

Additional Reports

Gonococcal surveillance

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The Australian Gonococcal Surveillance Programme (AGSP) reference laboratories in the various States and Territories report data on sensitivity to an agreed 'core' group of antimicrobial agents on a quarterly basis. The antibiotics which are currently routinely surveyed are the penicillins, ceftriaxone, ciprofloxacin and spectinomycin, all of which are administered as single dose regimens. When *in vitro* resistance to a recommended agent is demonstrated in 5% or more of isolates, it is usual to reconsider the inclusion of that agent in current treatment schedules. Additional data are also provided on other antibiotics from time to time. At present all laboratories also test isolates for the presence of high level resistance to the tetracyclines. Tetracyclines are however not a recommended therapy for gonorrhoea. Comparability of data is achieved by means of a standardised system of testing and a programme-specific quality assurance process. Because of the substantial geographic differences in susceptibility patterns in Australia, regional as well as aggregated data are presented.

Reporting period 1 January to 31 March 1999

The AGSP laboratories examined a total of 937 isolates in this quarter. About 44% of this total was from New South Wales, 19% from Victoria, 14% from Queensland, 13% from the Northern Territory, 8% from Western Australia and 2% from South Australia. Isolates from other centres were few in number.

Penicillins

Figure 5 shows the proportions of gonococci fully sensitive (MIC \leq 0.03 mg/L), less sensitive (MIC 0.06 - 1 mg/L), relatively resistant (MIC \geq 1 mg/L) or else penicillinase producing (PPNG) aggregated for Australia and by State and Territory. A high proportion of PPNG and relatively resistant strains fail to respond to treatment with penicillins (penicillin, amoxicillin, ampicillin) and early generation cephalosporins.

About 27% of all isolates were penicillin resistant by one or more mechanisms. The penicillin-resistant isolates comprised 35% of all isolates in New South Wales and Victoria and 15 - 20% of gonococci in Queensland and South Australia. In the Northern Territory and Western Australia, 4 - 6% of isolates were penicillin resistant.

The number of PPNG isolated across Australia (88) increased in this quarter compared to the corresponding period in 1998 (57). Most of the PPNG were found in Sydney (58) and Victoria (19). Sydney had the highest proportion of PPNG (14%). Acquisition data, where available, indicated a high proportion of cases in Sydney were acquired through local contact (ratio overseas to local acquisition = 1:4). These proportions were reversed in Melbourne, with South East Asian countries being the main source of acquisition. Only low numbers of PPNG

were present in strains from Queensland, Western Australia and the Northern Territory.

Nearly twice as many isolates (161) were resistant to the penicillins by separate chromosomal mechanisms (CMRNG), maintaining a trend noted for some time. These CMRNG were again prominent in Sydney (95) and Melbourne (44).

Ceftriaxone and spectinomycin

All isolates in Australia were again susceptible to these injectable agents.

Quinolone antibiotics

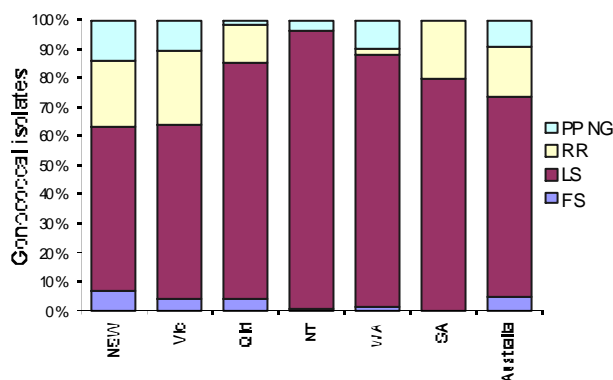
The total number (106) and proportion (11%) of all isolates with altered susceptibility to the quinolone group (QRNG) was substantially higher than the 62 QRNG in the same period in 1998. The QRNG were concentrated in New South Wales (80) and Victoria (18); together these accounted for 92% of all QRNG. Fifteen of the New South Wales and 4 of the Victorian QRNG exhibited high level resistance (MIC ciprofloxacin \geq 1 mg/L) and MICs ranged up to 16mg/L. The majority of QRNG were in males, locally acquired and in the MIC range 0.06 - 0.5 mg/L. QRNG were also present in Brisbane; representing 4% of strains. Single isolates of QRNG were found in the Northern Territory and Perth.

In the corresponding period in 1998, the 62 QRNG represented about 7% of all isolates.

High level tetracycline resistance (TRNG)

The number (95) and proportion (10%) of TRNG detected was almost double that reported for the first quarter of 1998. Most (68%) of the TRNG were found in Sydney where they represented 15% of strains. The 16 TRNG in Victoria and the 7 in Perth each accounted for 9% of

Figure 5. Categorisation of gonococci isolated in Australia by penicillin susceptibility and by region, 1 January to 31 March 1999



FS Fully sensitive to penicillin, MIC \leq 0.03 mg/L
 LS Less sensitive to penicillin, MIC 0.06 - 0.5 mg/L
 RR Relatively resistant to penicillin, MIC \geq 1 mg/L
 PPNG Penicillinase producing *Neisseria gonorrhoeae*

gonococci examined in those centres and the 6 in Queensland (4%). Darwin was the only other centre where TRNG were detected in this quarter.

Reference

- Anonymous. Management of sexually transmitted diseases. World Health Organization 1997; Document WHO/GPA/TEM94.1 Rev.1 p 37.

Sentinel Chicken Surveillance Programme

Sentinel chicken flocks are used to monitor flavivirus activity in Australia. The main viruses of concern are Murray Valley encephalitis (MVE) and Kunjin which cause the potentially fatal disease Australian encephalitis in humans. Currently 26 flocks are maintained in the north of Western Australia, seven in the Northern Territory, nine in New South Wales and ten in Victoria. The flocks in Western Australia and the Northern Territory are tested year round but those in New South Wales and Victoria are tested only from November to March, during the main risk season.

Results are coordinated by the Arbovirus Laboratory in Perth and reported bimonthly. For more information see CDI 1999;23:57-58

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Sentinel chicken serology was carried out for 18 of the 27 flocks in Western Australia in September and October 1999. There was one confirmed seroconversion to MVE

virus in September from Paraburdoo in the Pilbara. In response to the unusually late activity of MVE virus in the north of Western Australia the Health Department of Western Australia issued a media warning in mid September to warn residents and visitors to the region of the on-going risk of disease. Additional health warnings were sent via the Regional Public Health Units to Aboriginal communities in the region.

Serum samples from six of the seven Northern Territory sentinel chicken flocks were tested in our laboratory in September and October 1999. There was one new, confirmed seroconversion to Kunjin virus at Howard Springs in September 1999.

Table 7. Flavivirus seroconversions in the Northern Territory sentinel chicken flocks in September and October 1999

Location	May 1999		June 1999			
	MVE	KUN	MVE	KUN	MVE/ KUN	FLAVI
Howard Springs	1					
Leanyer		1		1	1	1
Beatrice Hill	3		2			
Tennant Creek	2					

MVE Antibodies to Murray Valley encephalitis virus detected by ELISA
 KUN Antibodies to Kunjin virus detected by ELISA
 MVE/KUN Antibodies to both MVE and KUN viruses detected by ELISA
 FLAVI Antibodies to a flavivirus only (not MVE or KUN) detected by ELISA

Table 6. Flavivirus seroconversions in Western Australian sentinel chicken flocks in September and October 1999

Location	MVE	MVE/KUN	FLAVI	MVE	KUN	MVE/KUN	FLAVI
KIMBERLEY							
Kalumburu		1					
Derby				2		1	
Broome	2						
PILBARA							
Port Hedland	1						
Harding Dam*	2		1	2		1	1
Karratha						1	
Newman	2						
Onslow				1	1		
Exmouth				1			
GASCOYNE							
Carnarvon	1						

* 2 flocks of 12 chickens at these sites

MVE Antibodies to Murray Valley encephalitis virus detected by ELISA
 KUN Antibodies to Kunjin virus detected by ELISA
 MVE/KUN Antibodies to both MVE and KUN viruses detected by ELISA
 FLAVI Antibodies to a flavivirus only (not MVE or KUN) detected by ELISA

HIV and AIDS Surveillance

National surveillance for HIV disease is coordinated by the National Centre in HIV Epidemiology and Clinical Research (NCHECR), in collaboration with State and Territory health authorities and the Commonwealth of Australia. Cases of HIV infection are notified to the National HIV Database on the first occasion of diagnosis in Australia, by either the diagnosing laboratory (ACT, New South Wales, Tasmania, Victoria) or by a combination of laboratory and doctor sources (Northern Territory, Queensland, South Australia, Western Australia). Cases of AIDS are notified through the State and Territory health authorities to the National AIDS Registry. Diagnoses of both HIV infection and AIDS are notified with the person's

date of birth and name code, to minimise duplicate notifications while maintaining confidentiality.

Tabulations of diagnoses of HIV infection and AIDS are based on data available three months after the end of the reporting interval indicated, to allow for reporting delay and to incorporate newly available information. More detailed information on diagnoses of HIV infection and AIDS is published in the quarterly Australian HIV Surveillance Report, and annually in HIV/AIDS and related diseases in Australia Annual Surveillance Report. The reports are available from the National Centre in HIV Epidemiology and Clinical Research, 376 Victoria Street, Darlinghurst NSW 2010. Telephone: (02) 9332 4648; Facsimile: (02) 9332 1837; <http://www.med.unsw.edu.au/nchechr>.

Table 8. New diagnoses of HIV infection, new diagnoses of AIDS and deaths following AIDS occurring in the period 1 to 31 May 1999, by sex and State or Territory of diagnosis

										Totals for Australia			
		ACT	NSW	NT	Qld	SA	Tas	Vic	WA	This period 1999	This period 1998	Year to date 1999	Year to date 1998
HIV diagnoses	Female	1	1	1	1	0	0	2	1	7	8	30	34
	Male	1	18	1	5	0	2	12	1	40	45	233	285
	Sex not reported	0	1	0	0	0	0	0	0	1	1	1	5
	Total ¹	2	20	2	6	0	2	14	2	48	54	264	324
AIDS diagnoses	Female	0	0	0	0	0	0	0	0	0	1	3	6
	Male	0	1	0	0	2	0	3	0	6	25	35	120
	Total ¹	0	1	0	0	2	0	3	0	6	26	38	126
AIDS deaths	Female	0	0	0	0	0	0	0	0	0	0	1	2
	Male	0	2	0	0	1	0	0	0	3	13	35	59
	Total ¹	0	2	0	0	1	0	0	0	3	13	37	61

1. Persons whose sex was reported as transgender are included in the totals.

Table 9. Cumulative diagnoses of HIV infection, AIDS and deaths following AIDS since the introduction of HIV antibody testing to 31 May 1999, by sex and State or Territory

		State or Territory									Australia
		ACT	NSW	NT	Qld	SA	Tas	Vic	WA		
HIV diagnoses	Female	24	588	9	138	57	5	205	109	1,135	
	Male	189	10,607	107	1,904	654	79	3,803	884	18,227	
	Sex not reported	0	259	0	0	0	0	24	0	283	
	Total ¹	213	11,473	116	2,049	711	84	4,045	996	19,687	
AIDS diagnoses	Female	8	173	0	46	21	3	67	26	344	
	Male	85	4,533	35	794	328	44	1,591	344	7,754	
	Total ¹	93	4,718	35	842	349	47	1,665	372	8,121	
AIDS deaths	Female	3	113	0	30	15	2	47	16	226	
	Male	64	3,133	24	556	227	28	1,248	245	5,525	
	Total ¹	67	3,254	24	588	242	30	1,301	262	5,768	

1. Persons whose sex was reported as transgender are included in the totals.

HIV and AIDS diagnoses and deaths following AIDS reported for 1 to 31 May 1999 as reported to 31 August 1999 and 1 to 31 July 1999, as reported to 31 October 1999, are included in this issue of CDI (Tables 8, 9, 10 and 11).

Please note: HIV and AIDS data for May 1999 are also included in this issue as well as the July data, as it was not previously presented.

Table 10. New diagnoses of HIV infection, new diagnoses of AIDS and deaths following AIDS occurring in the period 1 to 31 July 1999, by sex and State or Territory of diagnosis

										Totals for Australia			
		ACT	NSW	NT	Qld	SA	Tas	Vic	WA	This period 1999	This period 1998	Year to date 1999	Year to date 1998
HIV diagnoses	Female	0	3	0	1	0	1	3	0	8	15	43	54
	Male	1	30	0	8	1	0	13	3	56	49	333	382
	Sex not reported	0	0	0	0	0	0	0	0	0	0	1	5
	Total ¹	1	33	0	9	1	1	16	3	64	64	377	441
AIDS diagnoses	Female	0	1	0	1	0	0	0	0	2	3	5	10
	Male	0	2	0	3	1	0	1	0	7	31	52	181
	Total ¹	0	3	0	4	1	0	1	0	9	34	57	191
AIDS deaths	Female	0	0	0	0	0	0	0	0	0	1	2	5
	Male	0	5	0	0	0	0	1	0	6	11	49	83
	Total ¹	0	5	0	0	0	0	1	0	6	12	52	88

1. Persons whose sex was reported as transgender are included in the totals.

Table 11. Cumulative diagnoses of HIV infection, AIDS and deaths following AIDS since the introduction of HIV antibody testing to 31 July 1999, by sex and State or Territory

		State or Territory								Australia
		ACT	NSW	NT	Qld	SA	Tas	Vic	WA	
HIV diagnoses	Female	24	592	9	140	57	6	210	111	1,149
	Male	189	10,661	107	1,922	656	79	3,826	891	18,331
	Sex not reported	0	258	0	0	0	0	24	0	282
	Total ¹	213	11,530	116	2,069	713	85	4,073	1,005	19,804
AIDS diagnoses	Female	8	174	0	47	23	3	67	26	348
	Male	86	4,550	35	798	342	44	1,596	344	7,795
	Total ¹	94	4,736	35	847	365	47	1,670	372	8,166
AIDS deaths	Female	3	114	0	30	15	2	47	16	227
	Male	65	3,141	24	557	228	28	1,251	245	5,539
	Total ¹	68	3,263	24	589	243	30	1,304	262	5,783

1. Persons whose sex was reported as transgender are included in the totals.

Serious Adverse Events Following Vaccination Surveillance Scheme

The Serious Adverse Events Following Vaccination Surveillance Scheme is a national surveillance scheme which monitors the serious adverse events that occur rarely following vaccination. More details of the scheme were published in *CDI* 1999;23;58.

Acceptance of a report does not imply a causal relationship between administration of the vaccine and the medical outcome, or that the report has been verified as to the accuracy of its contents.

It is estimated that 250,000 doses of vaccines are administered every month to Australian children under the age of six years.

Results for the reporting period 1 September to 30 November 1999

There were 19 reports of serious adverse events following vaccination for this reporting period (Table 12). Onset dates were from 1998 to 1999, the majority (90%) being in 1999. Reports were received from Australian Capital Territory (3), New South Wales (1), Northern Territory (2), Queensland (8), South Australia (2), Victoria (2) and Western Australia (1) for this period.

The most frequently reported events following vaccination were other reactions (5 cases, 26%) and convulsions (5 cases, 26%), followed by hypotonic/hyporesponsive episodes (3 cases, 16%), temperature of 40.5°C or more (2 cases, 10.5%), ITP (2 cases, 10.5%), and persistent screaming (1 case, 5%). For one case the description of the adverse event was missing. Both cases of ITP were reported following MMR. One case occurred after the second dose of MMR and for the other case the dose was not reported.

The number of adverse events reported during this period continued to decline from the previous reporting period and was the lowest number reported in the previous two years. The greatest number of adverse events were associated with MMR (5 cases, 26%), and Diphtheria-Tetanus-Pertussis (DTP) either alone or in combination with other vaccines (8 cases, 42%).

Hospitalisation status following a reported adverse event was described for all but two cases and six were hospitalised (32%). Of those who were hospitalised five had recovered at the time of reporting. Overall there was incomplete information on recovery status on one case while all the other cases had recovered at the time of reporting.

Table 12. Adverse events following vaccination reported in the period 1 September to 30 November 1999¹

Event	Vaccines										Reporting States or Territories	Total reports for this period ³	
	DTP	DTP/Hib	DTP/OPV/Hib	CDT/DTP/Hib	Hib	Hib/OPV/other	MMR	Hib/MMR	Hib/Hep B/MMR	Other ²			
Persistent screaming			1									ACT	1
Hypotonic/Hyporesponsive		1	1			1	1					ACT, Qld	4
Temperature		1										Qld	1
Convulsions				1	1		1	1	1			NSW	5
ITP							2					Qld, WA	2
Other	1	2	1				1					SA, Vic, NT	5
Total	1	4	3	1	1	1	5	1	1	0			19

1. Events with onset dates from 1998 to 1999 were reported in this period.

2. Includes influenza vaccination, DTPa, CDT, OPV, Hepatitis B vaccine, pneumococcal vaccination, BCG, ADT and rabies immunoglobulin (HRIG).

3. 1 child with an adverse event had no vaccine specified.