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Communicable Diseases Intelligence

Bulletin number 85/23
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Contents:

VIRUS REPORTING SCHEME - A total of 1446 reports were processed this period, including 263 reports for samples collected before 30 September 1985.

Echovirus type 7 was reported in 10 patients (4 female, 6 male). The virus was isolated from a 1 year old girl with Sudden Infant Death Syndrome (SIDS) and a 20 year old female with meningitis. The remaining cases were in children under 3 years of age, two of whom presented with febrile convulsions.

At post-mortem one of the following four viruses was isolated from children with SIDS, poliovirus type 2, an untyped poliovirus, cytomegalovirus or influenza B virus.

Central nervous system infection with Epstein-Barr virus and Varicella-Zoster virus produced meningitis and encephalitis in a male of unknown age and a male aged 24 years respectively.

17 cases of Ross River Virus infection were reported between August and mid October (QLD 12, NSW 2, WA 2, NT 1).

A 26 year old Townsville man with a febrile illness and polyarthralgia had serology consistent with acute infection with Alfuy, Kokobera and Kunjin viruses.

A 60 year old man resident in Kilroy, Qld had serology consistent with an acute infection with Kokobera virus. Also from Queensland, a 33 year old woman had serology consistent with acute Kunjin virus infection.

Coxsackievirus B4 was isolated from ten patients with respiratory infections, gastrointestinal disorders or malaise. It should be noted that for the corresponding period of 1984 coxsackievirus B5 was the dominant coxsackievirus.

Eleven cases of Q fever were reported during this period. For 5 patients occupational exposure details were available, 3 were meatworkers and 2 farmers. None of these patients were involved in the South Australian Q fever vaccine trial.

Serology studies on a 40 year old female following spontaneous abortion were consistent with an acute cytomegalovirus infection.

The Bulletin is compiled and distributed by the Communicable Diseases Branch, Department of Health, P.O. Box 100, Woden, A.C.T. 2606, Australia, and is available on request.
Contributions are solicited, and do not preclude later publication elsewhere.

Figures given may be subject to revision.

NH & MRC WORKING PARTY ON HEATED SPAS

The National Health and Medical Research Council has established a Working Party on heated spas which will be headed up by Dr Scott Cameron of the Communicable Disease Control Unit of the South Australian Health Commission. Submissions to the Working Party are welcome and should be directed to Dr Alan Wade, Secretary, Water Quality Committee, National Health and Medical Research Council, PO Box 100, Woden, ACT, 2606.

GONOCOCCAL SURVEILLANCE AUSTRALIA APRIL - JUNE 1985

(Contributed by the Australian Gonococcal Surveillance Programme - AGSP. Co-ordinator Dr J.W. Tapsall, The Prince of Wales Hospital, Randwick, New South Wales, 2031).

This report completes four years of surveillance of gonococcal sensitivity patterns in Australia by the AGSP. In this quarter 1081 strains were examined by participating laboratories which use standard procedures detailed elsewhere.(1)

Chromosomal changes to gonococci result in a decreased sensitivity to antibiotics known as intrinsic resistance. Gonococci may be conveniently grouped according to their intrinsic resistance into sensitive (MIC = 0.008 mg/l), less sensitive (MIC = 0.12 mg/l) or relatively resistant (MIC $\geqslant$ 1.0 mg/l) strains. The latter category accounts for only a small percentage of isolates in Australia, most strains being either in the sensitive or less sensitive categories. The table shows the percentage of gonococci in these two categories by region for the period under review and, for comparison, data obtained over the same period in 1984 is also shown. One interesting feature is the predominance of fully sensitive strains in Adelaide where two thirds of the isolates are now in this cateogry, almost an inverse ratio of the situation in that centre last year when less sensitive strains were prominent. In other centres less sensitive strains are more frequently isolated thus continuing a trend noted in recent reports. In Canberra and Darwin where fewer strains are isolated, less sensitive strains also represent the majority of gonococcal isolates.

A total of 84 pencillinase-producing gonococci (PPNG) were isolated throughout Australia during this quarter (Table). Half of these strains were isolated in Melbourne (35 males and 7 females) indicating that the outbreak of PPNG infections in this centre is continuing. Further, 23 of the 42 Melbourne infections were acquired locally whereas 9 isolates were from overseas travellers (in 10 patients the source of infection was not recorded). Endemic transmission of PPNG was noted in Sydney, Brisbane and Adelaide also. Seven of 15 infections in Sydney, 5 of 15 in Brisbane and 2 of 3 in Adelaide were acquired locally. In Sydney, PPNG continued to be isolated from prostitutes.

One of the Adelaide strains was isolated from a prostitute who had recently worked in Sydney. PPNG isolated in Perth, Darwin and Canberra were isolated from overseas travellers or their contacts.

Table: Pencillin sensitivity of isolates of N. gonorrhoeae April - June 1985

Centre	Percentage of Isolates		
	Sensitive	Less Sensitive	PPNG
Brisbane	31.5 (35)	51.5 (53)	6.2 (4.4)
Sydney	10.2 (13)	70.0 (64)	6.7 (14.4)
Melbourne	13.4 (27)	55.2 (46)	15.16 (2.8)
Adelaide	64.0 (27)	22.5 (59.3)	3.37 (5.1)
Perth	36.2 (23)	44.1 (52)	3.3 (6.5)

Reference:
1. Br J Vener Dis (1984) 60: 226-230.

MALARIA FATALITIES - SAN BERNARDINO COUNTY

(Based on California Morbidity; No 37, 20 Sep. 1985)

In 1984 and 1985, 3 residents of San Bernardino County died of falciparum malaria. All were infected outside the United States in areas highly endemic for malaria; none had taken chemoprophylaxis.

CASE 1: A 45 year old man died on 23 June 1984 after a 5 day illness. Initial symptoms included headache, malaise, myalgia, slight fever, vomiting, and diarrhoea. Four days later he sought outpatient care for cough, vomiting, fever to 40°C (104°F), chills and delirium. A diagnosis of flu-like syndrome was made. He was seen again as an outpatient the next day and flu was again considered. Later that evening the patient collapsed at home, and CPR efforts by paramedics were unsuccessful. Autopsy revealed malarial infection ascribed to Plasmodium falciparum by microscopic examination of tissues and red blood cells.

The patient had traveled to the city of Harare, Zimbabwe in Africa between 10 January and 6 February 1984, and spent the final days of his trip in a rural area. The patient reportedly had not sought medical advice regarding his travel before departure.

CASE 2: Between 9 June and 21 June 1984 a 32 year old woman vacationed in Togo, Africa where she visited her sister in the Peace Corps at the village of Kpalimae. On 30 June she experienced onset of weakness, anorexia, nausea, vomiting, diarrhoea and fever to 40°F). On 3 July she began to experience shortness of breath and saw a physician. A malaria smear was reportedly negative. On 6 July she consulted another physician and was admitted to hospital with a diagnosis of "influenza" and "hepatitis of unknown aetiology". Peripheral blood smears revealed P. falciparum. The patient was treated with chloroquine, quinine sulfate, and pyrimethamine but she died on 14 July 1984, with hepatorenal failure, diffuse intravascular coagulation and adult respiratory distress syndrome.

CASE 3: From 15 February to 15 March 1985 a 30 year old resident of San Bernardino visited his family in Navsari, India. On 28 March he complained of headache. On 29 March he was admitted to a local hospital after a seizure and was treated with phenytoin. While in the intensive care unit he spiked a fever to 106°F. Blood smears for malaria were ordered and he was given antibiotics and antipyretics.

On 1 April the blood smear was reported by the hospital laboratory as positive for "Plasmodium malariae". The patient was then started on chloroquine by mouth, 1 gram initially, 500mg six hours later and 500mg daily for two days. But his haemoglobin levels and urine output declined and on 3 April he became comatose. On 30 April the patient died with "black water fever".

The diagnosis of P. malariae malaria was switched to P. falciparum when the initial smears were reviewed later by the San Bernardino Public Health Laboratory and the State's Microbial Diseases Laboratory. Chloroquine resistant P. falciparum (CRPF) has been documented in the Navsari region, suggesting that infection may have been with a resistant strain.

CALIFORNIA MORBIDITY EDITORIAL COMMENT: These cases emphasize the need for:

(1) appropriate chemoprophylaxis in travellers to malaria endemic areas,
(2) physicians to promptly consider malaria (especially P. falciparum) in such travellers returning with fever,
(3) the correct laboratory diagnosis of the infecting malaria species,
(4) the use of appropriate antimalarials by appropriate routes of administration, especially when CRPF may be involved, and
(5) the use of newer treatment measures, such as exchange transfusion, in severe cases of falciparum malaria.

CDI Editorial Comment
The National Medical and Research Council approved document "Malaria prophylaxis for Australians Travelling or Temporarily resident overseas" is expected to be available in booklet form within the next 6 weeks.

CHOLERA CASES CONTRACTED ON GUAM
(Based on Guam Weekly Morbidity Report 31, 1985)

On August 10, 1985, the Guam Department of Public Health & Social Services (GDPHSS) was notified by the Guam Memorial Hospital (GMH) Infection Control Officer that a stool specimen from a 39 year old male Philipino patient hospitalized for treatment of dehydration due to continuous watery diarrhoea was positive for a Vibrio sp. bacterium suspected to be Vibrio cholerae. Two days later GDPHSS was notified by GMH that a 26 year old female Guamanian treated on an outpatient basis for persistent watery diarrhoea was also stool culture positive for a Vibrio cholerae-like bacterium. Isolates from both patients were identified by the GDPHSS Laboratory as 01 Vibrio cholerea El Tor Ogawa

Both patients lived in the same village but were not acquainted with each other. Neither patient nor any household contacts had travelled to a foreign country recently. Both patients had a history of eating uncooked fish.

Food specimens from both affected households were tested; frozen juvenile "goatfish" (Mulloidichthys auriflama) from the Guamanian household were positive for 01 V. cholerae Ogawa. These fish had been caught approximately 2 months earlier in the same area incriminated as the source of fish which caused a cholera outbreak on Guam in 1974. This area is known to be subject to infiltration from shore-side sewer lines, particularly during Guam's rainy season (July through November).

No additional cases were found by testing household contacts of the cases. Four of 5 residents in one household, however, reported having diarrhoea subsequent to the index case and lasting up to 3 days. All recovered without seeking medical treatment; the only unaffected person in this household was six months old.

Both households were served by a safe government-operated water supply and both had functioning toilets connected to public sewers. No additional epidemic preventive measures (such as vaccination or prophylactic prescription of antibiotics) were instituted although the public was warned through news media of the danger of collecting seafood from polluted areas. As of 5 weeks after onset of the initial case no additional cases of cholera had been identified.

Environmental surveillance of waters from which the V. cholerae positive fish were caught did not reveal additional 01 V. cholerae contamination but NAG V. cholerae, V. alginolyticus and V. parahaemolyticus bacteria were encountered.

There have been 8 known outbreaks of disease on Guam due to 01 V. cholerae since 1974. In 4 instances the disease was due to serotype Inaba and was imported (in 2 instances from the Philippines and once each from Truk and Thailand) while in the remaining 4 cases, in all of which the disease was apparently contracted locally, serotype Ogawa was always involved. While it is has been assumed in the past that locally acquired cases of cholera would occur only when Guam waters were contaminated by unidentified or asymptomatic infected travellers from cholera endemic areas, it is also possible that the Ogawa serotype has now become adapted to Guam's environment.

AUSTRALIA - COMMUNICABLE DISEASES INTELLIGENCE

REPORTING PERIOD - 28/10/85 - 10/11/85 BULLETIN NUMBER 85/23
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		3		3	2	10	1	21
0101 ADENOVIRUS TYPE 1	1					2			3
0102 ADENOVIRUS TYPE 2				2		1		1	4
0103 ADENOVIRUS TYPE 3	1		1	1					3
0105 ADENOVIRUS TYPE 5								2	2
0107 ADENOVIRUS TYPE 7	3								3
0108 ADENOVIRUS TYPE 8	3								3
0113 ADENOVIRUS TYPE 13	1								1
0126 ADENOVIRUS TYPE 26	1								1
0131 ADENOVIRUS TYPE 31						1			1
0199 ADENOVIRUS TYPING PENDING			3		3				6
0201 INFLUENZA A VIRUS	2			7		1	2		12
0202 INFLUENZA A VIRUS SUBTYPE H3N2					2				2
0203 INFLUENZA B VIRUS	5			9	4	5	6	5	34
0301 PARAINFLUENZA VIRUS TYPE 1				1					1
0302 PARAINFLUENZA VIRUS TYPE 2					1				1
0303 PARAINFLUENZA VIRUS TYPE 3	4			1	11	4	11	1	32
0400 RESPIRATORY SYNCYTIAL VIRUS (RS)	5			2	2	2	5	1	17
0500 RHINOVIRUS (ALL TYPES)	5			1	15	27	14		62
0600 MYCOPLASMA PNEUMONIAE	2			6		3	2	2	15
0700 ORNITHOSIS-PSITTACOSIS	3			6					9
0904 COXSACKIEVIRUS B4	2				7		1		10
1003 ECHOVIRUS TYPE 3	2	2							4
1006 ECHOVIRUS TYPE 6						1			1
1007 ECHOVIRUS TYPE 7					3			7	10
1100 POLIOVIRUS NOT TYPED			1		3				4
1101 POLIOVIRUS TYPE 1	1	1				1		2	5
1102 POLIOVIRUS TYPE 2				1		1			2
1104 POLIOVIRUS-VACCINAL STRAIN							2		2
1200 MUMPS VIRUS	1			3				1	5
1300 HERPES VIRUS GROUP-NOT TYPED	45						3	1	49
1301 HERPES SIMPLEX VIRUS NOT-TYPED		2		1				1	4
1302 EPSTEIN-BARR VIRUS (EB VIRUS)	27	3	1	11		1		7	50
1303 VARICELLA-ZOSTER VIRUS	2					1	4	2	9
1306 HERPES SIMPLEX TYPE 1	30		12	19		23	49	25	158
1307 HERPES SIMPLEX TYPE 2	136		22	49		28	114	38	387
1399 HERPES VIRUS TYPING PENDING					7			1	8
1401 COXIELLA BURNETI	4			1		1	5		11
1502 PICORNA VIRUS-NOT TYPED	7		4				4		15
1521 MEASLES VIRUS								1	1
1522 RUBELLA VIRUS	15					1	1	4	21
1532 HEPATITIS B ANTIGEN	102	2	7			22	13	18	164
1535 HEPATITIS A ANTIBODY	9					4	4	12	29
1541 CHLAMYDIA A - C TRACHOMATIS	63	1	7			31	31	26	159
1556 CMV - CYTOMEGALOVIRUS	14				6	3	6	3	32
1564 ROTAVIRUS	29	1	4	2	6	5	1		48
1599 ENTEROVIRUS TYPING PENDING		1							1
9992 ROSS RIVER VIRUS							15	2	17
9994 SMALL VIRUS (LIKE) PARTICLE	2	2							4
9997 KUNJIN VIRUS							1		1
9998 ARBO. GROUP B.							2		2
Total	529	15	65	123	73	171	306	164	1,446

AUSTRALIA - COMMUNICABLE DISEASES INTELLIGENCE

PERIOD : 28/10/85 - 10/11/85

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.....		11					5				
0101	ADENOVIRUS TYPE 1.....		2					1				
0102	ADENOVIRUS TYPE 2.....		2		1							1
0103	ADENOVIRUS TYPE 3.....		2					1				
0105	ADENOVIRUS TYPE 5.....		1					1				
0107	ADENOVIRUS TYPE 7.....		1									
0113	ADENOVIRUS TYPE 13.....							1				
0126	ADENOVIRUS TYPE 26.....							1				
0131	ADENOVIRUS TYPE 31.....							1				
0201	INFLUENZA A VIRUS.....	2	2									
0202	INFLUENZA A VIRUS SUBTYPE H3N2		2									
0203	INFLUENZA B VIRUS.....	3	25			1	1					
0301	PARAINFLUENZA VIRUS TYPE 1....		1									
0302	PARAINFLUENZA VIRUS TYPE 2....		1									
0303	PARAINFLUENZA VIRUS TYPE 3....	1	30									
0400	RESPIRATORY SYNCYTIAL VIRUS (RS).....		18				1					
0500	RHINOVIRUS (ALL TYPES).....		60									
0600	MYCOPLASMA PNEUMONIAE.....		8									
0700	ORNITHOSIS-PSITTACOSIS.....		7									
0904	COXSACKIEVIRUS B4.....		7					2				
1003	ECHOVIRUS TYPE 3.....	2										
1006	ECHOVIRUS TYPE 6.....											1
1007	ECHOVIRUS TYPE 7.....	1	4		1		1	1				
1100	POLIOVIRUS NOT TYPED.....	1	1					1				
1101	POLIOVIRUS TYPE 1.....							4				
1102	POLIOVIRUS TYPE 2.....		1									
1104	POLIOVIRUS-VACCINAL STRAIN....		1					1				
1200	MUMPS VIRUS.....		1									
1300	HERPES VIRUS GROUP-NOT TYPED..	9		1	1							24
1301	HERPES SIMPLEX VIRUS NOT-TYPED											4
1302	EPSTEIN-BARR VIRUS (EB VIRUS).	14	2		1				6			1
1303	VARICELLA-ZOSTER VIRUS.....			1								7
1306	HERPES SIMPLEX TYPE 1.....	5	7									69
1307	HERPES SIMPLEX TYPE 2.....	24										63
1401	COXIELLA BURNETI.....	2	4									
1502	PICORNA VIRUS-NOT TYPED.....	2	2					5		3		
1521	MEASLES VIRUS.....			1								
1522	RUBELLA VIRUS.....	1										16
1532	HEPATITIS B ANTIGEN.....	96							51			
1535	HEPATITIS A ANTIBODY.....	3	1						24			
1541	CHLAMYDIA A - C.TRACHOMATIS...	3	2									
1556	CMV - CYTOMEGALOVIRUS.....	1	17				1	1				1
1564	ROTAVIRUS.....							19				
9992	ROSS RIVER VIRUS.....	3										3
9994	SMALL VIRUS (LIKE) PARTICLE...							4				
9997	KUNJIN VIRUS.....		1									1
9998	ARBO. GROUP B.	1										
Total	.....	174	224	3	4	1	4	49	81	3		191

PERIOD : 28/10/85 - 10/11/85
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
0100 ADENOVIRUS NOT TYPED.....	1			1	1		1	1	2	
0102 ADENOVIRUS TYPE 2.....								1		
0107 ADENOVIRUS TYPE 7.....	2									
0108 ADENOVIRUS TYPE 8.....	3									
0201 INFLUENZA A VIRUS.....								2		
0203 INFLUENZA B VIRUS.....			1					5	1	1
0303 PARAINFLUENZA VIRUS TYPE 3....			1					1	1	
0500 RHINOVIRUS (ALL TYPES).....								2	1	
0600 MYCOPLASMA PNEUMONIAE.....								3	1	
0904 COXSACKIEVIRUS B4.....								1		
1003 ECHOVIRUS TYPE 3.....									2	
1007 ECHOVIRUS TYPE 7.....							1		1	1
1100 POLIOVIRUS NOT TYPED.....										1
1101 POLIOVIRUS TYPE 1.....									1	
1102 POLIOVIRUS TYPE 2.....										1
1200 MUMPS VIRUS.....			4							
1300 HERPES VIRUS GROUP-NOT TYPED..	1	2						1	1	
1302 EPSTEIN-BARR VIRUS (EB VIRUS).			7	4				7	3	
1303 VARICELLA-ZOSTER VIRUS.....	-								1	
1306 HERPES SIMPLEX TYPE 1.....	4	68						7	1	
1307 HERPES SIMPLEX TYPE 2.....	1	301								
1399 HERPES VIRUS TYPING PENDING...									1	
1401 COXIELLA BURNETI.....							1	6		
1502 PICORNA VIRUS-NOT TYPED.....	2				1					
1522 RUBELLA VIRUS.....				2	1		1	2	1	
1532 HEPATITIS B ANTIGEN.....		1						1	16	
1535 HEPATITIS A ANTIBODY.....									1	
1541 CHLAMYDIA A - C.TRACHOMATIS...	3	149							3	
1556 CMV - CYTOMEGALOVIRUS.....		1				4		5	6	1
1564 ROTAVIRUS.....						1				
9992 ROSS RIVER VIRUS.....					6			9	1	
9998 ARBO. GROUP B.					1			1		
Total.....	17	522	13	7	10	5	4	55	45	5