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Communicable Diseases Intelligence

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Contents:

VIRUS REPORTING SCHEME A total of 1 469 reports were processed for this period.

Six cases of Q fever were reported (3 from New South Wales, 2 from South Australia and 1 from Western Australia). Occupational exposure data were only available for the South Australian case, a 33 year old female medical officer who regularly visited abbatoirs. None of these patients was involved in the Q fever vaccine field trial conducted in South Australia.

Four cases of Chlamydia psittaci were reported from South Australia; a 32 year old male and 3 females aged 43, 46 and 58 respectively. All patients presented with atypical bilateral pneumonia. It is not known whether there was any history of exposure to birds.

Coxsackievirus A16 was isolated from vesicular skin eruptions, from 5 New South Wales patients, 4 females and one male, with hand, foot and mouth disease. No age details were available for these patients.

Cytomegalovirus was isolated from:

. the urine of a 9 month old male whose mother had toxoplasmosis diagnosed during pregnancy
. the bronchial washings of a 19 year old immunosuppressed female renal patient with high fever caused by an opportunistic pneumonia
. the post-mortem specimens of tissues derived from the lymph nodes, lungs, liver, spleen, adrenal glands and colon of 2 male AIDS patients aged 30 and 38 years respectively.

Nineteen cases of Ross River virus were reported, 1 from Western Australia, 3 from New South Wales and 15 from Victoria.

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AIDS IN TAIWAN
(Based on Epidemiol Bull (1986) 2:29-34)

The first case of AIDS has been reported in Taiwan in a young male homosexual (age unknown). He died 9 months after the appearance of symptoms which may have been due to the disease.

The patient had been healthy until June 1985 when he experienced abdominal pain and loose stools. The symptoms had continued for approximately 1 month when they resolved spontaneously without therapy. The patient had not sought medical advice. The patient presented with fever and headache in September, and in November the patient was admitted to hospital with fever, chills and a dry cough. He stated that he had lost 5-6 kg body weight in the previous 2 months. A chest X-Ray revealed infiltrative lesions over the right middle and left upper lobes. Acid-fast stain and bacterial cultures of sputum were negative. No specific studies for Pneumocystis carinii pneumonia were performed. The patient was treated with trimethoprim-sulfamethoxazole (TMP-SMX) for pneumonia of unknown aetiology.

His symptoms improved over the next 2-3 weeks although he developed oral candidiasis during this time. He was discharged in mid December, but was readmitted 2 days later with a high fever. Therapy with TMP-SMX was continued and he was discharged 5 days after readmission. The patient continued to experience mild symptoms which progressively worsened, and led to his admission to a university hospital on 28 January 1986.

On admission he complained of a 2-3 day history of severe headaches, dizziness, vomiting and memory loss.

Neurological findings included mild bilateral papilloedoema bilateral hyperreflexia, and a right-sided Babinski sign. A computed-tomographic brain scan showed multiple, hypodense, contrast-enhancing mass lesions in the right frontal, left frontal-parietal, and occipital areas. Complete blood count on admission showed a haemoglobin of 11.9 g/100 mL and a leukocyte count of $3,800/mm^3$ with an absolute lymphocyte count of $304/mm^3$. Lumbar puncture showed an elevated cerebrospinal fluid (CSF) protein. India ink test, acid-fast stain, and bacterial cultures on CSF were negative. CSF antibody titres for toxoplasma, cytomegalovirus, herpes simplex, varicella zoster, Epstein-Barr virus, and adenovirus were all negative. Serology for toxoplasma and viral antigens were also negative. Serum electrophoresis showed elevated levels of IgG and IgA immunoglobulins. Blood cultures were negative. Skin tests against streptokinase/streptodornase, tuberculin, and aspergillus antigens were negative. A skin test against Candida was positive.

The patient was positive for antibody to HTLV-III by enzyme immunosorbent assay (EIA) (mean absorbance 0.954, negative cutoff = 0.167, absorbance ratio 5.7). Western Blot assay was also positive for both gp41 and p24 protein bands. The ratio of T-helper to T-suppressor lymphocytes (T_h/T_s) was 0.37 (normal: >1.0). An open brain biopsy did not confirm the CT scan evidence of brain lesions.

The patient stated that he had engaged in homosexual activity for more than 12 years with approximately 100 partners. He had never been married and denied ever having had heterosexual intercourse. He had had at least 3 foreign sexual partners; 1 Swede, 1 American and 1 of unknown nationality. He denied foreign travel for the past 5 years and stated that his last sexual contact with a foreigner had been 2 years earlier. He claimed not to have engaged in sexual activity in the 6 months prior to his most recent admission.

The patient was treated with high-dose corticosteroids, antituberculosis therapy, and TMP-SMX. TMP-SMX was discontinued after 1 day due to a possible adverse reaction to the drug. He subsequently developed severe oral, pharyngeal, and oesophageal candidiasis. His condition deteriorated rapidly and he died on 2 March 1986 from complications of increased cranial pressure. Preliminary results of a post mortem examination showed disseminated cytomegalovirus infection and cerebral toxoplasmosis.

EPIDEMIOL BULL EDITORIAL NOTE

The patient was considered to meet the US Centers for Disease Control (CDC) revised surveillance definition for AIDS because he had:

1. multiple underlying opportunistic infections (disseminated cytomegalovirus, oesophageal candidiasis, cerebral toxoplasmosis) and no other known cause of underlying immunodeficiency;

2. a positive antibody test for HTLV-III confirmed by Western Blot assay; and

3. a low T_h/T_s ratio. Other supportive evidence included an undiagnosed pneumonia responding to therapy with TMP-SMX which may have been due to *Pneumocystis carinii*, another opportunistic infection commonly seen in AIDS patients.

AIDS IN EUROPE TO DECEMBER 1985

As at 31 December 1985, 2006 cases of AIDS had been reported by the 23 countries participating in the surveillance of AIDS in Europe[1]. Two of the countries, Ireland and Portugal have recently joined the program and have reported data for the first time. Table 1 summarises the data.

Table 1. Total number of AIDS cases reported to 31 December 1985 in 23 European countries

Country	December 1984	June 1985	September 1985	December 1985
Austria	13	18	23	28
Belgium	65	99	118	139
Czechoslovakia	-	-	-	-
Denmark	34	48	57	68
Finland	5	6	10	10
France	260	392	466	573

Germany, Federal Republic of	135	220	295	377
Greece	6	9	10	13
Hungary	-	-	-	-
Iceland	-	-	-	...
Ireland	-	-	-	8
Italy	14	52	92	140
Luxembourg	-	1	3	3
Netherlands	42	66	83	98
Norway	5	11	14	17
Poland	-	-	-	-
Portugal	-	-	-	18
Spain	18	38	63	83
Sweden	16	27	36	42
Switzerland	41	63	77	100
United Kingdom	108	176	225	287
USSR	-	-	-	...
Yugoslavia	-	-	1	2
Total	762	1 226	1 573	2 006

... Data not received.

The epidemic has continued in the last year, particularly among IV drug abusers. Of the 2006 reports 407 were made in the last quarter of 1985. (Data from Ireland and Portugal were excluded from this figure). This represents a 25.9% increase over the total reported to September 1985. By country, the greatest increases were seen in France, Italy, and the United Kingdom. Overall, the cumulative number of cases increased by 159% in the 17 countries reporting at the end of December 1984, and doubled in the first 8 months of 1985.

Clinical Pictures

The clinical pictures of AIDS patients in Europe are summarised in Table 2. Of the cases reported, there had been 1005 (50.1%) deaths to December 1985. The percentage death rate in each sub-group, as summarised in Table 2, totalled 990 patients. Fifteen deaths appear to be unaccounted for.

Table 2. The clinical pictures of 2006 AIDS cases reported to 31 December 1985.

	one or more opportunistic infections	Kaposis sarcoma	Opportunistic infections and Kaposis sarcoma	other*	Total
Number of cases	1327	392	246	41	2006
Number of deaths					1005
Deaths (%)	53	28	61	66	50.1

* Diagnoses included progressive multifocal leukoencephalopathy, brain lymphoma or non-Hodgkin's lymphoma.

Of the total number of cases reported, 1 832(91.3%) were male, and 1 718(85.6%) of all cases were aged 20-49 years (see footnote#). The risk group was assessed for 1 698 cases in Europeans. Of these 1 279(75.3%) were homosexuals or bisexuals, 147(8.7%) were drug abusers and 35(2.1%) were both homosexual and drug abusers. In 45 of the 68 cases in haemophiliacs, the only risk factor was blood transfusion. In 124(7%) cases no risk factor was identified. Most (71%) of the 58 cases in children under 15 years of age had parents with AIDS or belonging to a high-risk group for AIDS; 16 paediatric cases were linked to contaminated blood or blood products and 1 was not attributed to any risk factor.

AIDS cases have been reported by 18 of the 23 participating countries. Male homosexuals were stated to account for 60-90% of the cases in 12 of the countries. Of the other 6 countries, in Greece, Ireland and Yugoslavia male homosexuals represented 50% of cases, and in Belgium, Italy and Spain male homosexuals represented less that 50% of cases. Similarly, of the countries in which the majority of cases were homosexuals, several have reported too few cases to make meaningful statements as to the proportions of risk groups represented.

In Italy and Spain, the largest single risk factor was drug abuse. In Europe overall to the end of 1984, there were 10 AIDS cases in which drug abuse was the sole risk factor. To the end of 1985 there were 148 cases in this group, which represented an increase from 1% to 7% of all AIDS cases in Europe.

Footnote# The original article states that "96% of all cases (of AIDS) were in adults aged 20-49 years." This figure appears to be a misprint.

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AIDS-GREECE AND THAILAND
(Based on WER No 21, (1986) (162-163)

GREECE

As of 31 March 1986, 14 cases of AIDS including 12 deaths, have been diagnosed. All belonged to a risk group or came from other countries when AIDS is considered endemic. Studies of HTLV-III antibody have shown a prevalence of:

- 10.7% in homosexual men
- 3.4% in female prostitutes
- 2.1% in drug addicts (sera collected in 1983)
- 1.5% in polytransfused thalassaemic children
- 45% in haemophiliacs
- 0.02% in blood donors.

THAILAND

Studies of HTLV-III antibody prevalence among the general population and among persons at increased risk of acquiring AIDS indicate a very low spread of the virus among Thai nationals.

The first study, conducted between February and July 1985, included sera from:

. 101 homosexual male prostitutes,
. 100 female prostitutes,
. 100 heterosexual males with other sexually transmitted diseases
. 158 blood donors,
. 105 thalassaemia patients and
. 35 haemophiliacs

Only 1 serum of a male prostitute was positive to HTLV-III by ELISA and confirmed by immunoblot test.

A second study carried out from 8 January to 10 February 1986 included sera from 1,984 healthy persons (1 820 males and 164 females aged 18-56 years) mainly from the north-eastern, northern and central parts of the country. Over half of them (56%) are now residing abroad. None showed a positive result for HTLV-III antibody by ELISA.

As of 31 December 1985, 6 cases of AIDS, including 4 foreigners, have been reported. All were among males: 5 homosexual and 1 bisexual. In addition, 5 cases of AIDS-related complex (ARC) have been reported: 3 were homosexual men, 1 bisexual man, and 1 case diagnosed in a woman. The 2 indigenous AIDS cases and the 5 cases of ARC had a history of contact with foreigners.

CRYPTOSPORIDIOSIS

(by Dr G.L. Gilbert, Director of Microbiology Department - Royal Children's Hospital - Melbourne)

The first 2 cases of human cryptosporidiosis were described as recently as 1976. The clinical manifestations are:

a. self limiting enterocolitis in immunologically normal individuals.
b. persistent life threatening diarrhoea in immunologically compromised patients, particularly those with AIDS. The infection is widespread among mammals, birds and reptiles and unlike other coccidia, cryptosporidiosis lacks host specificity and is therefore a true zoonosis.

Epidemiological studies indicate a prevalence, in individuals with diarrhoea, of 1-7% in developed countries and 7-10% in developing countries[1]. In Victoria the infection appears to have occurred more commonly in wet, summer months. Outbreaks of infection have been described in day care centres. The clinical signs of cryptosporidiosis are non specific and similar to those due to other common enteric pathogens. Diagnosis is made by examination of faeces for cryptosporidial oocysts using a Giemsa or modified acid fast stain. A large number of chemotherapeutic agents have been tested clinically and experimentally but none has been shown to be effective. During the past 2 months, 9 cases of cryptosporidiosis have been detected amongst children attending the Royal Children's Hospital, 4 of whom were outpatients. All but 1 of these children were immunologically normal and recovered spontaneously.

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LISTERIOSIS - OUTBREAK IN CALIFORNIA
(Based on WER 16: (1986) 120, 121)

In June and July 1985, investigators from the Centers for Disease Control (CDC), Atlanta, the Food and Drug Administration (FDA) and the California Department of Health Services confirmed 60 human deaths, including foetal deaths associated with Listeria monocytogenes. Several late stillbirths occurring in a cluster among Spanish-American women were noticed in a San Diego hospital, and subsequent analysis of the foetal remains revealed the presence of L. monocytogenes organisms. Although the original source of the offending organism was not ascertained, improperly pasteurised cheese was considered to be the vector substance.

An epidemiological survey of the victims' families implicated a particular brand of cheese, favoured by the Spanish-American subpopulation which was manufactured by a Southern California company and distributed across the United States. Subsequently, affected human cases were identified in at least 6 States. An analysis of plant operations revealed that the company was receiving more milk than it had the capacity to pasteurise, thus leading Government officials to postulate that approximately two thirds of the milk utilised in cheese making was pasteurised while the remainder was not. Addition of unpasteurised milk contaminated with L. monocytogenes can have serious consequences because the organisms surviving in imperfectly pasteurised milk multiply to very large numbers (10^8/ml/48 hours) at 22°C.

Attempts to determine the primary source of the offending organisms involved identifying dairy herds which supplied the bulk of milk to the company and testing for L.monocytogenes contamination. To allow for collection of milk from each cow in the herd, the milk lines were opened and milk dripped into specimen jars while each group of approximately 50 cows was being milked. In this way the individual cow's contribution was not diluted more than 1:50. The initial analysis found 12 of the original bulk samples positive by flow cytometry and direct fluorescent antibody method. This method however, is only a presumptive test for Listeria since positive identification of the organism through culture was attempted without success.

CDI Editorial Comment

In humans and ruminants (eg sheep), Listeria may cause meningo-encephalitis with or without bacteremia. Listeriosis may be superimposed on lymphoma or immunodeficiency. The diagnosis rests on isolation of the organism in cultures of blood and spinal fluid. A second form of human listeriosis, Granulomatosis infantiseptica. is an intrauterine infection. The early-onset syndrome results in intrauterine sepsis and death prior to or after delivery. It is caused by serotypes 1a and 1b, rarely 4b. The late-onset syndrome involves no obstetric complications but does cause the development of meningitis in the newborn. It is most often due to type 4b and has a significant mortality rate. The route of infection for adults is sometimes the genital tract. Alternatively, Listeria may colonise the intestines when raw vegetables that have been contaminated in the soil are ingested. Listeriosis may account for up to 15% of cases of neonatal meningitis in the United

States, and it is also seen in immunosuppressed adults. It is probable that asymptomatic infection is rather widespread. Many antimicrobial drugs inhibit Listeria in-vitro. Ampicillin plus an aminoglycoside, or tetracyclines have resulted in clinical cures.

LYME DISEASE
(based on CDR 86/19, 9 May 1986)

Lyme disease is a zoonosis caused by infection with the spirochaete Borrelia burgdorferi and transmitted by the bite of a hard tick of the genus Ixodes[1]. The disease was first recognised in America following an outbreak of seronegative oligoarthritis in children, many of whom gave a history of the characteristic spreading annular skin eruption, erythema chronicum migrans (ECM)[2]. In 1909, Alzelius correctly attributed ECM to the bite of the tick Ixodes ricinus[3]; later reports documented meningopolyneuritis[4] and chronic meningitis[5] as sequelae of ECM. In 1948, Lenhoff found spirochaetes in skin biopsy sections of ECM but, although this was not confirmed at the time, enthusiasm for a bacterial cause for the disease was maintained when ECM was found to be cured by penicillin[6] and to be transmitted to others by inoculation[7].

B.burgdorferi has been isolated not only from ticks[1], but also from small mammals in areas endemic for Lyme disease. These mammmals serve as reservoirs of infection[8]. Although B. burgdorferi has also been isolated from the skin, blood and cerebrospinal fluid of patients with Lyme disease[9], isolation of the spirochaete is not recommended as a routine diagnostic method. Past or current infection can be diagnosed by the presence of circulating antibodies to the spirochaete[1].

Clinical Symptoms

Lyme Disease is a generalised disorder whose hallmark is ECM which may be followed weeks or months later by arthritic, neurological and cardiological manifestations[10]. Patients may experience recurrent disability attacks of arthritis of the large joints which in some may become chronic and destructive. They may also present with chronic meningitis with encephalitis and peripheral motor and sensory neuropathy or radiculopathy. Cardiac conduction defects, myocarditis, and pericarditis may also occur. In Europe, Lyme arthritis and cardiac complications are uncommon although reported[11]. In Sweden and Germany, there is a late skin manifestation called acrodermatitis chronica atrophicans which is not seen in North America[12]. The reasons for these differences in disease expression are unclear but may arise because of subtle antigenic differences between the European and American borreliae[13].

Diagnosis

Except in early disease, antibody to B. burgdorferi can be detected in the serum and CSF by indirect immunofluorescence[1]. IgM antibody is important for diagnosis of early disease. Antibody titre tends to be higher with arthritic and neurological diseases than with skin

disease. An arbitrary titre of 64 has been used for diagnosis of infection but a false positive test may occur with syphilis and systemic lupus erythematosus[14]. ELISA is an alternative to immunofluorescence but has no advantage in sensitivity or specificity[15].

Treatment

Lyme disease responds to phenoxymethyl penicillin 250-500mg six hourly (qds) or tetracycline 250-500mg qds orally for 10 days and treatment lessens the likelihood of complications. Arthritic, cardiac or neurological complications require high dose penicillin (20 mega units daily for 10 days) intravenously, but the Jarisch-Herxheimer reaction may occur during the first 24 hours following the injection[16, 17]

Lyme Disease in the United Kingdom

Lyme Disease has been reported in East Anglia[18] and Scotland[19], and cases have been found in N. Ireland. Of the recorded cases, ECM has been the sole manifestation of Lyme disease but several serologically confirmed cases have been associated with meningitis, radiculopathy and cranial nerve palsy. A history of ECM is not always present and it is likely that ECM may be missed or treated with antibiotics. As Ixodes ricinus is widespread in the UK it is probable that some cases without ECM may have remained undiagnosed.

Lyme Disease in France[20]

Between February 1985 and February 1986 154 cases of Lyme disease were diagnosed in France on clinical and/or serological grounds (titre $\geq$ 256). Ages ranged from 8-85 years (median 45 years); 56% were male and 44% female. Of 108 serologically confirmed cases; 97 were infected in France, 2 in Italy, 2 in Algeria and one each in Belgium and the Federal Republic of Germany.

Of the 38 patients presenting with ECM 20 also had transient arthralgia. In 30 of the patients with ECM, a date of infection was available; all were between May and October. Of 98 patients with stage II disease, 88 had neurological/meningeal symptoms; 50 had arthralgia/arthritis and 3 had cardiac disease. Five patients presented with stage III disease.

Lyme Disease in the United States[21]

Over the past 2 years the number of cases of Lyme disease reported to the Centers for Disease Control (CDC) has increased to the extent that Lyme disease is now the most commonly reported tickborne illness in the United States. Although it is reportable in only a few States, informal national surveillance was initiated by CDC in 1980 and has been compiled annually since 1982. In 1980, 1982 and 1983, 226, 491 and 599 cases respectively, were reported in the United States. In

1984, a provisional total of 1,498 cases was reported. In Lyme disease patients for whom 1983 and 1984 surveillance data are available, ages ranged from 1 year to 81 years (median 34 years). Fifty-four percent of cases occurred among males. Eighty percent of cases occurred during the 4 month period May-August, with the peak incidence in July.

Since 1980, reported cases of Lyme disease have occurred in an increasing number of States. Lyme disease was acquired in 11 States in 1980 and 1982, 18 States in 1983, and 21 States in 1984. Increasing numbers of cases have occurred in three States outside previously recognised endemic areas: Arkansas, North Carolina and Texas. Isolated, serologically confirmed cases have been acquired in Florida, Georgia, Indiana, Michigan, New Hampshire, Virginia and Tennessee.

However, in all reporting years, over 90% of all cases were acquired in only seven States: Connecticut, Massachusetts, Minnesota, New Jersey, New York, Rhode Island, and Wisconsin. In addition, isolated, clinically inspected but unconfirmed cases of Lyme disease have been reported from Kentucky, Maine, Missouri, Montana, Ohio and Vermont.

Lyme disease in Australia[22]

One case of Lyme disease was reported in February 1982 involving a 21 year old labourer working in bushland near Branxton in the lower Hunter Valley who was bitten on the leg by an unidentified insect in February 1980. Although a tick bite was not identified in this patient and no evidence of an increased tick prevalence has been apparent, the most commonly found tick in the Hunter Valley is Ixodes holocyclus.

However, six cases of ECM had been diagnosed by Hunter Valley dermatologists over the preceding 12 months, which could indicate that the aetiological agent is well established in the area, and more cases of Lyme arthritis may be expected.

CDI Editorial Note

Lyme disease should be considered in the differential diagnosis of a patient with recent onset of polyarthritis. A history of possible exposure to ticks should be sought from these patients.

Early cases of Lyme disease may be seronegative for Borreliae species, and, as anti-microbial therapy reduces morbidity associated with this disease, their use may be indicated in cases of polyarthritis.

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AUSTRALIA - COMMUNICABLE DISEASES INTELLIGENCE

REPORTING PERIOD 26/5/86 - 8/6/86 BULLETIN NUMBER 86/12
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	2	1	3	1	1	2	23		33
0101 ADENOVIRUS TYPE 1						2		1	3
0102 ADENOVIRUS TYPE 2				1					1
0103 ADENOVIRUS TYPE 3					1				1
0104 ADENOVIRUS TYPE 4	1	1							2
0105 ADENOVIRUS TYPE 5				1		1			2
0108 ADENOVIRUS TYPE 8			2	3					5
0111 ADENOVIRUS TYPE 11	1							1	2
0115 ADENOVIRUS TYPE 15						1			1
0127 ADENOVIRUS TYPE 27	1								1
0137 ADENOVIRUS TYPE 37								1	1
0199 ADENOVIRUS TYPING PENDING			1		1				2
0201 INFLUENZA A VIRUS			2	1					3
0203 INFLUENZA B VIRUS			3						3
0301 PARAINFLUENZA VIRUS TYPE 1	4			1	17				22
0302 PARAINFLUENZA VIRUS TYPE 2		1		3	17	14	5		40
0303 PARAINFLUENZA VIRUS TYPE 3					2	2	3		7
0399 PARAINFLUENZA VIRUS TYPING PENDING	1	1							2
0400 RESPIRATORY SYNCYTIAL VIRUS (RS)	11	4	3		8	3	12	1	42
0500 RHINOVIRUS (ALL TYPES)			1	2	16	14	4		37
0600 MYCOPLASMA PNEUMONIAE	4	1	1	4		1		1	12
0700 ORNITHOSIS-PSITTACOSIS						4			4
0816 COXSACKIEVIRUS A16	5								5
1001 ECHOVIRUS TYPE 1						1			1
1003 ECHOVIRUS TYPE 3				1					1
1005 ECHOVIRUS TYPE 5	1								1
1011 ECHOVIRUS TYPE 11		1						1	2
1014 ECHOVIRUS TYPE 14						1			1
1015 ECHOVIRUS TYPE 15		1							1
1018 ECHOVIRUS TYPE 18		1							1
1022 ECHOVIRUS TYPE 22	2			1		3			6
1023 ECHOVIRUS TYPE 23						1			1
1024 ECHOVIRUS TYPE 24	1								1
1028 ECHOVIRUS TYPE 28=RHINOVIRUS								1	1
1101 POLIOVIRUS TYPE 1						2			2
1103 POLIOVIRUS TYPE 3	1					1			2
1200 MUMPS VIRUS				2	1				3
1300 HERPES VIRUS GROUP-NOT TYPED	3		1	1					5
1301 HERPES SIMPLEX VIRUS NOT-TYPED		2		3		2		1	8
1302 EPSTEIN-BARR VIRUS (EB VIRUS)	13	1		1		1		8	24
1303 VARICELLA-ZOSTER VIRUS	1					1	3	4	9
1306 HERPES SIMPLEX TYPE 1	7		3	36		39	53	10	148
1307 HERPES SIMPLEX TYPE 2	37		26	71		26	143	20	323
1399 HERPES VIRUS TYPING PENDING					4				4
1401 COXIELLA BURNETI	3					2		1	6
1502 PICORNA VIRUS-NOT TYPED	6		9	1		1	28	1	46
1521 MEASLES VIRUS		1	1	1	1				4
1522 RUBELLA VIRUS	2			4		1		4	11
1532 HEPATITIS B ANTIGEN	41		12	26	1	49	48	6	183
1535 HEPATITIS A ANTIBODY	3			3		28	4	12	50
1541 CHLAMYDIA A - C TRACHOMATIS	28		3			62	58	31	182
1556 CMV - CYTOMEGALOVIRUS	7		1	34	2	8	23	8	83
1562 REOVIRUS (ALL TYPES)				1			1		2
1564 ROTAVIRUS	12	2	1		7	47		2	71
1565 CALICI VIRUS	1								1
1566 NORWALK AGENT	1								1
1569 ENTEROVIRUS TYPE 69	1								1
1599 ENTEROVIRUS TYPING PENDING		2	10		14				26
9990 AUSTRALIAN ENCEPHALITIS								1	1
9992 ROSS RIVER VIRUS			3	15				1	19
9993 ASTROVIRUS	2								2
9994 SMALL VIRUS (LIKE) PARTICLE		3				1			4
Total	203	23	86	218	93	321	408	117	1,469

AUSTRALIA - COMMUNICABLE DISEASES INTELLIGENCE

PERIOD : 26/5/86 - 8/6/86
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.....	1										1
0101 ADENOVIRUS TYPE 1.....		1					2				
0102 ADENOVIRUS TYPE 2.....		1									
0103 ADENOVIRUS TYPE 3.....		1									
0104 ADENOVIRUS TYPE 4.....	1						1				
0105 ADENOVIRUS TYPE 5.....						1	1				
0111 ADENOVIRUS TYPE 11.....										1	
0115 ADENOVIRUS TYPE 15.....		1									
0201 INFLUENZA A VIRUS.....		2									
0203 INFLUENZA B VIRUS.....		1						1			
0301 PARAINFLUENZA VIRUS TYPE 1....	2	20									
0302 PARAINFLUENZA VIRUS TYPE 2....	1	37					2				
0303 PARAINFLUENZA VIRUS TYPE 3....		7									
0399 PARAINFLUENZA VIRUS TYPING PENDING.....						1					
0400 RESPIRATORY SYNCYTIAL VIRUS (RS).....		39									
0500 RHINOVIRUS (ALL TYPES).....		20									
0600 MYCOPLASMA PNEUMONIAE.....	2	8									
0700 ORNITHOSIS-PSITTACOSIS.....		4									
0816 COXSACKIEVIRUS A16.....											5
1001 ECHOVIRUS TYPE 1.....						1					
1005 ECHOVIRUS TYPE 5.....	1										
1011 ECHOVIRUS TYPE 11.....				2							
1014 ECHOVIRUS TYPE 14.....							1				
1015 ECHOVIRUS TYPE 15.....		1									
1022 ECHOVIRUS TYPE 22.....	1	3									
1023 ECHOVIRUS TYPE 23.....							1				
1024 ECHOVIRUS TYPE 24.....	1										
1028 ECHOVIRUS TYPE 28=RHINOVIRUS..		1									
1101 POLIOVIRUS TYPE 1.....		1								1	
1103 POLIOVIRUS TYPE 3.....	2										
1200 MUMPS VIRUS.....	3			1							
1300 HERPES VIRUS GROUP-NOT TYPED..											1
1301 HERPES SIMPLEX VIRUS NOT-TYPED	3		1	1							3
1302 EPSTEIN-BARR VIRUS (EB VIRUS).	7	1	1					2			
1303 VARICELLA-ZOSTER VIRUS.....			1		1	1					6
1306 HERPES SIMPLEX TYPE 1.....	4	6					1			3	81
1307 HERPES SIMPLEX TYPE 2.....	13										59
1401 COXIELLA BURNETI.....	4							1			
1502 PICORNA VIRUS-NOT TYPED.....	2	7		2		2	7		3		1
1521 MEASLES VIRUS.....	1										2
1522 RUBELLA VIRUS.....		1									10
1532 HEPATITIS B ANTIGEN.....	37							103			
1535 HEPATITIS A ANTIBODY.....	6							34			
1541 CHLAMYDIA A - C.TRACHOMATIS...	3							1			
1556 CMV - CYTOMEGALOVIRUS.....	7	19			1	1		2		3	1
1562 REOVIRUS (ALL TYPES).....							2				
1564 ROTAVIRUS.....	1	1					66				
1565 CALICI VIRUS.....							1				
1566 NORWALK AGENT.....							1				
1569 ENTEROVIRUS TYPE 69.....							1				
9990 AUSTRALIAN ENCEPHALITIS.....	1										
9992 ROSS RIVER VIRUS.....											3
9993 ASTROVIRUS.....							2				
9994 SMALL VIRUS (LIKE) PARTICLE...							4				
Total.....	104	183	3	6	2	7	93	144	4	7	173

AUSTRALIA - COMMUNICABLE DISEASES INTELLIGENCE

PERIOD : 26/5/86 - 8/6/86
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
0108 ADENOVIRUS TYPE 8.....	5									
0111 ADENOVIRUS TYPE 11.....							1		1	
0127 ADENOVIRUS TYPE 27.....									1	
0137 ADENOVIRUS TYPE 37.....		1								
0201 INFLUENZA A VIRUS.....				1						
0203 INFLUENZA B VIRUS.....								1		
0302 PARAINFLUENZA VIRUS TYPE 2....								1		
0303 PARAINFLUENZA VIRUS TYPE 3....								1		
0399 PARAINFLUENZA VIRUS TYPING PENDING.....								1		
0400 RESPIRATORY SYNCYTIAL VIRUS (RS).....								1	2	
0500 RHINOVIRUS (ALL TYPES).....			1					1		
0600 MYCOPLASMA PNEUMONIAE.....								2		
0700 ORNITHOSIS-PSITTACOSIS.....								1		
1003 ECHOVIRUS TYPE 3.....								1		
1018 ECHOVIRUS TYPE 18.....						1				
1022 ECHOVIRUS TYPE 22.....									2	
1302 EPSTEIN-BARR VIRUS (EB VIRUS).			7	2				6	1	
1303 VARICELLA-ZOSTER VIRUS.....									1	
1306 HERPES SIMPLEX TYPE 1.....	7	42						1	4	
1307 HERPES SIMPLEX TYPE 2.....		252						1		
1401 COXIELLA BURNETI.....								1		
1502 PICORNA VIRUS-NOT TYPED.....	1				1			1		2
1521 MEASLES VIRUS.....									1	
1522 RUBELLA VIRUS.....					1				1	
1532 HEPATITIS B ANTIGEN.....						1			42	
1535 HEPATITIS A ANTIBODY.....									10	
1541 CHLAMYDIA A - C.TRACHOMATIS...	2	174							2	
1556 CMV - CYTOMEGALOVIRUS.....		10	1	1		5	2	4	32	1
1564 ROTAVIRUS.....	1	1						2		
9992 ROSS RIVER VIRUS.....					18			1		
Total.....	16	480	9	4	20	7	3	27	100	3

IMPORTANT NOTICE Our ref 86/4465

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