

Communicable

Diseases

Intelligence

Virus reports this period: Total 737

Interesting reports include:

Ross River Virus: Infections with this virus are again prevalent in Queensland, with 40 reports being received; 4 reports were also received from Western Australia. Joint inflammation was recorded in 25 cases, and symptoms involving the skin in 11 cases.

Dr J.R.E. Fraser, Department of Medicine, University of Melbourne, has for some years been studying the pathogenesis of epidemic polyarthrititis. He has found the incidence of this disease since December 1978, to be higher than in previous years. 13 clinical cases have been investigated, 2 of which are suspected to be a slightly different syndrome. Examination of the synovial fluid in 5 cases showed cellular patterns strongly suggestive of arbovirus infection, but serological confirmation of Ross River Virus infection is not yet available. Most of the infections were contracted in the Murray Valley.

Echovirus type 30: Meningitis cases due to this virus were not as frequent this period. 7 cases are reported compared with 31 cases in the previous period.

Streptococci Group B in pregnant females (contributed by G. Davis, Department of Microbiology, University of Queensland, Brisbane).

The following results were obtained from a recent survey.

1. An overall carrier rate of 38% was found in 187 pregnant women by multiple testing.
2. Rectal carriage is commoner than vaginal but vaginal carriage without rectal carriage can occur.
3. Increased carrier rates, especially rectal occurred late in pregnancy.
4. Edwards medium was more efficient than a nalidixic acid/gentamicin agar for primary isolation, especially from rectal swabs.

5. The rapid hippurate (4 hr) test reliably identified Group B streptococci.
6. Coagglutination reagent for serogrouping is simple to prepare with commercial antiserum and cells of Cowan 1 Staphylococcus aureus (available from the culture collection).
7. Typing antisera can be raised on a small scale (eg. 4 rabbits - 4 sera) and vaccine strains of CDC origin are held in the culture collection.
8. Serotypes I and III predominated among 163 isolates from 3 cities in Australia. Only type 1a showed imbalanced distribution and was more common in non-pregnant than pregnant women, in genital than rectal isolates and from symptomatic than asymptomatic hosts.

For culture collection enquiries contact Dr L. Sly (Curator), Department of Microbiology, University of Queensland. For further details of the study, contact Dr Davis.

Campylobacter sp. isolates in Queensland (contributed by Y.M. Cossins, State Health Laboratory, Brisbane)

In a twelve week period from December, 1978 to February, 1979, 325 faeces were cultured for pathogenic bacteria. The pathogens isolated were Campylobacter sp. (8); Salmonella sp. (8); Shigella sp. (3) and enteropathogenic Escherichia coli (3). Campylobacter sp. were associated with exudates containing blood and pus in five cases and in two cases with another pathogen; Salmonella sp. (1) and Shigella sp. (1). The ages of the patients ranged from 15 months to 17 years. It appears from this small series, that Campylobacter sp. infections can occur as frequently as infections caused by Salmonella sp.

Editor's comment

Reports from the United Kingdom and Canada over the last 12 months confirm the important role that Campylobacter sp. play in the aetiology of gastroenteritis. The most frequently reported vehicles of infection are chicken and milk, and pets are also commonly associated with infection.

In Scotland, at least 200 people are known to have been involved in an outbreak of gastroenteritis traced to milk. Campylobacter sp. was isolated from over 100 cases and from a milk filter. In addition, two other milk-borne outbreaks were reported from different areas of the north of England in the later months of 1978 (Communicable Diseases Scotland, 79/4; 27 January 1979).

Infection with campylobacters was recommended as a Notifiable Disease in Australia by the NH&MRC in November 1978. It is hoped that when reporting of these isolates occurs in the States,

effective information on the incidence of gastroenteritis associated with these organisms will be available.

Outbreak of Respiratory infection in Italy (CDR 79/7, 23 Feb. 1979)

Between December 1978 and February 1979, an outbreak of respiratory disease occurred in Naples involving 121 seriously ill children with lower respiratory tract infection. 38 (31%) died.

Most of the cases were under 2 years of age, and the male: female sex ratio was 2:1. A detailed study of these deaths by the Italian health authorities showed clinical, pathological and epidemiological features suggestive of respiratory syncytial virus (RSV) infection. Particularly striking were the rapid development of coma in some cases, the presence of interstitial pneumonia in most of the cases examined post-mortem, and the social conditions of the families. Proportionately more of the cases came from densely populated urban, than from rural areas, and, compared with the control group, there was more overcrowding in the houses of the patients and more respiratory illness in their household contacts.

Virological studies are continuing; RSV and two other viruses have been isolated.

Naples is a city of about 2 million people with the highest infant mortality rate in Italy - 36.7 per 100 live births in 1978. Living conditions are poor, overcrowding is common and many dwellings lack piped water, and elementary hygienic services. Enteric and respiratory diseases are prevalent, particularly in children.

RSV is the most important respiratory tract pathogen of infants and young children, and produces its most severe disease in the first 6 months of life. It has been associated with a majority of the wheezing episodes and other lower respiratory tract infections under two to three years, as well as with otitis media.

During 1978, 660 RSV infections were reported to the CDI, and 466 of these were in infants less than one year. 54 of these isolates were from sites other than the respiratory tract, including 1 from CSF, and 3 of these were from post-mortem tissue.

References 1. Hall C.B. et al. N. Engl. J. Med. 22 Feb. 1979 p. 393
2. Editorial N. Engl. J. Med. 22 Feb. 1979 p. 430

Amendments to Bulletin 79/4

The influenza A isolate described on page 1 was described as an "important" infection. This should have read "imported". This isolate has now been serologically confirmed as Influenza A/USSR/90/77 (seroconversion 1:10 to 1:160).

The reporting period for the issue should have read 8 February 1979 to 21 February 1979.

Outbreak of streptococcal infection in a chicken factory - U.K.
(CDR 79/4, 2 February 1979)

A large outbreak of streptococcal skin infection occurred between June and September 1978 in workers in a chicken factory in North Yorkshire which processes 33 000 chickens per day on a conveyor production line. One hundred and three of the 342 employees were infected, with impetiginous and eczematous lesions, paronychia and/or infected lacerations of the hands.

Bacteriological investigations resulted in the isolation of 36 strains of β - haemolytic streptococci of Lancefield's Group A from the nose and throat and areas of inflammation on the hands and toes of 30 workers out of 272 examined. Thirty of the strains submitted to the Streptococcus Reference Laboratory at Colindale had the T-typing pattern 3/13/B 3264; opacity neutralisation tests suggested that the strain belonged to a newly-recognised provisional M-type (R/78/55) first identified as a cause of skin sepsis in meat handlers. Spread of infection with this strain also detected in two families of employees.

β - haemolytic streptococci of other groups were cultured from 22% of the throats of employees swabbed; these were mainly group C, with some group B and few group G and other groups, but there were no other isolates of these groups from hands.

Outbreaks of streptococcal group A infection in abattoir workers have previously been reported in the U.K.*

* (J. of Hygiene, Cambridge 1977, 78, 283.)

AUSTRALIA - COMMUNICABLE DISEASES INTELLIGENCE

REPORTING PERIOD - 22-2 -79

7-3-79

BULLETIN NUMBER

79/5

VIRAL IDENTIFICATIONS FROM CONTRIBUTING LABORATORIES-CONTINUED

VIRUS OR VIRAL ANTIGEN	ICPMR (NSW) / WVH (ACT)	RAHC (NSW)	FHM/ POW (NSW)	FAIR- FIELD (VIC)	RCH (VIC)	IMVS (SA)	STATE LAB (QLD)	STATE LAB (WA)	Total
1016 ECHOVIRUS TYPE 16.....						1			1
1018 ECHOVIRUS TYPE 18.....				1					1
1019 ECHOVIRUS TYPE 19.....			2						2
1021 ECHOVIRUS TYPE 21.....	1								1
1022 ECHOVIRUS TYPE 22.....			4		7			1	12
1027 ECHOVIRUS TYPE 27.....						1			1
1030 ECHOVIRUS TYPE 30.....	2		3	5	5	7	2		24
1031 ECHOVIRUS TYPE 31.....	1								1
1033 ECHOVIRUS TYPE 33.....			1						1
1101 POLIOVIRUS TYPE 1.....							1	1	2
1102 POLIOVIRUS TYPE 2.....							3		3
1103 POLIOVIRUS TYPE 3.....						1	1		2
1104 POLIOVIRUS-VACCINAL STRAIN.....			2						2
1200 MUMPS VIRUS.....	2	1		2	1	1	7	1	15
1300 HERPES VIRUS GROUP-NOT TYPED.....	4			7					11
1301 HERPES SIMPLEX VIRUS-NOT TYPED.....	1		9		5	1	20	21	57
1303 VARICELLA-ZOSTER VIRUS.....	4			1		3		1	9
1306 HERPES SIMPLEX TYPE 1.....	8	1		8		13			30
1307 HERPES SIMPLEX TYPE 2.....	53			21		15			89
1399 HERPES VIRUS TYPING PENDING.....				1		2			3
1401 COXIELLA BURNETI.....	10			2		1	16		29
1515 CONTAGIOUS PUSTULAR DERMATITIS (ORF VIRUS).....						1			1
1521 MEASLES VIRUS.....	1			1	1	2	4		9
1522 RUBELLA VIRUS.....	3			1		2	2	3	11
1532 HEPATITIS B ANTIGEN.....			9	24		10	11	10	64
1533 HEPATITIS B ANTIBODY.....								3	3
1535 HEPATITIS A ANTIBODY.....								1	1
1541 CHLAMYDIA A - TRIC TYPE.....	8					3		33	44
1556 CMV - CYTOMEGALOVIRUS.....	2		2	15	4	2	2	1	28
1564 ROTAVIRUS.....				3					3
1599 ENTEROVIRUS TYPING PENDING.....		8	3		15	6	10		42
ROSS RIVER VIRUS.....						1	39	4	44
DENGUE.....							2		2
Total.....	116	14	44	118	72	114	145	114	737

AUSTRALIA - COMMUNICABLE DISEASES INTELLIGENCE

REPORTING PERIOD - 22-2-79 . 7-3-79 BULLETIN NUMBER - 79/5
 VIRAL IDENTIFICATIONS CATEGORISED INTO SOURCE SPECIMENS-CONTINUED

VIRUS OR VIRAL ANTIGEN	FA	BL	NA	CS	SK	EY	UR	BR	GE	OT	TOTAL
1018 ECHOVIRUS TYPE 18.....			1								1
1019 ECHOVIRUS TYPE 19.....	1		1								2
1022 ECHOVIRUS TYPE 22.....	12										12
1027 ECHOVIRUS TYPE 27.....	1										1
1030 ECHOVIRUS TYPE 30.....	12		4	9			2			1	28
1031 ECHOVIRUS TYPE 31.....			1				1				2
1033 ECHOVIRUS TYPE 33.....	1										1
1101 POLIOVIRUS TYPE 1.....			1							1	2
1102 POLIOVIRUS TYPE 2.....	2						1				3
1103 POLIOVIRUS TYPE 3.....	2										2
1104 POLIOVIRUS-VACCINAL STRAIN.....	2										2
1200 MUMPS VIRUS.....		11		2						1	14
1300 HERPES VIRUS GROUP-NOT TYPED.....			1		7				1	2	11
1301 HERPES SIMPLEX VIRUS-NOT TYPED.....	1	1	11		22				16	5	56
1303 VARICELLA-ZOSTER VIRUS.....		4			5						9
1306 HERPES SIMPLEX TYPE 1.....			5		21				3	2	31
1307 HERPES SIMPLEX TYPE 2.....			1		6				83		90
1399 HERPES VIRUS TYPING PENDING.....		1			2	1					4
1401 COXIELLA BURNETI.....		29									29
1515 CONTAGIOUS PUSTULAR DERMATITIS (ORF VIRUS).....					1						1
1521 MEASLES VIRUS.....		8	1								9
1522 RUBELLA VIRUS.....		11									11
1532 HEPATITIS B ANTIGEN.....		64									64
1533 HEPATITIS B ANTIBODY.....		3									3
1535 HEPATITIS A ANTIBODY.....		1									1
1541 CHLAMYDIA A - TRIC TYPE.....						1			43		44
1556 CMV - CYTOMEGALOVIRUS.....		4	7				15		2	1	29
1564 ROTAVIRUS.....	3										3
1599 ENTEROVIRUS TYPING PENDING.....	17		13	7			2			3	42
ROSS RIVER VIRUS.....		44									44
DENQUE (TYPE 3).....		2									2
Total.....	85	255	119	26	65	5	22		150	18	745