



Communicable Diseases Intelligence

Bulletin number 80/8
Issue date: 18 April 1980

Contents:

- Malaria prophylaxis, chloroquine resistant areas.
- Neonatal viral infections - Queensland
- S. morbificans outbreak - Victoria
- B. lactamase producing N. gonorrhoeae
- Smallpox vaccination

VIRUS REPORTING SCHEME - 539 new reports this period.

General patterns as indicated by the reports received include:

- Ross River virus - 52 reports, all of which were from Queensland. This indicates a continuation of the outbreak noted in the last issue of this bulletin, with cases coming from several areas throughout the State.
- Influenza - There were five reports of Influenza B isolations compared with one or two for each of the previous five reporting periods (10 weeks). Three were from South Australia and two from Queensland.

The W.H.O. Influenza Centre, Melbourne, reports an additional four Influenza B isolations, most of them closely resembling B/Singapore/222/79 in HI tests.

Other reports of interest:

- Molluscum contagiosum - one report of an isolation from a genital source, from the Institute of Medical and Veterinary Science, Adelaide. This laboratory also reported the only three similar isolations during 1979.
- A number of virus detections were reported for the first time this year:
 - Specific I_GM to the Sindbis virus was detected in a 48 year old man by the State Health Laboratory, Queensland. The patient, from the Gayndah area, also had specific I_GM to Ross River virus.
 - Reovirus - two isolations from faecal samples received from Alice Springs, reported by the Institute of Medical and Veterinary Science, Adelaide. Both patients had gastro-intestinal symptoms. One was a six month old baby, the other's age was not available.
 - Adenovirus type 18 - one report from the faeces of a one year old child with unspecified central nervous system symptoms.

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MALARIA PROPHYLAXIS IN AREAS WITH CHLOROQUINE RESISTANT P. FALCIPARUM
MALARIA

The Australian Department of Health guidelines on prophylaxis for travellers to areas where chloroquine-resistant P. falciparum malaria has been reported, were reproduced in CDI 79/23. In the light of additional information certain parts of these guidelines have been modified. The major modifications comprise additional comments on the contraindications to the use of Maloprim and Fansidar; and the choice of drug and dosage schedules for young children. Those portions of the guidelines incorporating modifications are reproduced below.

The complete document, which remains subject to further review as and when new information becomes available, can be obtained by requests addressed to the Editor.

"General principles for drug prophylaxis

The drug mixtures pyrimethamine plus dapsone ('Maloprim') and pyrimethamine plus sulphadoxine ('Fansidar') are currently available for persons who have no contraindications to their use (see below) and who will be travelling to high risk chloroquine-resistant areas (e.g. Papua New Guinea).

Chloroquine, possibly in increased dosages, should nevertheless be adequate for travellers whose visits will be limited to major cities (other than in Papua New Guinea), and to areas where resistance is known to be minimal. Increased chloroquine dosage may also be advisable for persons travelling to areas where transmission of non-resistant malaria is intense, as for example in certain regions of tropical Africa. However there is no conclusive evidence that the increased dosage is more efficacious.

Both sulphones (as in Maloprim) and long acting sulphonamides (as in Fansidar), need to be prescribed with caution, as in addition to visible adverse reactions, other reactions such as haemolysis and agranulocytosis can occur, particularly with prolonged use. Erythema multiforme, (Stevens-Johnson syndrome) may also rarely occur in patients taking long-acting sulphonamides.

It is therefore important that these drugs be stopped immediately on the appearance of any rash, and that haematological investigations be undertaken if there is any suspicion of haematological damage. Currently, data on safety are available only on prophylaxis for up to one year's duration.

Neither Maloprim nor Fansidar should be taken by people with folate deficiencies, jaundice, during pregnancy, or by infants less than a month old because of the immaturity of their enzyme systems. These drugs should therefore not be taken by women breastfeeding their babies during the neonatal period - or longer if the baby was premature. In persons with hepatic or renal disease, the metabolism or

excretion of the drugs may be impaired, so particular care may be necessary if administration of these drugs to such patients is unavoidable.

In accordance with the public health principle of avoiding where possible the use, for prophylactic purposes, of a drug which is recommended for the treatment of a disease, the Department of Health favours the use of Maloprim for prophylaxis. Fansidar should preferably be reserved for the treatment of acute attacks of chloroquine-resistant falciparum malaria, in conjunction with quinine (and primaquine).

However, long-term residents in a country need not change their established drug regimen unless it has proved to be unsatisfactory. New arrivals contemplating long-term residence should seek local expert opinion on drug suitability."

"Infants

Although there are no additional contraindications to the use of Maloprim or Fansidar in healthy post-neonatal babies (i.e. aged over one month) problems are encountered in ensuring the correct dosage, particularly with Maloprim. Both pyrimethamine and dapsone have been found in breast milk, but the exact amounts will not be known in each case and oral supplementation cannot therefore be recommended. There is no information available on Fansidar in breast milk. The breaking of tablets into small fractions is also unreliable (see under 'dosages' below).

It is therefore recommended that for the first months of life, major reliance be placed on avoidance of areas with chloroquine resistant malaria, or, if this is impossible, on very stringent precautions against mosquito bites. These would include covering occupied cots or beds with mosquito nets - in good repair - both by day and by night, and ensuring they are well tucked in; and possibly the application of effective insect repellants to areas of exposed skin, although this may cause skin sensitivity reactions.

These measures should be supplemented by the administration of an appropriate dose of 'infant formula Camoquin' (amodiaquine) or 'Nivaquine syrup' (chloroquine) for protection against vivax malaria.

If it is considered essential to commence specific chemoprophylaxis against chloroquine resistant falciparum malaria, Fansidar may be commenced after the age of one month in accordance with the dosage schedule detailed below.

Specific preparations

It is preferable, but not essential, to commence the administration of prophylactic drugs one or two weeks before entering the malarious area, so that any idiosyncrasy to the drug can be recognised and an alternative prescribed if necessary.

They should be continued for 4 weeks after leaving the malaria endemic area.

Maloprim - (dapsons, 100 mg and pyrimethamine, 12.5 mg)

This combination is the drug recommended for prophylaxis for travellers to Papua New Guinea, the rural areas of S.E. Asia (including the border areas between India and Bangladesh and Burma), East Kalimantan, Sabah, and certain of Brazil, Colombia, Ecuador and Venezuela.

Dosage (on the same day each week):-

Adults and children over 10 years: One tablet each week
Children 5 to 10 years: $\frac{1}{2}$ tablet each week

Although children above the age of 1 month can theoretically be given this preparation, it is available only in tablet form and there are no data available on dosages for children less than 5 years of age. The tablets are small and difficult to break accurately into anything less than half size. In view of the short half-life of dapsons, strict adherence to dosage regimen is essential, and it should therefore not be given in doses of less than half a tablet. There is no liquid formulation currently available to facilitate the administration of accurate smaller doses.

Fansidar (sulphadoxine, 500 mg and pyrimethamine, 25 mg)

Dosage:-

Adults and children over 12 years: 1 tablet each week
Children 9 to 14 years: $\frac{3}{4}$ tablet each week
Children 4 to 8 years: $\frac{1}{2}$ tablet each week
Children 1 to 4 years: $\frac{1}{2}$ tablet each fortnight
Children under 1 year: $\frac{1}{4}$ tablet each fortnight

When Fansidar is administered to young children on alternate weeks, careful written records should be kept to ensure the regularity of the fortnightly schedule."

VIRAL INFECTIONS OF NEONATES IN QUEENSLAND

(Contributed by L. Hiley, State Health Laboratory, Brisbane.)

In the period November 1979 to March 1980, virus isolations were made from 23 neonates, all less than 12 days old, suffering a generalized viral illness, often with overlying symptoms of meningitis. Sixteen of these isolates were identified as echovirus type 11, three as coxsackie B4, one each as coxsackie B2, echovirus 19, echovirus 20 and herpes simplex virus. Five of the neonates subsequently died, three with echovirus 11, one with coxsackie B4 and one with herpes simplex.

At least four of the mothers are known to have had fever and/or abdominal pain a few days before delivery but specimens were received from only one mother. This was a specimen of cerebro-spinal fluid (C.S.F.) taken just prior to delivery, and it yielded coxsackie B4.

The same virus was isolated from a C.S.F. specimen taken from her infant seven days after birth.

Seven of the neonates with echovirus 11 infection were born at the same hospital in one of Queensland's provincial cities in a period of just over a month. It is not known whether this was a cluster of separate congenital infections or whether at least some of the infections were acquired in the nursery. Throat/nose specimens were collected from 24 staff members at the hospital and one of these yielded echovirus 11.

S. BOVIS-MORBIFICANS OUTBREAK IN VICTORIA

(Contributed by B. Oliver, District Health Officer, Victoria.)

Of 281 people attending either of two functions at a Club in north-western Victoria on 29 December 1979 and 3 January 1980, at least 159 developed symptoms of gastroenteritis. The modal incubation period was 20 hours (range 6-72 hours). Symptoms usually lasted two days with a range of a few hours to six days. Salmonella bovis-morbificans was cultured from 34 of 37 faecal samples obtained following the first function, and 32 of 40 samples after the second. There had been no notably raised incidence of gastroenteritis in the area at the time, nor evidence that this serotype was prevalent.

None of the food prepared for the parties was available for culture, so that definition of the vehicle of infection relied solely on epidemiological investigation. The foods common to both functions were pork (eaten by almost all present), pizza, sausages and prawns (eaten by relatively few who were ill). Other items on the menus were either not common, or were obtained from separate sources.

In the interval between the two functions, a menu similar to that at the first, but without ham, was prepared for a party. Two of the guests became ill, one of whom excreted S. bovis-morbificans. Bacteriological investigation of samples of all food served was negative for salmonella.

Dietary histories of 20 people at the first party suggested chicken or pork as the offending vehicle. The frozen chicken had not been thawed before cooking. The pork had been stuffed with minced meat before freezing, and thawed over 18 hours at room temperature in hot weather. Both meats were then placed in a hot press for at least six hours before serving on the same plate. Although no isolates of S. bovis-morbificans were made from the poultry farm or those who handled the chicken, this serotype had been obtained from a farm where the pork had been held, about 2 months prior to the event.

The only person present at both functions was the Club Manager, who was also the cook. Faecal samples from him and other staff were negative for salmonella. S. bovis-morbificans was isolated from only one environmental sample from the club, namely, the plates used for the functions. Washing up after the party on 29 December had been left until the following morning, and discussions with the staff suggest that the water

used may have been insufficiently hot to be effective. Tea towels from a commercial laundry had been used to dry the plates.

Although the vehicle of infection is unknown, pork is suspected. The manner in which this was handled would have rendered it highly conducive to bacterial proliferation. Catering establishments must therefore continually be made aware of food handling procedures which are hazardous.

The significance of the subsequent illness in the two people at the intervening function is unclear, since it is possible that this could have resulted from secondary spread from other patients. Also, the significance of the earlier isolation of S. bovis-morbificans from the farm is questionable because of the frequency of this serotype in feed animals in Australia.

B-LACTAMASE PRODUCING N. GONORRHOEAE

A further eight reports have been received, one diagnosed in February and the others in March 1980. Details are as follows:

<u>Month</u>	<u>Age</u>	<u>Sex</u>	<u>State</u>	<u>Probable Source</u>
Feb.	29	M	Qld	Penang
March	27	M	"	Philippines
"	24	M	"	Malaysia
"	34	M	SA	Philippines
"	30	F	"	Wife of M.34 above
"	19	M	"	Local
"	18	M	"	"
"	17	M	"	"

This brings the number of reported cases diagnosed in 1980 to 26. In 1979 only 23 cases had been reported by the end of June.

SMALLPOX VACCINATION

According to the information available to the World Health Organisation as at 11 April 1980, the following countries still require travellers to have valid smallpox vaccination certificates:

Benin	Lesotho
Brunei	Madagascar
Chad	Mali
Comores	Sao Tome and Principe
Democratic Kampuchea	United Republic of Cameroon
Djibouti	Upper Volta
Ivory Coast	Zaire

CONTRIBUTED ARTICLES

Contributed articles for this bulletin are welcomed. All contributions received are acknowledged either by inclusion in one of the following two issues or by personal communication.

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AUSTRALIA - COMMUNICABLE DISEASES INTELLIGENCE

REPORTING PERIOD - - - - - BULLETIN NUMBER . 1
 VIRAL IDENTIFICATIONS FROM CONTRIBUTING LABORATORIES

VIRUS OR VIRAL ANTIGEN	ICPMR (NSW) / WVH (ACT)	RAHC (NSW)	PHH/ POW (NSW)	FAIR- FIELD (VIC)	RCH (VIC)	IMVS (SA)	STATE LAB (QLD)	STATE LAB (WA)	Total
0100 ADENOVIRUS NOT TYPED.....	2		6	2	2	1	12		25
0101 ADENOVIRUS TYPE 1.....	1					1		2	4
0102 ADENOVIRUS TYPE 2.....		1	1			1		1	4
0103 ADENOVIRUS TYPE 3.....								2	2
0107 ADENOVIRUS TYPE 7.....			1	1				3	5
0108 ADENOVIRUS TYPE 8.....								4	4
0118 ADENOVIRUS TYPE 18.....		1							1
0119 ADENOVIRUS TYPE 19.....				2				2	4
0199 ADENOVIRUS TYPING PENDING.....		1	1		6	3			11
0203 INFLUENZA B VIRUS.....						3	2		5
0301 PARAINFLUENZA VIRUS TYPE 1.....		1				1			2
0302 PARAINFLUENZA VIRUS TYPE 2.....	1			1	6	1	1		10
0303 PARAINFLUENZA VIRUS TYPE 3.....		3			2		2		7
0400 RESPIRATORY SYNCYTIAL VIRUS (RS)...			1		1		1		3
0500 RHINOVIRUS (ALL TYPES).....				2	10			4	16
0600 MYCOPLASMA PNEUMONIAE.....	2	2	1				4		9
0700 ORNITHOSIS-PSITTACOSIS.....	2		2	1					5
0802 COXSACKIEVIRUS A2.....						1			1
0809 COXSACKIEVIRUS A9.....					4				4
0816 COXSACKIEVIRUS A16.....								3	3
0902 COXSACKIEVIRUS B2.....		1							1
0903 COXSACKIEVIRUS B3.....					1				1
0904 COXSACKIEVIRUS B4.....						1	1	1	3
1011 ECHOVIRUS TYPE 11.....			4				3		7
1014 ECHOVIRUS TYPE 14.....								1	1
1022 ECHOVIRUS TYPE 22.....					12				12
1026 ECHOVIRUS TYPE 26.....							1		1
1030 ECHOVIRUS TYPE 30.....				2					2
1099 ECHOVIRUS TYPING PENDING.....					1		1		2
1101 POLIOVIRUS TYPE 1.....				1			1		2
1103 POLIOVIRUS TYPE 3.....						1			1
1104 POLIOVIRUS-VACCINAL STRAIN.....			2		5				7

AUSTRALIA - COMMUNICABLE DISEASES INTELLIGENCE

REPORTING PERIOD - - - BULLETIN NUMBER 2
 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
1200 MUMPS VIRUS.....	1	2	3	3		1	4		14
1300 HERPES VIRUS GROUP-NOT TYPED.....	1			1		1			3
1301 HERPES SIMPLEX VIRUS-NOT TYPED.....	9	3		2	2	1	13	14	44
1302 EPSTEIN-BARR VIRUS (EB VIRUS).....						1			1
1303 VARICELLA-ZOSTER VIRUS.....	2		1			1	1	1	6
1306 HERPES SIMPLEX TYPE 1.....	1		4	17		4			26
1307 HERPES SIMPLEX TYPE 2.....	23			19		5			47
1399 HERPES VIRUS TYPING PENDING.....			2			3			5
1401 COXIELLA BURNETI.....	13						9		22
1502 PICORNA VIRUS-NOT TYPED.....								2	2
1514 MOLLUSCUM CONTAGIOSUM.....						1			1
1515 CONTAGIOUS PUSTULAR DERMATITIS (ORF VIRUS).....						1			1
1521 MEASLES VIRUS.....	1				1		2		4
1522 RUBELLA VIRUS.....			2			4	2	1	9
1530 HEPATITIS A VIRUS.....								1	1
1532 HEPATITIS B ANTIGEN.....	8	1	6	14		9	1	3	42
1535 HEPATITIS A ANTIBODY.....						1			1
1541 CHLAMYDIA A - TRIC TYPE.....	7							2	28
1556 CMV - CYTOMEGALOVIRUS.....	4		6	6	4	4	5	9	38
1562 REOVIRUS (ALL TYPES).....						2			2
1564 ROTAVIRUS.....	7		2	2		5			16
1599 ENTEROVIRUS TYPING PENDING.....			1		3				4
SINDBIS VIRUS							1		1
ROSS RIVER VIRUS							52		52
ASTROVIRUS				1					1
SMALL VIRUS (LIKE) PARTICLE	1			1	1				3
ARBO. GROUP B.				1					1
Total.....	86	16	46	79	61	57	119	75	539

AUSTRALIA - COMMUNICABLE DISEASES INTELLIGENCE

PERIOD : / / to / /

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; 39 -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				
1104 POLIOVIRUS-VACCINAL STRAIN....	2					1	2				1
1200 MUMPS VIRUS.....	1	2		3							
1300 HERPES VIRUS GROUP-NOT TYPED..											2
1301 HERPES SIMPLEX VIRUS-NOT TYPED	5			1				1			20
1302 EPSTEIN-BARR VIRUS (EB VIRUS) .	1										
1303 VARICELLA-ZOSTER VIRUS.....	1	1									4
1306 HERPES SIMPLEX TYPE 1.....	1	2						1	1	1	13
1307 HERPES SIMPLEX TYPE 2.....										1	2
1401 COXIELLA BURNETI.....	11	1									
1502 PICORNA VIRUS-NOT TYPED.....							2				
1515 CONTAGIOUS POSTULAR DERMATITIS (ORF VIRUS).....											1
1521 MEASLES VIRUS.....											3
1522 RUBELLA VIRUS.....	1										6
1530 HEPATITIS A VIRUS.....								1			
1532 HEPATITIS B ANTIGEN.....	20							22			
1535 HEPATITIS A ANTIBODY.....								1			
1541 CHLAMYDIA A - TRIC TYPE.....	21										
1556 CMV - CYTOMEGALOVIRUS.....	14	7						2		6	
1562 REOVIRUS (ALL TYPES).....							2				
1564 ROTAVIRUS.....							16				
ROSS RIVER VIRUS											15
ASTROVIRUS							1				
SMALL VIRUS (LIKE) PARTICLE	1						2				
ARBO. GROUP B.								1			
Total.....	98	67	1	9		5	46	30	2	8	71

AUSTRALIA - COMMUNICABLE DISEASES INTELLIGENCE

PERIOD : / / to / / ...
 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 ...

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VIRUS OR VIRAL ANTIGEN	Eye	Gen-ital	Endo/sal gland	RES	Muscle/joint	Con-genital	PUO	Fever/malaise	Other	SIDS
0100 ADENOVIRUS NOT TYPED.....	1		1	1			1	1		
0101 ADENOVIRUS TYPE 1.....	1						1	1		
0102 ADENOVIRUS TYPE 2.....								1		
0103 ADENOVIRUS TYPE 3.....			1							
0107 ADENOVIRUS TYPE 7.....	2							1		
0108 ADENOVIRUS TYPE 8.....	2									
0119 ADENOVIRUS TYPE 19.....	2									
0302 PARAINFLUENZA VIRUS TYPE 2....									1	
0303 PARAINFLUENZA VIRUS TYPE 3....										2
0400 RESPIRATORY SYNCYTIAL VIRUS (RS).....								2		
0500 RHINOVIRUS (ALL TYPES).....					1			1		
0700 ORNITHOSIS-PSITTACOSIS.....								1		
0802 COXSACKIEVIRUS A2.....								1		
0809 COXSACKIEVIRUS A9.....								2		1
1011 ECHOVIRUS TYPE 11.....								1		
1026 ECHOVIRUS TYPE 26.....								1		
1030 ECHOVIRUS TYPE 30.....								1		
1104 POLIOVIRUS-VACCINAL STRAIN....										2
1200 MUMPS VIRUS.....			6	1				2		
1301 HERPES SIMPLEX VIRUS-NOT TYPED	2	13						1	1	
1306 HERPES SIMPLEX TYPE 1.....	1	2						4		
1307 HERPES SIMPLEX TYPE 2.....		45								
1401 COXIELLA BURNETI.....					1		3	8		
1502 PICORNA VIRUS-NOT TYPED.....	1									
1514 MOLLUSCUM CONTAGIOSUM.....		1								
1521 MEASLES VIRUS.....					1		1			
1522 RUBELLA VIRUS.....			1		2					

AUSTRALIA - COMMUNICABLE DISEASES INTELLIGENCE

PERIOD : / / to / / ...
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	Gen-ital	Endo/sal gland	RES	Muscle/joint	Con-genital	PUO	Fever/mal-aise	Other	SIDS
1541 CHLAMYDIA A - TRIC TYPE.....		7								
1556 CMV - CYTOMEGALOVIRUS.....		1	1			3	2	1	2	1
SINDBIS VIRUS					1					
ROSS RIVER VIRUS					52					
ARBO. GROUP B.								1		
Total.....	12	69	10	2	58	3	8	31	4	6

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	11	202	89	142	60	9	50	6	569	759
Shigella infections		5	33	14	21		20	6	99	141
Smallpox									—	—
Syphilis	130	9	116	60	21		68	2	406	647
Tetanus									—	—
Trachoma									—	—
Tuberculosis (all forms)	129	44	37	22	15	1	5	2	255	348
Typhoid fever		1 CARRIER							1 CARRIER	3+1 CARRIER
Typhus (all forms)									—	—
Vibrio parahaemolyticus infections									—	—
Yellow Fever									—	—
Yersinia enterocolitica infections									—	—

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.

* Corrections made to the Cumulative Total since last report

Arbovirus infection + 1 case for Vic

Q. fever - 1 case for Vic