Communicable Diseases Intelligence

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Contents:

SPECTINOMYCIN - RESISTANT β-LACTAMASE PRODUCING N. GONORRHOEAE

(Based on WER (1981) 56 : 158)

The first report of a spectinomycin-resistant penicillinase-producing strain of N. gonorrhoeae has been received from the Center for Prevention Services (CDC), USA. The strain, isolated from a traveller who had recently returned from the Philippines, had the following minimal inhibitory concentration (MIC) values; spectinomycin (> 2048 µg/ml); tetracycline (1 µg/ml); cefoxitin (1 µg/ml); gentamycin (2 µg/ml); sulfamethoxazole/trimethoprim (19:1) (9.5 µg/ml).

Although isolates of spectinomycin-resistant N. gonorrhoeae have been reported previously (two from Denmark (1973), one from the Netherlands (1975) and one from the United States (1977)), none were penicillinase-producing. The WHO recommends that all penicillinase-producing gonococcal isolates be screened for spectinomycin resistance by placing a 100 µg disc on a chocolate agar plate inoculated with the isolate, and any isolates suspected of resistance be referred to the two laboratories given in the above reference. Because of the emergence of this dual antibiotic resistance, it must be reaffirmed that clinicians should not use spectinomycin for the primary treatment of gonorrhoea until the penicillin sensitivity of the organism is known.

VIRUS REPORTING SCHEME

A total of 879 reports were received this period. Among the seasonal rise of respiratory infections, reports of respiratory syncytial virus infections predominated (99 received compared with 84, 78 and 47 for the previous three periods). Reports of parainfluenza type I infections decreased (16 received compared with 34, 22 and 19 for the previous three periods), and only seven serological reports of influenza A infection were received. However, three reports of influenza B infection (by CF test) in males aged 19, 33, and 45 were received from the Prince of Wales Hospital, Sydney.

The outbreak of epidemic polyarthritis in Queensland continues with 86 reports from the State Health Laboratory, Brisbane, compared with 55, 33 and 29 for the previous three periods.

The Bulletin is compiled and distributed by the Environmental Health Branch, Department of Health, P.O. Box 100, Woden, A.C.T. 2606, Australia, and is available on request.

TESTING OF TAMPONS FOR BACTERIAL CONTAMINATION

(Contributed by the National Biological Standards Laboratory, Department of Health, Canberra).

The National Biological Standards Laboratory has completed an extensive series of tests on tampons following observations of cases of Toxic-Shock Syndrome (TSS) in Australia. Preliminary results were reported in CDI 81/6. A total of 2,432 tampons and wrappers were examined, and included samples of all types and brands available in Australia.

No S. aureus was detected, but S. epidermidis was isolated on 19 occasions. Eighteen of the isolates came from wrappers, and the remaining isolate was from a jar inoculated with two tampons and two wrappers. This suggests that S. epidermidis may not be uncommon on the wrappers, but is rare or absent from the tampons themselves. It can be concluded that if S. aureus is present on tampons it must be at very low levels. However, the presence of S. epidermidis on wrappers suggests that opportunities for contamination with S. aureus may occur.

It was reported previously that the media used were Soy Bean Casein Digest (SCD) and SCD plus sodium chloride (6.5%). Of the 19 isolates of S. epidermidis, 15 were found in SCD with added NaCl and 4 were found in SCD. The difference is highly significant ($p < .02$), and shows that the selective medium provided more favourable conditions for isolating staphylococci. It is not known whether the findings would apply to S. aureus, but it strongly suggests that surveys for staphylococci should employ selective media, or should be carried out using both selective and non-selective media. Had only non-selective media been used many of the staphylococci found would not have been detected.

A proportion of the enrichment media were tested for the presence of Gram-negative organisms. No E. coli or salmonellae were detected, but Pseudomonas fluorescens and Enterobacter agglomerans were found. The primary enrichment was carried out in SCD which might not be expected to favour the growth of anaerobes. However, examination of a number of slides showed Gram-positive spore formers which resembled clostridia rather than bacillus species. Further work on these cultures confirmed that these organisms were anaerobes. The cultures were identified by Dr Wilkinson from the Department of Microbiology, University of Melbourne, as Clostridium sporogenes and another clostridium, probably C. scatologenes. These organisms are commonly found in human flora and environmental samples and have not been reported as primary pathogens.

TOXIC SHOCK SYNDROME - AUSTRALIA

(Based on information supplied by J.W. Donovan and S. Siedlecky, Department of Health)

Since the first recognition of a current case of TSS in Melbourne in January 1981 (see CDI 81/2), a further five current cases have been reported.

Five cases have been in menstruating women and tampon associated, and the sixth followed puerperal wound infection. S. aureus was cultured from each patient.

Four more cases of TSS have been recognized retrospectively from hospital records and from individual medical reports forwarded to the Department of Health. Three of these were in menstruating women, and the fourth in a 19 year old male with an infected leg wound. A suspect TSS case has also been identified in a 32 year old female who developed most of the classical symptoms following S. aureus infection at an injection site.

A summary of the cases is given in Table 1 below.

Table 1 Current, retrospective and suspected reports of TSS in Australia

No.	Location	Date	Sex	Age	Menstruation association	Tampon brand	Initial diagnosis	Culture
1	Melbourne	Jan 1981	F	30	3rd day menst.	Carefree Super (NZ)	Gastrointestinal	S. aureus
2.	Launceston	Jan 1981	F	20	3rd day menst.	Carefree Super (NZ)	Gastrointestinal	S. aureus
3	Perth	March 1981	F	30	1 day following menst.	Meds (Aust)	?	S. aureus
4	Sydney	March 1981	F	15	Last day menst.	Carefree Regular (Aust)	?	S. aureus
5	Collie (WA)	March 1981	F	12	5th day menst.	Meds	?	S. aureus
6	Sydney	April 1981	F	28	No	-	Infected caesarean section wound	S. aureus
R1(1)	Adelaide	1974	F	15	Yes	Meds	?	S. aureus
R2	Sydney	1980	M	19	No	-	Infected wound	S. aureus
R3	Brisbane	1975	F	15	Yes	?	?	S. aureus
R4	Canberra	1979	F	32	Yes	?	Measles	not confirmed
S1(2)	Melbourne	1978	F	32	No	-	Infected injection site	S. aureus

(1) - R = Retrospective cases

(2) - S = Suspected cases

TUBERCULOSIS IN THE AUSTRALIAN CAPITAL TERRITORY

(Contributed by A.J. Proust, Canberra Chest Clinic, Canberra)

Twenty-eight cases of active tuberculosis in A.C.T. residents were notified in 1980 compared with 18 and 15 in 1979 and 1978 respectively. A further six cases - all N.S.W. residents - were notified to the Health Commission of N.S.W.

Of the A.C.T. notifications, 16 were males, and 12 were females. All ages were represented, including two infant children of a parent with advanced cavitary pulmonary tuberculosis. Seven were born in Australia, 11 in Europe and ten in Asia (including five Indo-Chinese refugees and two Asian students). The Indo-Chinese refugees were all non-infectious, four having being admitted to Australia after treatment had been initiated overseas. Twenty-two cases were pulmonary (including eight advanced cases) and six extrapulmonary (involving neck glands, spine, larynx, middle ear, epididymis and peritoneum); 13 were proven bacteriologically, five histologically and the remaining ten on clinical grounds. In 1979, 1,542 new cases (excluding reactivation) were notified in Australia, of which 807 (52%) were bacteriologically positive.

Factors which on retrospect increased the likelihood of tuberculosis included birthplace (Asia, S.E. Europe), a past history of or close contact with tuberculosis, a history of a "scar" on chest X-ray and an addiction to alcohol.

CHICKENPOX OUTBREAK - U.K.

(Based on CDR (1981) 81/18)

Two deaths attributed to chickenpox infection occurred in a small community outbreak in Lancashire. The index case was recognized on 8 January 1981, in the village school. Although cases continued to occur for several days, it was not until 23 January that the outbreak began to amplify. It reached a peak among the school children between 6-9 February.

The first death was of an eight year old girl who developed encephalitis. Four days after the onset of the disease she became drowsy and dysarthric and vomited. She was admitted to a local infectious diseases unit, and later transferred to an intensive care unit. There were few skin lesions on admission. The patient died 11 days after onset, with a diagnosis of acute haemorrhagic leukoencephalopathy - post-chickenpox with associated renal failure. There was no clinical evidence of Reye's syndrome. Eleven days after the onset of her illness the patient's 15 year old brother developed chickenpox, presenting with a mild generalised vesicular rash. No symptoms were detected in either the mother or father.

The second fatality was of a 40 year old man who had had slow progressive renal failure which had required haemodialysis since July 1976, and a renal transplant in September 1977. Both of his daughters had had chickenpox, with onset of symptoms four and 20 days prior to the patient's development of constitutional symptoms. The first of two doses of varicella-zoster immune globulin (ZIG) were administered the day after onset, by which time there was a sparse rash, one vesicle and five macules, on the front of his chest. An extensive rash and intensive general pain developed by the third day. The patient died on day five of his illness. The patient's general physical condition had been poor, and he had Alports syndrome, with haematological and immunological disease. Neither of his daughters were severely affected, and his wife remained asymptomatic.

Editorial Comment

(Based on MMWR (1980) 29 : 293)

Although chickenpox infections are notified in the United States, they are not notifiable in Australia. However, 185 reports of the infectious agent, varicella-zoster, were received by the CDI during 1980. Chickenpox is primarily a disease of school-age children that occurs in the winter and spring. The virus infects about 95% of the population in urban areas by early adulthood; attack rates vary from 78-96% in susceptible household contacts. Four per cent of infections are subclinical. Infection usually confers lifelong immunity, although rare cases of second attacks have been reported. Children who are not immunosuppressed may transmit the virus from as early as one to two days before to as late as six days following eruption of the first skin lesions. The incubation period is 10-23 days.

Chickenpox in otherwise healthy children is almost always benign and self-limited. Possible complications include bacterial superinfection, pneumonia, acute cerebellar ataxia, aseptic meningitis, encephalitis, transverse myelitis, coagulation defects and Reye's syndrome. Persons at risk of severe disseminated disease include newborns whose mothers develop chickenpox less than five days before or within two days following delivery, and patients who are immunocompromised or have haematological malignancies. These high-risk persons should be considered for attempted postexposure prophylaxis with ZIG.[1]

Adults, who are otherwise healthy, are at greater risk than children of developing complications of chickenpox, including pneumonia, encephalitis and death.[2] Fortunately, most adults are immune because of previous infection. Truly susceptible healthy adults who are exposed to chickenpox may be considered for prophylaxis with regular gamma globulin, which has been shown, at least in children, to reduce the severity of the incubating disease when given in large doses (0.6 cc/kg) within three days of exposure.[3] True susceptibility may be determined by serological tests such as the fluorescent-antibody-to-membrane-antigen (FAMA) test. The complement-fixation test is not sensitive enough for screening purposes. If serological tests are unavailable, a high index of suspicion for true susceptibility should be maintained for those adults denying a history of chickenpox, and who either grew up in the tropics (where the disease is less common) or had relatively limited contact with children while growing up (e.g. lived in rural areas, had no siblings or were the youngest in their sibships).

The risk associated with contracting chickenpox during early pregnancy is uncertain, although it is believed to be slight. A distinctive pattern of congenital malformations, including eye defects, cicatricial skin lesions and hypoplastic limbs has been reported in infants whose mothers contracted chickenpox during the first and second trimesters of pregnancy. One prospective study found major anomalies in 2/27 (7.4%) and 0/32 newborns whose mothers had contracted chickenpox during the first and second trimesters respectively.[4] Associations between maternal chickenpox and childhood leukaemia,[5,6] or tumours of the nervous system[6] have also been suggested.

An experimental, live virus varicella vaccine has been used safely and effectively in small studies in Japan.[7,8] However, the potential risk of

delaying natural infections until adulthood (when clinical illness may be more severe) and the unknown risk of possible persistence of the live vaccine strain in a latent state in vaccinated individuals pose serious questions for universal immunisation.(9)

References

1. CDI (1980) 80/1 : 4
2. J. Inf. Dis. (1979) 140 : 257
3. NEJM (1962) 267 : 369
4. JAMA (1973) 226 : 1521
5. BMJ (1972) 4 : 629
6. BMJ (1973) 1 : 706
7. Paediatrics (1977) 59 : 3
8. Paediatrics (1977) 60 : 805
9. MJA (1980) 1 : 196

ROUTINE HEALTH SCREENING OF FOODHANDLERS

(Based on California Morbidity Weekly Report (1980) No. 47)

Authorities are frequently consulted on the question of health screening asymptomatic foodhandlers, especially routine laboratory testing of faecal specimens for bacterial pathogens, parasites and ova. This concern normally centres on the fact that food establishments employ a high percentage of immigrants, recently arrived refugees and persons with unconventional life-styles; the assumption being that these individuals pose a higher than average public health risk because they are often infected with intestinal pathogens and may be more likely to have poor personal hygiene. However, any proposed recommendations concerning this issue have to include evaluations of the clinical, public health and cost-effectiveness aspects.

The Infectious Disease Section (IDS), California, considers that enteric studies and routine health examination (for tuberculosis or venereal disease) of foodhandlers are not cost-effective. This recommendation was reached after considering the following aspects:-

- Infectious diseases such as tuberculosis and syphilis are not transmitted through food contaminated by food handlers
- Laboratory studies for enteric pathogens provide information only on the particular day a specimen is provided. Individual specimens are of no use in identifying infection where faecal shedding is intermittent or of infections that may occur between the collection of routine cultures, since many enteric infections do not produce long term carrier states.
- Negative laboratory results (which occasionally might be spuriously negative) can engender a false sense of security, and lead to relaxation of hygienic practices by foodhandlers thinking themselves "clean".
- The annual turnover of foodhandlers is substantial, estimated to be almost 300%. This would make any routine screening (particularly those involving laboratory investigation) and monitoring for compliance extremely costly.

Both the IDS and the Local Environmental Health Programs Section of the State Health authority consider that it is more cost effective and efficient to protect the public by the health education and training of all foodhandlers rather than by health screening. In situations where all foodhandlers cannot be trained, then food service managers and key staff should be trained so that they can teach their workers and monitor their performance. Best results are obtained when this instruction is given by the same health workers who make the restaurant inspections

AUSTRALIA - COMMUNICABLE DISEASES INTELLIGENCE

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REPORTING PERIOD - 14-5-81 - 27-5-81 BULLETIN NUMBER . 81/11

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	3	1	3		1	3	8	1	20
0101 ADENOVIRUS TYPE 1	2			2	3	2			9
0102 ADENOVIRUS TYPE 2	1			1	1			1	4
0103 ADENOVIRUS TYPE 3	1	1							2
0105 ADENOVIRUS TYPE 5			1						1
0106 ADENOVIRUS TYPE 6			1			1			2
0107 ADENOVIRUS TYPE 7	3								3
0109 ADENOVIRUS TYPE 9			1						1
0114 ADENOVIRUS TYPE 14								2	2
0119 ADENOVIRUS TYPE 19	1		2						3
0131 ADENOVIRUS TYPE 31						1		1	2
0199 ADENOVIRUS TYPING PENDING			3		1	1			5
0201 INFLUENZA A VIRUS			5			1		1	7
0203 INFLUENZA B VIRUS			3						3
0299 INFLUENZA VIRUS								1	1
0301 PARAINFLUENZA VIRUS TYPE 1		2		1	2	11			16
0302 PARAINFLUENZA VIRUS TYPE 2				1	1	2			4
0303 PARAINFLUENZA VIRUS TYPE 3					2	2			4
0399 PARAINFLUENZA VIRUS TYPING PENDING						5			5
0400 RESPIRATORY SYNCYTIAL VIRUS (RS)	23	25	4	3	33	2	9		99
0500 RHINOVIRUS (ALL TYPES)		2		1	3		2		8
0600 MYCOPLASMA PNEUMONIAE			7	1		3	1	1	13
0700 ORNITHOSIS-PSITTACOSIS				2		1			3
0809 COXSACKIEVIRUS A9			1						1
0902 COXSACKIEVIRUS B2						1		1	2
0904 COXSACKIEVIRUS B4						1			1
1002 ECHOVIRUS TYPE 2							1		1
1005 ECHOVIRUS TYPE 5								1	1
1006 ECHOVIRUS TYPE 6							1		1
1011 ECHOVIRUS TYPE 11			2						2
1014 ECHOVIRUS TYPE 14	1						5		6
1016 ECHOVIRUS TYPE 16	1								1

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REPORTING PERIOD - 14 - 5 - 81 — 27 - 5 - 81 BULLETIN NUMBER - 81/11

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
1017 ECHOVIRUS TYPE 17				1					1
1021 ECHOVIRUS TYPE 21	1								1
1022 ECHOVIRUS TYPE 22					3		2		5
1023 ECHOVIRUS TYPE 23			1						1
1027 ECHOVIRUS TYPE 27								1	1
1030 ECHOVIRUS TYPE 30				2					2
1101 POLIOVIRUS TYPE 1	1								1
1103 POLIOVIRUS TYPE 3		1				1	1		3
1200 MUMPS VIRUS		2		3	1	1		1	8
1300 HERPES VIRUS GROUP-NOT TYPED	15		2	1		5	1		24
1301 HERPES SIMPLEX VIRUS NOT-TYPED		1		1			1	35	38
1302 EPSTEIN-BARR VIRUS (EB VIRUS)	4					3		1	8
1303 VARICELLA-ZOSTER VIRUS	1		4	1		1	1	1	9
1306 HERPES SIMPLEX TYPE 1	1			18		11	5		35
1307 HERPES SIMPLEX TYPE 2	50			21		24	7		102
1399 HERPES VIRUS TYPING PENDING			2		5	1			8
1401 COXIELLA BURNETI	2		2	1		4	9		18
1502 PICORNA VIRUS-NOT TYPED								4	4
1514 MOLLUSCUM CONTAGIOSUM						1		1	2
1521 MEASLES VIRUS		1				1	1		3
1522 RUBELLA VIRUS	1		2				2	1	6
1532 HEPATITIS B ANTIGEN	24		6	24	1	9		11	75
1535 HEPATITIS A ANTIBODY	1		1	11		7		1	21
1541 CHLAMYDIA A - TRIC TYPE	27		3			1		54	85
1556 CMV - CYTOMEGALOVIRUS	1		14	15	2	5	3	3	43
1562 REOVIRUS (ALL TYPES)						2			2
1564 ROTAVIRUS	1	7	2		2	15			27
1599 ENTEROVIRUS TYPING PENDING			10		11			1	22
ROSS RIVER VIRUS							85	2	87
ASTROVIRUS	2								2
SMALL VIRUS (LIKE) PARTICLE						2			2
Total	168	43	82	111	72	131	145	127	879

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PERIOD : 14/5/81 to 27/5/81 ....

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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.

VIRUS OR VIRAL ANTIGEN	No-ill or data	Respiratory	Encephalitis	Meningitis	Paralysis	CNS other unspec	GI	Hepatic	CVS	Urinary	Skin/ Mucs membr
0100 ADENOVIRUS NOT TYPED.....		1									
0101 ADENOVIRUS TYPE 1.....		5					4				
0102 ADENOVIRUS TYPE 2.....		1					1				
0103 ADENOVIRUS TYPE 3.....		1					2				
0105 ADENOVIRUS TYPE 5.....							1				
0106 ADENOVIRUS TYPE 6.....							1				
0107 ADENOVIRUS TYPE 7.....		2									
0109 ADENOVIRUS TYPE 9.....							1				
0114 ADENOVIRUS TYPE 14.....						1					
0131 ADENOVIRUS TYPE 31.....		1					1				
0201 INFLUENZA A VIRUS.....		3									
0203 INFLUENZA B VIRUS.....									1		
0301 PARAINFLUENZA VIRUS TYPE 1....		16									
0302 PARAINFLUENZA VIRUS TYPE 2....		4									
0303 PARAINFLUENZA VIRUS TYPE 3....		4									
0400 RESPIRATORY SYNCYTIAL VIRUS (RS).....	1	92							1		2
0500 RHINOVIRUS (ALL TYPES).....		9									
0600 MYCOPLASMA PNEUMONIAE.....	2	8		1							
0700 ORNITHOSIS-PSITTACOSIS.....		1									
0809 COXSACKIEVIRUS A9.....						1					
0902 COXSACKIEVIRUS B2.....	1	1									
0904 COXSACKIEVIRUS B4.....	1										
1006 ECHOVIRUS TYPE 6.....							1				
1011 ECHOVIRUS TYPE 11.....							2				
1014 ECHOVIRUS TYPE 14.....		1		2			1				
1016 ECHOVIRUS TYPE 16.....	1										
1017 ECHOVIRUS TYPE 17.....				1							

4.

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PERIOD : 14/5/81 to 27/5/81 .... 81/11

Viral Identifications by Clinical Information Table 1.
Code 00,99 -No ill or data; 01,02,11,12 -Respiratory; E3 -Enceph-
alitis; 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
1021 ECHOVIRUS TYPE 21.....							1				
1022 ECHOVIRUS TYPE 22.....	2	2					1				
1023 ECHOVIRUS TYPE 23.....						1					
1027 ECHOVIRUS TYPE 27.....	1										
1030 ECHOVIRUS TYPE 30.....				2							
1101 POLIOVIRUS TYPE 1.....							1				
1103 POLIOVIRUS TYPE 3.....	1						1				
1200 MUMPS VIRUS.....				2							
1301 HERPES SIMPLEX VIRUS NOT-TYPED						1					27
1302 EPSTEIN-BARR VIRUS (EB VIRUS).	3										
1303 VARICELLA-ZOSTER VIRUS.....			1	1							4
1306 HERPES SIMPLEX TYPE 1.....		4	1	1						1	21
1307 HERPES SIMPLEX TYPE 2.....											8
1401 COXIELLA BURNETI.....	1					1					
1514 MOLLUSCUM CONTAGIOSUM.....											1
1521 MEASLES VIRUS.....											3
1522 RUBELLA VIRUS.....	2										2
1532 HEPATITIS B ANTIGEN.....	43							30			
1535 HEPATITIS B ANTIBODY.....	1							20			
1556 CMV - CYTOMEGALOVIRUS.....	7	7	1	1		1		3		6	1
1562 REOVIRUS (ALL TYPES).....							2				
1564 ROTAVIRUS.....	2						24				1
ROSS RIVER VIRUS	3										13
ASTROVIRUS							2				
SMALL VIRUS (LIKE) PARTICLE							1				
Total.....	72	163	3	11		6	48	53	2	7	85

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PERIOD : 14/5/81 to 27/5/81 ...

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	1		1
0102 ADENOVIRUS TYPE 2.....							1	1		
0106 ADENOVIRUS TYPE 6.....								1		
0107 ADENOVIRUS TYPE 7.....							2			
0114 ADENOVIRUS TYPE 14.....		1								
0119 ADENOVIRUS TYPE 19.....	3									
0201 INFLUENZA A VIRUS.....			1		1			2	1	
0203 INFLUENZA B VIRUS.....							1	1		
0400 RESPIRATORY SYNCYTIAL VIRUS (RS).....							2	2	1	1
0600 MYCOPLASMA PNEUMONIAE.....			1					2		
0700 ORNITHOSIS-PSITTACOSIS.....								2		
1002 ECHOVIRUS TYPE 2.....								1		
1005 ECHOVIRUS TYPE 5.....										1
1014 ECHOVIRUS TYPE 14.....								1	1	
1103 POLIOVIRUS TYPE 3.....									1	
1200 MUMPS VIRUS.....			5				1			
1300 HERPES VIRUS GROUP-NOT TYPED..		2								
1301 HERPES SIMPLEX VIRUS NOT-TYPED	2	10								
1302 EPSTEIN-BARR VIRUS (EB VIRUS).			5							
1303 VARICELLA-ZOSTER VIRUS.....								2	2	
1306 HERPES SIMPLEX TYPE 1.....	2	7								
1307 HERPES SIMPLEX TYPE 2.....		94								
1401 COXIELLA BURNETI.....			1				6	9	1	
1514 MOLLUSCUM CONTAGIOSUM.....		1								
1522 RUBELLA VIRUS.....				1		1		2		
1532 HEPATITIS B ANTIGEN.....									2	
1541 CHLAMYDIA A - TRIC TYPE.....	4	80								
1556 CMV - CYTOMEGALOVIRUS.....		2		1		3	1	6	5	1
ROSS RIVER VIRUS					78			18		
Total.....	11	197	13	2	79	4	15	51	14	4