

The NNDSS is conducted under the auspices of the Communicable Diseases Network Australia New Zealand. The system coordinates the national surveillance of more than 40 communicable diseases or disease groups endorsed by the National Health and Medical Research Council (NHMRC). Notifications of these diseases are made to State and Territory health authorities under the provisions of their respective public health legislations. De-identified core unit data are supplied fortnightly for collation, analysis and dissemination. For further information, see CDI 2000;24:6.

LabVISE is a sentinel reporting scheme. Twenty-one laboratories contribute data on the laboratory identification of viruses and other organisms. Data are collated and published in Communicable Diseases Intelligence every four weeks. These data should be interpreted with caution as the number and type of reports received is subject to a number of biases. For further information, see CDI 2000;24:10.

ASPEN currently comprises about 100 general practitioners from throughout the country. Up to 9,000 consultations are reported each week, with special attention to 12 conditions chosen for sentinel surveillance in 1999. CDI reports the consultation rates for seven of these. For further information, including case definitions, see CDI 2000;24:7-8.

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 April to 30 June 1999

The AGSP laboratories examined a total of 950 isolates in this quarter. About 40% of this total was from New South Wales, 23% from Victoria, 14% from Queensland, 10% from the Northern Territory, 9% from Western Australia and 3% from South Australia. Isolates from other centres were few in number.

Penicillins

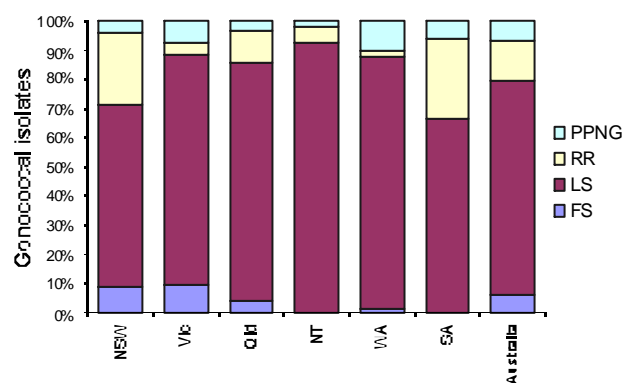
Figure 9 shows the proportions of gonococci fully sensitive (MIC \leq 0.03 mg/L), less sensitive (MIC 0.06 – 1 mg/L), relatively resistant (MIC \geq 1 mg/L) or else penicillinase producing (PPNG) aggregated for Australia and by State and Territory. A high proportion of PPNG and relatively resistant strains fail to respond to treatment with penicillins (penicillin, amoxycillin, ampicillin) and early generation cephalosporins.

About 20% of all isolates were penicillin resistant by one or more mechanisms. The penicillin-resistant isolates

comprised about one-third of all isolates in New South Wales and South Australia. Between 10 and 15% of gonococci in Queensland, Victoria and Western Australia were penicillin resistant. In the Northern Territory, 7% of isolates were penicillin resistant.

The number of PPNG isolated across Australia (65) increased in this quarter compared to the corresponding period in 1998 (39). Three-quarters of all PPNG were found in Sydney (32) and Victoria (17). Perth had the highest proportion of PPNG (10%). Acquisition data on PPNG were available in about 90% of cases in New South Wales and Victoria. For those cases in Sydney where this data was available, nearly 75% of PPNG were acquired locally and the remainder from overseas. These proportions were reversed in Melbourne with South East Asian countries being the main source of acquisition. In Perth most PPNG were also TRNG and Indonesia was a common source of acquisition.

Figure 9. Penicillin resistance of gonococcal isolates, 1 April – 30 June 1999, by region



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*

Twice as many isolates were resistant to the penicillins by separate chromosomal mechanisms, maintaining a trend noted for some time.

Ceftriaxone and spectinomycin

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

Quinolone antibiotics

The total number (195) and proportion (20%) of all isolates with altered susceptibility to the quinolone group (QRNG) were the highest seen thus far in quarterly AGSP surveys. The QRNG isolates were also concentrated in a few locations. Sixty-nine isolates (31%) were QRNG in Victoria and 105 (27%) in New South Wales and together these accounted for 90% of all QRNG. Fourteen of the New South Wales and 9 of the Victorian QRNG exhibited high level resistance (MIC ciprofloxacin \geq 1 mg/L) and MICs ranged up to 16mg/L. Most infections with this group of QRNG were acquired overseas. However the majority QRNG were in males, locally acquired and in the MIC range 0.06 – 0.5 mg/L. QRNG were also prominent in Brisbane where 12% of strains were of this type, again mainly in males and in the lower MIC range. Three QRNG were noted in Western Australia and two in South Australia.

In the corresponding period in 1998, the 30 QRNG represented about 3% of all isolates.

High level tetracycline resistance (TRNG)

The number (58) and proportion (6%) of TRNG detected was similar to those noted for the second quarter of 1998. Most (60%) of the TRNG were found in Sydney where they represented 9% of strains. The 11 TRNG in Perth accounted for 13% of gonococci examined there. Brisbane was the only other centre where TRNG were detected in this quarter.

Reference

1. 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 2000;24:8-9.

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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.

Note: The tables accompanying this report in the last issue of *CDI* were incorrectly included. The full report has been reprinted in this issue.

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/ncheccr>.

*HIV and AIDS diagnoses and deaths following AIDS reported for 1 to 31 August 1999, as reported to 30 November 1999, are included in this issue of *CDI* (Tables 6 and 7).*

Table 6. New diagnoses of HIV infection, new diagnoses of AIDS and deaths following AIDS occurring in the period 1 to 31 August 1999, by sex and State or Territory of diagnosis

		State or Territory								Totals for Australia			
										This period 1999	This period 1998	Year to date 1999	Year to date 1998
HIV diagnoses	Female	1	3	0	1	2	0	0	0	7	8	50	62
	Male	2	30	0	10	4	0	16	1	63	41	397	423
	Sex not reported	0	1	0	0	0	0	0	0	1	0	2	5
	Total ¹	3	34	0	11	6	0	16	1	71	49	449	490
AIDS diagnoses	Female	0	1	0	0	1	0	0	0	2	3	7	13
	Male	0	12	0	4	1	0	3	0	20	19	77	200
	Total ¹	0	13	0	4	2	0	3	0	22	22	84	213
AIDS deaths	Female	0	0	0	0	0	0	0	0	0	1	2	6
	Male	0	4	0	0	0	0	0	0	4	11	55	94
	Total ¹	0	4	0	0	0	0	0	0	4	12	58	100

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

Table 7. Cumulative diagnoses of HIV infection, AIDS and deaths following AIDS since the introduction of HIV antibody testing to 31 August 1999, by sex and State or Territory

		State or Territory								Australia
		ACT	NSW	NT	Qld	SA	Tas	Vic	WA	
HIV diagnoses	Female	25	594	9	142	60	6	210	111	1,157
	Male	191	10,691	107	1,934	664	79	3,842	892	18,400
	Sex not reported	0	259	0	0	0	0	24	0	283
	Total ¹	216	11,563	116	2,083	724	85	4,089	1,006	19,882
AIDS diagnoses	Female	8	175	0	47	24	3	67	26	350
	Male	86	4,568	35	802	343	44	1,599	344	7,821
	Total ¹	94	4,755	35	851	367	47	1,673	372	8,194
AIDS deaths	Female	3	114	0	30	15	2	47	16	227
	Male	65	3,147	24	557	228	28	1,251	245	5,545
	Total ¹	68	3,269	24	589	243	30	1,304	262	5,789

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