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Contents:

REGIONAL VIRUS INFORMATION EXCHANGE NEWSLETTER

As a sequel to the International Seminar on Viral Diseases in South East Asia and the Western Pacific held in Canberra, 8-12 February 1982, a new quarterly publication entitled "Virus Information Exchange Newsletter for South East Asia and the Western Pacific" has been launched by the Centre for Collection and Dissemination of Data on Virus Diseases, University of Western Australia. The Newsletter is sponsored principally by the Australian Development Assistance Bureau.

The original suggestion for the Newsletter was proposed by a number of conference delegates on the grounds that existing mechanisms for communication between laboratories was relatively poor, with little information exchange possible except through a few established and specific networks, and that much of the information needed at a professional level was beyond the scope of other publications. In addition to the contributed articles, the Newsletter will contain a number of regular items including the collation of diagnostic information on viral infections from individual laboratories. This information will provide epidemiological data on the prevalence of different virus infections in different countries; it will give an indication of epidemics when they occur; and it will allow laboratories to know the diagnostic scope and range of tests employed by colleagues in other laboratories to whom they can refer to for advice or assistance. A second regular item will be a listing of diagnostic and laboratory reagents available from laboratories within the Regions which may be distributed or sold to other laboratories. A computer data base of virological publications concerning the Regions is also being established and will be freely available to all Regional virologists. The newsletter is currently being circulated free-of-charge to 242 virus laboratories in the two Regions' developing countries. However, an annual subscription fee of $A45.00 (surface mail) and $A55.00(air mail) is required for Australian readers and subscribers in other developed countries. Contributions, subscriptions and other correspondence should be forwarded to:- Dr J.S. Mackenzie, Editor, Virus Information Exchange Newsletter, Centre for Collection and Dissemination of Data on Virus Diseases, C/- Department of Microbiology, University of Western Australia, Queen Elizabeth II Medical Centre, Nedlands, WA 6009.

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Material appearing in the Bulletin may be quoted provided suitable acknowledgment is made.
Figures given may be subject to revision.

COCCIDIOIDOMYCOSIS SURVEILLANCE

(Contributed by R. Penny, Department of Immunology, St. Vincent's Hospital, Sydney).

In a comment in the article published in CDI 84/6 which detailed a fatal case of coccidioidomycosis that occurred in the UK in 1983, the Editor of CDI said he was unaware of any Australian cases apart from a suspected infection in an American tourist in 1981. The following report is of a disseminated coccidioidomycosis infection that was successfully treated in 1977 following the insertion of a Hickman catheter and amphotericin administration.

In June 1976, a 34 year old female was transferred from Wagga Wagga to St. Vincent's Hospital, Sydney, for investigation of general malaise and itching and swelling over previous scar sites; this developed following delivery of her second child. Her past history indicated an episode of disseminated coccidioidomycosis including sternal osteomyelitis in the last trimester of her first pregnancy while in Tucson, Arizona, in early 1973. She received amphotericin to a total dose of 1250mg up to August 1973, when medication was stopped because of falling haemoglobin, elevation of blood urea and nitrogen, and gastrointestinal symptoms. However, all investigations aimed at confirming the diagnosis of coccidioidomycosis on this occasion were negative, including the culture of scars.

She was discharged, but over the following months she became increasingly short of breath, with no abatement of her other symptoms. Following discussion with US experts who considered that the diagnosis was still likely to be coccidioidomycosis, she was readmitted in January 1977 for further investigation including open lung biopsy and culture.

On examination, apart from evidence of a discrete lesion affecting scars over her left knee and forehead, system reviews were unremarkable; blood pressure 150/90 mm Hg, pulse rate 72 per minute, and no indication of cardiac murmurs, hepatomegaly, splenomegaly or lymphadenopathy. Her respiration and nervous system were normal, and there was no pallor or ecchymoses. However, chest X-ray revealed widespread abnormal reticulo-nodular shadowing throughout both lung fields. Investigation showed a pulmonary infiltrate, although pulmonary function tests showed that gas transfer had actually improved since the previous examination. It was also noted that active osteomyelitis was still present, with free pus discharging from the wound following biopsy of the sternal lesion overlying the old site of osteomyelitis. Open thoracotomy and lung biopsy were then performed. Coccidioides immitis was seen and cultured in the wound pus from the sternal abscess and overlying skin. Granulomata were seen in the lung biopsy, but no organisms were detected within the lung. She was commenced on increasing doses of amphotericin through a subclavian catheter. A total of 2.5 gm amphotericin IV in doses of 50 mg infused in 500 ml of 5% dextrose were given three times weekly over one hour periods. These were administered in Wagga Wagga over the following four months, when she experienced a few problems related to nausea, and some fluctuations in haemoglobin and renal function.

With respect to the skin lesions, biopsy showed evidence of a giant cell granuloma in the retico-dermis containing bio-refringement foreign material, consistent with a clinical diagnosis of sarcoidosis or the result of a previous car

accident with imbedded silica granules. Skin tests were positive to PPD (tuberculosis), Candida and SKSD (streptokinase- streptodornase).

On follow-up investigation in August, having completed 2 gm of amphotericin therapy, the patient showed normal chest X-ray with no evidence of osteomyelitis by tomogram of the sternum. Respiratory function tests showed a marked improvement in vital capacity and gas transfer. Although skin tests were negative to Candida, PPD and Coccidioidin but positive to SKSD, a positive lymphocyte response to Coccidioidin antigen was demonstated *in vitro*.

It was considered that her infection was either eradicated or in remission. As both her recurrences of infection were associated with the last trimester of pregnancy, which is known to be an immunosuppressive event, it was regarded as mandatory that she not undertake any further pregnancies, and avoid the use of steroid or immunosuppressive agents. Further reviews have shown that the patient has continued in complete remission.

LISTERIOSIS SURVEILLANCE - VICTORIA

(Contributed by S.M. Garland and G.L. Gilbert, Department of Pathology, The Royal Women's Hospital, Melbourne).

Following the diagnosis of three cases of intrauterine listeriosis during April 1984 at the Royal Women's Hospital, the microbiological records for the preceding 15 months were reviewed for perinatal *Listeria monocytogenes* infections. A further three cases were noted (one each in January, April and November 1983), whereas past experience has been approximately one case per year.

Two of the six infants died; one was stillborn and the other died of overwhelming sepsis. In the latter case, infection was likely to have been present for some time *in utero* as there was evidence of cerebral ventricular dilation shortly after birth. One mother had Crohn's disease which may have predisposed to listeriosis. Otherwise, patients were healthy pregnant women with the common feature of a vague febrile illness preceding delivery. The relevant clinical details and findings are summarised in Table 1.

Editorial Comment

L. monocytogenes is a Gram-~~negative~~ positive mobile rod which can cause clinical disease most frequently at the extremes of age, during pregnancy or among immunocompromised individuals. Although an incidence of 1 in 37000 births has been reported by the Communicable Disease Surveillance Centre, UK, in 1978[1], subsequent reports have alluded to higher rates[2,3]. Sporadic outbreaks have also been reported. In 1981, an outbreak attributed to contaminated cabbage occurred over a six month period in the Canadian Maritime provinces, and was associated with 41 cases of clinically recognized infection involving 34 pregnant women and/or newborn infants with a fatality rate of 47%[4].

An International Workshop on neonatal and perinatal *Listeria monocytogenes*, Dalhousie University, Halifax, Nova Scotia, Canada, held 2-3 June 1983, recommended that clusters greater than one per month or sustained isolation from any institution be reported for systematic investigation[5]. Serotyping of strains is of limited usefulness but phage typing[6] is promising, since a provisional international phage typing set is available[5]. Other serotyping

TABLE 1. Perinatal Listeriosis, Royal Women's Hospital (January 1983 - April 1984)

Gestation (weeks)	Maternal History	Condition of baby at birth	Placenta/ membranes	Sites positive for *Listeria monocytogenes* and other investigations	Treatment	Outcome
Case 1 22	Fever, vague illness 2 weeks preceding spontaneous labour	Stillborn	Placental villitis, chorioamnionitis	Post mortem specimens; liver, lung, spleen, adrenals, placenta	-	Stillborn, Post mortem: granulomatosis infantiseptica
Case 2 40	Flu-like illness 2 weeks prior to delivery	Poor, birth asphyxia, meconium stained liquor, hepatosplenomegaly, few petechiae	Transfer from another hospital, placenta discarded	Blood culture, gastric aspirate; CSF (after antibiotic treatment started), pleocytosis, high protein, undetectable glucose, no growth	Ampicillin, gentamicin 3 weeks	Alive and well
Case 3 28	Crohn's disease (steroids 6 weeks), blood culture positive for *L. monocytogenes* at delivery	Good despite prematurity	Acute placentitis	Gastric aspirate, superficial swabs, meconium; toxic blood film; CSF (after antibiotic therapy started), no growth.	Ampicillin, gentamicin 1 week	Alive and well
Case 4 35	Fever, tachycardia spontaneous labour	Poor, respiratory distress pneumonia	Meconium stained liquor, placentitis	Placenta, blood culture, meconium; Toxic blood film CSF (after antibiotic therapy started), pleocytosis, protein raised, glucose low, no growth	Ampicillin, gentamicin 1 week; ampicillin continued a further 10 days	Alive and well
Case 5 29	Vague flu-like illness 3 weeks prior to delivery; Decreased fetal movements 3 days prior to spontaneous labour	Poor, irritable, generalised petechiae, hepatosplenomegaly, tiny (1-2 mm) pustules on skin	Macro abscesses, pinpoint abscesses of cord	CSF: pleocytosis, high protein, undetectable glucose. Surface swabs, skin lesion, gastric aspirate. Very toxic blood film. Post mortem: liver, lung, spleen, CSF, peritoneal fluid	Ampicillin, gentamicin	Died 45 hours of age. Post mortem; granulomatosis infantiseptica
Case 6 31	Fever, spontaneous labour	Well, 1 cm splenomegaly	Not examined	Gastric aspirate superficial swab, CSF (after antibiotic therapy started), pleocytosis, protein raised, sugar low, no growth, ventriculitis	Penicillin, gentamicin 5 weeks and continuing in view of ventriculitis	Alive and progressing

techniques with monoclonal antibodies, pyrolysis typing and other epi-typing systems (plasmids, antibiograms) are also useful for epidemiological studies.

It is essential that any patient suspected of having listeriosis should be discussed with the microbiologist since different techniques are required for isolation and culture. The organism is not unduly difficult to culture in the appropriate environment, but behavioural patterns (haemolysis and mobility) are not always classical. Cold enrichment for less than three months may be considered for selected pathology specimens (brain, placenta) or for contaminated specimens. Stool cultures are preferred to rectal swabs, and placental cultures are preferred to maternal vaginal swabs. A comparative study of trypaflavin v nalidixic acid agar has been recommended, although it was noted that quality control of dye was important[5].

In addition to considering blood, rectal and high vaginal cultures for Listeria in pregnant women with nonspecific, febrile and/or flu-like illness, treatment with IV ampicillin and gentamicin (or other aminoglycoside) should be contemplated as soon as possible[5]. Care should also be taken in preventing the cross-infection of neonates, since the bacterium survives well in the environment[7]. It has been shown that after cross-infection occurred in a labour room, L. monocytogenes survived for 20-30 days on tiles.

References

1. Lancet (1980) 1 : 911
2. Lancet (1980) 1 : 1136
3. Lancet (1983) 2 : 1364
4. CDWR (1981) 7 : 257
5. CDWR (1983) 9 : 141
6. Ann. Microbiol (Paris) (1979) 130B : 179
7. CDR (1984) 84/11 : 3

DISSEMINATED NEONATAL HERPES SIMPLEX VIRUS (HSV) INFECTION - WESTERN AUSTRALIA

(Contributed by M. Bucens, State Health Laboratory Services and D.W. Smith, Princess Margaret Hospital for Children, Perth).

On 13 April 1984, a baby was delivered at 37 weeks gestation to a 15 year old mother following a pregnancy complicated by hypertension and a urinary tract infection. The infant appeared well after birth, and both mother and baby were discharged one week later.

However, the baby represented on 22 April (9 days of age) after one day of drowsiness, poor feeding (breast-fed) and 6-7 lose bowel actions. She had lost 150 gm in weight since discharge from the maternity hospital. The mother had an upper respiratory tract infection at the time. On admission to the neonatal unit, the baby was pale, not cyanosed, had reduced tissue turgor, febrile (38.1°C), with pulse and respiration rates of 160 and 60 per minute respectively. A provisional diagnosis of a viral illness with associated diarrhoea (reminiscent of the echovirus type 11 infections during the 1982-83 epidemic) was made, but all initial haematological and microbiological investigations were unremarkable. Intravenous fluids were commenced but no antibiotics were administered at the time of admission.

Several major problems developed during her hospital stay. Transfusions of fresh frozen plasma and platelets were required due to disseminated intravascular coagulopathy. Several exchange transfusions were also required because of marked hepatosplenomegaly three days after admission. Her liver function tests deteriorated progressively with a peak bilirubin of 410 μ mol/L on 3 May. She also experienced renal problems related to the hepatic failure, as well as progressively increasing episodes of fitting often manifesting as cycling movements of the arms and legs which became almost continuous prior to death. Throughout admission her temperature fluctuated. Repeat blood cultures, lumbar punctures and urinary cultures failed to reveal any bacterial pathogens, and serology for hepatitis A and B infection was negative.

The child died on 4 May, and a necropsy was performed 13 hours after death. Viral cultures performed on pre-mortem CSF, faeces, throat swabs and urine were negative. Serum collected on 27 April had an HSV CF titre of 1:40 and HSV-IgM was detected by fluorescent antibody technique, but the latter result was not available prior to the baby's death. HSV-IgM was not detected in cord blood. HSV type 2 was isolated from post mortem specimens of spleen, adrenal and liver, but not from CSF or temporal lobe. At post-mortem the adrenal and liver showed major pathological changes. There was almost total necrosis of the hepatocytes with occasional intranuclear inclusions in the few surviving hepatocytes around the portal tracts. The changes in the adrenal were similar but no intranuclear inclusions were seen. There were some features of early encephalomyelitis with glial nodules in the mid-brain and thoracic spinal cord. There was also evidence of early hypoxic changes.

ANNOUNCEMENT - SEMINAR ON INFECTIOUS DIARRHOEA IN THE YOUNG; STRATEGIES FOR CONTROL IN HUMANS AND ANIMALS

A seminar on acute diarrhoea in animals and humans will be held at Deakin University, Geelong, Victoria, on 11-15 February 1985, as part of a series of Seminars for Development sponsored largely by the Australian Development Assistance Bureau. The topics to be covered include aetiology, immunology and pathophysiology of the gut, epidemiology, diagnosis treatment and prevention of diarrhoea in both humans and food animals. A multidisciplinary approach has been adopted because of the similarities in range of enteric pathogens and pathogenic mechanisms of acute diarrhoea in humans and animals.

Emphasis will be placed on analysis of current methods for control of diarrhoea in humans and food animals, and assessment of the possible application of new molecular biological tools for the development of future vaccines. The scientific program will be presented primarily by invited speakers. These include 13 speakers from North America and Europe, 15 from within Australia and approximately 30 representative scientists from countries of South-East Asia and the Western Pacific Region. It is anticipated that registration to this seminar will be open to an additional 140 scientists who wish to attend. Enquiries and requests for the first circular should be addressed to:-

Dr Paul Tzipori,
Diarrhoeal Diseases Seminar,
Attwood Institute for Veterinary Research,
Mickleham Road,
Westmeadows, Victoria 3047

AUSTRALIA - COMMUNICABLE DISEASES INTELLIGENCE

REPORTING PERIOD - 7/6/84 - 20/6/84 BULLETIN NUMBER . 84/13

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	3	1		2	2	2		2	12
0101 ADENOVIRUS TYPE 1	2	1		2		8			13
0102 ADENOVIRUS TYPE 2	2								2
0103 ADENOVIRUS TYPE 3	2			1		1			4
0104 ADENOVIRUS TYPE 4								1	1
0105 ADENOVIRUS TYPE 5				1		2			3
0106 ADENOVIRUS TYPE 6								1	1
0108 ADENOVIRUS TYPE 8	1								1
0119 ADENOVIRUS TYPE 19	4	1		1					6
0131 ADENOVIRUS TYPE 31	1								1
0137 ADENOVIRUS TYPE 37								2	2
0199 ADENOVIRUS TYPING PENDING		1	3		4				8
0201 INFLUENZA A VIRUS			2	1				1	4
0203 INFLUENZA B VIRUS	1		3					3	7
0301 PARAINFLUENZA VIRUS TYPE 1	1			1	7	1		4	14
0302 PARAINFLUENZA VIRUS TYPE 2	1	1		3	21	1			27
0303 PARAINFLUENZA VIRUS TYPE 3	4		1			3		1	9
0304 PARAINFLUENZA VIRUS TYPE 4								1	1
0399 PARAINFLUENZA VIRUS TYPING PENDING								1	1
0400 RESPIRATORY SYNCYTIAL VIRUS (RS)	7	6	1	3	13	13		12	55
0500 RHINOVIRUS (ALL TYPES)	3			4	6	19		2	34
0600 MYCOPLASMA PNEUMONIAE	28		4	8	2	3		1	46
0700 ORNITHOSIS-PSITTACOSIS						5			5
0816 COXSACKIEVIRUS A16	6								6
0901 COXSACKIEVIRUS B1	1								1
0904 COXSACKIEVIRUS B4	1								1
0905 COXSACKIEVIRUS B5	4		1	1	1				7
1003 ECHOVIRUS TYPE 3				1					1
1006 ECHOVIRUS TYPE 6						2			2
1009 ECHOVIRUS TYPE 9	4			3	1				8
1011 ECHOVIRUS TYPE 11					2				2
1016 ECHOVIRUS TYPE 16	1								1
1017 ECHOVIRUS TYPE 17	1								1
1021 ECHOVIRUS TYPE 21	3								3
1022 ECHOVIRUS TYPE 22		1	1						2
1024 ECHOVIRUS TYPE 24			1						1
1101 POLIOVIRUS TYPE 1	4								4
1103 POLIOVIRUS TYPE 3	1					1			2
1104 POLIOVIRUS-VACCINAL STRAIN			2	1	2	1			6
1200 MUMPS VIRUS	10	1		3	1			1	16
1300 HERPES VIRUS GROUP-NOT TYPED	37			1		2			40
1301 HERPES SIMPLEX VIRUS NOT-TYPED				2					2
1302 EPSTEIN-BARR VIRUS (EB VIRUS)	15		1			2		10	28
1303 VARICELLA-ZOSTER VIRUS	4			1		4		1	10
1306 HERPES SIMPLEX TYPE 1	24			23		25		10	82
1307 HERPES SIMPLEX TYPE 2	261		1	64		39		63	428
1399 HERPES VIRUS TYPING PENDING			11		1	7			19
1401 COXIELLA BURNETI	9								9
1502 PICORNA VIRUS-NOT TYPED	4		2					2	8
1521 MEASLES VIRUS				2					2
1522 RUBELLA VIRUS	4			5		1		2	12
1532 HEPATITIS B ANTIGEN	98		11	24		43		19	195
1535 HEPATITIS A ANTIBODY	6		2	4		6		4	22
1541 CHLAMYDIA A - C TRACHOMATIS	64		2	14		8		52	140
1556 CMV - CYTOMEGALOVIRUS	7		2	23	7	3		13	55
1564 ROTAVIRUS	7	10	11	10	12	44		6	100
1568 ENTEROVIRUS TYPE 68	1								1
1599 ENTEROVIRUS TYPING PENDING			4		8	1			13
9901 ARBO. GROUP A.(UNSPECIFIED)				1		2			3
9990 AUSTRALIAN ENCEPHALITIS								1	1
9992 ROSS RIVER VIRUS								9	9
9993 ASTROVIRUS	3								3
9994 SMALL VIRUS (LIKE) PARTICLE		3							3
9996 PARAMYXOVIRUS						6			6
Total	640	26	66	210	90	255		225	1,512

AUSTRALIA - COMMUNICABLE DISEASES INTELLIGENCE

PERIOD : 7/6/84 to 20/6/84 ... 84/13

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
0101 ADENOVIRUS TYPE 1.....	1					1		2		
0103 ADENOVIRUS TYPE 3.....	3									
0108 ADENOVIRUS TYPE 8.....	1									
0119 ADENOVIRUS TYPE 19.....	6									
0137 ADENOVIRUS TYPE 37.....	1	1								
0201 INFLUENZA A VIRUS.....							1	1		
0301 PARAINFLUENZA VIRUS TYPE 1....						1	1			
0302 PARAINFLUENZA VIRUS TYPE 2....								1		
0303 PARAINFLUENZA VIRUS TYPE 3....									1	
0400 RESPIRATORY SYNCYTIAL VIRUS (RS).....							1	2		
0600 MYCOPLASMA PNEUMONIAE.....			1				1	1	1	
0700 ORNITHOSIS-PSITTACOSIS.....							3			
0905 COXSACKIEVIRUS B5.....								1	1	
1009 ECHOVIRUS TYPE 9.....									1	
1011 ECHOVIRUS TYPE 11.....									1	
1022 ECHOVIRUS TYPE 22.....						1				
1103 POLIOVIRUS TYPE 3.....								1		
1104 POLIOVIRUS-VACCINAL STRAIN....										1
1200 MUMPS VIRUS.....			9				3	2		
1301 HERPES SIMPLEX VIRUS NOT-TYPED		2								
1302 EPSTEIN-BARR VIRUS (EB VIRUS).			8					3	1	
1306 HERPES SIMPLEX TYPE 1.....	3	42	1					2		
1307 HERPES SIMPLEX TYPE 2.....		382							1	
1401 COXIELLA BURNETI.....							5	2		
1522 RUBELLA VIRUS.....					1	1		1	1	
1532 HEPATITIS B ANTIGEN.....					1				29	
1535 HEPATITIS A ANTIBODY.....									1	
1541 CHLAMYDIA A - C.TRACHOMATIS...	4	132								
1556 CMV - CYTOMEGALOVIRUS.....		12	1			3	2	8	9	
1568 ENTEROVIRUS TYPE 68.....							1			
9901 ARBO. GROUP A.(UNSPECIFIED)...					2					
9992 ROSS RIVER VIRUS.....					8			2		
Total.....	19	571	20		12	7	18	29	47	1

AUSTRALIA - COMMUNICABLE DISEASES INTELLIGENCE

PERIOD : 7/6/84 to 20/6/84 .... 84/13

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	Respir-atory	Enceph-alitis	Mening-itis	Para-lysis	CNS other unspec	GI	Hepa-tic	CVS	Urin-ary	Skin/ mucs memb
0101 ADENOVIRUS TYPE 1.....		4		1			4				1
0102 ADENOVIRUS TYPE 2.....		1					1				
0103 ADENOVIRUS TYPE 3.....							1				
0104 ADENOVIRUS TYPE 4.....				1							
0105 ADENOVIRUS TYPE 5.....		3									
0106 ADENOVIRUS TYPE 6.....											1
0131 ADENOVIRUS TYPE 31.....	1										
0201 INFLUENZA A VIRUS.....	2										
0203 INFLUENZA B VIRUS.....	4	3									
0301 PARAINFLUENZA VIRUS TYPE 1....		13									
0302 PARAINFLUENZA VIRUS TYPE 2....		26					1				
0303 PARAINFLUENZA VIRUS TYPE 3....		7					1				
0304 PARAINFLUENZA VIRUS TYPE 4....		1									
0400 RESPIRATORY SYNCYTIAL VIRUS (RS).....		51		1		1			1		1
0500 RHINOVIRUS (ALL TYPES).....	1	33	1								
0600 MYCOPLASMA PNEUMONIAE.....	10	30				1	2				2
0700 ORNITHOSIS-PSITTACOSIS.....		2									
0816 COXSACKIEVIRUS A16.....	1										5
0901 COXSACKIEVIRUS B1.....	1										
0904 COXSACKIEVIRUS B4.....				1							
0905 COXSACKIEVIRUS B5.....				5							
1003 ECHOVIRUS TYPE 3.....		1									
1006 ECHOVIRUS TYPE 6.....		1					1				
1009 ECHOVIRUS TYPE 9.....	3			2			1				1
1011 ECHOVIRUS TYPE 11.....							1				
1016 ECHOVIRUS TYPE 16.....		1									
1017 ECHOVIRUS TYPE 17.....				1							
1021 ECHOVIRUS TYPE 21.....				3							
1022 ECHOVIRUS TYPE 22.....		1									
1024 ECHOVIRUS TYPE 24.....				1							
1101 POLIOVIRUS TYPE 1.....	1	1					2				
1103 POLIOVIRUS TYPE 3.....							1				
1104 POLIOVIRUS-VACCINAL STRAIN....			1				4				
1200 MUMPS VIRUS.....	2		2	2		1					
1302 EPSTEIN-BARR VIRUS (EB VIRUS).	10	6						2			
1303 VARICELLA-ZOSTER VIRUS.....											10
1306 HERPES SIMPLEX TYPE 1.....	1	4				1			1	1	30
1307 HERPES SIMPLEX TYPE 2.....	4					1		1			42
1401 COXIELLA BURNETI.....	3										
1521 MEASLES VIRUS.....	1										1
1522 RUBELLA VIRUS.....											11
1532 HEPATITIS B ANTIGEN.....	113							51	2		
1535 HEPATITIS A ANTIBODY.....	4							16		1	
1541 CHLAMYDIA A - C.TRACHOMATIS...	2										
1556 CMV - CYTOMEGALOVIRUS.....	7	8				1	3	3		3	2
1564 ROTAVIRUS.....	1	1					99				
9901 ARBO. GROUP A.(UNSPECIFIED)...											1
9990 AUSTRALIAN ENCEPHALITIS.....			1								
9992 ROSS RIVER VIRUS.....	1										2
9993 ASTROVIRUS.....							3				
9994 SMALL VIRUS (LIKE) PARTICLE...							3				
9996 PARAMYXOVIRUS.....		6									
Total.....	173	204	5	18		6	128	73	4	5	110