

## Communicable

## Diseases

## Intelligence

Virus reports this week Total - 750 (Last period 645)

- . Influenza A - 20 reports this period. This represents an increase over previous weeks (79/10:5; 79/9:6)
- . Parainfluenza viruses (I,II and III) - total of 21 reports this period. This represents a decrease (79/10:55; 79/9:65)
- . Mycoplasma pneumoniae - 49 reports this period. This represents an increase (79/10:39; 79/9:37)

Legionnaires' Disease in Melbourne

Confirmation has been received of the diagnosis of Legionnaires' Disease in a 32 year old Melbourne man who died in March this year. The patient was an employee of Telecom, and a serological survey of workmates has been undertaken by the Victorian Health Commission to determine if they were exposed to the organism.

It now appears that 8 clinical cases of Legionnaires' Disease have been detected in Australia since early 1978. The case recorded above was the third known fatality.

Endocarditis due to *Cardiobacterium hominis* (contributed by

R. Forgan-Smith and P. Petersen, Queensland Medical Laboratory, Brisbane)

In March 1977, *Cardiobacterium hominis* was isolated from blood cultures from a 40 year old woman, with a history of heart murmur, suffering from endocarditis. The identification was subsequently confirmed by Dr R. Weaver, Center for Disease Control, Atlanta, Georgia, U.S.A. This appears to be the first isolation of this species of organism in Australia.

*Cardiobacterium hominis* was isolated from each of 9 sets of blood cultures. Each blood culture set consists of a 50ml of thyoglycollate medium and another containing a biphasic system consisting of a columbia agar slope and 50ml trypticase soy broth. Both bottles were incubated at 37°C, the biphasic in added CO<sub>2</sub> and the thyoglycollate unvented. For each specimen growth was obtained on blind sub-culture after 7 days. No growth was macroscopically visible. Colonies took 48 hours to appear on the sub-culture aerobically with added CO<sub>2</sub>, and four days anaerobically.

Growth was evident on the agar slope in the biphasic bottle nine days after inoculation.

Gram stains of this isolate showed pleomorphic Gram negative bacilli with some retention of Gram positivity. This organism is catalase negative, oxidase positive, nitrate negative, and produces acid from glucose by fermentation.

As this fastidious aerobic organism takes approximately 48 hours to produce colonies 1-2mm in diameter in a high humidity atmosphere, care should be taken not to discard plates too readily.

### $\beta$ -lactamase producing *N.gonorrhoeae*

Three isolations of the above organism were made in South Australia in May. These were from:

- . Female who recently returned from overseas. Possibly acquired in Denmark
- . Male - contact of female above
- . Male - contact of a female who appears to be a contact of the male above

### International Notes

- . Dengue fever in Fiji (Weekly Epidemiological Record No.21, 25 May 1979)

Cases of dengue fever have been reported from Kadavu, Suva and other areas of Fiji. It has been estimated on clinical grounds that up to 15 May, more than 6,000 cases have occurred in the Western Division, 295 in the Eastern Division and about 250 cases a week in the Central Division. Approximately 25% have been reported to have a rash on the extremities. Dengue viruses type 1 and type 4 are believed to be responsible.

Dengue virus type 4 was first isolated in the South Pacific in French Polynesia earlier this year (CDI 79/6). The illness at that time was generally mild.

- . Reye Syndrome in the U.S.A. (W.E.R. 25 May 1979)

Since December 1978, 159 cases of Reye syndrome have been reported to the Center for Disease Control, including six clusters in areas with concurrent widespread Influenza A (H1N1) activity. These clusters suggest a temporal and geographical association with Influenza A(H1N1) activity. Eighteen deaths have been reported in 98 patients where the outcome is known. At least five deaths occurred in 10-12 year old children.

Laboratory data from 21 patients (20 of them in four clusters

located in Arizona, Utah, Colorado and Georgia) showed evidence of recent infection with virus A(H1N1); 16 had a four-fold rise in haemagglutination-inhibition (HI) antibody, four had high HI titres in convalescent serum and there was one isolate of the virus from the nasopharyngeal swab of a 20 month-old boy.

#### Summary of viral identifications reported during 1978

During 1978, reports were received on all viruses of human origin identified in 9 clinical laboratories in Australia. The total number of new cases reported for all viruses was 14528 (corrected for duplicate results on the same patient).

The numbers of isolations of the more common virus groups were:

Herpes viruses (excluding Varicella-Zoster group)	2699
Hepatitis B (including Ab and Ag results)	2544
<u>Mycoplasma pneumoniae</u>	1537
Adenoviruses	987
Echoviruses	819
Rota viruses	804
Respiratory Syncytial Virus (RSV)	660
<u>Coxiella burneti</u>	625
Influenza (A and B)	606
Cytomegalovirus	500

Less frequently isolated groups included: Parainfluenza viruses 408; Rhinoviruses 354; Mumps virus 318; Coxsackie viruses 309; Measles virus 261; Polioviruses 202 (predominantly vaccine strains); Rubella virus 174; Varicella-Zoster group 132; Ornithosis/Psittacosis group 126, Ross River Virus 100; Chlamydia A (Tric type) 87; E-B virus 46; Australian encephalitis 6. M-pneumoniae and C. burneti although not viruses, are included in the tables for comparison.

It is not possible to translate these figures into the incidence of the diseases associated with the viruses, since different reporting patterns exist with each. For example diseases such as measles, and influenza are less likely to be referred to a laboratory for confirmation than infections with RSV or Hepatitis B.

A more detailed analysis of the data from 1978 is proceeding.

#### A case of Mycoplasma pneumoniae encapalopathy (Communicable Diseases Report 79/19, 18 May 1979)

A 20 year-old labourer was admitted to hospital on 15 September 1978 with a two-week history of cough, muscle aches and malaise. Over the previous 4 years he had had several episodes of idiopathic myositis. On the day of admission he complained of blurred vision, later became delirious, and finally had three convulsions. He was found to be deeply unconscious with no response to painful stimuli. He had ankle clonus and brisk reflexes, but no localising signs. The CSF showed slightly raised

protein, and an EEG was compatible with encephalopathy.

He had further convulsions over the next two days, and remained unconscious for three weeks, sometimes responding to painful stimuli, and sometimes appearing to look at people. A tracheostomy was performed on 24 September. There was evidence of bronchitis, which was ascribed to his unconscious state.

On 6 October he was found to have a rising titre of complement-fixing antibody to Mycoplasma pneumoniae. The serum of 15 September gave a titre of 700 and that of 26 September a titre of 24,000. M.pneumoniae specific IgM was detected in both sera by immunofluorescence, and cold agglutinins found also in both. No M. pneumoniae antibody was detected by immunofluorescence in the CSF specimen of 17 September, 29 September, or 7 October.

The patient had received oxytetracycline for four days before admission but not since. After diagnosis, he was given 500 mgm erythromycin t.d.s. intravenously from 7 October for ten days. The day before the erythromycin was started, the depth of unconsciousness seemed to be diminishing, and over the next few days he improved dramatically. The day after erythromycin treatment started he was sitting up, eating, talking and obeying commands. Over the next six weeks his mental state gradually improved and on discharge on 17 November there was only slight intellectual impairment.

M. pneumoniae encephalopathy probably occurs more frequently than is realised. It has been estimated that about 7% of patients admitted to hospital in Scandinavia with M. pneumoniae infections have some CNS manifestations<sup>1</sup>, and that about 10% of all acute, febrile, non-bacterial CNS illness admitted to hospital in USA and Scandinavia is due to M. pneumoniae<sup>2,3</sup>. Of 50 cases in the literature up till 1973 reviewed by Lerer and Kalavsky<sup>4</sup>, 10% died and 20% had a residual neurological deficit. The remainder recovered completely, either without treatment or with oral tetracycline. Intravenous erythromycin in high dosage has been given recently both in this country and abroad to patients with severe infection.

#### References

1. Sterner, G., Biberfeld, G. (1969), Scand.J.Infect.Dis. 1, 203
2. Skoldenberg, B. (1972), Scand.J.Infect.Dis. Suppl.3.
3. Zoffman, H., Lind, K., Jessen, O. (1974), Scottish-Scandinavian Conference on Infectious Diseases, Bergen
4. Lerer, R.J., Kalavsky, S.M. (1973), Pediatrics, 52, 658.

AUSTRALIA - COMMUNICABLE DISEASES INTELLIGENCE

REPORTING PERIOD - 17-5-79 . 30-5-79 BULLETIN NUMBER . 79/11  
 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		6			4	9	1	21
0101 ADENOVIRUS TYPE 1.....				3		1			4
0102 ADENOVIRUS TYPE 2.....				1		2			3
0103 ADENOVIRUS TYPE 3.....				1		1		1	3
0105 ADENOVIRUS TYPE 5.....						3			3
0107 ADENOVIRUS TYPE 7.....						2		1	3
0111 ADENOVIRUS TYPE 11.....	1								1
0119 ADENOVIRUS TYPE 19.....				1					1
0199 ADENOVIRUS TYPING PENDING.....			2		11	4			17
0201 INFLUENZA A VIRUS.....	2		1	15		2	3	1	24
0202 INFLUENZA A VIRUS SUBTYPE H3N2.....					9				9
0203 INFLUENZA B VIRUS.....		1							1
0301 PARAINFLUENZA VIRUS TYPE 1.....		2	1	2	17	5	3	1	31
0302 PARAINFLUENZA VIRUS TYPE 2.....				1	1	1	1		4
0303 PARAINFLUENZA VIRUS TYPE 3.....				1	4	3			8
0400 RESPIRATORY SYNCYTIAL VIRUS (RS)....		5	1	1	6		7	4	24
0500 RHINOVIRUS (ALL TYPES).....				4	1	1	3		9
0600 MYCOPLASMA PNEUMONIAE.....	15	1	13	3		4	8	5	49
0700 ORNITHOSIS-PSITTACOSIS.....			3						3
0800 COXSACKIEVIRUSES GROUP A - NOT TYPED.....	1								1
0809 COXSACKIEVIRUS A9.....				1			1		2
0899 COXSACKIEVIRUS GROUP A TYPING PENDING.....							4		4
0901 COXSACKIEVIRUS B1.....	1								1
0902 COXSACKIEVIRUS B2.....						1	1		2
0903 COXSACKIEVIRUS B3.....				1		2			3
0904 COXSACKIEVIRUS B4.....	2								2
1000 ECHOVIRUS NOT TYPED.....								2	2
1001 ECHOVIRUS TYPE 1.....					1				1
1007 ECHOVIRUS TYPE 7.....				2		1			3
1009 ECHOVIRUS TYPE 9.....					1	1			2

AUSTRALIA - COMMUNICABLE DISEASES INTELLIGENCE

2

REPORTING PERIOD - 17-5-79 . 30-5-79 BULLETIN NUMBER . 79/11  
 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
1011 ECHOVIRUS TYPE 11.....						2		21	23
1023 ECHOVIRUS TYPE 23.....			1						1
1024 ECHOVIRUS TYPE 24.....				2					2
1025 ECHOVIRUS TYPE 25.....	1					1			2
1027 ECHOVIRUS TYPE 27.....	1								1
1030 ECHOVIRUS TYPE 30.....	2		3	1	1		2		9
1033 ECHOVIRUS TYPE 33.....						1			1
1101 POLIOVIRUS TYPE 1.....						1	1	1	3
1102 POLIOVIRUS TYPE 2.....				1		1		1	3
1104 POLIOVIRUS-VACCINAL STRAIN.....					6				6
1200 MOMP'S VIRUS.....	1	2	3	3	1	2	2		14
1301 HERPES SIMPLEX VIRUS-NOT TYPED.....	7		10	1	2		23	40	83
1303 VARICELLA-ZOSTER VIRUS.....	2		3						5
1306 HERPES SIMPLEX TYPE 1.....	2	1		13		5			21
1307 HERPES SIMPLEX TYPE 2.....	28			19		4		1	52
1399 HERPES VIRUS TYPING PENDING.....						7			7
1401 COXIELLA BURNETI.....	4			5		1	27		37
1521 MEASLES VIRUS.....	1		2	2		1			6
1522 RUBELLA VIRUS.....		1		2		1		2	6
1532 HEPATITIS B ANTIGEN.....			14	27		10	9	16	76
1535 HEPATITIS A ANTIBODY.....								3	3
1541 CHLAMYDIA A - TRIC TYPE.....						2		21	23
1543 CHLAMYDIA A - LGV TYPE.....								1	1
1556 CMV - CYTOMEGALOVIRUS.....	9	1	5	8	3	4	3	9	42
1564 ROTAVIRUS.....					2	1			3
1571 ENTEROVIRUS TYPE 71 (BRCH).....				2	1				3
1599 ENTEROVIRUS TYPING PENDING.....			1		9	6	6		22
AUSTRALIAN ENCEPHALITIS .....								1	1
ROSS RIVER VIRUS .....							24		24
Total.....	81	14	69	123	76	88	137	133	721

- 1 -

AUSTRALIA - COMMUNICABLE DISEASES INTELLIGENCE

REPORTING PERIOD - 17-5-79 . 30-5-79 BULLETIN NUMBER . 79/11  
 VIRAL IDENTIFICATIONS CATEGORISED INTO SOURCE SPECIMENS

3

VIRUS OR VIRAL ANTIGEN	FA	BL	NA	CS	SK	EY	UR	BR	GE	OT	TOTAL
0100 ADENOVIRUS NOT TYPED.....	9	9	3								21
0101 ADENOVIRUS TYPE 1.....	2	1	1								4
0102 ADENOVIRUS TYPE 2.....	1		2								3
0103 ADENOVIRUS TYPE 3.....			1			2					3
0105 ADENOVIRUS TYPE 5.....	2		1								3
0107 ADENOVIRUS TYPE 7.....	2		1								3
0111 ADENOVIRUS TYPE 11.....						1					1
0119 ADENOVIRUS TYPE 19.....						1					1
0199 ADENOVIRUS TYPING PENDING.....	7		7			3					17
0201 INFLUENZA A VIRUS.....		10	14								24
0202 INFLUENZA A VIRUS SUBTYPE H3N2.....			9								9
0203 INFLUENZA B VIRUS.....			1								1
0301 PARAINFLUENZA VIRUS TYPE 1.....			30						1		31
0302 PARAINFLUENZA VIRUS TYPE 2.....		1	3								4
0303 PARAINFLUENZA VIRUS TYPE 3.....			6					2			8
0400 RESPIRATORY SYNCYTIAL VIRUS (RS)....		2	22								24
0500 RHINOVIRUS (ALL TYPES).....			9								9
0600 MYCOPLASMA PNEUMONIAE.....		48									48
0700 ORNITHOSIS-PSITTACOSIS.....		3									3
0800 COXSACKIEVIRUSES GROUP A - NOT TYPED.....			1		1						2
0809 COXSACKIEVIRUS A9.....			2								2
0899 COXSACKIEVIRUS GROUP A TYPING PENDING.....	3		1								4
0901 COXSACKIEVIRUS B1.....			1								1
0902 COXSACKIEVIRUS B2.....	2		1								3
0903 COXSACKIEVIRUS B3.....	1		2								3
0904 COXSACKIEVIRUS B4.....								1	1		2
1000 ECHOVIRUS NOT TYPED.....	1									1	2
1001 ECHOVIRUS TYPE 1.....	1										1
1007 ECHOVIRUS TYPE 7.....	1		2								3
1009 ECHOVIRUS TYPE 9.....			2								2
1011 ECHOVIRUS TYPE 11.....	9		11	2						1	23

AUSTRALIA - COMMUNICABLE DISEASES INTELLIGENCE

REPORTING PERIOD - 17-5-79 . 30-5-79 BULLETIN NUMBER . 79/11  
 VIRAL IDENTIFICATIONS CATEGORISED INTO SOURCE SPECIMENS-CONTINUED

VIRUS OR VIRAL ANTIGEN	FA	BL	NA	CS	SK	EY	UR	BR	GE	OT	TOTAL
1023 ECHOVIRUS TYPE 23.....	1										1
1024 ECHOVIRUS TYPE 24.....	1			1							2
1025 ECHOVIRUS TYPE 25.....			2								2
1027 ECHOVIRUS TYPE 27.....			1								1
1030 ECHOVIRUS TYPE 30.....	3		6	3							12
1033 ECHOVIRUS TYPE 33.....			1								1
1101 POLIOVIRUS TYPE 1.....	3										3
1102 POLIOVIRUS TYPE 2.....	3										3
1104 POLIOVIRUS-VACCINAL STRAIN.....	6		2								8
1200 MUMPS VIRUS.....		8	4	2						1	15
1301 HERPES SIMPLEX VIRUS-NOT TYPED.....		7	11		24	1			35	6	84
1303 VARICELLA-ZOSTER VIRUS.....		5									5
1306 HERPES SIMPLEX TYPE 1.....			4		10	1			4	3	22
1307 HERPES SIMPLEX TYPE 2.....					5				47		52
1399 HERPES VIRUS TYPING PENDING.....			2		4				1		7
1401 COXIELLA BURNETI.....		36									36
1521 MEASLES VIRUS.....		4	2								6
1522 RUBELLA VIRUS.....		6									6
1532 HEPATITIS B ANTIGEN.....		76									76
1535 HEPATITIS A ANTIBODY.....		3									3
1541 CHLAMYDIA A - TRIC TYPE.....						1			22		23
1543 CHLAMYDIA A - LGV TYPE.....		1									1
1556 CMV - CYTOMEGALOVIRUS.....	1	16	10				12		5	1	45
1564 ROTAVIRUS.....	3										3
1571 ENTEROVIRUS TYPE 71 (BRCR).....	1		2								3
1599 ENTEROVIRUS TYPING PENDING.....	14		8		3			1			26
AUSTRALIAN ENCEPHALITIS.....		1									1
ROSS RIVER VIRUS.....		24									24
Total.....	77	261	188	8	47	10	12	4	116	13	736



DISEASE	Total	N.S.W.	VIC	QLD	S.A.	W.A.	TAS.	N.T.	A.C.T.	CUMULATIVE TOTAL TO DATE IN YEAR
Salmonella infections		9	4	12	53		7	20		
Shigella infections					8			36	1	
Smallpox										
Syphilis		42	8	67	27			74	1	
Tetanus		1	1							
Trachoma										
Tuberculosis (all forms)		35	32	12	10		1	1	1	
Typhoid fever			2	1						
Typhus (all forms)				1						
Vibrio parahaemolyticus infections										
Yellow Fever										
Yersinia enterocolitica infections										

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.

**\*\*Please Note**

Figures for Western Australia have not been entered for this period as there are several discrepancies and would therefore show an untrue total of the diseases. Therefore no totals have been stated either.

During this period the following figures have been added or deleted, as the case may be:

Congenital Rubella Syndrome

Victoria has deleted 12 cases.

Donovanosis

Queensland - the last 4 weekly period should have stated 10 cases for Qld.

Hepatitis A (infectious)

South Australia has deleted 1 case.