AUSTRALIA Communicable Diseases Intelligence

Bulletin Number 79/23
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Virus reports this period: 800. Reports of interest include:

- Measles - 27 reports (79/22-7; 79/21-9). An outbreak of approximately 80 cases of measles, some normal and others atypical, has been reported by the Department of Health, Northern Territory, in the Yuendumu Aboriginal settlement near Alice Springs. Young Aboriginal children and babies have been affected, with 20% being in infants under 12 months of age. There have only been sporadic cases in Alice Springs and other settlements.

  Support for the existence of the outbreak was given by reports received this period from the Institute of Medical and Veterinary Science, Adelaide, which showed sero-conversions to measles in nine cases, eight with a rising CF titre and one single high titre.

  Epidemiological studies are continuing.

- Arbovirus infections - 9 reports, which include two cases of Ross River virus infection reported by Fairfield Hospital and confirmed by positive IgM, from the Mildura area (blood samples taken in October 1979), and one group B arbovirus detection from a 30 year old female with clinical dengue fever, also from Fairfield. She had recently spent a week each in Sri Lanka and Indonesia.

- Rubella - 74 reports. This indicates a continuation of the rise seen over the past few reporting periods.

  Prior to August there were less than 10 reports each period. Between August and November last year, there were also comparatively few reports, namely between 2 and 14 per period.

  Reports this period have been received from all States.

- Lymphogranuloma venereum - one from Western Australia, in a 30 year old male with a six week history of an abcess in the groin and a CF titre of $\geqslant$1:320. There were four reports of LGV in 1978 and two previous reports this year.

- Mumps virus was detected by the State Health Laboratory, Perth, from a genital source from a woman attending a venereal disease clinic.

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Malaria prophylaxis

The Commonwealth Department of Health has issued the following guidelines.

Drug prophylaxis for areas with chloroquine resistant malaria

The number of cases of malaria imported into Australia continues to increase. The proportion due to chloroquine resistant Plasmodium falciparum infections is also increasing. Cases of resistant malaria recently have been mainly in travellers returning from Papua New Guinea.

All persons travelling to or living in malaria endemic areas should, as far as possible, avoid being bitten by mosquitoes, thus lessening the risk of infection. Appropriate measures include:

. the wearing of protective clothing, which should cover as much of the body as possible, during hours when mosquitoes are most likely to bite; namely at dusk, during the night and the early hours of the morning;

. the regular application of insect repellant to exposed areas of skin;

. the use of mosquito nets - particularly if the bedroom is not effectively screened;

. the use of insecticidal space sprays both in rooms and and inside mosquito nets prior to retiring, to kill any mosquitoes that may be present.

However, these measures cannot be guaranteed to be 100% effective and it is most important that appropriate drug prophylaxis also be taken.

There is no drug currently available which is entirely suitable for prophylaxis against chloroquine resistant falciparum infections. This poses problems in providing advice on prophylaxis. Factors that have to be taken into consideration for travellers proceeding to areas in which resistance has been reported include the degree of chloroquine resistance, regions involved, the traveller's medical history and the contraindications to the various drug regimens available. The following information is provided to assist in the determination of appropriate advice.

Countries in which chloroquine resistance has been reported:

South East Asia - Papua New Guinea, Philippines, Indonesia (Kalimantan, West New Guinea) Malaysia (Peninsular and Sabah),

Thailand, Vietnam, Laos, Kampuchea, Burma and those parts of India and Bangladesh adjoining Burma.

Africa - East Africa (Kenya, Tanzania).

Central and South America - Panama, Brazil, Colombia, Ecuador, French Guiana, Guyana, Surinam and Venezuela.

Further information on the extent of resistance in affected countries can be obtained from the WHO publication 'Weekly Epidemiological Record', Issue No.22, (ref: WER 1979 54, 164-176). Any subsequent updating should be noted.

General principles for drug prophylaxis

The drug mixture pyrimethamine plus dapsone ('Maloprim') is currently recommended for persons who have no contraindications to its use (see below) and who will be travelling to high risk areas (e.g. Papua New Guinea).

Chloroquine, possibly in increased dosages, should nevertheless be adequate for travellers whose visits will be limited to the 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.

The drug mixture sulphadoxine 500 mg and pyrimethamine 25 mg (Fansidar) is also an effective drug and can be considered for short term prophylaxis. However there have been reports of adverse effects, mainly rashes, following its use for this purpose. (See precautions and contraindications below).

It is possible that the drug 'Mefloquine' might eventually prove to be the drug of choice for prophylactic use in areas where P.falciparum exhibits resistance to chloroquine. It is not available in Australia 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.

Specific preparations

Maloprim - (dapsone, 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 areas of Brazil, Colombia, Ecuador and Venezuela.

As with the other prophylactic drugs, medication should commence 2 weeks prior to departure, and continue for 4-6 weeks after leaving the malarious area.

Dosage and Administration

Adults and children over 10 years:	One tablet each week
Children 5 to 10 years:	½ tablet each week
" 1 to 5 years:	¼ tablet each week

(The dosage should be taken on the same day of each week).

Precautions and contraindications

- This can be used for both short and long term prophylaxis but review by a medical practitioner is advisable after 12 months.

- Although there is no evidence that Maloprim has produced congenital abnormalities in humans when taken during pregnancy it has been shown to have teratogenic effects in animal studies, and therefore is not recommended for use during pregnancy.

- It is not recommended for children under 1 year of age.

Chloroquine

Chloroquine remains the drug of choice for countries in which chloroquine resistant malaria does not occur, is minimal or limited to a few special areas.

Dosage and administration

The usual adult dose is 2 x 250 mg tablets (150 mg base each) once a week, after a meal. In areas where increased dosage is advisable, because of a high level of transmission, this should be a 300 mg base dose (2 tablets) twice a week, or even a 100 mg base dose daily, for adults, with children receiving proportionately lower doses.

Precautions and contraindications

When the larger doses are likely to be taken for a considerable period of time, the possibility of the apparently rare complication 'chloroquine induced retinopathy', should be

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borne in mind. This effect appears to be both age and dose related. It would be advisable for persons aged over 50 who are likely to approach or exceed a total dosage of 100 grams, to have annual eye checks. This is equivalent to approximately 6 years on the usual adult dosage.

Amodiaquine

This is an acceptable alternative to chloroquine, and is given in the same dosage.

Proguanil

If neither chloroquine nor amodiaquine can be used, this can be used but there is often resistance to this drug. Dose - 100 mg daily (for adults) and proportionately smaller doses for children.

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

The main value of this drug is in the treatment of acute attacks of chloroquine resistant P.falciparum malaria, in conjunction with quinine. It should preferably be reserved for this purpose.

It can be considered, however, for prophylaxis for short term periods - i.e. less than three months, providing the risks of its long acting sulphonamide component are borne in mind.

Dosage and administration

Adults and children over 12 years:	1 tablet each week
Children 9 to 12 years:	¾ tablet each week
" 6 to 8 years:	½ tablet each week
1 to 4 years	¼ tablet each week

Precautions and contraindications

- It should not be taken for more than 3 months at a time.
- It should not be taken during pregnancy or while breast feeding.
- It is not to be used for children aged less than 1 year.
- It is not recommended in cases of sensitivity to sulphonamides or sulphones (some who are sensitive to sulphonamides can take sulphones without ill effect).
- It should be used only under medical supervision in persons with kidney or liver disease, and those with a predisposition to folate deficiencies.

Special groups

Pregnancy

Whilst it is not normal practice to recommend drugs during pregnancy, the major danger in this case is not in drug prophylaxis but in malaria. Pregnancy is not a contraindication to the use of chloroquine, amodiaquine or proguanil. In the recommended doses for prophylaxis, any of these three drugs can safely be taken at all stages of pregnancy. However, as mentioned above both 'Maloprim' and 'Fansidar' are contraindicated in pregnancy.

Pregnant women should therefore be given chloroquine, warned that they are not receiving maximum protection, and advised to take particularly stringent precautions against mosquito bites.

Infants and Children

It is doubtful whether nursing infants would get sufficient drug levels from breast milk of mothers on routine chemoprophylaxis and so it would be advisable to give infants a carefully assessed dose of an appropriate 'infant formula' - other than Maloprim or Fansidar - unless the mother is on the higher doses quoted above.

'Nivaquine syrup' (containing chloroquine) and 'Camoquin infant formula tablets (containing amodiaquin) are available in Australia. When tablets are used, the amount corresponding to the correct dose should be crushed and given in milk or other food. However, as in the case of pregnant women, only partial protection is being achieved.

These preparations can also be used for older children.

Both pyrimethamine and dapsone have been found in breast milk but the amounts are considered to be insufficient to contraindicate the use of Maloprim in lactating mothers.

If children (or adults) are unable to take appropriate drug prophylaxis, careful consideration should be given to the necessity for travel to these malarious areas. If such travel cannot be avoided, particularly stringent precautions should be taken at all times to avoid being bitten by mosquitoes. In the case of infants, this would also include covering occupied cots or beds with mosquito nets (in good repair) both by day and by night, ensuring they are well tucked in, and the application of effective insect repellents to areas of exposed skin.

Salmonella isolations (from the monthly reports for June-September from the Microbiological Diagnostic Unit, University of Melbourne)

S. typhi - from 13 patients, including:

phage type untypable:

- from blood culture from a 26 year old man with fever 5 weeks after returning from Indonesia (N.S.W. - June)
- from blood culture of 24 year old male from Pakistan who had recently arrived in Australia. Further isolates from blood and faeces from this patient proved to be S. typhi phage type degraded (N.S.W. September)
- from the gall bladder of a female carrier after cholecystectomy (N.S.W. September)
- from blood culture of 21 year old nurse with P.U.O. recently returned from trip to Malaysia (N.S.W. September)
- from a 27 year old male refugee on arrival from a camp in Malaysia (Vic. - July)

phage type E_2 - from two other refugees, one from Singapore and the other from a camp in Malaysia (Vic. - July)

phage type M_4 - from a refugee from a camp in Indonesia (Vic. - July)

- a mixed infection, phage type untypable and phage type M_2 in a 43 year old male refugee (Vic. - August)

phage type E_1 - from faeces of 51 year old female patient in a psychiatric hospital who was one with several others in the ward with diarrhoea. Widal results on the patient's serum suggest that she may be a previously undetected carrier. There were three other carriers in the ward, two phage type A, one phage type E_1. Screening of patients and staff is continuing (Vic. - September).

S. paratyphi - 4 reports, including:

phage type 6 - from blood culture from 23 year old woman who presented with fever and diarrhoea 2 weeks after returning from India (Vic. - July)

phage type 4 - from faeces of 19 year old female refugee with 10 day history of P.U.O., headache and anorexia after arrival in Australia (Vic. - August)

phage type untypable - from blood culture and faeces of 45 year old female with fever and diarrhoea after travel in Philippines and Hong Kong (Vic. - September)

phage type 1 - from blood culture of 25 year old male with fever nine days after returning from Indonesia (Vic. - September)

S. paratyphi B

phage type Dundee Var 1 - from faeces of 16 year old girl on two occasions. She had had persistent diarrhoea since returning from Bali early in May (N.S.W. - June)

- four possible isolates of S. paratyphi B phage type Dundee from a 4 year old girl. However these may be S. java. All the isolates were d-tartrate positive but as they showed clear reactions with the S. paratyphi B phages they have been sent to the W.H.O. International Enteric Phage Typing Centre in London (Vic. - August)

S. typhimurium

phage type 12A - isolated from 10 elderly patients in the South Australian hospital mentioned in CDI 79/10 and 79/12. The multiple antibiotic resistant strain was isolated from the faeces of 7 patients, and from blood culture of one patient who also had an antibiotic sensitive strain in his faeces (S.A. - June, July)

Other Salmonellae

. Three isolations of sucrose positive variants of S. senftenberg from coconut (Vic. - August. Previous report in CDI 79/17) and

. a sucrose positive strain of S. infantis from a two year old boy with gastroenteritis (Vic. - June)

(Reports of interest cont'd from page 1 - Mumps virus)

It was detected by continuous cell line, and was confirmed by re-isolation from the original specimen. Although she had no obvious lesions at the time of collection, she had had vulval lesions two weeks previously, and had been in contact with a child with mumps.

. Coxsackie A9 was isolated from a leg ulcer on a 19 year old male, by the ICPMR, Sydney.

. A case of varicella encephalitis was reported in a 3 year old boy by the Prince Henry Hospital in Sydney.

. Adenovirus type 19 - an isolation of this organism from a genital source has been reported by the Institute of Medical and Veterinary Science, Adelaide. Previously such reports have been received only from Western Australia. These were detailed in CDI 79/21.

AUSTRALIA - COMMUNICABLE DISEASES INTELLIGENCE

REPORTING PERIOD - 1-11-79 - 14-11-79 BULLETIN NUMBER 79-23

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	1		6	1	4		4	3	19
0101 ADENOVIRUS TYPE 1						1			1
0102 ADENOVIRUS TYPE 2	3			1		4			8
0103 ADENOVIRUS TYPE 3	1					1		2	4
0104 ADENOVIRUS TYPE 4				1		2			3
0105 ADENOVIRUS TYPE 5						2		2	4
0106 ADENOVIRUS TYPE 6								1	1
0107 ADENOVIRUS TYPE 7	1			2		1		1	5
0114 ADENOVIRUS TYPE 14			1						1
0119 ADENOVIRUS TYPE 19				3		2			5
0199 ADENOVIRUS TYPING PENDING					1	2			3
0201 INFLUENZA A VIRUS	2		1			1		1	5
0203 INFLUENZA B VIRUS							5	4	9
0204 INFLUENZA C VIRUS							1		1
0302 PARAINFLUENZA VIRUS TYPE 2					1				1
0303 PARAINFLUENZA VIRUS TYPE 3	2				13	1		1	17
0399 PARAINFLUENZA VIRUS TYPING PENDING						1			1
0400 RESPIRATORY SYNCYTIAL VIRUS (RS)	1			2	2	14	4		23
0500 RHINOVIRUS (ALL TYPES)				3	2	4	3		12
0600 MYCOPLASMA PNEUMONIAE	8		1	1		9	12	7	38
0700 ORNITHOSIS-PSITTACOSIS	4		1			1			6
0800 COXSACKIEVIRUSES GROUP A - NOT TYPED							6		6
0809 COXSACKIEVIRUS A9	1								1
0902 COXSACKIEVIRUS B2							7		7
0903 COXSACKIEVIRUS B3				2		2			4
0904 COXSACKIEVIRUS B4		1	1	1		3			6
1004 ECHOVIRUS TYPE 4	1								1
1005 ECHOVIRUS TYPE 5	2								2
1006 ECHOVIRUS TYPE 6						1			1
1011 ECHOVIRUS TYPE 11			5	13		8	4		30
1014 ECHOVIRUS TYPE 14						3			3

AUSTRALIA - COMMUNICABLE DISEASES INTELLIGENCE

REPORTING PERIOD - 1-11-79 - 14-11-79 BULLETIN NUMBER 79-23

VIRAL IDENTIFICATIONS FROM CONTRIBUTING LABORATORIES-CONTINUED

VIRUS OR VIRAL ANTIGEN	ICPMR (NSW)/ WVH (ACT)	RAHC (NSW)	PBH/ POW (NSW)	FAIR-FIELD (VIC)	RCH (VIC)	IMVS (SA)	STATE LAB (QLD)	STATE LAB (WA)	Total
1019 ECHOVIRUS TYPE 19			1						1
1022 ECHOVIRUS TYPE 22	1								1
1030 ECHOVIRUS TYPE 30				1			1		2
1033 ECHOVIRUS TYPE 33						2			2
1101 POLIOVIRUS TYPE 1				1			1		2
1102 POLIOVIRUS TYPE 2							1		1
1103 POLIOVIRUS TYPE 3						1		1	2
1200 MUMPS VIRUS	9	2	3	3			9	1	27
1300 HERPES VIRUS GROUP-NOT TYPED				1		4			5
1301 HERPES SIMPLEX VIRUS-NOT TYPED	9	2		2	2		16	26	57
1303 VARICELLA-ZOSTER VIRUS	5		2			1			8
1306 HERPES SIMPLEX TYPE 1	4		1	8		12			25
1307 HERPES SIMPLEX TYPE 2	42		6	29		12			89
1399 HERPES VIRUS TYPING PENDING				2		1			3
1401 COXIELLA BURNETI	13			6		2	17	1	39
1512 VACCINIA VIRUS		1							1
1514 MOLLUSCUM CONTAGIOSUM								1	1
1521 MEASLES VIRUS				3		12	12		27
1522 RUBELLA VIRUS	10		2	8	1	12	26	15	74
1530 HEPATITIS A VIRUS								7	7
1532 HEPATITIS B ANTIGEN			10	22		2	8	13	55
1535 HEPATITIS A ANTIBODY						9			9
1541 CHLAMYDIA A - TRIC TYPE								14	14
1543 CHLAMYDIA A - LGV TYPE								1	1
1555 PAPOVAVIRUS GROUP (PAPILLOMA-HUMAN WART)	1								1
1556 CMV - CYTOMEGALOVIRUS	3	1	3	30	3	3	2	4	49
1563 CORONAVIRUS								1	1
1564 ROTAVIRUS	1		2	1	4	7		8	23
1599 ENTEROVIRUS TYPING PENDING		4	7		16	7			34
ROSS RIVER VIRUS				3			5		8
ASTROVORUS	1								1

AUSTRALIA - COMMUNICABLE DISEASES INTELLIGENCE 3

REPORTING PERIOD - 1-11-79 .14-11-79 BULLETIN NUMBER 79-23

VIRAL IDENTIFICATIONS FROM CONTRIBUTING LABORATORIES-CONTINUED

VIRUS OR VIRAL ANTIGEN	ICPMR (NSW)/ WVH (ACT)	PAHC (NSW)	PHH/ POW (NSW)	FAIR-FIELD (VIC)	ACH (VIC)	IMVS (SA)	STATE LAB (QLD)	STATE LAB (WA)	Total
SMALL VIRUS (LIKE) PARTICLE	1								1
ARBO. GROUP B.				1					1
Total.....	127	11	53	151	49	150	144	115	800

AUSTRALIA - COMMUNICABLE DISEASES INTELLIGENCE 5

REPORTING PERIOD - 1-11-79 - 14-11-79 BULLETIN NUMBER 79-23
VIRAL IDENTIFICATIONS CATEGORISED INTO SOURCE SPECIMENS

VIRUS OR VIRAL ANTIGEN	FA	LL	NA	CS	SK	EY	UR	BR	GE	OT	TOTAL
0100 ADENOVIRUS NOT TYPED	6	11	2								19
0101 ADENOVIRUS TYPE 1	1										1
0102 ADENOVIRUS TYPE 2	3		4				1				8
0103 ADENOVIRUS TYPE 3			2			2					4
0104 ADENOVIRUS TYPE 4	1		1			1					3
0105 ADENOVIRUS TYPE 5	2		2								4
0106 ADENOVIRUS TYPE 6	1										1
0107 ADENOVIRUS TYPE 7			3			2					5
0114 ADENOVIRUS TYPE 14	1										1
0119 ADENOVIRUS TYPE 19						4			1		5
0199 ADENOVIRUS TYPING PENDING	1		1			1					3
0201 INFLUENZA A VIRUS		5									5
0203 INFLUENZA B VIRUS		5	4								9
0204 INFLUENZA C VIRUS		1									1
0302 PARAINFLUENZA VIRUS TYPE 2			1								1
0303 PARAINFLUENZA VIRUS TYPE 3			17								17
0399 PARAINFLUENZA VIRUS TYPING PENDING			1								1
0400 RESPIRATORY SYNCYTIAL VIRUS (RS)		4	19								23
0500 RHINOVIRUS (ALL TYPES)			11				1				12
0600 MYCOPLASMA PNEUMONIAE		38									38
0700 ORNITHOSIS-PSITTACOSIS		6									6
0800 COXSACKIEVIRUSES GROUP A - NOT TYPED		6									6
0809 COXSACKIEVIRUS A9					1						1
0902 COXSACKIEVIRUS B2	4		4	1			1				10
0903 COXSACKIEVIRUS B3	2			2							4
0904 COXSACKIEVIRUS B4	2		3	2							7
1004 ECHOVIRUS TYPE 4							1				1
1005 ECHOVIRUS TYPE 5				2							2
1006 ECHOVIRUS TYPE 6	1										1
1011 ECHOVIRUS TYPE 11	14		10	11							35
1014 ECHOVIRUS TYPE 14	3										3
1019 ECHOVIRUS TYPE 19	1										1

AUSTRALIA - COMMUNICABLE DISEASES INTELLIGENCE 6

REPORTING PERIOD - 1-11-79 - 14-11-79 BULLETIN NUMBER 79-23
VIRAL IDENTIFICATIONS CATEGORISED INTO SOURCE SPECIMENS-CONTINUED

VIRUS OR VIRAL ANTIGEN	FA	BL	NA	CS	SK	EY	UR	BR	GE	OT	TOTAL
1022 ECHOVIRUS TYPE 22	1										1
1030 ECHOVIRUS TYPE 30			2								2
1033 ECHOVIRUS TYPE 33	1		1								2
1101 POLIOVIRUS TYPE 1	1		1								2
1102 POLIOVIRUS TYPE 2										1	1
1103 POLIOVIRUS TYPE 3	2										2
1200 MUMPS VIRUS		15	3	6					1	4	29
1300 HERPES VIRUS GROUP-NOT TYPED					4	1					5
1301 HERPES SIMPLEX VIRUS-NOT TYPED		2	7		25	1			18	6	59
1303 VARICELLA-ZOSTER VIRUS		6			2						8
1306 HERPES SIMPLEX TYPE 1			6		12				4	3	25
1307 HERPES SIMPLEX TYPE 2	2				4				83		89
1399 HERPES VIRUS TYPING PENDING					1				1	1	3
1401 COXIELLA BURNETI		39									39
1512 VACCINIA VIRUS					1						1
1514 MOLLUSCUM CONTAGIOSUM										1	1
1521 MEASLES VIRUS		24	3								27
1522 RUBELLA VIRUS		70	2							2	74
1530 HEPATITIS A VIRUS		7									7
1532 HEPATITIS B ANTIGEN		55									55
1535 HEPATITIS A ANTIBODY		9									9
1541 CHLAMYDIA A - TRIC TYPE									14		14
1543 CHLAMYDIA A - LGV TYPE		1									1
1555 PAPOVAVIRUS GROUP (PAPILLOMA-HUMAN WART)					1						1
1556 CMV - CYTOMEGALOVIRUS		6	6				26		3	16	57
1563 CORONAVIRUS		1									1
1564 ROTAVIRUS	23										23
1599 ENTEROVIRUS TYPING PENDING	20		9	9	1						39
ROSS RIVER VIRUS		8									8
ASTROVIRUS	1										1
SMALL VIRUS (LIKE) PARTICLE	1										1
ARBO. GROUP B. ...		1									1
Total	95	320	125	33	52	12	30		125	34	826