Communicable Diseases Intelligence

Bulletin number 80/16
Issue date: 15 August 1980

Contents:

VIRUS REPORTING SCHEME - A total of 1023 reports were received this period. This issue also contains the virus tables (corrected for duplicates) for the previous period July 10-23, 1980, and a subject index for the period January-June 1980.

Reports of interest include:

- Influenza - Twenty cases of influenza A virus infection were reported by the State Health Laboratory, Perth, compared with 11, 1 and 0 reports for the previous three periods.

  During July two influenza isolations were made at the W.H.O. Influenza Centre, Commonwealth Serum Laboratories, Melbourne. Both were type A (H_3N_2) resembling A/Bangkok/1/79 in HI tests, and were isolated from students of the University of Melbourne.

- Gastrointestinal infections - The Institute of Clinical Pathology and Medical Research, Sydney, submitted a further two reports of calicivirus (in addition to two reports in the previous period) from Norfolk Island, and eight reports of astrovirus infection from a variety of sources. All the viruses were identified by electron-microscopy from faecal samples.

- Poliovirus - The State Health Laboratory, Brisbane, reported a five year old female from Port Moresby, Papua New Guinea, presenting with paralysis. Poliovirus type 3 was isolated from faecal samples.

- Arbovirus group B - The five reports of arbovirus group B (clinically dengue) from Fairfield Hospital were all from patients who had recently visited Nauru where a total of 538 clinically dengue fever cases had been recorded from May to 12 July. The epidemic there now appears to be subsiding.

NEW EDITOR FOR CDI

Since July 1979, the Editor of the CDI has been Dr Brian Dixon of the Environmental Health Branch of the Department of Health. This was a temporary situation until a new Editor was appointed. From the next issue, the Editor will be Dr Jeffrey Lake. Enquiries previously directed to Dr Dixon should now be made to Dr Lake on 062-898788, or at the address below.

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.

RABIES VACCINE

The Merieux human diploid cell rabies vaccine has been available in Australia for the past two years under a special arrangement whereby approval for use in post-exposure cases could be obtained by application to the Department of Health. It has now been approved by the Australian Drug Evaluation Committee, and, subject to finalisation of product information, is expected to be generally available shortly. An authority to use the vaccine must still be sought from the Commonwealth Department of Health in Canberra or in the appropriate State capital city.

The following information on rabies immunisation is based on the United States Immunisation Practices Advisory Committee recommendation. It was reproduced in MMWR of 13 June 1980, but is modified here in accordance with Australian circumstances and requirements.

Rabies immunising products:- There are two types of immunising products:

(1) vaccines that induce an active immune response that requires time to develop (about 7 to 10 days for an antibody response), but persists for a year or more;

(2) globulins that provide rapid immune protection that persists for a short period of time (a half-life of about 21 days).

Past experience with the use of the previously available "duck-embryo" vaccine (DEV) with 'rabies immune globulin' (human) (RIGH) suggests that both types of products should be used concurrently for rabies post-exposure prophylaxis.

Human diploid cell rabies vaccine (HDCV):- The "Merieux" HDCV vaccine is the only rabies vaccine currently available in Australia. It is an inactivated virus vaccine prepared from fixed rabies virus grown in MRC-5 human diploid cell tissue culture and is inactivated with beta-propiolactone. It is supplied as 1 ml single-dose vials of lyophilized vaccine with accompanying diluent.

Rabies immune globulin, human (RIGH):- RIGH is antirabies gamma-globulin concentrated by cold ethanol fractionation from plasma of hyper-immunized human donors. Neutralizing antibody content is standardised to contain 150 international units (IU) per ml. It is supplied in 2 ml (300 IU) and 10 ml (1,500 IU) vials for paediatric and adult use respectively.

HDCV is the preferred rabies vaccine because of its presumed greater efficacy and because fewer adverse reactions are known to be associated with it. RIGH is preferred over the previously available 'Antirabies serum - equine" (ARS), because the latter has a high risk of adverse reactions.

The effectiveness of a rabies vaccine is measured by its ability to protect persons exposed to rabies and to induce antibodies to rabies virus. HDCV has been used in conjunction with either RIGH or ARS to treat bite victims in a number of areas. These include 45 persons bitten

by rabid dogs or wolves in Iran, 31 persons bitten by a variety of rabid animals in Germany, and 77 persons bitten by a variety of rabid animals in the United States. In these studies no persons contracted rabies after receiving HDCV, suggesting that the vaccine is effective.

Experience with HDCV is too limited to permit an estimate of the frequency of treatment failures compared with those of DEV, however the antibody response to the vaccines has been compared. The antibody response to HDCV is superior to that induced by DEV. Treatment with six doses of HDCV plus a dose of RIGH will normally produce an adequate titre, while only 85%-90% of persons treated with 16-23 doses of DEV and RIGH develop adequate titres. The average peak titre of rabies antibody after vaccination with HDCV is more than 10 times higher than that seen after DEV.

Serious adverse reactions associated with rabies vaccines include systemic, anaphylactic, and neuroparalytic reactions. Studies suggest that HDCV is likely to have lower rates of all serious adverse reactions than are attributed to DEV. Nerve tissue vaccines of the Semple type (NTV) and suckling rodent brain vaccines - used in some foreign countries - have a higher incidence of neuroparalytic reactions than DEV.

The globulins RIGH and ARS are both effective; however, ARS causes serum sickness in over 40% of adult recipients, while RIGH rarely causes adverse reactions. Thus, RIGH is the product of choice and is the only antirabies globulin now available in Australia.

Post-exposure prophylaxis

The essential aspects of rabies post-exposure prophylaxis are local treatment of wounds and immunisation.

As animal rabies does not occur in this country, the majority of Australian cases present with a history of possible exposure abroad. These usually require a full course of post-exposure immunisation, or the continuation of a course of rabies vaccine commenced abroad.

Rabies is transmitted only by introducing the virus into open cuts or wounds in skin, or via mucous membranes. The likelihood that rabies infection will result from exposure varies with the nature and extent of exposure. Two categories of exposure should be considered:

Bite: Any penetration of the skin by teeth. An 'unprovoked' attack is more likely than a 'provoked' attack to indicate that the animal is rabid. Bites inflicted on a person attempting to feed or handle an apparently healthy animal should generally be regarded as 'provoked'.

Non-bite: Scratches, abrasions, open wounds, or mucous membranes contaminated with saliva or other potentially infectious materials, such as brain tissue, from a rabid animal. Casual contact, such as petting a rabid animal (without a bite or non-bite exposure as described above), does not constitute an exposure and is not an indication for prophylaxis. There have been two instances of airborne rabies that were acquired in

the laboratory and two probably airborne rabies cases acquired in a bat-infested cave in Texas.

The only documented cases of rabies due to human-to-human transmission occurred in two patients who received corneas transplanted from persons who died of rabies undiagnosed at the time of death.

Bite and non-bite exposures from a human with rabies theoretically could transmit rabies. Although no cases of rabies acquired in this way have been documented, and the risk is obviously small, those so exposed should receive prophylaxis. Each potential exposure to human rabies should be carefully evaluated to minimize unnecessary rabies prophylaxis.

Immunisation

As stated earlier, past experience with DEV suggests that post-exposure antirabies immunisation should include both passively administered antibody (RIGH) and vaccine (HDCV), with one exception: persons who have been previously immunised with rabies vaccine and have a documented adequate rabies antibody titre should receive only vaccine. The combination of globulin and vaccine is recommended for both bite exposure and non-bite exposures, regardless of the interval between exposure and treatment. Treatment should be commenced as soon as possible after exposure, but there have been instances when the decision to begin treatment was made at least six months after exposure.

Six 1 ml doses of HDCV should be given intramuscularly (for example, in the deltoid regions). Other routes of administration, such as the intradermal route, have not been tested for post-exposure prophylaxis and should not be used. The first dose should be given as soon as possible after exposure. An additional dose should be given on each of days 3, 7, 14, and 30 after the first dose, and a sixth "booster" dose 90 days after the first dose.

Based on experience with other viral vaccines, it is assumed that children can be given the same dosage as adults.

RIGH is administered only once, at the beginning of antirabies prophylaxis, to provide antibodies until the patient responds to vaccination. Dosage is dependent on body weight. If possible, up to half the dose of RIGH should be thoroughly infiltrated in the area around the wound, and the rest should be administered intramuscularly. It should not be given intravenously. Because RIGH partially suppresses active production of antibody, no more than the recommended dose should be given.

Combinations of vaccines

The "United States Immunisation Practice Advisory Committee" states that one rabies vaccine can be used to complete post-exposure prophylaxis begun with another vaccine. For example, if treatment is begun with DEV and HDCV becomes available: After 1-3 doses of DEV, 6 doses of HDCV should be given as indicated above; after 4-7 doses of DEV, 5 doses of HDCV (1 on each of days 0, 7, 14, 30 and 90); and after 8 or more doses

of DEV, 4 doses of HDCV (1 on each of days 0, 7, 14 and 30).

Pre-exposure immunisation

The low frequency of severe reactions following HDCV make it practical to offer pre-exposure immunisation to persons in high-risk groups, and persons, especially children, living in or visiting countries where rabies is a constant threat. (The question of pre-exposure immunisation is currently being examined by the Commonwealth Department of Health - Ed.)

Pre-exposure prophylaxis is given for several reasons. First, it may provide protection to persons with inapparent exposure to rabies. Second, it protects persons whose post-exposure therapy might be expected to be delayed. Finally, although it does not eliminate the need for additional therapy after a rabies exposure, it simplifies that therapy by eliminating the need for globulin and decreasing the number of doses of vaccine needed, providing the initial antibody response was adequate. The last advantage is of particular importance for persons at high risk of being exposed in countries where the available rabies immunising products may carry a higher risk of adverse reactions.

HDCV is the vaccine of choice. Three 1 ml injections of HDCV should be given on days 0, 7 and 30. In a study in the United States, more than 1,000 persons received HDCV according to this or a similar regimen. Antibody was demonstrated in the sera of all subjects when tested by the rapid fluorescent focus inhibition test, and in the sera of 98.4% of them when tested by the mouse neutralisation method. Other studies have produced comparable results.

Booster doses of vaccine: Persons with continuing risk of exposure should receive a booster dose (1 ml) every two years or have their serum tested for rabies antibody every two years and, if the titre is inadequate, have a booster dose. (Rabies antibody testing is not generally available in Australia at present - Ed.) Persons who work with live rabies virus in research laboratories or vaccine production facilities and are at risk of inapparent exposure should have the rabies antibody titre of their serum determined every six months; booster doses of vaccine should be given, as needed, to maintain an adequate titre. Other laboratory workers, such as those doing rabies diagnostic tests, should have boosters every two years or have their serum tested for rabies antibody every two years and, if the titre is inadequate, have a booster dose.

Post-exposure therapy of previously immunised persons: When an immunised person with previously demonstrated rabies antibody is exposed to rabies, that person should receive two doses (1 ml each) of HDCV, one immediately and one three days later. Passive immunisation should not be given in these cases. If the immune status of a previously vaccinated person is not known, full primary post-exposure antirabies treatment (RIGH plus six doses of HDCV) may be necessary.

Adverse Reactions

(a) HDCV - In one study using five doses of HDCV, local reactions such

as pain, erythema, and swelling or itching at the injection site, were reported in about 25% of recipients of HDCV. Mild systemic reactions, such as headache, nausea, abdominal pain, muscle aches, and dizziness, were reported in about 20% of recipients.

In other studies mild local reactions occurred in all vaccinees and marked febrile reactions in up to 2% of cases. No serious anaphylactic, systemic, or neuroparalytic reactions have been reported, but additional experience with this vaccine is needed to define more clearly the risk of these adverse reactions.

Once initiated, rabies prophylaxis should not be interrupted or discontinued because of local or mild systemic adverse reactions to rabies vaccine. Usually such reactions can be successfully managed with anti-inflammatory and antipyretic agents.

(b) RIGH - Local pain and low-grade fever may follow receipt of RIGH. Although not reported specifically for RIGH, angioneurotic oedema, nephrotic syndrome, and anaphylaxis have been reported after injection of immune serum globulin (ISG). These reactions occur so rarely that the causal relationship between ISG and these reactions is not clear.

Precautions and contraindications

A. General precautions:

(1) HDCV should not be administered intravenously or intradermally.

(2) It should be avoided if possible in persons sensitive to neomycin or other ingredients of the vaccine.

(3) Epinephrine should be readily available.

B. Use of steroids and immunosuppressive agents:

Corticosteroids and immunosuppressive agents can interfere with the development of active immunity and predispose the patient to developing rabies. They should not be administered during post-exposure therapy unless essential for the treatment of other conditions. When rabies post-exposure prophylaxis is administered to persons receiving steroids or immunosuppressive therapy, it is especially important that serum be tested for rabies antibody to ensure that an adequate response has developed.

C. Pregnancy:

Because of the potential consequences of inadequately treated rabies exposure and limited data that indicate that foetal abnormalities have not been associated with rabies vaccination, pregnancy is not considered a contraindication to post-exposure prophylaxis. If there is substantial risk of exposure to rabies, pre-exposure prophylaxis may also be indicated during pregnancy.

D. Allergies:

Caution should be expressed when administering rabies vaccine to persons who have a history of hypersensitivity. Patients with a history suggesting possible hypersensitivity to one vaccine, should be given an alternate vaccine (for example, when an egg-sensitive person must receive DEV because HDCV is not available). Antihistamines can be given; epinephrine should be readily available to counteract anaphylactic reactions, and the person should be carefully observed.

For most allergic persons however, HDCV is less likely than DEV to cause an adverse reaction because it contains fewer extraneous proteins.

Summary of Recommended Prophylaxis Schedule

	RIGH (Given)	HDCV (1 ml on days)
pre-exposure	No	0 - 7 - 30
post-exposure	Yes	0, 3, 7, 14, 30, 90

FOLLOW-UP ON TOXIC SHOCK SYNDROME

(Based on MMWR (1980) 29 No.25:297)

Following the recognition of the condition known as toxic shock syndrome (TSS)[1], the Center for Disease Control (CDC) in the USA has set up a nationwide case control study to try to define the epidemiological features and cause of this disease. The disease primarily affects young women during their menstrual periods, and an account of the condition was given in CDI 80/12.

Three separate studies undertaken in Wisconsin, Utah, and by the CDC suggests that the use of tampons, especially continuous use throughout menstruation, may be associated with the development of TSS in some women, although a causal role has not been shown. No instance of person-to-person transmission has been recognised. The Wisconsin study suggests the risk of TSS is low, with an incidence of about 3 per 100 000 menstruating women per year (4.1/100 000 for women less than 30 and 1.2/100 000 for women more than 30 years of age).

Industry marketing data implies that tampon use is frequent in the United States (70% of menstruating women), and suggests that tampon use itself is not sufficient to cause the disease. Also no particular brand of tampon has been associated with an unusually high disease risk, again suggesting that the tampon acts as a co-factor, rather than a causative agent. If, as proposed[1], TSS is the result of a bacterial toxin, the use of tampons might favour growth of the bacterium in the vagina or absorption of the toxin from the vagina or uterus, but these possibilities

have not yet been investigated.

Based on this limited data, the editor of MMWR has made a number of recommendations. Women who have had TSS should probably not use tampons for at least several menstrual cycles after their illness or - if S. aureus has been found in the vagina, until eradication of the organism has been achieved. For the vast majority of women, the risk attributable to tampon use is so low that it seems unwarranted to recommend that use of tampons be discontinued. Moreover, in view of the low risk of disease in general, routine culturing of asymptomatic women for S. aureus does not appear to be warranted. However, because the use of tampons continuously throughout the menstrual period is associated with increased risk of TSS, those women who wish to decrease their small risk of TSS may choose to use tampons during only part of their menstrual cycle, or to use napkins or mini pads instead. Doctors who want to use antibiotics to treat patients with TSS should probably choose a beta-lactamase-resistant antibiotic after appropriate cultures - including vaginal or cervical, blood, anterior nares, urine and stool - have been obtained. These drugs have not been documented to ameliorate the disease or to improve outcome, but they do appear to prevent recurrences. Immediate supportive therapy is necessary for severe cases.

Editorial comment

The CDI would be interested in receiving information on any Australian cases of this newly recognised illness.

Reference

1. Lancet (1978) 2:1116

CORRIGENDUM - CDI 80/13, page 2

Since the table on PPNG isolations was published an error has been discovered in it, and several late reports of isolations for the month of June have also been received. An amended table follows.

Reports of PPNG Cases by Probable Source of Infection
Australia - 1980 Jan-June

Probable Source	N.S.W.	VIC.	QLD.	S.A.	W.A.	N.T.	TOTAL
Philippines	8	3	3	5	2	1	22
Thailand	2	3	-	1	5	-	11
Malaysia	-	-	3	-	1	-	4
Hong Kong	2	1	-	-	-	-	3
Singapore	-	2	-	-	2	-	4
Indonesia	-	1	-	-	-	-	1
S.E. Asia(unspec)	-	1	-	2	3	-	6
U.S.A.	-	-	-	2	-	-	2
Australia	5	-	1	13	4	-	23
Unknown	-	3	-	2	3	-	8
	17	14	7	25	20	1	84

AUSTRALIA - COMMUNICABLE DISEASES INTELLIGENCE

1

REPORTING PERIOD - 24- 7 -80 - 6-8-80 BULLETIN NUMBER . 80/16

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	9		2				3	3	17
0101 ADENOVIRUS TYPE 1		1		1		2		2	6
0102 ADENOVIRUS TYPE 2	3		1	3	3	3		3	16
0103 ADENOVIRUS TYPE 3	1					2			3
0105 ADENOVIRUS TYPE 5				1	3	1			5
0107 ADENOVIRUS TYPE 7					1	1		1	3
0111 ADENOVIRUS TYPE 11	1								1
0119 ADENOVIRUS TYPE 19				1				4	5
0131 ADENOVIRUS TYPE 31			1		1				2
0199 ADENOVIRUS TYPING PENDING			2		3	6			11
0201 INFLUENZA A VIRUS	2		3	2				20	27
0202 INFLUENZA A VIRUS SUBTYPE H3N2				2	3		2		7
0203 INFLUENZA B VIRUS						1	7		8
0301 PARAINFLUENZA VIRUS TYPE 1						3			3
0302 PARAINFLUENZA VIRUS TYPE 2					4	1	2	2	9
0303 PARAINFLUENZA VIRUS TYPE 3	4	1			2	5	3	2	17
0400 RESPIRATORY SYNCYTIAL VIRUS (RS)	32	23	1	7	41	44	9		157
0500 RHINOVIRUS (ALL TYPES)	6	1		4	3	5	2		21
0600 MYCOPLASMA PNEUMONIAE	4	2					1	1	8
0700 ORNITHOSIS-PSITTACOSIS	1		1	1				2	5
0809 COXSACKIEVIRUS A9				6	1	1	1		9
0816 COXSACKIEVIRUS A16	1								1
0902 COXSACKIEVIRUS B2					1			4	5
0904 COXSACKIEVIRUS B4						2			2
1006 ECHOVIRUS TYPE 6						1			1
1011 ECHOVIRUS TYPE 11						2			2
1015 ECHOVIRUS TYPE 15							1		1
1022 ECHOVIRUS TYPE 22			2						2
1030 ECHOVIRUS TYPE 30				3					3
1031 ECHOVIRUS TYPE 31								1	1
1099 ECHOVIRUS TYPING PENDING			1			1			2
1101 POLIOVIRUS TYPE 1						1			1

AUSTRALIA - COMMUNICABLE DISEASES INTELLIGENCE 2

REPORTING PERIOD - 24-7-80 - 6-8-80 BULLETIN NUMBER - 80/16

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
1102 POLIOVIRUS TYPE 2						3		2	5
1103 POLIOVIRUS TYPE 3						2	1	2	5
1104 POLIOVIRUS-VACCINAL STRAIN					3				3
1200 MUMPS VIRUS	4			2	1	2	1	1	11
1300 HERPES VIRUS GROUP-NOT TYPED	11	1		2		8	1		23
1301 HERPES SIMPLEX VIRUS NOT-TYPED	8		3	1		1	15	51	79
1302 EPSTEIN-BARR VIRUS (EB VIRUS)	9			2				1	12
1303 VARICELLA-ZOSTER VIRUS	2	1	3	1	1	1	1		10
1306 HERPES SIMPLEX TYPE 1	4		2	22		10			38
1307 HERPES SIMPLEX TYPE 2	46		3	27		26			102
1399 HERPES VIRUS TYPING PENDING			5		1	9			15
1401 COXIELLA BURNETI	14			9		1	1		25
1502 PICORNA VIRUS-NOT TYPED							2	3	5
1514 MOLLUSCUM CONTAGIOSUM								1	1
1521 MEASLES VIRUS	1	1	2						4
1522 RUBELLA VIRUS			1	1		2			4
1530 HEPATITIS A VIRUS						3		8	11
1531 HEPATITIS B VIRUS				13		6		10	29
1532 HEPATITIS B ANTIGEN	5		16				4		25
1535 HEPATITIS A ANTIBODY	4								4
1541 CHLAMYDIA A - TRIC TYPE	9		3			1		64	77
1555 PAPOVAVIRUS GROUP (PAPILLOMA-HUMAN WART)						1			1
1556 CMV - CYTOMEGALOVIRUS	8	1	3	7	3	2	7	1	32
1564 ROTAVIRUS	44		12	9	3	32		3	103
1565 CALICI VIRUS	2								2
1599 ENTEROVIRUS TYPING PENDING					11			2	13
ROSS RIVER VIRUS							1		1
ASTROVIRUS	8								8
SMALL VIRUS (LIKE) PARTICLE	4					4			8
ARBO. GROUP B.				5			1		6
Total	247	32	67	132	89	196	66	194	1,023

AUSTRALIA - COMMUNICABLE DISEASES INTELLIGENCE

3

PERIOD : 24/7/80 to 6/8/80 .... 80/16

Viral Identifications by Clinical Information Table 1.
Code 00,99 -No ill or data; 01,02,11,12 -Respiratory; 83 -Encephalitis; 83 -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.....	3	5					6				
0101 ADENOVIRUS TYPE 1.....		3					1				
0102 ADENOVIRUS TYPE 2.....		6					7				1
0103 ADENOVIRUS TYPE 3.....							3				
0105 ADENOVIRUS TYPE 5.....	1	1					2				
0107 ADENOVIRUS TYPE 7.....						1	2				
0119 ADENOVIRUS TYPE 19.....	4										
0131 ADENOVIRUS TYPE 31.....							2				
0201 INFLUENZA A VIRUS.....	1	15				2	5		1		1
0202 INFLUENZA A VIRUS SUBTYPE H3N2		6		1							
0203 INFLUENZA B VIRUS.....	1	7									
0301 PARAINFLUENZA VIRUS TYPE 1....		3									
0302 PARAINFLUENZA VIRUS TYPE 2....		7			1						
0303 PARAINFLUENZA VIRUS TYPE 3....	1	13							1		
0400 RESPIRATORY SYNCYTIAL VIRUS (RS).....	3	151					1				
0500 RHINOVIRUS (ALL TYPES)		18									
0600 MYCOPLASMA PNEUMONIAE.....		6							1		
0700 ORNITHOSIS-PSITTACOSIS.....		1							1		
0809 COXSACKIEVIRUS A9.....		1		5			2				1
0816 COXSACKIEVIRUS A16.....											1
0902 COXSACKIEVIRUS B2.....		1					2				
0904 COXSACKIEVIRUS B4.....		1					1				
1006 ECHOVIRUS TYPE 6.....							1				
1011 ECHOVIRUS TYPE 11.....		1		1							
1015 ECHOVIRUS TYPE 15.....	1										
1022 ECHOVIRUS TYPE 22.....							1				1
1030 ECHOVIRUS TYPE 30.....				3							

AUSTRALIA - COMMUNICABLE DISEASES INTELLIGENCE 4

PERIOD : 24/7/80 to 6/8/80 .... 80/16
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
1031 ECHOVIRUS TYPE 31.....				1							
1101 POLIOVIRUS TYPE 1.....							1				
1102 POLIOVIRUS TYPE 2.....							3				
1103 POLIOVIRUS TYPE 3.....					1		2				
1104 POLIOVIRUS-VACCINAL STRAIN....							1				
1200 MUMPS VIRUS.....	1			2							
1300 HERPES VIRUS GROUP-NOT TYPED..	2			1							7
1301 HERPES SIMPLEX VIRUS NOT-TYPED	20	3				1					39
1302 EPSTEIN-BARR VIRUS (EB VIRUS) .	6										
1303 VARICELLA-ZOSTER VIRUS.....		1	1								6
1306 HERPES SIMPLEX TYPE 1.....		5	1			1	1			2	23
1307 HERPES SIMPLEX TYPE 2.....											3
1401 COXIELLA BURNETI.....	3	3									1
1502 PICORNA VIRUS-NOT TYPED.....	1	2		1							
1514 MOLLUSCUM CONTAGIOSUM.....											1
1521 MEASLES VIRUS.....				1							1
1522 RUBELLA VIRUS.....											2
1530 HEPATITIS A VIRUS.....	1							10			
1531 HEPATITIS B VIRUS.....	18							11			
1532 HEPATITIS B ANTIGEN.....	1							24			
1535 HEPATITIS A ANTIBODY.....								4			
1541 CHLAMYDIA A - TRIC TYPE.....	63										
1556 CMV - CYTOMEGALOVIRUS.....	8	8		1						3	1
1564 ROTAVIRUS.....	2						101				
1565 CALICI VIRUS.....							2				
ASTROVIRUS							8				
SMALL VIRUS (LIKE) PARTICLE							8				
ARBO. GROUP B.	1										
Total.....	142	268	2	17	2	5	163	49	4	5	89

AUSTRALIA - COMMUNICABLE DISEASES INTELLIGENCE 5

PERIOD : 24/7/80 to 6/8/80 ... 80/16
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;
68 -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.....							3			
0101 ADENOVIRUS TYPE 1.....								2		
0102 ADENOVIRUS TYPE 2.....								1		1
0105 ADENOVIRUS TYPE 5.....	1									
0107 ADENOVIRUS TYPE 7.....								1		
0111 ADENOVIRUS TYPE 11.....	1									
0119 ADENOVIRUS TYPE 19.....	1									
0201 INFLUENZA A VIRUS.....								13	1	
0302 PARAINFLUENZA VIRUS TYPE 2....								1		
0303 PARAINFLUENZA VIRUS TYPE 3....							1			1
0400 RESPIRATORY SYNCYTIAL VIRUS (RS).....								1	2	
0500 RHINOVIRUS (ALL TYPES).....									2	1
0600 MYCOPLASMA PNEUMONIAE.....							1			
0700 ORNITHOSIS-PSITTACOSIS.....			1				1	1		
0809 COXSACKIEVIRUS A9.....								1		
0902 COXSACKIEVIRUS B2.....			1					3		
1102 POLIOVIRUS TYPE 2.....										2
1103 POLIOVIRUS TYPE 3.....										2
1104 POLIOVIRUS-VACCINAL STRAIN....							1			2
1200 MUMPS VIRUS.....			9						1	
1300 HERPES VIRUS GROUP-NOT TYPED..		11					2			
1301 HERPES SIMPLEX VIRUS NOT-TYPED	1	12		1				2	1	
1302 EPSTEIN-BARR VIRUS (EB VIRUS).			3					3	1	
1303 VARICELLA-ZOSTER VIRUS.....		1						1	1	
1306 HERPES SIMPLEX TYPE 1.....	2	4						1		
1307 HERPES SIMPLEX TYPE 2.....		99								
1401 COXIELLA BURNETI.....							7	12		

AUSTRALIA - COMMUNICABLE DISEASES INTELLIGENCE 6

PERIOD : 24/7/80 to 6/8/80 ... 80/16
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 ... **-CONTINUED**

VIRUS OR VIRAL ANTIGEN	Eye	Genital	Endo/sal gland	RES	Muscle/joint	Congenital	PUO	Fever/malaise	Other	SIDS
1521 MEASLES VIRUS			1						1	
1522 RUBELLA VIRUS				1				1		
1541 CHLAMYDIA A - TRIC TYPE		13								
1555 PAPOVAVIRUS GROUP (PAPILLOMA-HUMAN WART)		1								
1556 CMV - CYTOMEGALOVIRUS			1			5	2	2	2	
ROSS RIVER VIRUS					1					
ARbO. GROUP B. ...								5		
Total	6	141	16	2	1	5	18	51	12	9

AUSTRALIA - COMMUNICABLE DISEASES INTELLIGENCE

7

REPORTING PERIOD - 10-7-80 - 23-7-80 BULLETIN NUMBER - 80/15

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)	T
0100 ADENOVIRUS NOT TYPED	4		15	2	3	2	6		32
0101 ADENOVIRUS TYPE 1	1	1				3		1	6
0102 ADENOVIRUS TYPE 2			1			1			2
0103 ADENOVIRUS TYPE 3						1			1
0104 ADENOVIRUS TYPE 4				1		2			3
0105 ADENOVIRUS TYPE 5						1			1
0107 ADENOVIRUS TYPE 7	1		1						2
0119 ADENOVIRUS TYPE 19			1	2					3
0199 ADENOVIRUS TYPING PENDING					3	3			6
0201 INFLUENZA A VIRUS			1					11	12
0202 INFLUENZA A VIRUS SUBTYPE H3N2					2		1		3
0203 INFLUENZA B VIRUS			1		1		3		5
0299 INFLUENZA VIRUS	1								1
0302 PARAINFLUENZA VIRUS TYPE 2		4		1	4				9
0303 PARAINFLUENZA VIRUS TYPE 3		4			4	7	1	1	17
0399 PARAINFLUENZA VIRUS TYPING PENDING					1				1
0400 RESPIRATORY SYNCYTIAL VIRUS (RS)	8	25	1	7	28	20	5	2	96
0500 RHINOVIRUS (ALL TYPES)	4	2		13	3		1		23
0600 MYCOPLASMA PNEUMONIAE	3		1		1		4	1	10
0700 ORNITHOSIS-PSITTACOSIS	1		2	2		2			7
0800 COXSACKIEVIRUSES GROUP A - NOT TYPED							4		4
0809 COXSACKIEVIRUS A9			1						1
0816 COXSACKIEVIRUS A16								1	1
0902 COXSACKIEVIRUS B2								4	4
0903 COXSACKIEVIRUS B3		1							1
1001 ECHOVIRUS TYPE 1							1		1
1005 ECHOVIRUS TYPE 5								1	1
1007 ECHOVIRUS TYPE 7								1	1
1009 ECHOVIRUS TYPE 9						1			1
1011 ECHOVIRUS TYPE 11						1			1
1030 ECHOVIRUS TYPE 30				3	3		1		7

AUSTRALIA - COMMUNICABLE DISEASES INTELLIGENCE 8

REPORTING PERIOD - 10 - 7 - 80 - 23 - 7 - 80 BULLETIN NUMBER • 80/15.

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)	T
1033 ECHOVIRUS TYPE 33			2						2
1101 POLIOVIRUS TYPE 1								2	2
1102 POLIOVIRUS TYPE 2		1							1
1103 POLIOVIRUS TYPE 3				1		1		1	3
1200 MUMPS VIRUS	2					2	2		6
1300 HERPES VIRUS GROUP-NOT TYPED	13	2		2			2		19
1301 HERPES SIMPLEX VIRUS NOT-TYPED			3			3	27	32	65
1303 VARICELLA-ZOSTER VIRUS	3			2					5
1306 HERPES SIMPLEX TYPE 1	2		4	15		5			26
1307 HERPES SIMPLEX TYPE 2	36		3	27		8			74
1399 HERPES VIRUS TYPING PENDING			5	2	1	2			10
1401 COXIELLA BURNETI	10			6		4	10		30
1502 PICORNA VIRUS-NOT TYPED			4						4
1521 MEASLES VIRUS		2	1						3
1522 RUBELLA VIRUS	2		1			4			7
1530 HEPATITIS A VIRUS				4		8		6	18
1531 HEPATITIS B VIRUS				16		8		5	29
1532 HEPATITIS B ANTIGEN			10	5			7		22
1541 CHLAMYDIA A - TRIC TYPE	21		2					40	63
1543 CHLAMYDIA A - LGV TYPE								1	1
1556 CMV - CYTOMEGALOVIRUS	5	3	5	10	3	2	5	1	34
1564 ROTAVIRUS	28		7	14	1	35		4	89
1565 CALICI VIRUS	2								2
1599 ENTEROVIRUS TYPING PENDING			3		10	6			19
ROSS RIVER VIRUS							14		14
SMALL VIRUS (LIKE) PARTICLE	2			1		1			4
PARAMYXO	2								2
ARBO. GROUP B.							3		3
Total	151	45	75	136	68	133	97	115	820

AUSTRALIA - COMMUNICABLE DISEASES INTELLIGENCE

9

PERIOD : 10/7/80 to 23/7/80 .... 80/15

Viral Identifications by Clinical Information Table 1.
Code 00,99 -No ill or data; 01,02,11,12 -Respiratory; 83 -Enceph-alitis; 83 -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
0100 ADENOVIRUS NOT TYPED.....	2	16					3				
0101 ADENOVIRUS TYPE 1.....		2				1	2				
0102 ADENOVIRUS TYPE 2.....								1			
0103 ADENOVIRUS TYPE 3.....							1				
0104 ADENOVIRUS TYPE 4.....		2					1				
0105 ADENOVIRUS TYPE 5.....							1				
0107 ADENOVIRUS TYPE 7.....		1					1				
0201 INFLUENZA A VIRUS.....	2	6				2	1				
0202 INFLUENZA A VIRUS SUBTYPE H3N2		3									
0203 INFLUENZA B VIRUS.....		4									
0302 PARAINFLUENZA VIRUS TYPE 2....		9									
0303 PARAINFLUENZA VIRUS TYPE 3....		17									
0400 RESPIRATORY SYNCYTIAL VIRUS (RS).....		95									
0500 RHINOVIRUS (ALL TYPES).....		21									
0600 MYCOPLASMA PNEUMONIAE.....	2	5									1
0700 ORNITHOSIS-PSITTACOSIS.....		3				1					1
0809 COXSACKIEVIRUS A9.....				1							
0816 COXSACKIEVIRUS A16.....											1
0902 COXSACKIEVIRUS B2.....									1		
0903 COXSACKIEVIRUS B3.....	1										
1001 ECHOVIRUS TYPE 1.....		1									
1005 ECHOVIRUS TYPE 5.....							1				
1007 ECHOVIRUS TYPE 7.....	1										
1009 ECHOVIRUS TYPE 9.....		1									
1011 ECHOVIRUS TYPE 11.....							1				
1030 ECHOVIRUS TYPE 30.....	1	1		5							
1033 ECHOVIRUS TYPE 33.....							2				

AUSTRALIA - COMMUNICABLE DISEASES INTELLIGENCE 10

PERIOD : 10/7/80 to 23/7/80 .... 80/15

Viral Identifications by Clinical Information Table 1.
Code 00,99 -No ill or data; 01,02,11,12 -Respiratory; 03 -Encephalitis; 03 -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
1103 POLIOVIRUS TYPE 3		1									
1200 MUMPS VIRUS	1	2		2							
1300 HERPES VIRUS GROUP-NOT TYPED		2	1	2				1			6
1301 HERPES SIMPLEX VIRUS NOT-TYPED	6	3	4	2		1		1			25
1303 VARICELLA-ZOSTER VIRUS	1										4
1306 HERPES SIMPLEX TYPE 1		3									17
1307 HERPES SIMPLEX TYPE 2										1	1
1401 COXIELLA BURNETI		4						1			
1502 PICORNA VIRUS-NOT TYPED							4				
1521 MEASLES VIRUS										1	2
1522 RUBELLA VIRUS											4
1530 HEPATITIS A VIRUS								18			
1531 HEPATITIS B VIRUS	17	1						12			
1532 HEPATITIS B ANTIGEN	2						1	19			
1541 CHLAMYDIA A - TRIC TYPE	68										
1543 CHLAMYDIA A - LGV TYPE		1									
1556 CMV - CYTOMEGALOVIRUS	2	7					1		1	3	2
1564 ROTAVIRUS	1						68				
1565 CALICI VIRUS							2				
ROSS RIVER VIRUS											1
SMALL VIRUS (LIKE) PARTICL							3				
PARAMYXO							2				
ARBO. GROUP B.		1	1	1							1
Total	79	212	6	13		5	115	53	2	5	66

AUSTRALIA - COMMUNICABLE DISEASES INTELLIGENCE 11

PERIOD : 10/7/80 to 23/7/80 ... 80/15

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	2		1		2	2	2	
0101 ADENOVIRUS TYPE 1	1									
0102 ADENOVIRUS TYPE 2										1
0104 ADENOVIRUS TYPE 4	1									
0119 ADENOVIRUS TYPE 19	3									
0201 INFLUENZA A VIRUS								5		
0203 INFLUENZA B VIRUS					1			1		
0400 RESPIRATORY SYNCYTIAL VIRUS (RS)								1		
0500 RHINOVIRUS (ALL TYPES)							1		1	
0600 MYCOPLASMA PNEUMONIAE					1		1	1		
0700 ORNITHOSIS-PSITTACOSIS							1	1		
0902 COXSACKIEVIRUS B2					3		1			
1101 POLIOVIRUS TYPE 1										2
1102 POLIOVIRUS TYPE 2									1	
1103 POLIOVIRUS TYPE 3							1			1
1200 MUMPS VIRUS			1		2		1			
1300 HERPES VIRUS GROUP-NOT TYPED		8							1	
1301 HERPES SIMPLEX VIRUS NOT-TYPED	2	22						1		
1303 VARICELLA-ZOSTER VIRUS	1									
1306 HERPES SIMPLEX TYPE 1		3			1		3	1		
1307 HERPES SIMPLEX TYPE 2		72								
1401 COXIELLA BURNETI							8	20		
1521 MEASLES VIRUS								1		
1522 RUBELLA VIRUS						1		1	1	
1541 CHLAMYDIA A - TRIC TYPE	2	23								
1556 CMV - CYTOMEGALOVIRUS			2	1	1	2	4	4	8	
ROSS RIVER VIRUS					14					
ARBO. GROUP B. ...					1					
Total	10	129	5	1	25	3	23	39	14	4