contributed by J. Taplin and L. Scott, Microbiological Diagnostic Unit (MDU), University of Melbourne).

A total of 4933 cultures of salmonella from non-human sources were collated by the National Surveillance Scheme for Salmonella (NSSS) during the first year of operation (see CDI (1983) 83/19:4). A State breakdown of the reports for each quarter of 1983 is given in Table 1.

TABLE 1. Salmonella reports from non-human sources received by NSSS-1983.

Period	No. of cultures isolated								
	ACT	NSW	VIC	QLD	SA	WA	TAS	NT	Total
Jan-Mar		6	192						198
Apr-Jun		80	320	1	3	924			1368
Jul-Sep		84	293	18	9	892		18	1314
Oct-Dec	3	212	474	39	14	945	3	6	1696
Total	3	382	1319	58	26	2761	3	24	4576*

* A further 357 cultures were received after the quarterly reports were compiled giving a total of 4933 reports for the year.

The cultures were divided into six categories on the basis of the type of cards used in the scheme (Table 2).

TABLE 2. Source of salmonella isolates collected by NSSS - 1983.

Category	No. of cultures isolated								
	ACT	NSW	VIC	QLD	SA	WA	TAS	NT	Total
Water and Environment		283	353	5	5	1808	1		2455
Foodstuffs		99	206	11	17	472	1	1	807
Animal		32	264	20	12	534		19	881
Animal Products	3	18	378	17		173		10	599
Eggs/Egg Products		7	119						126
Dairy/Dairy Products			58	5			2		65
Total	3	439	1378	58	34	2987	4	30	4933

However, if these figures are compared with the figures for salmonella identifications for the Commonwealth of Australia as supplied by the 1983 Annual Report of the Salmonella Reference Laboratory (SRL), Adelaide, it is seen that the numbers are well below their total of 8719 from non-human sources (Table 3).

TABLE 3. Comparison of the reports notified by the Salmonella Reference Laboratory (SRL) and the reports collated by NSSS (1983).

Category	SRL	NSSS
Water and Environment	1795	2455
Foodstuffs	105	807
Animal	5558	881
Animal Products	960	599
Eggs/Egg Products	87	126
Dairy/Dairy Products	34	65
Miscellaneous	180	
Total	8719	4933

It is clear from the NSSS figures that there was a poor response from most sections of the poultry industry. Whereas 4153 of the 5558 cultures from animal sources forwarded to SRL were taken from chickens, the NSSS received cards for only 386 chickens. The other poultry-associated isolates collated by the NSSS were 296 cultures from processed chickens and other poultry products and 207 from poultry litter (cf. 633 isolates from poultry litter received by the SRL). Similarly the numbers of bovine, porcine and equine sources compiled by the NSSS were well below those received by the SRL.

The numbers of certain animal or animal products in some cases reflects the interest of the various laboratories in different States. In Western Australia, a large number of isolates from reptiles, native animals and birds were reported since the State Health Laboratory Services, which identifies its own salmonella isolates, has an active interest in monitoring the environment. The majority of its isolates originate from environmental studies on waters, sewage effluents, and effluents from poultry processors, abattoirs and small goods manufacturers; explaining the larger number of environmental and water reports received by the NSSS. In Victoria, the Attwood Veterinary Research Laboratory has been conducting a survey of pig carcasses at four abattoirs, and accounted for 364 of the 373 pig-associated isolates in Victoria. Victoria was also the only State which submitted a significant number of isolates from egg/egg products (119 of the 126 cultures processed) and dairy/dairy products (58 of 65 isolates). This is because there is an active State program to monitor the environment of various dairy factories and their products. During 1983, seven factories had salmonella isolates from their environment, of which four also yielded salmonella from their products. Three of these factories were positive for the first time in 1983. S. senftenberg was also isolated consistently from the environment of one dairy factory in New South Wales. In addition, a variety of serotypes were isolated from beach waters in a survey conducted by the Division of Analytical Laboratories, Sydney.

As salmonella is basically a zoonosis, information regarding the isolation from animals, birds, environmental sources, food items and ingredients should establish a better understanding of the ecology of the organism. Therefore it is hoped that more isolates and reports will be submitted to the NSSS in 1984, particularly from the poultry industry, from veterinary laboratories and other facilities examining animals and animal products, and from food laboratories throughout Australia.

PREMATURE LABOUR AND NEONATAL SEPSIS DUE TO CAMPYLOBACTER FETUS, SUBSPECIES FETUS - CANADA

(Based on CDWR (1984) 10/26: 102)

A 900 gm male infant was delivered vaginally in a Toronto hospital, five hours after the spontaneous onset of labour at only 26 weeks of gestation. The Apgar scores were 1 and 5 at one and five minutes respectively. He was intubated, given penicillin G (25000 U), and transferred to the neonatal intensive care unit of The Hospital for Sick Children. On arrival, vital signs were as follows; temperature 34.8°C rectally, blood pressure 78 mm. Hg, heart rate 164/min, respiratory rate 48/min. The infant was lethargic with moderate respiratory distress. A chest X-ray showed a normal cardiac silhouette, with a bilateral reticular pattern and air bronchograms. The clinical impression was prematurity with neonatal respiratory distress syndrome and sepsis. Ampicillin (100 mg/kg/day) and gentamicin (5 mg/kg/day) were given. A Gram stain of a gastric aspirate revealed numerous curved Gram-negative bacilli with an appearance typical of Campylobacter. Therefore, erythromycin (40 mg/kg/day) was also started. Cerebrospinal fluid obtained after antibiotics were started was clear, with 6 erythrocytes, 106 white blood cells (55% polymorphonuclear cells), and glucose 2.6 mmol/L. No organisms were seen on Gram stain. Over the next few days, there was steady improvement and he was extubated after six days. He received three weeks of ampicillin and gentamicin; erythromycin was discontinued after one week.

The mother was a 28 year old office worker, whose first pregnancy four years earlier had been uneventful and carried to term. She had felt well during the current pregnancy until two weeks prior to her premature delivery, when she had fever and chills for one day, with watery diarrhoea for three days. No other family members had been ill, and there were no family pets or other animal contact. She had not consumed any unpasteurised milk or milk products.

Campylobacter fetus, subspecies fetus, was isolated from the infant's gastric aspirate, blood and stool, as well as from the mother's vagina and stool two days postpartum. The organism was identified by its unique morphology and motility when viewed by phase-contrast microscopy, and because it grew at 25°C and 37°C, but not at 43°C; was hippurate negative; grew in the presence of 1% glycine; and was resistant to nalidixic acid (30 µg) but susceptible to cephalothin (30 µg). Disc diffusion antibiotic susceptibility testing showed that all isolates from both mother and baby were susceptible to ampicillin (10 µg), erythromycin (15 µg), gentamicin (10 µg), and chloramphenicol (30 µg) but resistant to tetracycline (5 µg). The cerebrospinal fluid culture was negative.

Editorial Comment

Within the genus Campylobacter, only C. jejuni, C. coli and C. fetus subsp. fetus are known to be associated with human disease. The former is a major cause of infectious diarrhoea, whereas the latter typically causes bacteraemia and sepsis in the immunocompromised host. Between January 1979 and March 1980, ten patients undergoing "nutritional therapy" for systemic lupus erythematosis or malignancies in Mexico and California contacted C. fetus subsp. fetus infection, when the suspected source of infection was raw calf liver, a component of the therapy[1]. Although, C. fetus subsp. fetus has been described as the most important campylobacter species causing septic abortion and premature delivery[2], cases of septic

abortion associated with infection caused by C. jejuni/coli have also been reported[3,4,5]. Indeed, pregnancy may be a predisposing factor in the occurrence of systemic C. jejuni/coli infection, and its epidemiology has been compared with that of Listeria monocytogenes in perinatal infection[6]. Although the incidence and epidemiology in obstetric patients is still unclear, attention to food hygiene, precautions when attending animals, especially domestic pets with enteritis, and avoidance of raw milk, raw eggs and untreated water could all contribute to a substantial reduction in its incidence. Also a greater awareness, earlier diagnosis, and appropriate treatment of infection in pregnant women may prevent foetal loss and result in a more optimistic outcome for both mother and infant.

References

1. MMWR (1981) 30: 294
2. Am. J. Obstet. Gynecol. (1981) 140: 423
3. CDI (1981) 81/15: 4
4. MJA (1981) 1: 585
5. Infection (1984) 12: 88
6. J. Pediatr. (1979) 94: 855

LOWER MOTOR NEURONE PARESIS ASSOCIATED WITH COXSACKIE B5 INFECTION - UNITED KINGDOM.

(Based on CDR (1984) 84/31: 3)

Isolated lower motor neurone paralysis following an acute febrile illness still suggests paralytic poliomyelitis associated with wild or vaccine derived viruses. Successful immunisation has made poliomyelitis a clinical rarity and paralysis caused by other enteroviruses is now increasingly important in differential diagnosis. Two cases of lower motor neurone paresis associated with coxsackie B5 infection are reported below.

CASE 1 - In August 1977, an eight month old boy was noted to have an immobile left leg 18 days after receiving the first dose of triple vaccine and oral poliovaccine. The poliovaccine batch number was not recorded. He was referred to an orthopaedic unit. A flaccid lower motor neurone paresis of the left leg was found which was greater distally. There were no other neurological abnormalities. The CSF was blood stained and unsuitable for analysis. Coxsackie B5 virus was isolated from three samples of faeces and from a throat swab. No polioviruses were isolated from faeces. Neutralising antibody to poliovirus type 1,2 and 3 were 160, 640 and 320 in serum taken four weeks after immunisation. The child improved gradually but four months after onset there was considerable muscle wasting and residual weakness of the left leg with foot drop. He required continuing physiotherapy and orthopaedic supervision.

CASE 2 - In March 1984, a 30 year old salesman had an acute influenza-like illness for six days with general myalgia but no meningeal symptoms. As this subsided he noticed weakness of his left leg and foot drop which worsened over the next three days. On admission to hospital he had extensive lower motor neurone paresis of the left leg which was more marked distally. There was muscle fasciculation but no tenderness. The CSF had 0.100×10^9 white cells/L, 90% of which were lymphocytes. The CSF glucose, chloride and protein were normal and bacteriological culture was negative. He had recently been in contact with a neighbour's child who had just received a

first dose of oral poliovaccine. The patient recalled receiving oral poliovaccine in childhood, but his immunisation records had been officially destroyed when he had attained 21 years of age. Coxsackie B5 virus was isolated from six samples of faeces but not from a throat swab or CSF. Acute and convalescent sera showed static low neutralising antibody titres of 80, 20 and 20 to poliovirus type 1,2 and 3 respectively and greater than four-fold rises of neutralising antibody to coxsackie B1 and B5 viruses. Coxsackie B2, B3, B4 and B6 neutralising antibody titres were either not detected or static. The patient had a stormy and severe febrile illness with a high spiking fever exceeding 40°C on several occasions each day and lasting ten days. The symptoms gradually subsided and he made a recovery good enough to resume work after two months. However, there was little objective improvement in his muscle weakness. He had residual foot drop and more than 3 cms wasting in both calf and thigh muscles.

The clinical diagnosis of possible poliomyelitis in both patients became less likely when the isolated viruses did not type with poliovirus polyvalent antisera. Although the history of recent immunisation in case 1 suggested that the paresis was poliovaccine-associated, the absence of poliovirus in faeces and the presence of coxsackie B5 virus in three specimens of faeces as well as in the throat swab made this virus a more likely aetiological agent. In the second case, although there was a history of contact with a recently immunised child, no polioviruses were isolated from faeces and no rise in poliovirus antibody was demonstrated. In both cases there was a failure to keep good immunisation records. Before virological results were available in the first patient, several batches of oral poliovaccine came under suspicion and were withdrawn temporarily; in the second patient the presence of a poliovaccine immunisation record would have been helpful in excluding a diagnosis of poliomyelitis.

While both patients had leg weakness rather than complete paralysis, neither made a satisfactory recovery. This limited experience does not accord with the general belief that paresis associated with coxsackie B viruses has a better prognosis than that following poliomyelitis.

AUSTRALIA - COMMUNICABLE DISEASES INTELLIGENCE

REPORTING PERIOD - 16/8/84 - 29/8/84 BULLETIN NUMBER 84/18

VIRAL IDENTIFICATIONS FROM CONTRIBUTING LABORATORIES

VIRUS OR VIRAL ANTIGEN	ICPMR (NSW)/ WVH (ACT)	RAHC (NSW)	PHH/ POW (NSW)	FAIR-FIELD (VIC)	RCH (VIC)	IMVS (SA)	STATE LAB (QLD)	STATE LAB (WA)	Total
0100 ADENOVIRUS NOT TYPED			9	2	5				16
0101 ADENOVIRUS TYPE 1				1				1	2
0102 ADENOVIRUS TYPE 2				1				2	3
0103 ADENOVIRUS TYPE 3	2			2				9	13
0104 ADENOVIRUS TYPE 4	1								1
0105 ADENOVIRUS TYPE 5				2				2	4
0108 ADENOVIRUS TYPE 8								4	4
0111 ADENOVIRUS TYPE 11	1								1
0119 ADENOVIRUS TYPE 19	1			2				1	4
0126 ADENOVIRUS TYPE 26				1					1
0137 ADENOVIRUS TYPE 37								1	1
0199 ADENOVIRUS TYPING PENDING			4		3				7
0201 INFLUENZA A VIRUS				2	14			9	25
0202 INFLUENZA A VIRUS SUBTYPE H3N2				18					18
0203 INFLUENZA B VIRUS	2							2	4
0206 INFLUENZA A VIRUS SUBTYPE H1N1				4					4
0301 PARAINFLUENZA VIRUS TYPE 1	1				1				2
0302 PARAINFLUENZA VIRUS TYPE 2				4	2				6
0303 PARAINFLUENZA VIRUS TYPE 3	4	2			5			5	16
0304 PARAINFLUENZA VIRUS TYPE 4								2	2
0400 RESPIRATORY SYNCYTIAL VIRUS (RS)	24	8	1	29	28			24	114
0500 RHINOVIRUS (ALL TYPES)	1			4	4			3	12
0600 MYCOPLASMA PNEUMONIAE	1		6		3			5	15
0700 ORNITHOSIS-PSITTACOSIS				1					1
0905 COXSACKIEVIRUS B5	1								1
1005 ECHOVIRUS TYPE 5								1	1
1006 ECHOVIRUS TYPE 6	3			1				1	5
1009 ECHOVIRUS TYPE 9	4		2	5					11
1010 ECHOVIRUS TYPE 10=REOVIRUS								1	1
1017 ECHOVIRUS TYPE 17								1	1
1021 ECHOVIRUS TYPE 21								1	1
1101 POLIOVIRUS TYPE 1	2			3					5
1102 POLIOVIRUS TYPE 2				1					1
1104 POLIOVIRUS-VACCINAL STRAIN			5						5
1200 MUMPS VIRUS	3			4	3			1	11
1300 HERPES VIRUS GROUP-NOT TYPED	13			3				1	17
1301 HERPES SIMPLEX VIRUS NOT-TYPED		1						2	3
1302 EPSTEIN-BARR VIRUS (EB VIRUS)	4							20	24
1303 VARICELLA-ZOSTER VIRUS	4		1	2				2	9
1306 HERPES SIMPLEX TYPE 1	4			35				15	54
1307 HERPES SIMPLEX TYPE 2	58			44				57	159
1399 HERPES VIRUS TYPING PENDING			15						15
1401 COXIELLA BURNETI	1			2				1	4
1502 PICORNA VIRUS-NOT TYPED	1		9						10
1514 MOLLUSCUM CONTAGIOSUM	1								1
1521 MEASLES VIRUS	2		1					2	5
1522 RUBELLA VIRUS	2			8				4	14
1532 HEPATITIS B ANTIGEN	55		9	56	1			18	139
1535 HEPATITIS A ANTIBODY	2		1	6	1			2	12
1541 CHLAMYDIA A - C TRACHOMATIS	37		3	48			1	35	124
1556 CMV - CYTOMEGALOVIRUS	12			16	3			13	44
1563 CORONAVIRUS				3					3
1564 ROTAVIRUS	14	13	29		10			4	70
1599 ENTEROVIRUS TYPING PENDING		2	10		9				21
9902 POXVIRUS GROUP NOT TYPED				1					1
9992 ROSS RIVER VIRUS								20	20
9993 ASTROVIRUS		1							1
9994 SMALL VIRUS (LIKE) PARTICLE		5		2					7
Total	261	32	105	313	92		1	272	1,076

AUSTRALIA - COMMUNICABLE DISEASES INTELLIGENCE

PERIOD : 16/8/84 to 29/8/84 .... 84/18

Viral Identifications by Clinical Information Table 1.
Code 00,99 -No ill or data; 01,02,11,12 -Respiratory; E3 -Encephalitis; 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	Respiratory	Encephalitis	Meningitis	Paralysis	CNS other unspec	GI	Hepatic	CVS	Urinary	Skin/mucs memb
0100 ADENOVIRUS NOT TYPED.....							8				
0101 ADENOVIRUS TYPE 1.....		1					1				
0102 ADENOVIRUS TYPE 2.....		1					1				
0103 ADENOVIRUS TYPE 3.....		4					3				
0105 ADENOVIRUS TYPE 5.....		4									
0111 ADENOVIRUS TYPE 11.....											1
0201 INFLUENZA A VIRUS.....		21					1				
0202 INFLUENZA A VIRUS SUBTYPE H3N2		17									
0203 INFLUENZA B VIRUS.....	1	2									
0206 INFLUENZA A VIRUS SUBTYPE H1N1		1									
0301 PARAINFLUENZA VIRUS TYPE 1....		2									
0302 PARAINFLUENZA VIRUS TYPE 2....		4									[redacted]
0303 PARAINFLUENZA VIRUS TYPE 3....		15				1					
0304 PARAINFLUENZA VIRUS TYPE 4....		2									
0400 RESPIRATORY SYNCYTIAL VIRUS (RS).....	3	107					2				1
0500 RHINOVIRUS (ALL TYPES).....		10		1							
0600 MYCOPLASMA PNEUMONIAE.....	2	12				1					
0700 ORNITHOSIS-PSITTACOSIS.....		1									
0905 COXSACKIEVIRUS B5.....							1				
1005 ECHOVIRUS TYPE 5.....		1									
1006 ECHOVIRUS TYPE 6.....	1	3									1
1009 ECHOVIRUS TYPE 9.....		2		4		2	1				3
1010 ECHOVIRUS TYPE 10=REOVIRUS....		1									
1021 ECHOVIRUS TYPE 21.....		1									
1101 POLIOVIRUS TYPE 1.....		4					1				
1102 POLIOVIRUS TYPE 2.....		1									
1104 POLIOVIRUS-VACCINAL STRAIN....							5				
1200 MUMPS VIRUS.....				3							2
1301 HERPES SIMPLEX VIRUS NOT-TYPED			2								1
1302 EPSTEIN-BARR VIRUS (EB VIRUS).	4	4	2					1			
1303 VARICELLA-ZOSTER VIRUS.....				1							8
1306 HERPES SIMPLEX TYPE 1.....	3	7	2			2	1			2	20
1307 HERPES SIMPLEX TYPE 2.....	2			1							37
1401 COXIELLA BURNETI.....	2	1									
1502 PICORNA VIRUS-NOT TYPED.....							9				
1514 MOLLUSCUM CONTAGIOSUM.....											1
1521 MEASLES VIRUS.....	2										[redacted]
1522 RUBELLA VIRUS.....	1	1									10
1532 HEPATITIS B ANTIGEN.....	78	2					1	55			
1535 HEPATITIS A ANTIBODY.....							1	11			
1541 CHLAMYDIA A - C.TRACHOMATIS...	1										
1556 CMV - CYTOMEGALOVIRUS.....	5	5		1	1	1		1	1	5	
1563 CORONAVIRUS.....		1					1				
1564 ROTAVIRUS.....	1						67				
9902 POXVIRUS GROUP NOT TYPED.....											1
9992 ROSS RIVER VIRUS.....	4										2
9993 ASTROVIRUS.....							1				
9994 SMALL VIRUS (LIKE) PARTICLE...							6				1
Total.....	110	238	6	11	1	7	111	68	1	7	94

AUSTRALIA - COMMUNICABLE DISEASES INTELLIGENCE

PERIOD : 16/8/84 to 29/8/84 ... 84/18
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;
G8 -Fever/malaise; 09 -Other; A1 -SIDS ...

VIRUS OR VIRAL ANTIGEN	Eye	Genital	Endo/sal gland	RES	Muscle/joint	Congenital	PUO	Fever/malaise	Other	SIDS
0100 ADENOVIRUS NOT TYPED.....										1
0102 ADENOVIRUS TYPE 2.....								1		
0103 ADENOVIRUS TYPE 3.....	3			2			1	2		
0104 ADENOVIRUS TYPE 4.....	1									
0105 ADENOVIRUS TYPE 5.....								1		
0108 ADENOVIRUS TYPE 8.....	3	1								
0119 ADENOVIRUS TYPE 19.....	2	2								
0126 ADENOVIRUS TYPE 26.....									1	
0137 ADENOVIRUS TYPE 37.....	1									
0201 INFLUENZA A VIRUS.....			2					3		
0202 INFLUENZA A VIRUS SUBTYPE H3N2								6		
0203 INFLUENZA B VIRUS.....								1		
0206 INFLUENZA A VIRUS SUBTYPE H1N1	1							3		
0303 PARAINFLUENZA VIRUS TYPE 3....							1			
0400 RESPIRATORY SYNCYTIAL VIRUS (RS).....								2		
0500 RHINOVIRUS (ALL TYPES).....							2			
0600 MYCOPLASMA PNEUMONIAE.....									1	
1009 ECHOVIRUS TYPE 9.....								1		
1017 ECHOVIRUS TYPE 17.....							1			
1101 POLIOVIRUS TYPE 1.....								1		
1200 MUMPS VIRUS.....			6							
1301 HERPES SIMPLEX VIRUS NOT-TYPED								1		
1302 EPSTEIN-BARR VIRUS (EB VIRUS).			13				2	1		
1303 VARICELLA-ZOSTER VIRUS.....				1						
1306 HERPES SIMPLEX TYPE 1.....	3	14						8		
1307 HERPES SIMPLEX TYPE 2.....		119							1	
1401 COXIELLA BURNETI.....								1		
1521 MEASLES VIRUS.....			1							
1522 RUBELLA VIRUS.....			1		1			1	1	
1532 HEPATITIS B ANTIGEN.....					1				4	
1541 CHLAMYDIA A - C.TRACHOMATIS...	2	119				1			1	
1556 CMV - CYTOMEGALOVIRUS.....		7	1	2		4	4	2	5	
1563 CORONAVIRUS.....								1		
1564 ROTAVIRUS.....									1	1
9992 ROSS RIVER VIRUS.....					16					
9994 SMALL VIRUS (LIKE) PARTICLE...								1		
Total.....	16	262	24	5	18	5	11	37	15	2