ISSN 0725-3141

Communicable Diseases Intelligence

Bulletin number 84/12
Issue date: 15 June 1984

Contents:

AUSTRALIAN ENCEPHALITIS - WESTERN AUSTRALIA

(Contributed by M. Bucens, State Health Laboratory Services, Perth).

Australian encephalitis was diagnosed recently in an 18 year old Aboriginal stockman working at Argyle Downs station, Halls Creek. He had a two week history of diarrhoea, followed by the development of a headache that gradually became more severe over the following three days. He also manifested personality changes. On 29 May while driving a truck, he lost consciousness and crashed into a tree. A CSF specimen collected at Halls Creek revealed 250 white blood cells (mostly lymphocytes) and 100 erythrocytes. A provisional diagnosis of encephalitis was made, and the patient transferred to Derby Hospital. He remained semi-conscious for a further 24 hours before answering to his name, after which he made a rapid recovery. Serum and CSF collected on 29 May gave HI titres against MVE antigen of 1/160 and 1/32 respectively. Virus specific IgM was detected in the serum but not in the CSF, possibly due to a dilution factor. Neutralisation tests are currently being done at the Department of Microbiology, University of Western Australia.

VIRUS REPORTING SCHEME - A total of 798 reports were received this period, although data from two laboratories were not processed due to delays in the mail.

. The four indigenous dengue cases reported by the State Health Laboratory, Brisbane, emanated from Townsville (3, all type 1 infections) and Cairns (1, serologically a type 2 infection). Two unspecified flavivirus infections were also diagnosed in patients from Townsville and Bowen.

. A primary varicella-zoster infection and a primary Epstein-Barr virus (EBV) infection were reported recently by the State Health Laboratory Services, Perth, in two young women in their first trimester of pregnancy. Transmission of varicella-zoster to the foetus late in pregnancy, particularly shortly before or during birth, may result in severe systemic illness but without the development of congenital stigmata. On the other hand, congenital varicella

(continued on page 8).

The Bulletin is compiled and distributed by the Environmental Health Branch, Department of Health, P.O. Box 100, Woden, A.C.T. 2606, Australia, and is available on request.

VACCINE PROPHYLAXIS OF Q FEVER

(Contributed by B.P. Marmion, Institute of Medical and Veterinary Science, Adelaide.)

Q fever has been a problem in Australian abattoirs from at least the time when Derrick first identified the disease in 1937 in the Cannon Hill abattoir, Brisbane[1]. A rickettsia-like organism, later named Coxiella burneti, was subsequently isolated and identified from guinea pigs inoculated with blood from infected meatworkers[2]. It has been shown to be carried by many insects, ticks and animals, the principal reservoirs of human infection being cattle and sheep, in which the infection is usually subclinical. Apart from infections in major occupationally exposed groups of livestock handlers and processors of animal products, sporadic cases are also seen in shearers, workers in tanneries, in fellmongers, among those handling large volumes of raw cows' milk, in farmers, veterinarians and in visitors to abattoirs and other contaminated environments (e.g. maintenance engineers, insurance adjusters, agricultural machinery salesmen, catering school students). Several outbreaks have also occurred in medical laboratories using pregnant sheep or goats to study foetal physiology.[3]

Although acute Q fever is an unpleasant and debilitating disease, it is rarely life-threatening. However, chronic endocarditis and chronic liver disease are serious sequelae, and recent surveys suggest that these complications are underdiagnosed and significantly more common than previously supposed.[4,5]

The organism, C. burneti is highly stable and remains in infected dust or droplets for long periods. The route of infection is mainly by inhalation of infective aersols via the respiratory tract, so that in abattoir environments ample opportunities exist for generation and dissemination of infective aerosols during the removal and disposal of the infected uterus and products of conception. In the late 1970's, the addition of feral goats to the slaughter program of many abattoirs led to a number of extensive outbreaks of Q fever. Architectural and organisational alterations to the plants reduced, but could not eliminate, the risk of aerosol infection. Consequently, it became evident that there was a clear need for a protective vaccine for human use, with the immunisation of persons at risk being the best method of disease prevention. Vaccines have been used for many years to protect laboratory workers and no undue local reactions have been observed in these groups,[6] but until now concern over post vaccination reactions has inhibited the use of vaccination in other occupationally exposed groups. However, the finding that most serious reactions occur generally in individuals who have already been exposed to Q fever (as demonstrated by pre-existing antibody and/or positive skin test) together with their concomitant exclusion from an immunisation program, would reduce the number and severity of adverse effects to a Q fever vaccine.

A whole cell, highly purified suspension of C. burneti, Henzerling strain in antigenic phase I, was prepared at the Commonwealth Serum Laboratories (CSL), Melbourne, and was shown to be free of adventitious agents. Antigenic phase I organisms are those that are isolated from an infected animal and that react only with convalescent sera; phase II antigen can be demonstrated after the organisms have been passed serially through embryonated eggs, and reacts with early and late sera. Clinical studies have indicated that the presence of antibodies

to the phase II antigen suggest an acute infection or previous exposure; those to phase I antigen are found in patients with chronic disease. The rickettsial suspension was inactivated by formalin treatment with subsequent testing for residual infectivity and immunogenicity according to protocols agreed with the National Biological Standards Laboratory.

In a limited trial of susceptible meatworkers, 30 µg of rickettsiae were inoculated subcutaneously after testing for pre-existing immunity by antibody tests (complement-fixation and immunofluorescence) against C. burneti phase I and phase II antigens, and by intradermal skin test with diluted vaccine (0.02 µg rickettsiae). Vaccine was not given to subjects who were positive by antibody or skin test because of the high risk of severe local reactions. Approximately 1400 consenting subjects were vaccinated after preliminary testing for Q fever immune markers. Reactions were at acceptable levels, comprising of erythema and local tenderness lasting 2-3 days. A few subjects had oedema or induration at the site of inoculation. There were no long term reactions. Some subjects had short-lived general reactions - headache, slight sweating, lethargy; and others had respiratory symptoms (probably coincidental upper respiratory tract infection).

Approximately 60% of subjects seroconverted after vaccination - a rate comparable to vaccine trials in volunteers in the USA. Despite this low rate of antibody stimulation, vaccinated subjects were immune on natural response at work. During an 18 month survey period in the two participating abattoirs, there were no cases in fully vaccinated subjects (i.e. those vaccinated more than 20 days before onset of disease). At one facility, there were no cases in 602 vaccinated workers compared with 30 cases in 1045 unvaccinated controls (rates per 1000 exposure months of 0 and 1.98 respectively: $p < 0.001$). Further studies are required to define the duration and basis of immunity, as well as the assessment of "split product" chemovaccines (phase I antigen extracted from the organism) as reliable immunogens.[7]

The CSL vaccine used is not available for general use at present but is currently the subject of a submission to the Therapeutics Goods Branch, Department of Health, Canberra, for a licence for wider use in abattoirs and other high risk groups.

References

1. MJA (1937) 2 : 281
2. MJA (1937) 2 : 299
3. Lancet (1982) 1 : 1004
4. Lancet (1982) 2 : 1448
5. Gastroenterology (1982) 83 : 474
6. MJA (1980) 2 : 281
7. Bull WHO (1982) 60 : 389

GONOCOCCAL SURVEILLANCE - AUSTRALIA (JULY-DECEMBER 1983)

(Contributed by the Australian Gonococcal Surveillance Program (AGSP). Co-ordinator - J.W. Tapsall, Department of Microbiology, Prince of Wales Hospital, Sydney).

This report describes the prevailing penicillin sensitivities of N. gonorrhoeae collated by the AGSP for the period July-December 1983. Table 1 gives the percentages of gonococcal isolates classed as either (A) sensitive (minimal inhibitory concentration (MIC) value = 0.008 µg/ml) or (B) less sensitive (MIC = 0.12 µg/ml) to penicillin. These two categories accounted for the majority of isolates as in previous studies.

TABLE 1. Penicillin sensitivity of N. gonorrhoeae isolates (July-December 1983)

Percentages for the corresponding July-December 1982 quarters are in parentheses.

Centre	Percentage of isolates			
	July-September 1983		October-December 1983	
	A	B	A	B
Brisbane	34.7 (51.6)	50.8 (38.8)	37.0 (51.3)	57.0 (38.3)
Sydney	16.6 (28.9)	72.8 (62.5)	12.8 (16.5)	65.7 (74.8)
Melbourne	32.2 (44.8)	44.4 (45.6)	15.4 (41.4)	50.9 (43.8)
Adelaide	32.2 (19.2)	53.9 (54.3)	50.0 (35.7)	38.5 (42.6)
Perth	44.0 (27.7)	13.4 (52.9)	32.9 (25.0)	25.2 (57.0)
Strains examined	1053 (1593)		1057 (1563)	

As noted previously, Sydney had the lowest proportion of sensitive strains of any of the centres, with little variation over the past 12 months. In contrast, Perth displayed a predominance of sensitive strains compared with the same six month period in 1982 when less sensitive strains prevailed. In Brisbane, Melbourne and Adelaide the less sensitive strains were prevalent during July-September, a pattern which was maintained, except for Adelaide, in the final quarter. Data received from R. Tucker, Royal Hobart Hospital, Tasmania, for the period July-September 1983, indicated that the strains were of the sensitive category, and no penicillinase-producing N. gonorrhoeae (PPNG) strains were isolated. Since the number of strains tested was low relative to the other participating laboratories, the data was not included in the tabulated percentages.

The percentage of PPNG strains isolated by the centres varied over the period observed (Table 2).

TABLE 2. Percentage of PPNG strains isolated (July-December 1983).

Percentages for the corresponding July-December 1982 quarters are in parentheses.

Centre	July-September 1983	October-December 1983
Brisbane	11.4 (2.6)	4.1 (3.8)
Sydney	3.0 (4.0)	9.9 (2.8)
Melbourne	0.6 (2.4)	3.0 (2.5)
Adelaide	3.5 (6.6)	1.0 (4.5)
Perth	8.2 (7.0)	7.0 (7.9)
PPNG strains (Australia)	51 (58)	58 (61)

During July-September, Brisbane showed a marked increase in PPNG strains compared with the same quarter in 1982. Perth also indicated a slight increase, whereas Sydney, Melbourne and Adelaide all displayed decreases. Strains were isolated from 51 patients (39 male; 12 female), of which 29 urethral isolates were cultured from the males and eight urethral/cervical, one pharyngeal and one blood isolate were cultured from the females. Nineteen patients acquired their infection overseas, and 32 were acquired locally.

In October-December, Sydney displayed a marked increase in PPNG isolates primarily due to a continuing outbreak among prostitutes. Adelaide displayed a decreased percentage, and Brisbane, Melbourne and Perth showed similar percentages when compared with the same quarter in 1982. Strains were isolated from 58 patients (42 male; 16 female), of which 35 were urethral isolates from males, and ten urethral/cervical and one pharyngeal isolation from females. Fourteen of the patients acquired their infection overseas, and 44 were due to local transmission.

Of the 33 overseas acquired strains recorded in the six month period, 12 were from Manila, five from Thailand, four from Bali and one each from Malaysia, New Guinea, Korea, Taiwan, Fiji and the Marshall Islands. Information on the origins of the remaining six strains was unavailable.

PATTERNS OF SEXUALLY-RELATED DISORDERS IN DIFFERENT AGE GROUPS - SOUTH AUSTRALIA

(Contributed by C.R. Philpot, A. Cambridge, F. Johnston and S. Makinson, Flinders Medical Centre, Adelaide).

Information on sexually transmissible diseases (STDs) in different age groups has generally been derived from studies of selected disorders such as gonorrhoea[1-4], syphilis[1,5,6], chlamydial infection[7,8], trichomoniasis[9] or hepatitis B[10], or mentioned in connection with sociological, pyschological and epidemiological aspects of STDs[11-16]. There is little information about the wider spectrum of such disorders in various age groups.

Accordingly, the confidential case records of 1445 persons registered at the Flinders Medical Centre Sexually Related Diseases Service[17] over the seven year period since its opening in 1976 were reviewed to determine the age, sex, clinical condition(s) found and microorganism(s) involved. Computer correlations and statistical analyses were performed by J. Rice and P. Woods respectively.

Patients of the Service were referred from other health services (local medical officers, hospital ward and outpatient departments (40%); casualty (20%)), or attended on their own volition (30%) or were referred by their sexual partners (10%). Therefore, this clinic population studied reflected a group of patients who were selected by virtue of some difficulty with treatment or uncertainty in diagnosis.

It has been estimated that most consultations for STDs in Australia are for people under 30 years of age[11], and this was confirmed by the present study which showed that 74% of subjects were in this age range (Table 1).

TABLE 1 Age distribution of clinic attenders

Age group	Number	Percentage
10-14 years	2	<1%
15-19 years	261	18%
20-24 years	476	33%
25-29 years	336	23%
30-44 years	300	21%
45 years	71	5%
TOTAL	1445	100%

It has also been estimated that teenagers comprise 10-33% of STD clinic attenders[13,15], a finding substantiated by the 18% in the present survey. However, only 5% of the patients were aged 45 years and older; a population that has been largely ignored in published studies. Analysis indicated a predominance of males in this older age group (64% male; 36% female), while in the teenage category the sex distribution was very nearly equal (49% male; 51% female), with intermediate proportions in other groups.

The six most common clinical conditions and pathogens observed among the teenagers and in the 25-29 year age group are detailed in Table 2.

TABLE 2 Clinical conditions and microorganisms isolated in the teenager and 25-29 year age groups

Condition/organism	Teenagers	25-29 years
Non-specifc urethritis	12%	14%
Sexually related herpes	7%	11%
Sexually related warts	8%	5%
Candida albicans	7%	6%
Non-specific vaginitis	5%	8%
Neisseria gonorrhoeae	5%	4%

There were no significant differences in the numbers of different sexual partners reported by teenagers compared with their older comparison group. These numbers were analysed in terms of partners in the preceding month and preceding year over a two year period (late 1982 to early 1984), for which particular care was taken in eliciting reliable information. Therefore in several important aspects, teenagers seen by the Service displayed characteristics similar to adults in their late twenties.

When the older patients were studied (45 years and over) and compared with the 20-24 year age group, it was found that the older subjects had a higher proportion of cases of genital rashes (with or without ulceration) and of extragenital sexually related diseases (e.g. secondary syphilis), but had a lower proportion of cases of urethritis (Table 3).

TABLE 3 Clinical conditions in patients in the age groups 20-24 years and 45 years plus

Clinical condition	Age group	
	$\geqslant$ 45 years	20-24 years
Genital rashes	35%	19% ($p < 0.003$)
Urethritis	11%	20% ($p < 0.05$)
Vaginitis or cervicitis	10%	15%
Genital lumps (e.g. warts)	6%	12%
Silent infection (asymptomatic)	6%	9%
Extragenital	9%	4% ($p < 0.04$)
Not sexually related	3%	3%
Deep genital (e.g. pelvic inflammatory disease)	0%	2%
Uninfected conditions	21%	16%
Total cases*	81	564

* - Some patients had two or more diagnoses.

On further analysis the above differences in the two age groups were found to be due almost entirely to differences between the males, there being no statistically significant differences between the older women and their younger counterparts. As a group the older population had more Treponema pallidum infections, (Table 4), a finding similar to that published recently for older men in a London study[16].

TABLE 4 Microorganisms detected in patients in the age groups 20-24 years and 45 years plus

Microorganism	Age group ⩾45 years	20-24 years	
C. albicans	10%	7%	
T. pallidum	7%	1%	($p < 0.002$)
Herpes simplex virus	6%	8%	
N. gonorrhoeae	5%	7%	
Papilloma virus	1%	9%	($p < 0.05$)
Gardnerella vaginalis	1%	3%	
Trichomonas vaginalis	1%	2%	
Other organisms	12%	12%	
Organism unproven	23%	32%	
No infection	33%	21%	

When the data was analysed by sex it was also evident that the older men were more often infected with both syphilis and C. albicans. It is unlikely that these findings were due to differences in sexual preference since only two bisexual men, and no homosexual men were reported in the older age groups (homosexual males are normally referred to the Venereal Disease Control Centre rather than the Flinders Medical Centre, when consultation with a venereologist is required). The older subjects with genital rashes with or without ulceration, most frequently had C. albicans or T. pallidum involved, while the younger men and women had a predominance of herpes simplex virus isolated from genital lesions. The younger men also showed significantly more diagnosed cases of venereal warts. As in the case of teenagers and their comparison group, the older clinic attenders had no significant differences in the numbers of sexual partners reported in the preceding month or year.

From this study of STD clinic subjects it is evident that teenagers resembled mature adults in terms of their disease and sexual behaviour, whereas older subjects displayed significant differences from their younger counterparts. Therefore, further study of older STD clinic attenders is required together with a major thrust of educational and preventive measures directed toward young teenagers.

References

1. Br. J. Vener. Dis. (1983) 59 : 134
2. J. Paed. (1977) 90 : 634
3. JAMA (1976) 236 : 1359
4. Med. Clin. N. Amer. (1972) 56 : 1127
5. MJA (1983) 2 : 561
6. US Department of Health Education and Welfare, Public Health Service Publication No. 918 (1962).
7. Ann. Intern. Med. (1984) 100 : 47
8. J. Infect. Dis. (1981) 144 : 176
9. Amer. J. Epidemiol. (1970) 91 : 175
10. Br. J. Vener. Dis. (1981) 57 : 196

11. Handbook on sexually transmitted diseases (1982). National Health and Medical Research Council, Australian Government Printing Service, Canberra.
12. Amer. J. Epidemiol. (1980) 112 : 876
13. Br. J. Vener. Dis. (1975) 51 : 57
14. MJA (1967) 1 : 145
15. Practitioner (1965) 195 : 620
16. Br. J. Vener. Dis. (1983) 59 : 376
17. Br. J. Vener. Dis. (1983) 59 : 330

(continued from page 1).

syndrome may include cutaneous cicatrical scars, which are frequently dermatomal in distribution, related hypoplasia of one or more limbs, and malformed digits. Central nervous system damage may be manifested by convulsions and mental retardation. Chorioretinitis and cataracts are typically present (NEJM (1983) 309: 1434). Primary infections with EBV are usually benign or even symptomless in children and young adults, with more severe infections in older or immunodeficient patients, but the risks of EBV congenital infection are ill defined. One report of in utero EBV-infection documented a syndrome of multiple congenital anomalies (micrognathia, cryptorchidism, cental cataracts), hypotonia, thrombocytopenia, persistent monocytosis, proteinuria and multiple areas of metaphysitis at birth (JAMA (1981) 246: 1579).

AUSTRALIA - COMMUNICABLE DISEASES INTELLIGENCE

REPORTING PERIOD - 24/5/84 - 6/6/84 BULLETIN NUMBER 84/12.

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		1	4	1	8		4	1	19
0101 ADENOVIRUS TYPE 1		1		1				1	3
0102 ADENOVIRUS TYPE 2				3					3
0103 ADENOVIRUS TYPE 3			1	1				5	7
0104 ADENOVIRUS TYPE 4				1				1	2
0105 ADENOVIRUS TYPE 5				1					1
0108 ADENOVIRUS TYPE 8			1	2					3
0119 ADENOVIRUS TYPE 19								1	1
0137 ADENOVIRUS TYPE 37								3	3
0199 ADENOVIRUS TYPING PENDING			1		6				7
0201 INFLUENZA A VIRUS			1						1
0203 INFLUENZA B VIRUS								1	1
0301 PARAINFLUENZA VIRUS TYPE 1					8		2	5	15
0302 PARAINFLUENZA VIRUS TYPE 2				6	5		1		12
0303 PARAINFLUENZA VIRUS TYPE 3		1			2		2	2	7
0400 RESPIRATORY SYNCYTIAL VIRUS (RS)		5	2	2	4		2	2	17
0500 RHINOVIRUS (ALL TYPES)			1	2	9		2	8	22
0600 MYCOPLASMA PNEUMONIAE		1	7				3	2	13
0700 ORNITHOSIS-PSITTACOSIS								1	1
0902 COXSACKIEVIRUS B2							3		3
1000 ECHOVIRUS NOT TYPED							3		3
1003 ECHOVIRUS TYPE 3				1					1
1006 ECHOVIRUS TYPE 6					1		3	1	5
1008 ECHOVIRUS TYPE 8								1	1
1009 ECHOVIRUS TYPE 9				1	2				3
1011 ECHOVIRUS TYPE 11			1		1				2
1014 ECHOVIRUS TYPE 14							1		1
1016 ECHOVIRUS TYPE 16					1				1
1017 ECHOVIRUS TYPE 17		1			2			1	4
1022 ECHOVIRUS TYPE 22		2					3		5
1025 ECHOVIRUS TYPE 25					1				1
1101 POLIOVIRUS TYPE 1								1	1
1102 POLIOVIRUS TYPE 2				1				1	2
1104 POLIOVIRUS-VACCINAL STRAIN			2		16				18
1200 MUMPS VIRUS				1	4		1		6
1300 HERPES VIRUS GROUP-NOT TYPED								7	7
1301 HERPES SIMPLEX VIRUS NOT-TYPED				3					3
1302 EPSTEIN-BARR VIRUS (EB VIRUS)				1	1			8	10
1306 HERPES SIMPLEX TYPE 1			5	20			30	20	75
1307 HERPES SIMPLEX TYPE 2			5	45			70	37	157
1399 HERPES VIRUS TYPING PENDING			2		1				3
1401 COXIELLA BURNETI			1				4	1	6
1502 PICORNA VIRUS-NOT TYPED			10						10
1521 MEASLES VIRUS		2			1				3
1522 RUBELLA VIRUS				1			1		2
1532 HEPATITIS B ANTIGEN		1	6	53			8	15	83
1535 HEPATITIS A ANTIBODY				5			7	4	16
1541 CHLAMYDIA A - C TRACHOMATIS			17	31			13	11	72
1556 CMV - CYTOMEGALOVIRUS			1	21	8			18	48
1563 CORONAVIRUS				1					1
1564 ROTAVIRUS		8	9	16	31		1	1	66
1599 ENTEROVIRUS TYPING PENDING		1	6		3				10
9992 ROSS RIVER VIRUS			1				19	4	24
9994 SMALL VIRUS (LIKE) PARTICLE				1					1
9995 DENGUE							4		4
9998 ARBO. GROUP B. ...							2		2
Total		24	84	222	115		189	164	798

AUSTRALIA - COMMUNICABLE DISEASES INTELLIGENCE

PERIOD : 24/5/84 to 6/6/84 .... 84/12

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.....		1						1			
0102 ADENOVIRUS TYPE 2.....		2					1				1
0103 ADENOVIRUS TYPE 3.....	1	2				2	1				
0104 ADENOVIRUS TYPE 4.....											1
0201 INFLUENZA A VIRUS.....		1									
0301 PARAINFLUENZA VIRUS TYPE 1....		15									
0302 PARAINFLUENZA VIRUS TYPE 2....		12									
0303 PARAINFLUENZA VIRUS TYPE 3....		6									
0400 RESPIRATORY SYNCYTIAL VIRUS (RS).....		16									
0500 RHINOVIRUS (ALL TYPES).....		17									1
0600 MYCOPLASMA PNEUMONIAE.....	2	9							1		
0700 ORNITHOSIS-PSITTACOSIS.....		1									
0902 COXSACKIEVIRUS B2.....		1					2		1		
1003 ECHOVIRUS TYPE 3.....		1									
1006 ECHOVIRUS TYPE 6.....		1		1			3				
1008 ECHOVIRUS TYPE 8.....						1					
1009 ECHOVIRUS TYPE 9.....		2					1				
1011 ECHOVIRUS TYPE 11.....				1			1				
1016 ECHOVIRUS TYPE 16.....		1									
1017 ECHOVIRUS TYPE 17.....		1	1	2							
1022 ECHOVIRUS TYPE 22.....		2				1	1				
1101 POLIOVIRUS TYPE 1.....		1									
1102 POLIOVIRUS TYPE 2.....	1										
1104 POLIOVIRUS-VACCINAL STRAIN....		4		1			10				1
1200 MUMPS VIRUS.....		1		3							1
1301 HERPES SIMPLEX VIRUS NOT-TYPED							1				
1302 EPSTEIN-BARR VIRUS (EB VIRUS).	1	2	1								2
1306 HERPES SIMPLEX TYPE 1.....	5	4	1		1	1		1		1	31
1307 HERPES SIMPLEX TYPE 2.....	9	4								1	28
1401 COXIELLA BURNETI.....											2
1521 MEASLES VIRUS.....											2
1522 RUBELLA VIRUS.....											2
1532 HEPATITIS B ANTIGEN.....	41							35	1		
1535 HEPATITIS A ANTIBODY.....								14			
1541 CHLAMYDIA A - C.TRACHOMATIS...	7										
1556 CMV - CYTOMEGALOVIRUS.....	3	8				1		3		5	1
1563 CORONAVIRUS.....							1				
1564 ROTAVIRUS.....		1					66				
9992 ROSS RIVER VIRUS.....	7										3
9994 SMALL VIRUS (LIKE) PARTICLE...							1				
9995 DENGUE.....											3
Total.....	77	117	3	8	1	6	89	54	3	7	79

AUSTRALIA - COMMUNICABLE DISEASES INTELLIGENCE

PERIOD : 24,5,84 to 6,6,84 ... 84/12

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		
0102 ADENOVIRUS TYPE 2.....								2		
0103 ADENOVIRUS TYPE 3.....	4									
0104 ADENOVIRUS TYPE 4.....							1		1	
0105 ADENOVIRUS TYPE 5.....								1		
0108 ADENOVIRUS TYPE 8.....	3									
0119 ADENOVIRUS TYPE 19.....		1								
0137 ADENOVIRUS TYPE 37.....		3								
0203 INFLUENZA B VIRUS.....								1		
0303 PARAINFLUENZA VIRUS TYPE 3....									1	
0400 RESPIRATORY SYNCYTIAL VIRUS (RS).....								2		
0500 RHINOVIRUS (ALL TYPES).....						1	3		1	
0600 MYCOPLASMA PNEUMONIAE.....					1			1		
0700 ORNITHOSIS-PSITTACOSIS.....			1							
0902 COXSACKIEVIRUS B2.....								2		
1006 ECHOVIRUS TYPE 6.....								1		
1009 ECHOVIRUS TYPE 9.....								1		
1014 ECHOVIRUS TYPE 14.....	1									
1016 ECHOVIRUS TYPE 16.....									1	
1022 ECHOVIRUS TYPE 22.....	1									
1025 ECHOVIRUS TYPE 25.....										1
1102 POLIOVIRUS TYPE 2.....										1
1104 POLIOVIRUS-VACCINAL STRAIN....							2			3
1200 MUMPS VIRUS.....			1					1		
1301 HERPES SIMPLEX VIRUS NOT-TYPED		2								
1302 EPSTEIN-BARR VIRUS (EB VIRUS).			4					1		
1306 HERPES SIMPLEX TYPE 1.....	3	27						2		
1307 HERPES SIMPLEX TYPE 2.....		115								
1401 COXIELLA BURNETI.....			1		2			3		
1521 MEASLES VIRUS.....	1							1	1	
1522 RUBELLA VIRUS.....								1		
1532 HEPATITIS B ANTIGEN.....					1				7	
1535 HEPATITIS A ANTIBODY.....									2	
1541 CHLAMYDIA A - C.TRACHOMATIS...	3	62								
1556 CMV - CYTOMEGALOVIRUS.....		14		2		5		2	6	1
9992 ROSS RIVER VIRUS.....					14			1		
9995 DENGUE.....					1			4		
9998 ARBO. GROUP B.					2			2		
Total.....	16	225	7	2	21	6	6	30	20	6

NOTIFIABLE DISEASES REPORTED IN AUSTRALIA

(Weeks 13 - 16)

(25 March 1984 - 21 April 1984) Bulletin 84/12

Disease	N.S.W.	VIC	QLD	S.A.	W.A.	TAS.	N.T.	A.C.T.	Total	CUMULATIVE TOTAL TO DATE FOR YEAR
Amoebiasis	2		1	4					7	15
Ankylostomiasis				7					7	16
Anthrax									—	—
Arbovirus infection	57	21		16			4		98	707
Brucellosis									—	1
Campylobacter infections	37	N.N.	N.N.	99	N.N.	N.N.	1	N.N.	137	581
Chancroid				N.N.		N.N.	N.N.		—	7
Cholera									—	—
Congenital rubella syndrome		N.N.	N.N.		N.N.	N.N.	N.N.	N.N.	—	—
Diphtheria									—	—
Donovanosis		N.N.		N.N.	6	N.N.	6		12	48
Giardiasis	25	N.N.	N.N.	70	N.N.	N.N.	N.N.	N.N.	95	328
Genital herpes	39	N.N.	31	3	N.N.	N.N.		N.N.	73	423
Gonococcal ophthalmia neonatorum		N.N.			N.N.	N.N.	N.N.	N.N.	—	1
Gonorrhoea	228	107	130	56	141	1	59	2	724	3115
Hepatitis A (infectious)	10	10	11	6		1	1	1	40	231
Hepatitis B (serum)	34	11	3	10	5		2	2	67	371
Hepatitis - unspecified	3	N.N.		1	2	N.N.	N.N.		6	40
Hydatid disease	1								1	3
Lassa Fever			N.N.			N.N.	N.N.	N.N.	—	—
Legionnaires disease		1	N.N.	1	N.N.	N.N.	N.N.	N.N.	2	6
Leprosy									—	4
Leptospirosis	7	2	2	1	1				13	59
Lymphogranuloma venereum		N.N.	N.N.	N.N.	N.N.	N.N.			—	—
Malaria	7	2	32		3	1	3	1	49	193
Marburg Disease			N.N.			N.N.	N.N.	N.N.	—	—
Meningococcal infections	1		1	2		N.N.		1	5	24
Non-specific urethritis	283	N.N.	N.N.	116	N.N.	N.N.	N.N.	N.N.	399	1570
Ornithosis									—	3
Pertussis (whooping cough)	7	3	N.N.	8	N.N.	N.N.	N.N.	N.N.	18	129
Plague									—	—
Poliomyelitis									—	—
Q. fever	3		1	2	N.N.		N.N.		6	35
Rabies		N.N.	N.N.			N.N.	N.N.	N.N.	—	—

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	53	11	35	21	9	5	25	2	161	870
Shigella infections	10	2	3	6	5		10		36	139
Smallpox									—	—
Syphilis	32	10	25	4	19		54		144	677
Tetanus									—	—
Trachoma		N.N.			N.N.	N.N.			—	—
Tuberculosis (all forms)	44	21	23	6	11	1	2	1	109	391
Typhoid fever	1		1						2	16
Typhus (all forms)									—	2
Vibrio parahaemolyticus infections		N.N.	N.N.		N.N.	N.N.	N.N.	N.N.	—	5
Yellow Fever									—	—
Yersinia enterocolitica infections		N.N.	N.N.		N.N.	N.N.	N.N.	N.N.	—	3

(Note: 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.)

N.N. Not Notifiable

ADJUSTMENTS.

Arbovirus infection	+3	South Australia
Campylobacter infections	+1	South Australia
Giardiasis	+2	South Australia
Gonorrhoea	-1	Northern Territory
Hepatitis B	+2	South Australia
Malaria	+2	South Australia
Syphilis	-1	Northern Territory
Tuberculosis	-10	Queensland