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Communicable Diseases Intelligence

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Contents:

Editor *Dr Ian Welch*

VIRUSES, CHLAMYDIAS, COXIELLAS, RICKETTSIAS AND MYCOPLASMAS REPORTING SCHEME: A total of 1326 reports were processed during this period.

Three reports of Q fever were received during this period: two males aged 20 and 29 years, and one female aged 39 years. No exposure details were provided.

Thirty-nine reports of influenza A, including 7 influenza A (H3N2) and 34 reports of influenza B were received during this period.

OVERSEAS BRIEF: DENGUE FEVER

Vanuatu

A sharp increase in dengue fever cases has been reported in the vicinity of Vila, with 63 outpatients and 19 admissions to Vila Central Hospital being reported during the week ending 20 October 1989.

French Polynesia

Dengue fever is again reaching epidemic proportions in French Polynesia. Following the 1988-1989 epidemic of dengue serotype 1, dengue serotype 3 appeared in April 1989. An average of 2 cases per week were reported in June/July, 5 per week in August and 30 laboratory-confirmed cases per week in October,.with 177

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- Figures given may be subject to revision.

clinical cases reported in one week in late October. Of cases reported since the beginning of September, haemorrhagic symptoms have been reported in up to 49%, mainly in children.

SALMONELLA SURVEILLANCE, AUSTRALIA: NON-HUMAN ISOLATES, ANNUAL REPORT, 1988

(Contributed by the National Salmonella Surveillance Scheme and the *Salmonella typhi* and Enteric Phage Typing Reference Laboratory, Microbiological Diagnostic Unit (MDU), University of Melbourne)

A total of 3,862 notifications were received for 1988 (see Table 1). This represents an increase of 73% over the notifications received in 1987 (2231). Resumption of notification of isolates from environmental, animal, potable water and food sources by the Public Health and Enteric Diseases Unit in Western Australia accounts for the greater part of this increase with Queensland (101%) and Victoria (51%) also increasing their totals for the year in all categories. There was a decrease in the number of notifications received from New South Wales (12%), South Australia (68%), Tasmania (40%) and the Northern Territory (48%).

Table 1: Total number of non-human notifications received, National Salmonella Surveillance Scheme, 1988

SOURCE	ACT	NSW	VIC	QLD	SA	WA	TAS	NT	TOTAL
ANIMAL	-	82	451	34	30	448	26	80	1151
FOOD									
Egg	-	3	137	4	-	-	-	-	144
Milk	-	-	106	2	-	16	-	-	124
Other food*	1	84	131	95	1	572	5	37	926
ENVIRONMENT									
Dairy	-	1	464	-	-	-	-	-	465
Other	-	-	11	-	1	115	48	1	176
Water	-	171	226	24	-	451	4	-	876
Total	1	341	1526	159	32	1602	83	118	3862

* includes 221 islolates from animal feed.

Animal Isolates

Of the total of 1151 notifications from animals, 1136 were of salmonella. There were 14 notifications of Campylobacter species (8 dogs, 4 pigs, a kangaroo and a wombat) and one of Shigella (*Sh flexneri* var y) from a primate.

Salmonella notifications from animals are shown in Table 2. The top five salmonella serovars from animals are shown in Table 3 and Figure 1. Only *S dublin* (cattle) and *S sofia* [SGII] (chickens) remain from the top five of 1987. Of *S infantis* isolates, 91% were from chickens in Western Australia.

The majority of isolates of *S arizonae* [SGIII] and those of *S houten* [SGIV] were from reptiles or native animals. Apart from *S sofia* [SGII] (chickens), most isolates of salmonella from subgenus II were also from native animals and foxes (WA), in the wild.

Table 2: Salmonella notifications from animals, National Salmonella Surveillance Scheme, 1988

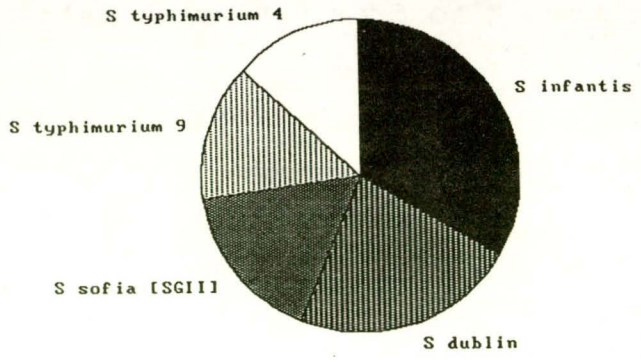
Animal Type	No.	No. of serovar	Phage type STM	Phage type SBM	Most common sero/ phage-type(No.)	Origin of highest %
Cattle	338	13	18		S dublin (102)	Vic 82%
Sheep	79	14	12	3	S bovismorbificans 23 (15)	WA 72%
Pigs	39	17	1		S anatum (13)	NSW, WA 38%
Goats	9	6	1		S dublin (3)	Vic 100%
Deer	2	2	1			
Horses	28	6	10	1	S typhimurium 30 (5)	WA 39%
Poulty:						
- chicken	265	9	6		S infantis (145)	WA 63%
- other	8	2	3			Vic 57%
Cats	12	7	1	1	S muenchen (3)	Vic 33%
Dogs	20	13	2		S havana (3)	WA 40%
Birds	28	5	5		S typhimurium 99 (11)	Vic 46%
Native animals	167	33	6	3	S potsdam (21)	WA 82%
Reptiles:						
- crocodiles	60	20			S enteritidis (16)	NT 100%
- other	21	15			S houten [SGIV] (5)	Vic 71%
Foxes	33	15	1		S rubislaw (10)	WA 100%
Amphibians	20	7			S mgulani (11)	WA 100%
Rodents	1	1	1			
Other mammals:						
- whales	4	1			S tennessee (4)	WA 100%
- otters	2	1		1	S typhimurium 22	WA 100%
Total	1136					

Table 3: Top five salmonella serovars isolated from animals, National Salmonella Surveillance Scheme, 1988

Serovar/ phage type	No.	% of total	Most common animal	State distribution
S infantis	151	13	chickens 96%	WA 134, Vic 13
S dublin	105	9	cattle 97%	Vic 89, NSW 13
S sofia [SGII]	74	6.5	chickens 99%	Vic 44, WA 27
S typhimurium 9	64	5.5	cattle 100%	Vic 54
S typhimurium 4	59	5	cattle 99%	Vic 52
	453	39		

Note: S infantis and S typhimurium phage types 9 and 4 were not in the top five animal isolates for 1987.

Figure 1: Top five salmonella serovars isolated from animals, National Salmonella Surveillance Scheme, 1988



Food Isolates

There were no notifications of campylobacter or shigella isolates from food sources. There were 705 notifications of salmonella isolates from human foodstuffs, 144 from eggs, 124 from milk and dairy products and a further 221 isolates from animal feeds. For a complete breakdown of isolates from all categories of human foods see Table 4. *S senftenberg* was the most common serovar isolated from animal feeds.

Table 4: Notifications of salmonella isolates from human foodstuffs, National Salmonella Surveillance Scheme, Australia, 1988

Food Item	No. of notif.	% total foods	No. of serovars	Most common serovar	State of origin %
Milk	124	12	9	S anatum (38)	Vic 98%
Eggs	144	14	8	S bovismorbificans (77)	Vic 95%
Meat Products:					
- chicken	342	32	17	S sofia [SGII] (225)	WA 69%
- other poultry	2		1	S typhimurium 6 (2)	Vic
- beef	108	11	32	S anatum (35)	Qld 45%
- buffalo	15		4	S anatum (5)	NT 80%
- mutton	16		7	S havana (6)	Vic/WA
- pork	50		10	S anatum (24)	WA 86%
- horse	6		3	S give, S havana	Qld 100%
- crocodile	4		2	S singapore (2)	NT 75%
- kangaroo	21		9	S muenchen (10)	Qld/WA
- miscellaneous	28	3	8	S anatum (10)	
Salad vegetables	2		1	S welikade (2)	Vic
Nuts	1		1	S potsdam	SA
Shellfish*	28		7	S waycross (9)	NSW 96%
Miscellaneous	14				
Imported Foods	68			See Table 7	

* Of Australian origin. Other serovars were S bovismorbificans 21 (6); S muenchen (3); S orientalis (3); S potsdam (3); and S warragul (3) all from New South Wales, and S singapore (mussels) from Victoria.

The top five salmonella serovars isolated from human foods, excluding milk and eggs, are given in Table 5 and Figure 2. Their distribution among the various food categories is given in Table 6. For the purposes of this report only the isolates from human food have been used to calculate the top five salmonella serovars.

Table 5: Top five salmonella serovars in human foods (excluding milk and eggs) of Australian origin, National Salmonella Surveillance Scheme, 1988

Serovar	No.	% of total foods	Origin %
S sofia [SGII]	228	31%	WA 75%, Vic 12%
S anatum	85	11%	WA 43%, Vic 31%
S infantis	38	5%	WA 68%, Vic 18%
S muenchen	31	4%	WA 61%, NSW 32%
S havana	23	3%	Qld 35%, Vic/NT 26%
	405	54%	

Figure 2: Top five salmonella serovars in human foods (excluding milk and eggs) of Australian origin, National Salmonella Surveillance Scheme, 1988

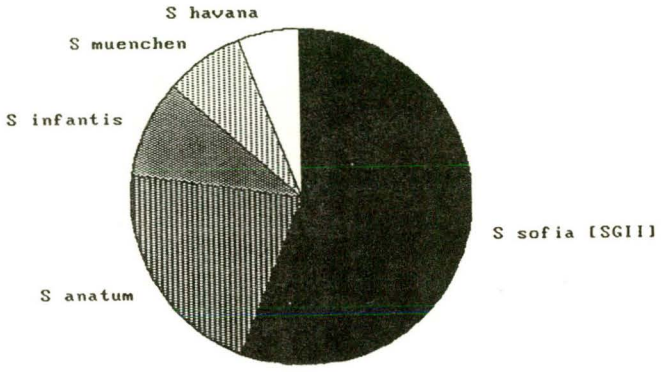


Table 6: Distribution of top five salmonella serovars in human foods (excluding milk and eggs) of Australian origin, National Salmonella Surveillance Scheme, 1988

Food item	S anatum	S havana	S infantis	S meunchen	S sofia[SGII]
Beef	35	7	3	5	1
Buffalo	5	4	2	-	-
Chicken	4	-	26	5	225
Grain	-	-	-	-	2
Horse	2	2	-	-	-
Kangaroo	2	1	1	10	-
Misc. Meats	10	2	3	2	-
Mutton	1	6	1	-	-
Pork	24	-	2	4	-
Shellfish	-	-	-	3	3
Vegetable	-	1	-	2	-
Other (mixed)	2	-	-	-	-

Table 7: Isolates from Imported Foodstuffs, National Salmonella Surveillance Scheme, 1988

Serovar	Food Item	Country of Origin	Notified from
S agona (2)	coconut	Malaysia	Vic
S agona (2)	cooked fish balls	Thailand	Qld
S agona (3)	sesame seeds	Mexico	Vic
S anatum	frozen scallops	Vietnam	Qld
S berta	blue lobster tail	Indonesia	WA
S cerro (2)	fish meal	Chile	WA
S cubana	fish meal	Chile	WA
S derby	clam	Indonesia	WA
S havana	sesame seeds	Mexico	Vic
S havana	fish meal	Chile	WA
S java	coconut	Malaysia	WA
S johannesburg (2)	fish meal	Chile	WA
S lexington (2)	sesame seeds	Mexico	Vic
S maastricht	gum arabic	West Africa	Vic
S matopeni (4)	frozen prawns & shrimps	Malaysia	Qld
S mbandaka	cooked fish balls	Thailand	Qld
S mbandaka	fish meal	Chile	WA
S muenster (2)	fish meal	Chile	WA
S newport (2)	clams	Indonesia	WA
S oranienburg	sesame seeds	Mexico	Vic
S oranienburg	fish meal	Chile	WA
S schwarzengrund	fish meal	Chile	WA
S senftenberg (3)	sesame seeds	Mexico	Vic
S senftenberg (7)	fish meal	Chile	WA
S singapore (8)	frozen cooked prawns	Malaysia	Vic
S singapore (1)	frozen cooked prawns	not spec.	Vic
S stanley	coconut	Malaysia	WA
S stanley	fish meal	Chile	WA
S tennessee	cooked fish balls	Thailand	Qld
S tennessee (5)	fish meal	Chile	WA
S teshie	gum arabic	West Africa	Vic
S weltevreden	prawns	Malaysia	Qld
S weltevreden (5)	frozen cooked prawns	Thailand	Qld

Eggs

Of 144 notifications received for the year, 137 were from Victoria. The most common serovar isolated was *S bovismorbificans* (25) and *S bovismorbificans* phage types 23 (30 isolates) and 4 (19 isolates). There were 20 isolates of *S typhimurium* 135 and 10 of *S typhimurium* 26.

Milk and Dairy Products

There were 124 notifications from milk and dairy products, the majority of which were from Victoria. There were 16 isolates of *S cholerae-suis* var kunzendorf var australia, a new serovar which is specific to Western Australia, from goats milk. The other serovars were *S agona* (11); *S anatum* (38); *S bredeney* (17); S derby (2); *S dublin* (4); *S havana* (7); *S johannesburg* (23); *S orion* (2); *S typhimurium* (4). Only three of the Victorian isolates were from liquid milk (all *S dublin*); the remainder were from powdered products.

Association of Human Isolates with Foodstuffs

In Table 8 the number and source of any non-human isolates from foods are listed for the 21 most common human isolates notified in 1988.

Table 8: Top 21 human salmonella isolates and associated foodstuffs, National Salmonella Surveillance Scheme, 1988

Serovar (no of Human isolates)	State/ highest incidence	No./isolates from foodstuffs	Foodstuffs
S virchow (293)	Qld	3	beef (Qld)
S heidelberg (268)	Qld*	5	beef (Qld)
S typhimurium 9 (244)	Vic	4	eggs (Vic), mutton (Tas)
S typhimurium 135 (229)	NSW/Vic*	37	eggs (Vic, 28)
S anatum (201)	WA*	122	milk 38, beef 35, pork 24
S saintpaul (199)	Qld	2	beef, lamb, eggs
S muenchen (184)	WA	32	shellfish, chicken, beef
S chester (176)	Qld/WA	7	beef 4
S typhimurium 170 (152)	Qld*		none
S birkenhead (137)	Qld*		none
S potsdam (133)	Qld*	5	oysters (NSW), nuts (SA)
S infantis (128)	all	63	chicken 26, eggs 6
S singapore (110)	NSW/Vic*	44	mussels, chicken, eggs
S typhimurium 4 (98)	NSW*	3	beef 2
S havana (97)	WA	35	milk 7, beef 7, mutton 6
S typhimurium 179 (76)	Vic/NSW*	10	chicken
S enteritidis (71)	Qld		none
S adelaide (70)	WA/NSW	8	beef, lamb
S typhimurium 12a (70)	NSW/SA	3	chicken, eggs (Vic)
S typhimurium 26 (68)	NSW	15	eggs 10, chicken 5
S oranienburg (65)	Qld/WA	27	pork 2

* outbreak recorded in 1988.

Environmental Isolates

Waters

A total of 876 notifications were received from waters including potable, natural, effluents, sea water and receiving streams. Western Australia submitted 451 notifications (51%), the majority of which were from abattoir, meat, and poultry processing effluents (203), catchment streams prior to storage (111), handwash samples from meat workers (47) and potable waters (49). Victoria submitted 226 notifications, 196 of which were from a special survey of sewage effluents. The notifications from New South Wales were predominantly from the annual survey of Sydney beaches (102), and poultry processing effluents (47).

The most common salmonellae found in drinking waters from all states were five serovars of *S arizonae* [SGIII], *S rubislaw, S wandsbek* [SGII] and *S warragul*. The most common serovars in the catchment streams in Western Australia were *S bootle, S orientalis, S potsdam* and *S wandsbek* [SGII]. *S enteritidis* (13) was isolated during a survey of streams after floods in New South Wales.

The Dairy Environment

There were 464 notifications received from the environment of Victorian milk processing factories and one from New South Wales. There were 20 serovars isolated and, of these, 15 were specific to a particular factory. These were *S agona* (177); *S anatum* (41); *S anatum* var 15+ (16); *S bovismorbificans; S bovismorbificans* 7; *S bredeney; S derby* (17); *S give; S johannesburg* (59); *S kottbus; S lille* var 14+; *S litchfield; S newport; S ohio*(25) and *S tennessee. S havana, S victoria* and *S warragul* were found in the environment of several factories.

Other Environmental Isolates

Of the 174 notifications 65% were from Western Australia and the majority of these were from meat processing equipment and chicken litter (see Table 9). *S dublin*, the most common serovar from cattle, was isolated from equipment in a Victorian meat processing plant. *S typhimurium* 141 was present in 44% of samples of soil from the environment of a Tasmanian abattoir.

Table 9: Salmonella isolates from the environment National Salmonella Surveillance Scheme, 1988

Category	No. of isolates	% of total	No. of serovars	Most common sero/phage-type	Distribution*
Dairy associated	465	31%	21	S agona (182)	Vic 99%
Water environment	[876]	58%			
Waters:	[332]	22%			
- potable	81		41	S warragul (8)	WA 63%
- natural	141		31	S potsdam (30)	WA 80%
- sea	110		24	S infantis (14)	NSW 93%
Effluents:	[544]	36%			
- sewage	266		34	S derby (38)	Vic 87%
- abattoir	71		23	S anatum (11)	WA 94%
- pig processing	40		10	S anatum (18)	WA 100%
- meat processing	52		15	S anatum (8)	WA 100%
- handwash	47		12	S anatum (11)	WA 100%
- poultry processing	79		11	S sofia [SGII] (47)	WA 51%
- other*	29		16		WA 100%
Other environment:	[174]	11%			
- meat processing equipment	28		10	S dublin (6, Vic)	WA 78%
- abattoir	1		1	S anatum	NT
- soil	48		7	S typhimurium 141 (21)	Tas 100%
- chicken litter	91		4	S sofia [SGII] (87)	WA 96%
- feed mill dust	4		4		WA
- calf pen	1		1	S saintpaul	Vic
- container **	1		1	S typhimurium 135	Vic

* Drains (18), irrigation effluents (6), fellmongering effluents (4), compost effluent (1).

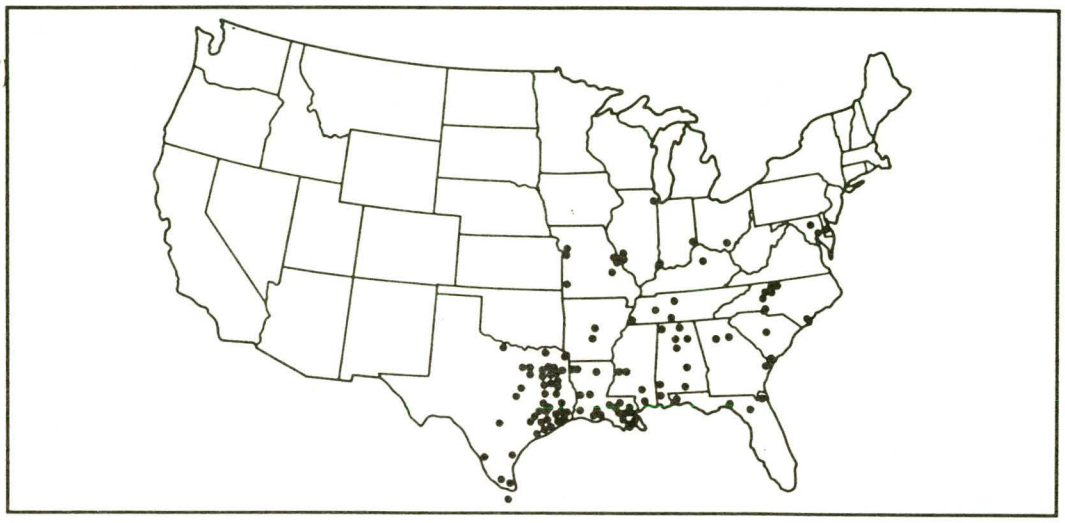
** Associated with food poisoning investigation, Victoria, May 1988.

UPDATE: *AEDES ALBOPICTUS* INFESTATION - UNITED STATES, MEXICO
(Based on MMWR 1989;38:440, 445-6)

Aedes albopictus, a mosquito of Asian origin, was discovered in Texas in 1985 [1,2]. This mosquito transmits dengue virus in Asia [3,4] and under laboratory conditions can transmit pathogenic viruses indigenous to the United States [5].

Surveillance for *Ae albopictus* in the eastern United States was initiated in 1986; by 1988, infestations had been found in 113 counties in 17 states (Figure 1) [6-8]. In 1988, the mosquito was also found in a tire in Matamoros, Mexico. This is the southernmost identification of *Ae albopictus* in North America; however, subsequent surveys in Matamoros have not detected further evidence of infestation. Separate infestations of *Ae albopictus*, originating from tropical Asia, have been established in four Brazilian states [6].

Figure 1: Areas of *Aedes albopictus* infestation - United States, 1988



Ae albopictus was probably introduced into the United States in used-tire casings imported from Asia [9]. On January 1, 1988, new regulations were implemented to control the importation of used-tire casings originating in Asian countries. These regulations require that used-tire casings be clean and dry and be treated by one of three approved fumigation procedures. During 1988, 34 (0.5%) of 6533 casings examined in US ports contained water - a 98% reduction from levels found in earlier surveys [9]. During 1988, no viruses were isolated from 10,679 *Ae albopictus* specimens from Indiana, Illinois, Tennessee, and Louisiana.

MMWR Editorial Note:

The public health importance of the introduction and infestation of *Ae albopictus* in the United States remains undetermined. The potential for *Ae albopictus* to transmit certain pathogenic arboviruses indigenous to the United States has been proven in laboratory experiments [5]; however, disease transmission by this mosquito in natural settings has not been documented. La Crosse virus, a leading cause of childhood encephalitis in the upper and midwestern United States, is usually restricted to rural areas by the behaviour of its principal vector mosquito, although the virus could

extend to urban centres if carried by *Ae albopictus*. La Crosse virus has not been isolated from *Ae albopictus*, and no case of encephalitis has been epidemiologically attributed to this mosquito.

The potential for dengue virus transmission in the United States by *Ae Albopictus* is of particular concern. The principal vector of dengue virus, *Ae aegypti*, is prevalent throughout the southeast but cannot overwinter in northern states. However, because *Ae albopictus* can overwinter as far north as latitude 42°N and in summer can extend even farther north, the risk for epidemic dengue in the United States is heightened.

In suburban areas of New Orleans with abundant vegetation, *Ae albopictus* has replaced *Ae aegypti* and has become the principal source of mosquito complaints to the health department. *Ae aegypti* remains dominant in urban areas where housing density is high and vegitation is sparse.

Although *Ae albopictus* now is entrenched in the United States, continued monitoring of imported used-tire casings is needed to prevent further introductions of this mosquito and to prevent the introduction of other exotic mosquito species and Asian arboviruses [9]. Spot surveys support the effectiveness of the new regulations regarding the importation of tires from Asia.

CDI Editorial Comment

In Australia, there have been isolated reports of *Ae albopictus*. From 1922 to 1925 *Ae albopictus* was detected in Loa Island in the Torres Strait [10]. In 1923, two female *Ae albopictus* mosquitoes were identified in Darwin [11]. No adult *Ae albopictus* mosquitoes have been reported on mainland Australia since that time. However, *Ae albopictus* larvae have been detected in three separate instances.

- In Darwin in 1984, *Ae albopictus* larvae were detected in pipes on a Philippine vessel carrying oil rigging [12]. As a result of this finding, mosquito control activities were initiated.

- In October 1988, a single larva was detected in a shipment of used tyres which had arrived in Brisbane from Japan via Hong Kong, Manila and Melbourne. Follow-up surveys of 24 tyre yards in Brisbane did not detect any infestations. At this time, Australian quarantine regulations relating to the importation of new and used tyres were strengthened [13].

- In June 1989, two larvae were detected in an ovitrap outside the office of a barge company at the small ships facility of Darwin Harbour. The barge company operates regular trips to South East Asia.

  The ovitrap is one of 50 which are maintained by the Australian Quarantine and Inspection Service around the Port of Darwin and Darwin airport. Subsequent intensified monitoring in Darwin has not found any further specimens.

Although no infestations of *Ae albopictus* have been detected in mainland Australia, monitoring needs to be maintained to prevent the establishment of this mosquito, which is capable of

colonising all states of Australia and is a competent vector of many arboviral diseases.

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PUBLICATION NOTICE: MALARIA GUIDELINES FOR MEDICAL PRACTITIONERS

The National Health and Medical Research Council (NHMRC) has recently released its publication 'Malaria Guidelines for Medical Practitioners'.

This booklet contains information on:

- risk assessment for travelling to malarious countries;
- methods to reduce exposure to mosquitoes;
- recommendations on chemoprophylaxis including sections for children and for pregnant or lactating females;
- data on malaria risk and drug resistance by country;
- advice for travellers on leaving malarious regions;
- treatment of malaria; and
- public health aspects of malaria infection.

Copies of these guidelines have been distributed with the September 1989 issue of the journal, *Australian Family Physician*.

This publication is available free of charge to all medical practitioners. If you would like a copy and are not on the mailing list for the *Australian Family Physician*, contact:

The NHMRC Publications Officer
Department of Community Services
and Health
GPO Box 9848
Canberra ACT 2600
(Telephone: (062) 89 7646)

AUSTRALIA - COMMUNICABLE DISEASES INTELLIGENCE

VIRAL IDENTIFICATIONS FROM CONTRIBUTING LABORATORIES
BASED ON DATE OF REPORTING

PERIOD 12/10/89 TO 25/10/89

1. CODE 019 - FAIRFIELD(VIC)
2. CODE 065 - STATE LAB(WA) PMH(WA)
3. CODE 110 - IMVS(SA)
4. CODE 111 - RCH(VIC)
5. CODE 112 - ICPMR(NSW) WVH(ACT)
6. CODE 113 - PHH POW(NSW)
7. CODE 114 - RAHC(NSW)
8. CODE 115 - STATE LAB(QLD)

		019	065	110	111	112	113	114	115	TOTAL
0100	ADENOVIRUS NOT TYPED	2	1	3	2	6	7	0	5	26
0101	ADENOVIRUS TYPE 1	0	1	1	0	4	0	1	0	7
0102	ADENOVIRUS TYPE 2	0	0	2	0	3	0	0	0	5
0103	ADENOVIRUS TYPE 3	4	1	2	0	2	0	0	0	9
0104	ADENOVIRUS TYPE 4	3	0	1	0	0	0	0	0	4
0105	ADENOVIRUS TYPE 5	0	0	2	0	1	0	0	0	3
0106	ADENOVIRUS TYPE 6	0	0	2	0	0	0	0	0	2
0107	ADENOVIRUS TYPE 7	1	0	0	0	0	0	0	0	1
0108	ADENOVIRUS TYPE 8	1	0	0	0	0	0	0	0	1
0111	ADENOVIRUS TYPE 11	0	0	0	0	1	0	0	0	1
0120	ADENOVIRUS TYPE 20	0	0	0	0	1	0	0	0	1
0199	ADENOVIRUS TYPING PENDING	0	0	0	13	0	7	1	0	21
0201	INFLUENZA A VIRUS	3	10	1	7	2	9	0	0	32
0202	INFLUENZA A VIRUS SUBTYPE H3N2	0	0	1	6	0	0	0	0	7
0203	INFLUENZA B VIRUS	4	0	4	9	5	7	1	4	34
0301	PARAINFLUENZA VIRUS TYPE 1	0	2	0	0	0	0	0	0	2
0303	PARAINFLUENZA VIRUS TYPE 3	3	1	21	0	9	2	3	10	49
0304	PARAINFLUENZA VIRUS TYPE 4	0	0	1	0	0	0	0	0	1
0399	PARAINFLUENZA VIRUS TYPING PEN	0	2	0	0	0	0	0	0	2
0400	RESPIRATORY SYNCYTIAL VIRUS (R	6	0	3	14	1	5	0	3	32
0500	RHINOVIRUS (ALL TYPES)	5	0	9	13	3	0	0	0	30
0600	MYCOPLASMA PNEUMONIAE	0	2	8	3	3	1	0	0	17
0700	ORNITHOSIS-PSITTACOSIS	0	0	1	0	1	1	0	0	3
0809	COXSACKIEVIRUS A9	2	0	0	0	0	0	0	0	2
0816	COXSACKIEVIRUS A16	0	0	0	0	0	1	0	0	1
0821	COXSACKIEVIRUS A21	1	0	0	0	0	0	0	0	1
0901	COXSACKIEVIRUS B1	0	1	0	0	0	0	0	0	1
1001	ECHOVIRUS TYPE 1	0	0	0	0	1	0	0	0	1
1003	ECHOVIRUS TYPE 3	0	2	0	0	0	1	0	0	3
1006	ECHOVIRUS TYPE 6	0	0	0	0	2	0	0	0	2
1009	ECHOVIRUS TYPE 9	0	0	0	0	2	0	0	0	2
1011	ECHOVIRUS TYPE 11	0	0	0	0	1	0	0	0	1
1018	ECHOVIRUS TYPE 18	0	0	0	0	1	0	0	0	1
1022	ECHOVIRUS TYPE 22	0	0	1	0	0	1	0	0	2
1025	ECHOVIRUS TYPE 25	0	0	0	0	1	0	0	0	1
1028	ECHOVIRUS TYPE 28 = RHINO VIRU	0	0	0	0	0	0	3	0	3
1100	POLIOVIRUS NOT TYPED	0	0	0	0	0	2	0	0	2
1101	POLIOVIRUS TYPE 1	0	0	0	0	2	0	0	0	2
1103	POLIOVIRUS TYPE 3	0	0	0	0	0	0	1	0	1
1200	MUMPS VIRUS	1	1	0	0	1	0	0	0	3
1300	HERPES VIRUS GROUP - NOT TYPED	0	0	0	0	4	1	0	0	5
1301	HERPES SIMPLEX VIRUS - NOT TYP	0	0	0	0	58	0	2	33	93
1302	EPSTEIN-BARR VIRUS (EB VIRUS)	1	5	27	1	2	5	1	0	42
1303	VARICELLA-ZOSTER VIRUS	2	2	0	0	1	7	1	0	13
1306	HERPES SIMPLEX TYPE 1	41	26	20	2	11	9	0	3	112
1307	HERPES SIMPLEX TYPE 2	60	40	28	0	41	29	1	0	199
1399	HERPES VIRUS TYPING PENDING	0	0	0	5	0	0	0	0	5
1401	COXIELLA BURNETII	0	0	0	0	3	0	0	0	3
1502	PICORNIA VIRUS - NOT TYPED = E	0	0	1	0	0	1	0	0	2
1521	MEASLES VIRUS	1	0	0	1	1	4	0	0	7
1522	RUBELLA VIRUS	15	1	16	0	0	0	2	0	34
1532	HEPATITIS B ANTIGEN	9	13	11	0	46	8	3	17	107
1535	HEPATITIS A ANTIBODY	5	1	2	0	2	0	0	0	10
1541	CHLAMYDIA A - C. TRACHOMATIS	0	33	24	0	21	3	1	0	82
1556	CMV - CYTOMEGALOVIRUS	29	5	3	9	3	4	3	3	59
1563	CORONAVIRUS	0	0	0	0	1	0	0	0	1
1564	ROTAVIRUS	0	2	107	48	33	21	7	0	218
1566	NORWALK AGENT	0	1	0	0	1	0	0	0	2
1599	ENTEROVIRUS TYPING PENDING	0	0	0	2	0	4	0	0	6
9992	ROSS RIVER VIRUS	0	0	2	0	0	2	0	0	4
9994	SMALL VIRUS (LIKE) PARTICLE	0	0	0	0	0	0	3	0	3
TOTAL		199	153	304	135	281	142	34	78	1326

AUSTRALIA - COMMUNICABLE DISEASES INTELLIGENCE

VIRAL IDENTIFICATIONS BY CLINICAL INFORMATION TABLE 1

PERIOD 12/10/89 TO 25/10/89

1. CODE 00, 99 ..... - NO ILL OR DATA
2. CODE 01, 02, 11, 12 - PESPIRATORY
3. CODE E3 ..... - ENCEPHALITIS
4. CODE M3 ..... - MENINGITIS
5. CODE 04 ..... - PARALYSIS
6. CODE 05, 13 ..... - CNS OTHER UNSPEC
7. CODE 07, 49 - GASTRO INTESTINAL
8. CODE 17, 47 - HEPATIC
9. CODE 19 ... - CVS
10. CODE 89 ... - URINARY TRACCT
11. CODE 06 ... - SKIN MUCOUS

		1	2	3	4	6	7	8	9	10	11	TOTAL
0100	ADENOVIRUS NOT TYPED	3	11	0	0	0	11	0	0	0	0	25
0101	ADENOVIRUS TYPE 1	1	3	0	0	0	3	0	0	0	0	7
0102	ADENOVIRUS TYPE 2	0	4	0	0	0	1	0	0	0	0	5
0103	ADENOVIRUS TYPE 3	2	3	1	0	0	0	0	0	0	0	6
0105	ADENOVIRUS TYPE 5	1	2	0	0	0	0	0	0	0	0	3
0106	ADENOVIRUS TYPE 6	0	1	0	0	0	0	0	0	0	0	1
0107	ADENOVIRUS TYPE 7	0	1	0	0	0	0	0	0	0	0	1
0111	ADENOVIRUS TYPE 11	0	0	0	0	0	1	0	0	0	0	1
0120	ADENOVIRUS TYPE 20	1	0	0	0	0	0	0	0	0	0	1
0199	ADENOVIRUS TYPING PENDING	0	8	1	0	0	6	0	0	0	0	15
0201	INFLUENZA A VIRUS	3	26	0	0	0	0	0	0	0	0	29
0202	INFLUENZA A VIRUS SUBTYPE H3N2	0	3	1	0	0	0	0	0	0	0	4
0203	INFLUENZA B VIRUS	2	25	0	0	0	0	0	0	0	0	27
0301	PARAINFLUENZA VIRUS TYPE 1	0	2	0	0	0	0	0	0	0	0	2
0303	PARAINFLUENZA VIRUS TYPE 3	3	46	0	0	0	0	0	0	0	0	49
0304	PARAINFLUENZA VIRUS TYPE 4	1	0	0	0	0	0	0	0	0	0	1
0399	PARAINFLUENZA VIRUS TYPING PEN	0	2	0	0	0	0	0	0	0	0	2
0400	RESPIRATORY SYNCYTIAL VIRUS (R	2	28	0	0	0	0	0	0	0	0	30
0500	RHINOVIRUS (ALL TYPES)	2	27	0	0	0	0	0	0	0	0	29
0600	MYCOPLASMA PNEUMONIAE	2	14	0	0	0	0	0	0	0	0	16
0700	ORNITHOSIS-PSITTACOSIS	0	3	0	0	0	0	0	0	0	0	3
0809	COXSACKIEVIRUS A9	0	1	0	1	0	0	0	0	0	0	2
0816	COXSACKIEVIRUS A16	0	0	0	0	0	0	0	0	0	1	1
0901	COXSACKIEVIRUS B1	0	1	0	0	0	0	0	0	0	0	1
1001	ECHOVIRUS TYPE 1	0	0	0	0	0	1	0	0	0	0	1
1003	ECHOVIRUS TYPE 3	0	3	0	0	0	0	0	0	0	0	3
1006	ECHOVIRUS TYPE 6	1	0	0	0	0	0	0	0	0	0	1
1009	ECHOVIRUS TYPE 9	1	0	0	0	0	1	0	0	0	0	2
1011	ECHOVIRUS TYPE 11	0	0	0	0	0	1	0	0	0	0	1
1018	ECHOVIRUS TYPE 18	0	0	0	0	0	1	0	0	0	0	1
1022	ECHOVIRUS TYPE 22	0	2	0	0	0	0	0	0	0	0	2
1028	ECHOVIRUS TYPE 28 = RHINO VIRU	0	3	0	0	0	0	0	0	0	0	3
1100	POLIOVIRUS NOT TYPED	0	0	0	0	0	2	0	0	0	0	2
1101	POLIOVIRUS TYPE 1	0	0	0	0	0	2	0	0	0	0	2
1200	MUMPS VIRUS	1	0	0	0	0	0	0	0	0	0	1
1300	HERPES VIRUS GROUP - NOT TYPED	0	1	0	0	0	0	0	0	0	0	1
1301	HERPES SIMPLEX VIRUS - NOT TYP	19	2	0	0	0	0	0	0	0	34	55
1302	EPSTEIN-BARR VIRUS (EB VIRUS)	5	1	1	0	0	0	0	0	0	2	9
1303	VARICELLA-ZOSTER VIRUS	4	1	0	0	0	0	0	0	0	5	10
1306	HERPES SIMPLEX TYPE 1	4	5	1	0	1	0	0	0	0	60	71
1307	HERPES SIMPLEX TYPE 2	6	0	0	0	0	0	0	0	0	48	54
1399	HERPES VIRUS TYPING PENDING	0	0	0	0	0	0	0	0	0	3	3
1401	COXIELLA BURNETII	2	0	0	0	0	0	0	0	0	0	2
1502	PICORNIA VIRUS - NOT TYPED = E	0	0	0	0	0	2	0	0	0	0	2
1521	MEASLES VIRUS	3	2	0	0	0	0	0	0	0	1	6
1522	RUBELLA VIRUS	0	1	0	0	0	0	0	0	0	14	15
1532	HEPATITIS B ANTIGEN	45	0	0	0	0	0	44	1	0	0	90
1535	HEPATITIS A ANTIBODY	5	0	0	0	0	0	5	0	0	0	10
1541	CHLAMYDIA A - C. TRACHOMATIS	7	0	0	0	0	0	0	0	0	0	7
1556	CMV - CYTOMEGALOVIRUS	6	15	0	0	0	1	3	1	6	2	34
1563	CORONAVIRUS	0	0	0	0	0	1	0	0	0	0	1
1564	ROTAVIRUS	11	0	0	0	0	207	0	0	0	0	218
1566	NORWALK AGENT	0	0	0	0	0	2	0	0	0	0	2
1599	ENTEROVIRUS TYPING PENDING	0	1	0	0	0	4	0	0	0	0	5
9992	ROSS RIVER VIRUS	0	1	0	0	0	0	0	0	0	1	2
9994	SMALL VIRUS (LIKE) PARTICLE	0	0	0	0	0	3	0	0	0	0	3
TOTAL		143	249	5	1	1	250	52	2	6	171	880

AUSTRALIA - COMMUNICABLE DISEASES INTELLIGENCE

VIRAL IDENTIFICATIONS BY CLINICAL INFORMATION TABLE 2

PERIOD 12/10/89 TO 25/10/89

12. CODE 10 - EYE
13. CODE 59 - GENITAL
14. CODE 39 - ENDOCRINE/SALIVARY GL.
15. CODE 38 - RETICULO-ENDOTHELIAL
16. CODE 29 - MUSCLE/JOINT
17. CODE 69 - CONGENTIAL
18. CODE P8 - PUO
19. CODE G8 - FEVER/MALAISE
20. CODE 09 - OTHER
21. CODE A1 - SIDS

		12	13	14	16	17	18	19	20	21	TOTAL
0100	ADENOVIRUS NOT TYPED	0	0	0	0	0	0	0	1	0	1
0103	ADENOVIRUS TYPE 3	2	0	0	0	0	0	1	0	0	3
0104	ADENOVIRUS TYPE 4	4	0	0	0	0	0	0	0	0	4
0106	ADENOVIRUS TYPE 6	0	0	0	0	0	0	0	1	0	1
0108	ADENOVIRUS TYPE 8	1	0	0	0	0	0	0	0	0	1
0199	ADENOVIRUS TYPING PENDING	0	1	0	0	0	0	4	0	1	6
0201	INFLUENZA A VIRUS	0	0	0	0	0	0	3	0	0	3
0202	INFLUENZA A VIRUS SUBTYPE H3N2	0	0	0	0	0	0	3	0	0	3
0203	INFLUENZA B VIRUS	0	0	0	1	0	1	5	0	0	7
0400	RESPIRATORY SYNCYTIAL VIRUS (R	0	0	0	0	0	0	1	0	1	2
0500	RHINOVIRUS (ALL TYPES)	0	0	0	0	0	0	1	0	0	1
0600	MYCOPLASMA PNEUMONIAE	0	0	0	1	0	0	0	0	0	1
0821	COXSACKIEVIRUS A21	0	0	0	0	0	0	0	1	0	1
1006	ECHOVIRUS TYPE 6	0	0	0	0	0	0	0	1	0	1
1025	ECHOVIRUS TYPE 25	0	0	0	0	0	1	0	0	0	1
1103	POLIOVIRUS TYPE 3	0	0	0	0	0	0	0	1	0	1
1200	MUMPS VIRUS	0	0	1	0	0	0	1	0	0	2
1300	HERPES VIRUS GROUP - NOT TYPED	0	4	0	0	0	0	0	0	0	4
1301	HERPES SIMPLEX VIRUS - NOT TYP	0	38	0	0	0	0	0	0	0	38
1302	EPSTEIN-BARR VIRUS (EB VIRUS)	0	0	29	0	0	1	2	1	0	33
1303	VARICELLA-ZOSTER VIRUS	1	0	1	0	0	0	1	0	0	3
1306	HERPES SIMPLEX TYPE 1	5	32	0	0	0	0	0	4	0	41
1307	HERPES SIMPLEX TYPE 2	0	143	0	0	1	0	0	1	0	145
1399	HERPES VIRUS TYPING PENDING	0	0	0	1	0	0	1	0	0	2
1401	COXIELLA BURNETII	0	0	0	0	0	0	1	0	0	1
1521	MEASLES VIRUS	0	0	0	0	0	0	1	0	0	1
1522	RUBELLA VIRUS	0	0	0	2	0	0	1	16	0	19
1532	HEPATITIS B ANTIGEN	0	0	0	0	0	0	0	17	0	17
1541	CHLAMYDIA A - C. TRACHOMATIS	2	73	0	0	0	0	0	0	0	75
1556	CMV - CYTOMEGALOVIRUS	2	0	0	0	1	2	5	15	0	25
1599	ENTEROVIRUS TYPING PENDING	0	0	0	0	0	0	0	0	1	1
9992	ROSS RIVER VIRUS	0	0	0	2	0	0	0	0	0	2
TOTAL		17	291	31	7	2	5	31	59	3	446