AUSTRALIA

Communicable Diseases Intelligence

Bulletin number 81/8

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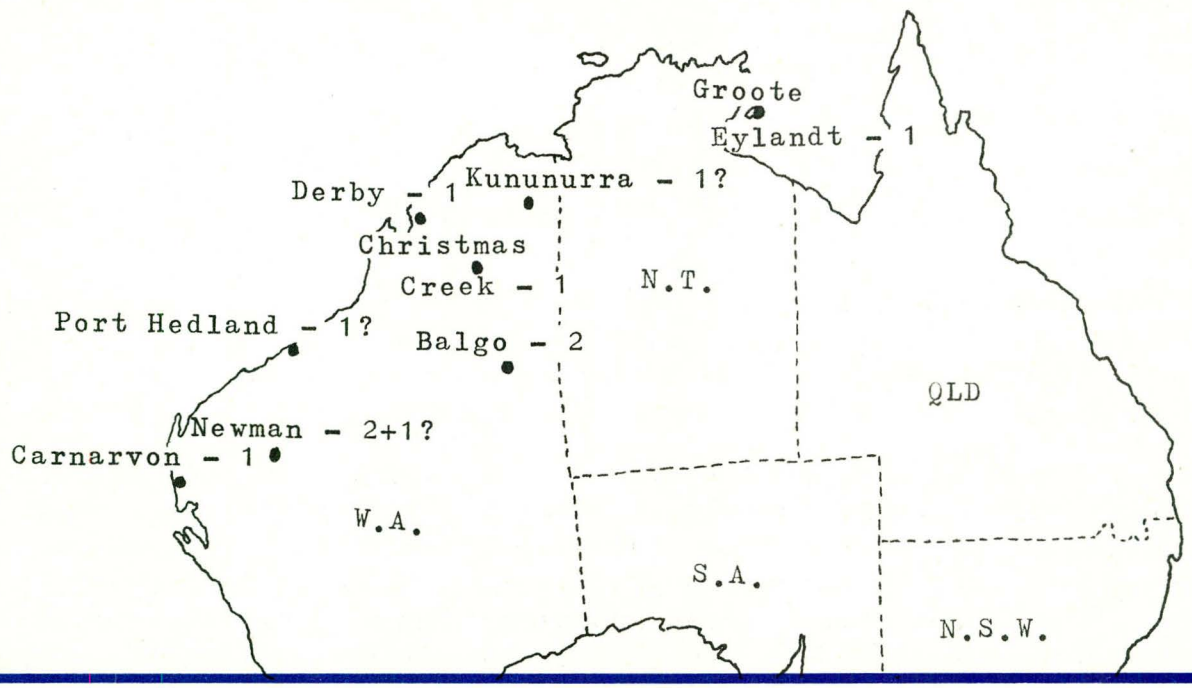
Contents:

AUSTRALIAN ENCEPHALITIS OUTBREAK

(Contributed by M. Bucens and G.B. Harnett, State Health Laboratory Services, Perth).

Eight cases of Australian Encephalitis have now been confirmed on the basis of virus specific IgM detected by haemagglutination inhibition. There are a further three suspect cases. Two cases occurred in Newman and one in Carnarvon, all further south than in previous years. Sentinel poultry serology is highly positive as far as Minilya Station (100 km north of Carnarvon), although in Carnarvon it was negative, despite the occurrence of a clinical case. The location of cases is illustrated in the map below.

The age range of the patients has been, three cases <1 year, one case <2 years, one case <4 years, and three cases in adults. The severity of the illness has been variable. A child of 15 months has severe neurological deficits, and one adult presented only with headache, myalgia, arthralgia and fever. A comprehensive report on the outbreak will follow.



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IMMUNIZATION AND IMMUNITY STATUS IN SOUTH AUSTRALIA

(Contributed by D. Roder, Director of Epidemiology, South Australian Health Commission).

Recently there has been increased interest in immunization coverage and the immune status of Australians. This interest has been enhanced by reports of low immunization rates and immunity levels among N.S.W. children.[1]

In 1979, the National Health and Medical Research Council indicated that protection by immunization against common infectious diseases was at an unsatisfactory level in some sections of the community, and advocated active immunization campaigns. It also noted overseas reports that immunization campaigns had considerably reduced the incidence of measles, and recommended that health authorities intensify their efforts in 1980 to obtain better levels of protection in the community. The appropriateness of this recommendation is underscored in South Australia by the 360 hospitalized cases of measles identified from hospital separation data for the 12 month period to June 1979. This figure applied only to a proportion of hospitals and clearly would have understated the total number of hospitalized and non-hospitalized cases.

During 1980, the South Australian Health Commission reviewed all available information on immunization and immunity status in the State. Data from parental reporting, blood titres and vaccine usage were studied. From this information, it appears that:

- Approximately 80% of children had received a complete course of Triple Antigen vaccine (Diphtheria - tetanus - pertussis) at two, four and six months of age.
- Only about 40-50% seem to have received a follow-up booster dose of vaccine (combined diphtheria and tetanus - CDT) one year after the primary course of Triple Antigen.
- Approximately 85-90% of the community had antibodies to each poliomyelitis serotype.
- About 80% of children had received three or more doses of Sabin vaccine.
- Approximately 50-55% of children had been immunized against measles.
- Up to 10% of women of child-bearing age are susceptible to rubella infection on the basis of three serological surveys[2].

Shortfalls in the levels of immunization were apparent from this initial survey. In addition, these Statewide figures could possible mask lower levels of immunization in individual localities. Surveys in N.S.W. and Victoria suggested that immunization status might be worse in the more socioeconomically disadvantaged areas and among ethnic minority groups.[1,3] Consequently, a second study was designed as a separate evaluation of the immunization status for Adelaide and the country areas, with a further breakdown to socioeconomic standards and ethnicity. Attention was given primarily to uptake of five-year booster doses of CDT, Sabin vaccine and measles immunization.

Short, simple, pre-tested questionnaires were distributed to the parents of 2,489 children in the second grade of 101 South Australian primary schools. These schools housed the State's 101 dental clinics and were distributed across the State. The largest second grade class in each school was chosen for the survey to maximize sample size. Where parents did not speak English, a multilanguage communication was used in which they were invited to telephone a pre-arranged number to have the questionnaire explained in their preferred language.

A total of 2,395 (96.2%) questionnaires were recovered. The results were projected to the total State school population by weighting the data according to the total number of children in different socioeconomic and regional groupings. A history of some immunization since the fourth birthday was obtained from 78% of respondents. This figure probably overstates to some degree the proportion who had received a five-year booster of CDT and/or Sabin. Approximately 88% of children were said to have received some immunization during the first year of life, and approximately 51% of children had apparently been immunized against measles. Variations amongst schools were found. For example, in certain individual classes:

- Only 41% (9 of 22) gave a history of immunization since the fourth birthday.
- Only 9% (2 of 22) gave a history of measles immunization.
- Only 57% (12 of 21) gave a history of immunization "for any disease" in the first year of life.

Overall, the reported status of immunization was inferior in socioeconomically deprived areas and among the ethnic minority groups. The effect of socioeconomic factors seemed to be more profound for measles immunization and immunization in the first year of life than for five-year booster doses of vaccine. Also there was some indication that measles immunization was more deficient in the country areas, although there were difficulties in defining individual localities.

The accuracy of parental reporting is suspect, whereas the surveys based on blood titres have generally included limited numbers of subjects and cannot therefore be assumed to be representative for all individual localities. Assessment from vaccine turnover was complicated by ill-defined levels of vaccine wastage and the difficulty of distinguishing between doses in multiple-dose regimens.

Nevertheless, there was sufficient evidence to conclude that shortfalls in immunization exist in South Australia. These shortfalls will be addressed in an immunization promotion campaign commencing in May 1981. Emphasis will be placed on measles and rubella protection, with secondary attention to immunization in general. The program will be directed at the whole community, but with particular attention to financially deprived areas and ethnic minority groups. Follow-up assessments based on blood titres, parental reporting, vaccine usage and morbidity data will be undertaken to evaluate the campaign.

References

1. MJA (1980) 2:131
2. In:"Immunization Status in South Australia" (1980) S.A. Health Commission Adelaide.
3. MJA (1972) 1:1023

MENINGITIS CAUSED BY β-LACTAMASE PRODUCING HAEMOPHILUS INFLUENZAE

(Contributed by F.A. Tosolini and R.A. Sloane, Department of Medical Microbiology, Austin Hospital, Heidelberg, Victoria).

A four year old girl presented with a one day history of fever (40°C), vomiting, unsteadiness on her feet and tachypnoea. She was noted to be a pale, sick, lethargic child with marked neck stiffness. Lumbar puncture revealed turbid CSF, with neutrophils 775/c mm, lymphocytes 8/c mm, erythrocytes 325/c mm, protein 1.98 gm/l (normal range 0.15-0.45) and glucose 0.9 m mol/l (normal range 2.5-5.5). Gram stain showed numerous small Gram-negative bacilli resembling Haemophilus influenzae. Culture of CSF produced a heavy growth of H. influenzae which was found to be resistant to ampicillin and sensitive to chloramphenicol and co-trimoxazole. The isolate agglutinated with H. influenzae type b antiserum, and was shown by an acidometric method to be a β-lactamase producing strain. Blood cultures taken at admission grew an identical strain.

The patient was treated initially with chloramphenicol and ampicillin intravenously. After sensitivity results became available, treatment was continued with IV chloramphenicol (100 mg/kg/day) until day 14. During the acute phase of her illness, she was semi-comatose, with episodes of teeth grinding and opisthotonos. By the seventh day of treatment she was conscious, orientated and able to talk to her parents. She was febrile until day 10 and discharged on day 18. Two months later she was noted to be an alert child who was a little clumsy, but her major problem was a severe bilateral sensorineural hearing loss that required a hearing aid.

The case illustrates the importance of initial treatment of meningitis with chloramphenicol. If ampicillin alone had been used initially, the child might have died.

Editorial Comment (Based on CDWR (1981) 7:13)

Ampicillin resistance has been extensively reported since its recognition in 1974. It is sufficiently frequent to justify patients with suspected or proven H. influenzae meningitis receiving chloramphenicol until the causative agent is proven ampicillin-sensitive. The extent to which chloramphenicol and ampicillin interact synergistically or antagonistically is still a matter of dispute. One anxiety about the use of chloramphenicol in the treatment of H. influenzae type b (H.i.b.) infections is the emergence of resistant strains due to the production of acetyltransferase. One type b and one type d chloramphenicol-resistant strain have been isolated from Indo-Chinese refugees in Australia. If chloramphenicol resistance does become a significant problem it is hoped that cefotaxime, a cephalosporin

with high activity against the bacterium and good penetration into the CSF will fulfil its early promise.

It has been shown recently that young sibling contacts of H.i.b. meningitis cases are at increased risk of contracting an invasive infection (of the order of 2-6%). This risk is highest under two years and decreases with increasing age. However, the ideal prophylactic antibiotic regimen for these contacts has yet to be defined. Ampicillin, erythromycin, sulphamethoxazole and trimethoprim-sulphamethoxazole have all been found to have an unacceptably high failure rate in eradication of the carrier state. Greater success has been reported with rifampin, but the dose appears to be critical. Rifampin at a dose of 10 mg/kg/day for three days failed to eradicate the carrier state in three of seven contacts. A two day regimen of 20 mg/kg/day divided into two doses achieved successful eradication in 52% of 105 patients. Very nearly complete eradication (95-100%) has been achieved with a four day regimen of 20 mg/kg/day in one or two daily doses. There are variations in the rifampin susceptibility of different strains of H.i.b., and pharmacokinetic data indicate that salivary levels of rifampin following a 10 mg dose exceed the minimal inhibitory concentrations of most strains of H.i.b., but only by a small margin for the more resistant strains. It should be noted that studies from day-care centres may involve single epidemic strains, which, if very susceptible to rifampin, give an over-optimistic view of the overall efficiency of the drug. The total number of subjects in such studies was small, and it is still not possible to state how successful rifampin is likely to be if used generally. A paediatric suspension of rifampin is not at the moment commercially available. Addition of the powder to apple sauce is acceptable to patients and from limited studies appears to be pharmacologically satisfactory. A further reason for caution is that strains of H.i.b. highly resistant to rifampin have been cultured from children to whom the drug had been given for meningococcal prophylaxis.

There is also the problem of selection of contacts for prophylaxis. The organism is introduced into families by young children in whom most cases of H.i.b. disease occur. Colonized adults and older siblings could reinfect young children if the children alone were treated prophylactically. Cases of H.i.b. epiglottitis have been recorded in adults including contacts of childhood invasive H.i.b. disease. Obviously a program of prophylaxis would be directed primarily at the susceptible age group, but it might also be appropriate to offer prophylaxis to adult family contacts to eradicate a potential reservoir. However rifampin is not recommended in pregnancy. Because of the large numbers of persons potentially involved if a uniform policy of prophylaxis for family contacts is adopted, it is important that this procedure should be well supported by evidence from sound epidemiological studies. At present this is not supplied by the available data. Large scale studies which may supply some of the answers are in progress. Meanwhile attempted prophylaxis may be considered in particularly high risk situations such as day-care centre outbreaks and where the index case has a young sibling. It is important however, that the potentially infectious nature of H.i.b. disease should be appreciated, and that contacts at risk should be carefully observed, and thoroughly investigated at the first sign of illness.

Development of an H. influenzae vaccine is still in the early stages. The polysaccharide vaccine of the early 1970's gave encouraging preliminary

results, but was later shown to induce only a very poor immune response in children under two years of age. Another potential vaccine involving the cross-reacting antigen of the E. coli capsular antigen K100 is still being evaluated, and human trials using the novel antigen of the ribosomal protein of H. influenzae have yet to be undertaken.

A list of references used for this article is available from the Editor.

ROSS RIVER VIRUS SEROLOGICAL SURVEY

(Contributed by J. Aaskov, Queensland Institute of Medical Research, Brisbane).

At present there are no "serum standards" available for serological diagnosis of Ross River virus infection. Standardisation of these tests is further complicated by the variety of different haemagglutinin antigen preparations currently in use. The Commonwealth Serum Laboratories, Melbourne, have recently produced a non-infectious tissue culture preparation of Ross River virus for use in haemagglutination inhibition tests, and the use of this commercially available antigen would be an asset for those laboratories doing routine alphavirus serology.

In CDI 80/20, a request was made for all laboratories performing alphavirus serology to participate in a survey to examine inter-laboratory variation, and to evaluate the use of pooled serum samples which could be used as an internal, test standard. Pools of "standard" serum with the following properties were prepared and distributed:

Serum 1 - HAI titre <1/10 ; IgM^-
Serum 2 - HAI titre <1/10 ; IgM^-
Serum 3 - HAI titre >1/10 ; IgM^+

The results of the survey are tabulated below.

TABLE 1 Antibody titres to Ross River virus

Laboratory Number	Serum 1	Serum 2	Serum 3	Method	Remarks
	HI titre ; IgM	HI titre ; IgM	HI titre ; IgM		
1	<1/20; <1:4	>1/20; <1:4	>1/20; 1:32	Clarke & Casals	Sucrose Gradient IgM fractionation. Heat inactivated tissue culture prepared virus.
2	<1/20; NT	1:80; -	1:80; +	Clarke & Casals	Kaolin absorbed serum.
3	<1/10; NT	1:320; -	1:320; +	Clarke & Casals	
4	<1/20; NT	1/320; NT	1/640; NT	ELISA	Tissue culture antigen.
5	<1/20; NT	1/20; NT	1/20; NT	Clarke & Casals	Tissue culture antigen.

NT = NOT TESTED

The purpose of this survey was not to compare laboratory results, but to evaluate the suitability for internal laboratory standards. The results indicate they could be of use, and samples are available on request from the author.

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AUSTRALIA - COMMUNICABLE DISEASES INTELLIGENCE

REPORTING PERIOD - 2-4-81 - 15-4-81 BULLETIN NUMBER . 81/8

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	12			1		2	8		23
0101	ADENOVIRUS TYPE 1	1		1	2		1			5
0102	ADENOVIRUS TYPE 2						1			1
0103	ADENOVIRUS TYPE 3	4			1				1	6
0104	ADENOVIRUS TYPE 4	2								2
0105	ADENOVIRUS TYPE 5	1	1							2
0107	ADENOVIRUS TYPE 7	3								3
0108	ADENOVIRUS TYPE 8				1					1
0119	ADENOVIRUS TYPE 19			2					7	9
0131	ADENOVIRUS TYPE 31			1						1
0199	ADENOVIRUS TYPING PENDING		1	2						3
0201	INFLUENZA A VIRUS			5						5
0203	INFLUENZA B VIRUS			1						1
0301	PARAINFLUENZA VIRUS TYPE 1						16			16
0302	PARAINFLUENZA VIRUS TYPE 2						3	2		5
0303	PARAINFLUENZA VIRUS TYPE 3	1								1
0400	RESPIRATORY SYNCYTIAL VIRUS (RS)	4	13	2				28		47
0500	RHINOVIRUS (ALL TYPES)				3			2	2	7
0600	MYCOPLASMA PNEUMONIAE			3	2			1		6
0700	ORNITHOSIS-PSITTACOSIS			1					1	2
0800	COXSACKIEVIRUSES GROUP A - NOT TYPED							1		1
0809	COXSACKIEVIRUS A9	1								1
0901	COXSACKIEVIRUS B1						1			1
0902	COXSACKIEVIRUS B2		2							2
0904	COXSACKIEVIRUS B4		2				1			3
0905	COXSACKIEVIRUS B5	1					1			2
1002	ECHOVIRUS TYPE 2							1		1
1003	ECHOVIRUS TYPE 3							1		1
1006	ECHOVIRUS TYPE 6	1						1	1	3
1009	ECHOVIRUS TYPE 9	1								1
1011	ECHOVIRUS TYPE 11	1							2	3

AUSTRALIA - COMMUNICABLE DISEASES INTELLIGENCE 2

REPORTING PERIOD - 2-4-81 - 15-4-81 BULLETIN NUMBER . 81/8

VIRAL IDENTIFICATIONS FROM CONTRIBUTING LABORATORIES-CONTINUED

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
1014 ECHOVIRUS TYPE 14	1		3	1			1		6
1018 ECHOVIRUS TYPE 18			1						1
1022 ECHOVIRUS TYPE 22	1		3						4
1025 ECHOVIRUS TYPE 25	2								2
1027 ECHOVIRUS TYPE 27								1	1
1030 ECHOVIRUS TYPE 30	2			4					6
1031 ECHOVIRUS TYPE 31	2								2
1101 POLIOVIRUS TYPE 1		2					1		3
1102 POLIOVIRUS TYPE 2								2	2
1200 MUMPS VIRUS							1		1
1300 HERPES VIRUS GROUP-NOT TYPED	18		8	6		5			37
1301 HERPES SIMPLEX VIRUS NOT-TYPED		1		2				41	44
1302 EPSTEIN-BARR VIRUS (EB VIRUS)	3					2			5
1303 VARICELLA-ZOSTER VIRUS	1		2				1	1	5
1306 HERPES SIMPLEX TYPE 1	4		6	15		11	17		53
1307 HERPES SIMPLEX TYPE 2	80		5	37		17	23		162
1399 HERPES VIRUS TYPING PENDING			3	2		5			10
1401 COXIELLA BURNETI							5		5
1514 MOLLUSCUM CONTAGIOSUM				1					1
1521 MEASLES VIRUS	1	1	3				1		6
1522 RUBELLA VIRUS	3			7			1	4	15
1532 HEPATITIS B ANTIGEN	8		7	51		11	4	9	90
1535 HEPATITIS A ANTIBODY	1		2			3	2	6	14
1541 CHLAMYDIA A - TRIC TYPE	14		3					56	73
1556 CMV - CYTOMEGALOVIRUS	1	1	9	18		2		4	35
1563 CORONAVIRUS	1								1
1564 ROTAVIRUS			5	3		5			13
1599 ENTEROVIRUS TYPING PENDING		1	7			4			12
AUSTRALIAN ENCEPHALITIS								2	2
ROSS RIVER VIRUS							24	11	35
ASTROVIRUS	3								3
SMALL VIRUS (LIKE) PARTICLE	1								1
TOTAL	180	25	85	157		91	126	151	815

AUSTRALIA - COMMUNICABLE DISEASES INTELLIGENCE

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PERIOD : 2/4/81 to 15/4/81 .... 81/8

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 membr
0101 ADENOVIRUS TYPE 1.....		3					1				
0102 ADENOVIRUS TYPE 2.....							1				
0103 ADENOVIRUS TYPE 3.....	1	2					1				
0104 ADENOVIRUS TYPE 4.....	1										1
0105 ADENOVIRUS TYPE 5.....		1					1				
0107 ADENOVIRUS TYPE 7.....	1	1					1				
0131 ADENOVIRUS TYPE 31.....							1				
0201 INFLUENZA A VIRUS.....		4									
0203 INFLUENZA B VIRUS.....		1									
0301 PARAINFLUENZA VIRUS TYPE 1....		16									
0302 PARAINFLUENZA VIRUS TYPE 2....		4									
0303 PARAINFLUENZA VIRUS TYPE 3....	1										
0400 RESPIRATORY SYNCITIAL VIRUS (RS).....	1	46									
0500 RHINOVIRUS (ALL TYPES).....		3					1				1
0600 MYCOPLASMA PNEUMONIAE.....		4									
0700 ORNITHOSIS-PSITTACOSIS.....		1									
0809 COXSACKIEVIRUS A9.....											1
0901 COXSACKIEVIRUS B1.....							1				
0902 COXSACKIEVIRUS B2.....		1		1							
0904 COXSACKIEVIRUS B4.....				2			1				
0905 COXSACKIEVIRUS B5.....	1						1				
1002 ECHOVIRUS TYPE 2.....							1				
1006 ECHOVIRUS TYPE 6.....	2	1									
1009 ECHOVIRUS TYPE 9.....			1								
1011 ECHOVIRUS TYPE 11.....		2		2			1				
1014 ECHOVIRUS TYPE 14.....				3			2				
1022 ECHOVIRUS TYPE 22.....		1					3				

AUSTRALIA - COMMUNICABLE DISEASES INTELLIGENCE

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PERIOD : 2/4/81 to 15/4/81 ....

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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.-CONTINUED

VIRUS OR VIRAL ANTIGEN	No-ill or data	Respir atory	Enceph alitis	Mening -itis	Para- lysis	CNS other unspec	GI	Hepa -tic	CVS	Urin -ary	Skin/ mucs memb
1025 ECHOVIRUS TYPE 25.....							2				
1027 ECHOVIRUS TYPE 27.....	1										
1030 ECHOVIRUS TYPE 30.....				3							
1031 ECHOVIRUS TYPE 31.....		2									
1101 POLIOVIRUS TYPE 1.....		3									
1102 POLIOVIRUS TYPE 2.....	2										
1200 MUMPS VIRUS.....				1							
1300 HERPES VIRUS GROUP-NOT TYPED..	4	1	2					1			13
1301 HERPES SIMPLEX VIRUS NOT-TYPED	1		1								25
1302 EPSTEIN-BARR VIRUS (EB VIRUS).	2							2			
1303 VARICELLA-ZOSTER VIRUS.....						1					4
1306 HERPES SIMPLEX TYPE 1.....	2	1	2	1				1		1	27
1307 HERPES SIMPLEX TYPE 2.....											5
1401 COXIELLA BURNETI.....		1									
1521 MEASLES VIRUS.....	1		2		1	1					
1522 RUBELLA VIRUS.....	4										8
1532 HEPATITIS B ANTIGEN.....	46							42	1		
1535 HEPATITIS A ANTIBODY.....	3							11			
1556 CMV - CYTOMEGALOVIRUS.....	7	4		1						11	1
1563 CORONAVIRUS.....							1				
1564 ROTAVIRUS.....							12				
AUSTRALIAN ENCEPHALITIS			1	1		1					
ROSS RIVER VIRUS	1										7
ASTROVIRUS							3				
SMALL VIRUS (LIKE) PARTICLE							1				
Total.....	82	103	9	15	1	3	36	57	1	12	93

AUSTRALIA - COMMUNICABLE DISEASES INTELLIGENCE

5.

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PERIOD : 2/4/81 to 15/4/81 ...
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									
0103 ADENOVIRUS TYPE 3.....	1						1			
0108 ADENOVIRUS TYPE 8.....	1									
0119 ADENOVIRUS TYPE 19.....	3	6								
0201 INFLUENZA A VIRUS.....								1		
0500 RHINOVIRUS (ALL TYPES).....							1		1	
0600 MYCOPLASMA PNEUMONIAE.....								2		
0700 ORNITHOSIS-PSITTACOSIS.....	1									
0809 COXSACKIEVIRUS A9.....								1		
1014 ECHOVIRUS TYPE 14.....								1		
1018 ECHOVIRUS TYPE 18.....								1		
1030 ECHOVIRUS TYPE 30.....							2		1	
1300 HERPES VIRUS GROUP-NOT TYPED..		3						1	1	
1301 HERPES SIMPLEX VIRUS NOT-TYPED	1	17								
1302 EPSTEIN-BARR VIRUS (EB VIRUS).			1					1		
1306 HERPES SIMPLEX TYPE 1.....	2	11						5	1	
1307 HERPES SIMPLEX TYPE 2.....		154				1			1	
1401 COXIELLA BURNETI.....								4		
1514 MOLLUSCUM CONTAGIOSUM.....	1									
1521 MEASLES VIRUS.....									1	
1522 RUBELLA VIRUS.....					1	1		1	1	
1532 HEPATITIS B ANTIGEN.....								1		
1541 CHLAMYDIA A - TRIC TYPE.....	2	70								
1556 CMV - CYTOMEGALOVIRUS.....		2				2		7	4	
1564 ROTAVIRUS.....	1									
ROSS RIVER VIRUS					32			8		
Total.....	14	263	1		33	4	4	34	11	

NOTIFIABLE DISEASES REPORTED IN AUSTRALIA

1st & 2nd 4 Weekly Period for 1981

27.12.80 to 21.2.81 inclusive

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Disease	N.S.W.	VIC	QLD	S.A.	W.A.	TAS.	N.T.	A.C.T.	Total	CUMULATIVE TOTAL TO DATE FOR YEAR
Amoebiasis	N.N.	1	2	1				1	5	5
Ankylostomiasis	N.N.		3	N.N.					3	3
Anthrax									—	—
Arbovirus infection	1	1		N.N.					2	2
Brucellosis	1			1					2	2
Campylobacter infections	N.N.	1	N.N.	29	N.N.	N.N.	N.N.	N.N.	30	30
Chancroid	N.N.		3	N.N.		N.N.	N.N.		3	3
Cholera									—	—
Congenital rubella syndrome	N.N.	N.N.	N.N.	N.N.	N.N.	N.N.	N.N.	N.N.	—	—
Diphtheria		1 CARRIER	1							1+1 CARRIER
Donovanosis	N.N.	N.N.	10	N.N.		N.N.	1		11	11
Giardiasis	N.N.	N.N.	N.N.	62	N.N.	N.N.	N.N.	N.N.	62	62
Genital herpes	N.N.	N.N.	N.N.	60	N.N.	N.N.	N.N.	N.N.	60	60
Gonococcal ophthalmia neonatorum	N.N.	N.N.		N.N.	N.N.	N.N.	N.N.	N.N.	—	—
Gonorrhoea	415	407	255	133	206	20	181	35	1652	1652
Hepatitis A (infectious)	89	55	21	16	8	7	24	7	227	227
Hepatitis B (serum)	23	23	3	6	1		1	1	58	58
Hepatitis - unspecified	N.N.	N.N.		1	11	N.N.	N.N.		12	12
Hydatid disease	5					2			7	7
Lassa Fever	N.N.		N.N.	N.N.		N.N.	N.N.	N.N.	—	—
Legionnaires disease	N.N.	1	N.N.	N.N.	N.N.	N.N.	N.N.	N.N.	1	1
Leprosy		1	2	1	1		1		6	6
Leptospirosis		14			1				15	15
Lymphogranuloma venereum		N.N.	N.N.	N.N.	N.N.	N.N.			—	—
Malaria	11	12	27	4	4			1	59	59
Marburg Disease	N.N.		N.N.	N.N.		N.N.	N.N.	N.N.	—	—
Meningococcal infections	N.N.		10	2		N.N.			12	12
Non-specific urethritis	N.N.	N.N.	N.N.	291	N.N.	N.N.	N.N.	N.N.	291	291
Ornithosis		1		4				1	6	6
Pertussis (whooping cough)	N.N.	17	N.N.	N.N.	N.N.	N.N.	N.N.	N.N.	17	17
Plague									—	—
Poliomyelitis									—	—
Q. fever	6	3	17	34	N.N.		N.N.		60	60
Rabies	N.N.	N.N.	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	39	69	38	114	46	7	48	4	365	365
Shigella infections	N.N.	7	21	16	16		27	2	89	89
Smallpox									—	—
Syphilis	66	20	107	41	25		69	3	331	331
Tetanus		3		4					7	7
Trachoma	N.N.	N.N.		N.N.	N.N.	N.N.			-	—
Tuberculosis (all forms)	58	50	31	14	30			7	190	190
Typhoid fever	3		1						4	4
Typhus (all forms)									—	—
Vibrio parahaemolyticus infections	N.N.	N.N.	N.N.	N.N.	N.N.	N.N.	N.N.	N.N.	-	—
Yellow Fever									—	—
Yersinia enterocolitica infections	N.N.	N.N.	N.N.	N.N.	N.N.	N.N.	N.N.	N.N.	-	—

(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

Corrections to the Cumulative Total since last report

Congenital rubella syndrome - 6 cases for the ACT for 1980 (already corrected for 1980 Notifiable Diseases figures - CDI 81/6)

NOTIFIABLE DISEASES REPORTED IN AUSTRALIA

1st & 2nd 4 Weekly Period for 1981

27.12.80 to 21.2.81 inclusive

Bulletin 81/8

Disease	N.S.W.	VIC	QLD	S.A.	W.A.	TAS.	N.T.	A.C.T.	Total	CUMULATIVE TOTAL TO DATE FOR YEAR
Amoebiasis	N.N.	1	2	1				1	5	5
Ankylostomiasis	N.N.		3	N.N.					3	3
Anthrax									—	—
Arbovirus infection	1	1		N.N.					2	2
Brucellosis	1			1					2	2
Campylobacter infections	N.N.	1	N.N.	29	N.N.	N.N.	N.N.	N.N.	30	30
Chancroid	N.N.		3	N.N.		N.N.	N.N.		3	3
Cholera									—	—
Congenital rubella syndrome	N.N.	N.N.	N.N.	N.N.	N.N.	N.N.	N.N.	N.N.	—	—
Diphtheria		1 CARRIER	1							1+1 CARRIER
Donovanosis	N.N.	N.N.	10	N.N.		N.N.	1		11	11
Giardiasis	N.N.	N.N.	N.N.	62	N.N.	N.N.	N.N.	N.N.	62	62
Genital herpes	N.N.	N.N.	N.N.	60	N.N.	N.N.	N.N.	N.N.	60	60
Gonococcal ophthalmia neonatorum	N.N.	N.N.		N.N.	N.N.	N.N.	N.N.	N.N.	—	—
Gonorrhoea	415	407	255	133	206	20	181	35	1652	1652
Hepatitis A (infectious)	89	55	21	16	8	7	24	7	227	227
Hepatitis B (serum)	23	23	3	6	1		1	1	58	58
Hepatitis - unspecified	N.N.	N.N.		1	11	N.N.	N.N.		12	12
Hydatid disease	5					2			7	7
Lassa Fever	N.N.		N.N.	N.N.		N.N.	N.N.	N.N.	—	—
Legionnaires disease	N.N.	1	N.N.	N.N.	N.N.	N.N.	N.N.	N.N.	1	1
Leprosy		1	2	1	1		1		6	6
Leptospirosis		14			1				15	15
Lymphogranuloma venereum		N.N.	N.N.	N.N.	N.N.	N.N.			—	—
Malaria	11	12	27	4	4			1	59	59
Marburg Disease	N.N.		N.N.	N.N.		N.N.	N.N.	N.N.	—	—
Meningococcal infections	N.N.		10	2		N.N.			12	12
Non-specific urethritis	N.N.	N.N.	N.N.	291	N.N.	N.N.	N.N.	N.N.	291	291
Ornithosis		1		4				1	6	6
Pertussis (whooping cough)	N.N.	17	N.N.	N.N.	N.N.	N.N.	N.N.	N.N.	17	17
Plague									—	—
Poliomyelitis									—	—
Q. fever	6	3	17	34	N.N.		N.N.		60	60
Rabies	N.N.	N.N.	N.N.	N.N.		N.N.	N.N.	N.N.	—	—

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Yellow Fever									—	—
Yersinia enterocolitica infections	N.N.	N.N.	N.N.	N.N.	N.N.	N.N.	N.N.	N.N.	—	—

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