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Contents:

GONOCOCCAL SURVEILLANCE - SPECTINOMYCIN DISC DIFFUSION TEST

(Based on WER (1982) 57: 318)

The emergence of spectinomycin resistance, sometimes combined with penicillin resistance, in gonococcal strains must be regarded as a serious public health threat which may result in further complicating the treatment and control of these infections. Spectinomycin discs (100 µg) for susceptibility testing are not generally available, and it is therefore suggested that discs be prepared using blank 6 mm paper discs, available commercially, and spectinomycin hydrochloride powder.

Procedure for making discs

Make a stock solution of 40 times the desited disc potency which is tentatively 100 µg (i.e. 4000 µg/ml). Spread the blank disc on a sterile surface. Drop 0.025 ml (1/40 ml) of the stock solution on each disc e.g. by means of a calibrated dropper used in microdilution procedures. Dry the discs at room temperature under a laminar flow hood or in an incubator at 37°C. The dried discs should be stored at -20°C or colder in sealed containers containing a dessicant (e.g. silica gel).

Tentative procedure for the susceptibility test

Prepare a 10^8 CFU/ml suspension (equivalent to a 0.5 McFarland standard) from a pure 18-24 hour culture of N. gonorrhoeae on chocolate agar. Inoculate GC base agar or chocolate agar supplemented with Isovitalex or equivalent with the suspension as described for the standard Kirby-Bauer technique. Press a spectinomycin disc firmly onto the agar surface, invert and incubate the plate under an increased CO_2 atmosphere (candle extinction jar or CO_2 incubator) at 35°C for 18-24 hours. Measure the diameter of the zone of inhibition with a ruler or caliper. As a tentative recommendation, any N. gonorrhoeae isolate with a zone diameter of less than 18 mm should be considered resistant to spectinomycin.

All isolates of N. gonorrhoeae which are considered resistant to spectinomycin should be forwarded to the Centers for Disease Control, Atlanta, Georgia 30333, USA, or the Statens Seruminstitut, 80 Amager Boulevard, 2300 Copenhagen S, Danemark, for confirmation.

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HUMAN SALMONELLOSIS SURVEILLANCE

(Contributed by S.A. Hogben and J. Taplin, Microbiological Diagnostic Unit, University of Melbourne.)

This issue contains a compilation of salmonella, shigella and campylobacter reports isolated from humans in Australia for the period April-June 1982 (see CDI 82/13 for a report of the first quarter). During the period 1036 salmonella (80 serotypes), 127 shigella and 159 campylobacter (110 from Western Australia) isolations were notified.

TYPHOID. Twenty-one S. typhi isolates (eight phage types) were reported during the quarter, of which eight were associated with follow-up investigations. S. typhi O was cultured from blood and faeces from a ten year old girl with fever and malaise. Initial investigation failed to identify any carrier among her close family contacts, but subsequent follow-up resulted in S. typhi O being isolated from faeces and urine from the 23 year old wife of a teacher whose home the girl had visited for lessons, and where she had occasionally eaten food. Widal agglutination on two sera from the asymptomatic carrier collected three weeks apart showed Vi = 5, TO = 40, TH = 640 (320). Culture of sewer swabs taken at the child's school yielded S. derby and S. havana. S. typhi degraded was cultured from an Australian fisherman on Prince of Wales Island, Torres Strait (see CDI 82/8). S. typhi D1 was grown from a vaginal swab from a 24 year old female with post-partum fever; the serotype was later isolated from faecal specimens. Imported infections comprised identification of S. typhi A from blood culture of a 25 year old American tourist who probably acquired his infection in Thailand; S. typhi E1 from blood and faeces from a 30 year old seaman off a ship that had docked at Seoul in April; and S. typhi 46 from faeces from a ten year old girl who had returned recently from Chile.

PARATYPHOID - S. paratyphi A phage type 5 was grown from blood culture of a 30 year old Korean seaman off a ship that had visited Singapore and Djakarta. He had symptoms of fever and diarrhoea for three days. No other cases were reported amongst the crew.

OUTBREAKS - A further case of S. havana infection (tetracycline- and kanamycin-resistant) infection was reported in a male patient at the Melbourne geriatric hospital that experienced an outbreak in January (see CDI 82/13). Family outbreaks were attributed to S. typhimurium phage types 8, 135, 170, 179 and untypable.

Other serotypes that exhibited regional and/or isolation frequency variation included S. aberdeen, S.derby and S. typhimurium phage type 124. To date, S. aberdeen has only been reported from Queensland, with the majority of isolates from children aged less than ten years and residing in Rockhampton and areas north. Ten of the 11 S. derby isolates reported from Victoria were from the routine screening of Indo-Asian refugees on their arrival. Of the 28 cases of S. typhimurium phage type 124 infection collated since 1980, 27 were from New South Wales. The 11 cases reported this quarter emanated from the Sydney metropolitan area and comprised five adults, two children aged less than ten years and four infants aged less than two years.

MISCELLANEOUS INFECTIONS - Cases of septicaemia involved the serotypes S. dublin, S. infantis, S. mississippi, S. paratyphi A, S. typhi phage types E1 and 0, S. typhimurium phage types 55 and 170 and S. virchow. S. adelaide, S. derby,

S. havana, S. saint-paul, S. schwarzengrund, S. typhi phage types D2 and 0 and S. typhimurium phage type UDNC were isolated from urine. S. infantis was cultured from faeces from a two day old boy who at birth presented with fever, skin pustules and pus, blood and mucus in the stools. S. lansing was recovered from a discharging sinus in a 21 year old male with an internally fixed fracture. Koch's postulates were fulfilled following the isolation of S. flexneri 2A from the faeces of a laboratory worker infected with the Royal College of Pathologists survey strain 83:3:20. A case of laboratory acquired shigellosis was reported recently in New South Wales (BMJ (1982) 285:695). Shigella cultures are highly infectious, with about 200 viable bacteria being capable of initiating infection in healthy volunteers.

Salmonella serotypes reported for the first time in this quarter included S. alsterdorf (South Australia), S. cannonhill (Northern Territory), S. decatur (Western Australia), S. typhimurium phage types 142 (Northern Territory) and 149 (Victoria), and two untypable strains designated S.16:1V (Queensland) and S.17:a:- (Western Australia).

CAMPYLOBACTER ENTERITIS - SOUTH AUSTRALIA

(Contributed by W. Woods and R. Archer, South Australian Institute of Technology, Adelaide, and S. Cameron, South Australian Health Commission.)

Data from the notifiable diseases returns suggest that South Australia currently has a high prevalence of campylobacter infections, with the number of notifications this year exceeding the reports of salmonella infections (Table 1).

TABLE 1 Campylobacter, salmonella and shigella infections reported to the South Australian Health Commission (weeks 1-36; 1982)

Organism	Four weekly intervals									Total
	1-4	5-8	9-12	13-16	17-20	21-24	25-28	29-32	33-36	
Campylobacter	31	38	29	29	18	27	35	25	18	250
Salmonella	41	37	43	35	23	25	8	15	12	239
Shigella	4	2	2	2	2	3	3	6	0	24

Cases have been widespread, in all major country centres as well as the metropolitan areas. Sensitivity testing for antimicrobial agents of the isolates indicated an unusual concentration of tetracycline-resistant strains among cases from the northern suburbs of Adelaide. Tetracycline resistance in strains of Campylobacter jejuni is plasmid-mediated and transmissable within the C. jejuni species and from C. jejuni to C. fetus subspecies fetus[1].

The South Australian Institute of Technology has been designated by the WHO International Committee for Serotyping Campylobacter as the Australasian reference centre for C. jejuni and C. coli (the two species differ only slightly in phenotypic characteristics[2]). Isolates are serotyped by an extension of the passive haemagglutination assay of Penner and Hennessey[3] on the basis of reactivity of the organism's soluble heat-stable antigens with rabbit antisera raised against 55 reference stains. To date all the 47 strains from human cases isolated during the past five weeks have been typable, and comprised 16 different serotypes (Table 2).

TABLE 2 C. jejuni serotypes isolated during October-November 1982

Serotype	1	2	4	5	7	11	13/43/50*	18
No. of isolates	13	6	1	1	1	1	1	4
Serotype	23	29	29/18*	32/46*	42	44	44/1*	50
No. of isolates	2	2	4	1	2	1	6	1

*The multiple designations (13/43/50; 29/18; 32/46 and 44/1) indicate strong reactions with sera raised against the corresponding reference strains.

The tetracycline-resistant strains invariably belonged to serotype 1 (or more fully serotype PEN-0:1), although not all serotype 1 isolates were resistant to the antibiotic. Tetracycline-resistant campylobacter isolates have been previously associated with commercial poultry, probably because of the use of oxytetracycline as a food additive. Serotypes within family outbreaks were the same, but no obvious common denominators were recognised for the other cases. Interviews of cases, antibody studies and examination of food samples are underway.

The Campylobacter Reference Laboratory will serotype isolates of epidemiological significance referred from interstate, and cultures should be addressed to Dr W. Woods, School of Pharmacy and Medical Technology, The South Australian Institute of Technology, North Terrace, Adelaide, South Australia 5000: Telephone (08) 223 3866 ext. 383.

Editorial Comment

Of the genus Campylobacter[4], only C. jejuni and C. fetus subspecies fetus are recognised as human pathogens. Transmission of C. jejuni appears to occur by the faecal-oral route through contaminated food and water, or by direct contact with faecal material from infected animals or persons. Vertical transmission of C. jejuni from symptomatic or asymptomatic mothers to their neonates has also been reported[5]. Since many laboratories incorporate the selective isolation method to screen for C. jejuni from faeces[6], the organism now appears to be an important cause of diarrhoeal illness on all continents, often approaching the number of reported isolates of salmonella[7,8]. Although patients infected with C. jejuni acquire specific serum antibodies which can be detected by tube agglutination[9], CF[10], bactericidal assays[11] and indirect immuno-fluorescence[12], it is not known whether specific serum antibody protects against re-infection with homologous or heterologous strains.

Until the antigenic stability of campylobacter strains has been assessed, the use of serotyping as an epidemiological tool is still in the experimental phase. In a recent Canadian survey, as in the report above, isolates have been given multiple designations which imply either a mixed culture or a dual antigenic activity[13]. With Bordetella pertussis it is not uncommon for the serotype to change during a patient's infection[14], and a similar change of serotype in a single patient has also been reported with Vibrio cholerae[15].

References

1. Lancet (1980) 2 : 797
2. J. Clin. Path. (1980) 33 : 1122
3. J. Clin Micro. (1980) 12 : 732

4. Int. J. Syst. Bacteriol. (1980) 30 : 225
5. CDI (1981) 81/15 : 4
6. BMJ (1977) 2 : 9
7. NZ Med. J. (1982) 95 : 35
8. BMJ (1981) 282 : 1484
9. Clin. Gastroenterol. (1979) 8 : 737
10. J. Clin. Pathol. (1980) 33 : 767
11. J. Paed. (1979) 94 : 527
12. Ann Intern. Med. (1979) 91 : 179
13. Lancet (1981) 2 : 1104
14. J. Hyg. (Camb). (1974) 73 : 305
15. Lancet (1981) 2 : 1283

DENGUE SURVEILLANCE - CAIRNS

(Contributed by R.W. Guard, Commonwealth Pathology Laboratory, Cairns.)

During the summer months of 1982, approximately 200 cases of serologically confirmed dengue occurred in the Cairns district with a peak incidence in April. Most patients resided in urban Cairns, predominantly Parramatta Park, Bungalow, Whitfield and Edge Hill. Multiple cases were recorded in ten households.

Of the 125 cases referred for serology to the State Health Laboratory, Brisbane, there was a male:female case ratio of 1:1.15 and an age distribution of 0-10 years (3 cases); 11-20 years (20); 21-30 years (28); 31-40 years (32); 41-50 years (17) and $\geqslant$ 51 years (16). Most cases showed a reactivity by HI, CF and/or the presence of IgM antibody against the antigen of dengue type 1 virus. One patient from Gordonvale had IgM, HI and CF antibody titres compatible with a primary dengue type 2 virus infection[1]. Although IgM against dengue type 3 virus has also been detected in several patients, the cross-reactions demonstrated by the concomitant HI and CF titres against other flaviviruses prevented accurate diagnosis.

A retrospective survey of these patients was conducted to ascertain the spectrum of clinical symptoms. A total of 122 questionnaires were circulated; 98 were completed and returned. Two formats were used; one suitable for the consultant physician and one for the patient. A collation of the frequency of symptoms is detailed in Table 1 together with data from two previous clinical surveys; one conducted by R.L. Doherty at Innisfail in 1954-55 (75 cases)[2] and the other by L.C. Rowan at Townsville in 1954 (44 cases)[3]. In the first column of Table 1, the percentages refer to those patients with the feature as a percent of those that answered.

Analysis of the questionnaires indicated the commonest symptoms were fever (99%), headache (91%), rash (95%), myalgia (91%), skin itching (79%) and arthralgia (62%). A minority of cases presented with bone pain (40%), lymphadenopathy (32%), pharyngitis (38%) and depression (37%). Fevers were biphasic in 92% of cases with a duration of four to seven days. Retroorbital pain and photophobia were noted in association with headache. Rashes were morbilliform in most cases and involved the trunk and limbs; 65% of cases reported skin itching of the palms and soles. Although arthralgia was generally less severe and of shorter duration (three to six days) than in Ross River virus infections, it was noted as severe in 56% of cases and involved multiple joints, especially the large joints and spine. Haemorrhages were reported in 13 cases. Most presented with only skin petechiae (10 cases), but one case also had gingival haemorrhage, one had gingival haemorrhage with epistaxis and one had both these conditions

TABLE 1 Clinical and laboratory features of dengue fever, 1981-82 and 1954-55

Features	Cairns 1981-82	Innisfail 1954-55	Townsville 1954
Fever	99%	common	common
(a) biphasic presentation	92%	minority	common
(b) duration	4-5 days	4-5 days	2-6 days
Headache	91%	83%	90%
(a) retroorbital pain	86%	45%	95%
(b) photophobia	some cases	-	12%
Rash	91%	41%	67%
(a) nature	morbilliform in all three surveys		
(b) distribution	trunk and limbs in all three surveys		
(c) skin itching of palms and soles	65%	-	55%
Myalgia	91%	55%	80%
Arthralgia	62%	-	80%
Bone pain	40%	-	80%
Lymphadenopathy	32%	63%	common
Respiratory tract symptoms	38%	15%	-
Depression	37%	-	common
Haemorrhage	17% (13 cases)	1 case	a few cases
Leucopenia	57%	55%	common
Jaundice	3%	-	1 case

with haematuria and gastro-intestinal haemorrhage. Platelet counts were performed in 50 cases. Moderate thrombocytopenia was evident in nine patients (six with counts $< 100 \times 10^9/L$), of whom five showed clinical evidence of haemorrhagic diathesis. No cases of shock were recorded in the survey. Blood cell counts, usually taken in the early phase of illness, showed leucopenia in 57% of 73 patients, and neutropenia (71%) combined with lymphopenia (55%) in 42 patients tested. All liver function tests were normal for synthetic function (serum protein, albumin, partial thromboplastin time) and cholestasis (serum alkaline phosphatase, bilirubin and serum γ-glutamyl transpeptidase), although eight cases had raised levels of serum aspartate transaminase and a few of lactic dehydrogenase reflecting muscle or liver damage. Sixteen patients were ill enough to require hospitalisation.

Five patients were pregnant during their illness (8, 10, 18, 20 and 25 weeks). Three mothers had uneventful deliveries, with infants showing no significant abnormalities to date. One child had severe thrombocytopenia at birth, but the condition spontaneously reverted by the fourth week. Since the mother had anti-platelet antibodies, it was concluded that the condition was not related to the dengue infection. A fifth child is reported to have a heart murmur. In the Townsville survey in 1954, one child with hydrocephalus and two with abnormalities of the heart and great vessels were born to mothers who had dengue fever during the first trimesters[3].

Editorial Comment

Dengue fever is now endemic in north Queensland. The clinical features of classic dengue fever depend on the age of the patient. Infants and young children may have an undifferentiated febrile disease with maculopapular rash; older children and adults may have either mild febrile syndromes or the classical incapacitating disease with abrupt onset and high

fever, severe headache, muscular and joint pains and rash[4]. Minor haemorrhagic manifestations (petechial haemorrhage, epitaxis, gingival bleeding, gastro-intestinal bleeding and haematuria) are occasionally seen in the course of classic dengue fever, but shock and death or serious morbidity are rare. Unless the WHO diagnostic criteria of dengue haemorrhagic fever/dengue shock syndrome (DHF/DSS) are met[4] it is desirable, as in survey reported above, to use the term dengue fever with haemorrhage. The signs and symptoms of DHF include high fever with acute onset; easy bruising; bleeding at venepuncture sites; a positive tourniquet test (development of petechiae in the arm distal to a tourniquet applied above the elbow) plus some other evidence of a bleeding tendency such as petechiae, purpura, gum bleeding or haematemesis; hepatomegaly; thrombocytopenia ($\leq 100 \times 10^9$/L platelets by direct count) with concurrent haemoconcentration evidenced by a haematocrit increased by 20% or more.

The pathogenesis of DHF/DSS is controversial. The two preferred hypotheses are that the complications are either caused by particularly virulent strains of otherwise benign serotypes[5], or result from a sequential infection with different dengue virus serotypes[6]. The observation that infection sequences ending with dengue type 2 are particularly likely to result in DHF/DSS suggests the possibility that both theories may be essentially correct.

Endemic dengue follows the ecological entrenchment of urban Aedes populations. Invariably, the pattern of recognition of DHF includes scattered cases in the major towns, and with an increase in the number of cases, a centrifugal spread of disease to smaller urban and rural communities. Reasonable cost-effective control of Ae. aegypti and dengue transmission can be achieved with public education and legal sanctions combined with an ecologically sound mosquito abatement program. Transmission can be aborted most effectively by attacking Ae. aegypti populations at their seasonal minimum.

The current global perspective of DHF following the description of cases in Cuba in 1981, together with the history of disease in the South-East Asia and Western Pacific Regions and the probable importation of further serotypes from these areas, are sobering omens for Australia. Active surveillance of clinical symptoms with documentation of dengue cases are of increasing importance, since the precise antecedents of DHF/DSS are unknown.

References

1. CDI (1982) 82/19 : 1
2. MJA (1957) 1 : 753
3. MJA (1956) 2 : 651
4. CDI (1981) 81/23 : 2
5. Am. J. Trop. Med. Hyg. (1977) 26 : 337
6. Am. J. Epidemiol. (1981) 114 : 632

HUMAN SALMONELLOSIS CASES

Period: April - June 1982

Serotype	Total	NSW& ACT	VIC	QLD	SA	WA	TAS	NT
S. aberdeen	5			5				
S. abony	9			7		1		1
S. adelaide	13	8		3		1		1
S. agona	8		3	2				3
S. alachua	1	1						
S. albany	1		1					
S. alsterdorf	1				1			
S. anatum	32	13	3	9	2	4		1
S. arizonae	6		1	4		1		
S. bahrenfeld	1					1		
S. ball	4							4
S. birkenhead	15	3		12				
S. blockley	6		5			1		
S. bovis-morbificans	33	14	7	2	6	3		1
S. braenderup	1		1					
S. bredeney	8	1		5	1	1		
S. breukelen	1			1				
S. brisbane	1							1
S. canonhill	1							1
S. champaign	1			1				
S. charity	3				1	2		
S. chester	40	6		12	6	10		6
S. decatur	1					1		
S. derby	18	4	11			3		
S. dublin	2		2					
S. eastbourne	5	1		1		1		2
S. emek	3	2	1					
S. emmastad	1					1		
S. enteritidis	17			17				
S. fremantle	2					2		
S. give	22	12	2	3		4		1
S. hadar	2		2					
S. havana	37	8	9	6	1	4		9
S. heidelberg	1	1						
S. hvittingfoss	1					1		
S. infantis	26	8	4	7	3	3		1
S. jangwani	2				1			1
S. java	1					1		
S. java UDNC	2	1	1					
S. java untypable	7	1	3	2				1
S. java 1v6	1			1				
S. javiana	3		1			2		
S. johannesburg	1			1				
S. kottbus	3	2				1		
S. krefeld	6		5			1		
S. lansing	9	1	1	4		2		1
S. lexington	1				1			
S. litchfield	7			2	2	1	1	1
S. london	5	2	3					
S. mbandaka	1			1				
S. mississippi	6						6	
S. muenchen	49	11	1	5	5	12		15
S. newington	6	1		1				4
S. newport	8	2	4	1			1	
S. ohio	1			1				
S. ohlstedt	1							1
S. oranienburg	9			1		3	1	4

HUMAN SALMONELLOSIS CASES

Period: April - June 1982

Serotype	Total	NSW& ACT	VIC	QLD	SA	WA	TAS	NT
S. orientalis	1			1				
S. orion	2			1				1
S. panama	1		1					
S. paratyphi A	2	1			1			
S. paratyphi A5	1	1						
S. potsdam	8			3	1	1	3	
S. ramatgen	1					1		
S. reading	2							2
S. rubislaw	4					3		1
S. saint-paul	44		4	25	4	7	1	3
S. schwarzengrund	8		5	3				
S. senftenberg	11		4	1		2		4
S. singapore	11	6	1		2	1		1
S. sofia	3	2			1			
S. stanley	2		2					
S. tennessee	7		2			1		4
S. thompson	1			1				
S. typhi*	21	9	11	1				
S. typhimurium*	329	126	94	39	49	8	9	4
S. untypable	2			1	1			
S. untypable rough	1			1				
S. untypable 16:-V	1			1				
S. untypable 17:A	1					1		
S. urbana	1							1
S. virchow	75	2	2	69	1			1
S. wandsbek	1				1			
S. wandsworth	5					3		2
S. waycross	11	2	3	6				
S. welikade	5					1		4
S. weltevreden	8	5	1			1		1
S. zanzibar	4	2		2				
S. 4,12:D:-	3	2		1				
S. 4,5:D:-	1					1		
TOTAL	1036	261	201	270	94	99	22	90
S. typhimurium*								
S. typhimurium	7				1	6		
S. typhimurium UDNC	17	9	2	1	4	1		
S. typhimurium untypable	18	3	9	2	2		2	
phage type 4	6	2	2				2	
phage type 5	7	3			4			
phage type 6	3		2		1			
phage type 8	11		11					
phage type 9	14	2	5		7			
phage type 12	3	3						
phage type 12A	13	5			8			
phage type 16	1				1			
phage type 22	17	13	1	1				2
phage type 24	1	1						
phage type 25	2	1		1				
phage type 26	7	4		3				
phage type 27	11	4	7					
phage type 29	1	1						
phage type 41	6	4	2					

HUMAN SALMONELLOSIS CASES

Period: April - June 1982

Serotype	Total	NSW& ACT	VIC	QLD	SA	WA	TAS	NT
phage type 44	5		1	2	2			
phage type 55	4		4					
phage type 58	2	1				1		
phage type 64	1				1			
phage type 90	6	1			5			
phage type 92	1	1						
phage type 101	9	2		3	4			
phage type 102	4	1		3				
phage type 104	1		1					
phage type 108	1			1				
phage type 121	3	3						
phage type 124	11	11						
phage type 126	5	3		2				
phage type 135	46	25	12	1	4		4	
phage type 141	17	10	2	2	2		1	
phage type 142	1							1
phage type 143	1			1				
phage type 145	2		1		1			
phage type 149	2		2					
phage type 170	27	7	8	11				1
phage type 179	20	5	9	5	1			
phage type 182	1		1					
phage type 183	14	1	12		1			
TOTAL	329	126	94	39	49	8	9	4
S. typhi*								
S. typhi A	1	1						
S. typhi degraded	1			1				
S. typhi D1	2	2						
S. typhi D2	2	2						
S. thphi E1	4	4						
S. typhi M4	1		1					
S. typhi O	9		9					
S. typhi 46	1		1					
TOTAL	21	9	11	1	-	-	-	-
Shigellae								
S. dysenteriae 2	6		5			1		
S. flexneri var Y	2					2		
S. flexneri 1	1					1		
S. flexneri 1B	1				1			
S. flexneri 2	44					44		
S. flexneri 2A	34		6		4	18		6
S. flexneri 3A	3		1			1		1
S. flexneri 3C	1		1					
S. flexneri 4A	4			1	1			2
S. flexneri 6	19		4		1	14		
S. sonnei BIO A	11		3			6		2
S. sonnei BIO B	1			1				
TOTAL	127	-	20	2	7	87	-	11

HUMAN SALMONELLOSIS CASES

Period: April - June 1982

Serotype	Total	NSW& ACT	VIC	QLD	SA	WA	TAS	NT
Campylobacter								
C. jejuni	154	9	25	10		110		
C. species	5	5						
TOTAL	159	14	25	10	-	110	-	-
E. coli								
E. coli 0111 K58 B4	1		1					
E. coli 0114 K90 B	1		1					
E. coli 0124 K72 B17	1			1				
E. coli 0125 K70 B15	2		2					
E. coli 0126 K71 B16	2	1	1					
E. coli 0128 K67 B12	1		1					
E. coli 026 K60 B6	1	1						
E. coli 086 K61 B7	1		1					
TOTAL	10	2	7	1	-	-	-	-

AUSTRALIA - COMMUNICABLE DISEASES INTELLIGENCE

REPORTING PERIOD - 28/10/82 - 10/11/82 BULLETIN NUMBER 82/23

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	15	1				1	4	1	22
0101 ADENOVIRUS TYPE 1	3			3	2	5			13
0102 ADENOVIRUS TYPE 2	1		1	3		3		1	9
0103 ADENOVIRUS TYPE 3		1							1
0105 ADENOVIRUS TYPE 5	1					2			3
0107 ADENOVIRUS TYPE 7				1		1			2
0119 ADENOVIRUS TYPE 19	1							2	3
0199 ADENOVIRUS TYPING PENDING					14	4			18
0201 INFLUENZA A VIRUS	15		3	1		5	8	3	35
0202 INFLUENZA A VIRUS SUBTYPE H3N2	3						5		8
0203 INFLUENZA B VIRUS	9		2			1	1	4	17
0301 PARAINFLUENZA VIRUS TYPE 1								1	1
0302 PARAINFLUENZA VIRUS TYPE 2								2	2
0303 PARAINFLUENZA VIRUS TYPE 3	1		1	3	22		3	3	33
0400 RESPIRATORY SYNCYTIAL VIRUS (RS)					1		5	4	10
0500 RHINOVIRUS (ALL TYPES)	3			3	11		4	2	23
0600 MYCOPLASMA PNEUMONIAE	65	1	2	2		3	9	19	101
0700 ORNITHOSIS-PSITTACOSIS	2			1					3
0800 COXSACKIEVIRUSES GROUP A - NOT TYPED							1		1
0902 COXSACKIEVIRUS B2							1		1
0904 COXSACKIEVIRUS B4		1						1	2
0905 COXSACKIEVIRUS B5							1		1
1006 ECHOVIRUS TYPE 6		1	1						2
1011 ECHOVIRUS TYPE 11	3							10	13
1017 ECHOVIRUS TYPE 17	1								1
1022 ECHOVIRUS TYPE 22			1				1		2
1030 ECHOVIRUS TYPE 30	1								1
1101 POLIOVIRUS TYPE 1				1		1	3		5
1102 POLIOVIRUS TYPE 2							1		1
1104 POLIOVIRUS-VACCINAL STRAIN			1			1			2
1200 MUMPS VIRUS	10		2			1	1		14
1300 HERPES VIRUS GROUP-NOT TYPED	16			6		6			28
1301 HERPES SIMPLEX VIRUS NOT-TYPED		2		2				49	53
1302 EPSTEIN-BARR VIRUS (EB VIRUS)	15							3	18
1303 VARICELLA-ZOSTER VIRUS	3	1	1		2	2	2	4	15
1306 HERPES SIMPLEX TYPE 1	4			23		1	21		49
1307 HERPES SIMPLEX TYPE 2	51			46		2	37	1	137
1399 HERPES VIRUS TYPING PENDING			16		10	39			65
1401 COXIELLA BURNETI	5					2	3		10
1502 PICORNA VIRUS-NOT TYPED			1						1
1521 MEASLES VIRUS	3	2		2	1		3	1	12
1522 RUBELLA VIRUS	2	1		4	2		3	1	13
1532 HEPATITIS B ANTIGEN	22		8	28		15	10	8	91
1535 HEPATITIS A ANTIBODY	3		1			9		6	19
1541 CHLAMYDIA A - C TRACHOMATIS	28		2			1		31	62
1556 CMV - CYTOMEGALOVIRUS	8		2	12	3	1	2	2	30
1563 CORONAVIRUS				4					4
1564 ROTAVIRUS	16	5	1		15	3			40
1599 ENTEROVIRUS TYPING PENDING		2	5		6		1		14
ROSS RIVER VIRUS							1	1	2
ASTROVIRUS	4								4
SMALL VIRUS (LIKE) PARTICLE	2			1					3
Total	316	18	51	146	89	109	131	160	1,020

AUSTRALIA - COMMUNICABLE DISEASES INTELLIGENCE

PERIOD : 28/10/82 to 10/11/82 .... 82/23

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.....		11				1					2
0102 ADENOVIRUS TYPE 2.....	1	3					3				
0103 ADENOVIRUS TYPE 3.....		1									
0105 ADENOVIRUS TYPE 5.....	1	1					1				
0201 INFLUENZA A VIRUS.....	4	23							1		
0202 INFLUENZA A VIRUS SUBTYPE H3N2		7									
0203 INFLUENZA B VIRUS.....	2	9		1							1
0301 PARAINFLUENZA VIRUS TYPE 1....		1									
0302 PARAINFLUENZA VIRUS TYPE 2....	1	1									
0303 PARAINFLUENZA VIRUS TYPE 3....		32					1				
0400 RESPIRATORY SYNCYTIAL VIRUS (RS).....		10									
0500 RHINOVIRUS (ALL TYPES).....	1	21									
0600 MYCOPLASMA PNEUMONIAE.....	14	73		1					1	1	2
0700 ORNITHOSIS-PSITTACOSIS.....	1	1									1
0902 COXSACKIEVIRUS B2.....		1									
0904 COXSACKIEVIRUS B4.....		1							1		
0905 COXSACKIEVIRUS B5.....				1							
1006 ECHOVIRUS TYPE 6.....		1					1				
1011 ECHOVIRUS TYPE 11.....	4			5							
1017 ECHOVIRUS TYPE 17.....				1							
1022 ECHOVIRUS TYPE 22.....		1					1				
1101 POLIOVIRUS TYPE 1.....		4		1			2				
1102 POLIOVIRUS TYPE 2.....	1										
1104 POLIOVIRUS-VACCINAL STRAIN....							2				
1200 MUMPS VIRUS.....	5	1	1			1					
1300 HERPES VIRUS GROUP-NOT TYPED..											1
1301 HERPES SIMPLEX VIRUS NOT-TYPED	5	1									33
1302 EPSTEIN-BARR VIRUS (EB VIRUS).	4	1						1			
1303 VARICELLA-ZOSTER VIRUS.....	1										13
1306 HERPES SIMPLEX TYPE 1.....	1	2	1	1	1						17
1307 HERPES SIMPLEX TYPE 2.....	1							1			6
1401 COXIELLA BURNETI.....	1										
1521 MEASLES VIRUS.....			1								9
1522 RUBELLA VIRUS.....	1								1		10
1532 HEPATITIS B ANTIGEN.....	27							59			
1535 HEPATITIS A ANTIBODY.....	5							10			
1556 CMV - CYTOMEGALOVIRUS.....	5	8		1		1				3	
1563 CORONAVIRUS.....		1					1				
1564 ROTAVIRUS.....							40				
ROSS RIVER VIRUS											1
ASTROVIRUS							4				
SMALL VIRUS (LIKE) PARTICLE							3				
Total.....	86	216	3	12	1	3	59	71	4	4	96

AUSTRALIA - COMMUNICABLE DISEASES INTELLIGENCE

82/23

PERIOD : 28/10/82 to 10/11/82 ...
Viral Identifications by Clinical Information Table 2.
Code 10 -Eye; 59 -Genital; 39 -Endo/sal gland;
38 -RES; 29 -Muscle/joint; 69 -Congenital; F8 -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
0102 ADENOVIRUS TYPE 2.....							1	2		
0107 ADENOVIRUS TYPE 7.....	1						1			
0119 ADENOVIRUS TYPE 19.....	2	1								
0201 INFLUENZA A VIRUS.....					1		4	1	1	
0202 INFLUENZA A VIRUS SUBTYPE H3N2							1			
0203 INFLUENZA B VIRUS.....				1	2		1	1	1	
0303 PARAINFLUENZA VIRUS TYPE 3....							1			
0500 RHINOVIRUS (ALL TYPES).....								1		
0600 MYCOPLASMA PNEUMONIAE.....					1		2	7	2	
0700 ORNITHOSIS-PSITTACOSIS.....							1			
1011 ECHOVIRUS TYPE 11.....				1				1	1	1
1030 ECHOVIRUS TYPE 30.....					1					
1200 MUMPS VIRUS.....			6				1			
1301 HERPES SIMPLEX VIRUS NOT-TYPED		19		1				1		
1302 EPSTEIN-BARR VIRUS (EB VIRUS).			7	1			3	2	2	
1303 VARICELLA-ZOSTER VIRUS.....									1	
1306 HERPES SIMPLEX TYPE 1.....	1	24						2		
1307 HERPES SIMPLEX TYPE 2.....		129								
1401 COXIELLA BURNETI.....							4	5		
1521 MEASLES VIRUS.....					1			1		
1522 RUBELLA VIRUS.....					2	1				
1532 HEPATITIS B ANTIGEN.....				1				1	4	
1535 HEPATITIS A ANTIBODY.....				1					3	
1541 CHLAMYDIA A - C TRACHOMATIS...	1	61								
1556 CMV - CYTOMEGALOVIRUS.....		1	1	1		3	2	1	5	
1563 CORONAVIRUS.....			1					1		
ROSS RIVER VIRUS					1			1		
Total.....	5	235	15	7	9	4	22	28	20	1

NOTIFIABLE DISEASES REPORTED IN AUSTRALIA

10th 4 Weekly Period for 1982

(12 September - 9 October 1982) Bulletin 82/23

Disease	N.S.W.	VIC	QLD	S.A.	W.A.	TAS.	N.T.	A.C.T.	Total	CUMULATIVE TOTAL TO DATE FOR YEAR
Amoebiasis	1		3						4	19
Ankylostomiasis	2								2	68
Anthrax									—	—
Arbovirus infection									—	57
Brucellosis									—	24
Campylobacter infections	5	N.N.	N.N.	47	N.N.	N.N.	1	N.N.	53	350
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									—	1
Donovanosis		N.N.	2	N.N.		N.N.	5		7	90
Giardiasis	3	N.N.	N.N.	34	N.N.	N.N.	N.N.	N.N.	37	474
Genital herpes	62	N.N.	N.N.	37	N.N.	N.N.	1	N.N.	100	1029
Gonococcal ophthalmia neonatorum		N.N.			N.N.	N.N.	N.N.	N.N.	—	1
Gonorrhoea.	334	261	90	69	95	1	40	3	893	9807
Hepatitis A (infectious)	12	19	11	8	1	2	3		56	905
Hepatitis B (serum)	17	21	5	10	1			1	55	619
Hepatitis - unspecified	6	N.N.		1	3	N.N.	N.N.		10	114
Hydatid disease									—	9
Lassa Fever			N.N.			N.N.	N.N.	N.N.	—	—
Legionnaires disease	1		N.N.		N.N.	N.N.	N.N.	N.N.	1	11
Leprosy			1						1	24
Leptospirosis	3	1	1						5	84
Lymphogranuloma venereum		N.N.	N.N.	N.N.	N.N.	N.N.			—	1
Malaria	5	8	14		1			1	29	384
Marburg Disease			N.N.			N.N.	N.N.	N.N.	—	—
Meningococcal infections	2					N.N.			2	54
Non-specific urethritis	387	N.N.	N.N.	100	N.N.	N.N.	N.N.	N.N.	487	5372
Ornithosis									—	8
Pertussis (whooping cough)		8	N.N.		N.N.	N.N.	N.N.	N.N.	8	151
Plague									—	—
Poliomyelitis									—	—
Q. fever	5		20	8	N.N.		N.N.		33	322
Rabies		N.N.	N.N.			N.N.	N.N.	N.N.	—	—

2.

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	13	14	13	10	4		11	4	69	1594
Shigella infections	2		11	1	5		9	1	29	318
Smallpox									—	—
Syphilis	134	28	18	8	22		18		228	2516
Tetanus									—	10
Trachoma		N.N.			N.N.	N.N.			—	—
Tuberculosis (all forms)	24	58	21	8	9		4	1	125	1046
Typhoid fever			1						1	19
Typhus (all forms)					1				1	2
Vibrio parahaemolyticus infections		N.N.	N.N.		N.N.	N.N.	N.N.	N.N.		—
Yellow Fever										—
Yersinia enterocolitica infections		N.N.	N.N.	1	N.N.	N.N.	N.N.	N.N.	1	1

(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

NSW	Brucellosis	+	1
SA	Campylobacter	+	1
SA	Giardiasis	-	1
NSW	Genital herpes	+	708
SA	Gonorrhoea	+	1
SA	Hepatitis B	-	5
WA	Hepatitis Unspecified	+	1
NSW	Leptospirosis	+	20
NSW	Non-spec. Urethritis	+	3986
NSW	Q. Fever	+	110
SA	Salmonella	+	1
ACT	Syphilis	-	1
NSW	Syphilis	+	18