



Antimicrobial resistance among *Neisseria gonorrhoeae*

July-September 2007

This surveillance of antimicrobial resistance among *Neisseria gonorrhoeae* is based on antimicrobial susceptibility test results collected quarterly from the laboratories that do the majority of the local sexual health clinic and general practice gonococcal diagnostic work. All the participating laboratories use CLSI susceptibility test methods.

This report covers the 3 months of 1 July to 30 September 2007 and the previous 12 months of 1 October 2006 to 30 September 2007. The rates of ciprofloxacin, penicillin and tetracycline resistance are shown by district health board (DHB) in the table below. All isolates tested were susceptible to ceftriaxone.

Over the last 12 months, 1 October 2006 to 30 September 2007, the national rate of ciprofloxacin resistance was 19.1% and the rate of penicillin resistance was 5.5%. Ciprofloxacin resistance was more prevalent than penicillin resistance in all areas of New Zealand participating in this surveillance except the West Coast and Southland DHBs, which both reported a very low number of gonorrhoea cases and no resistance to either antibiotic.

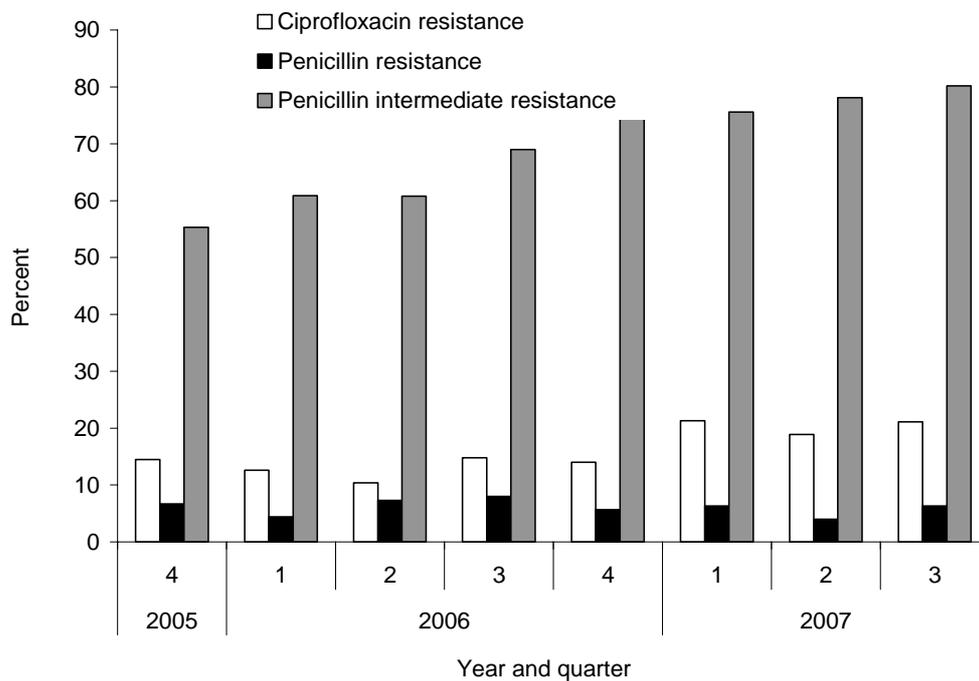
Trends in the national rates of ciprofloxacin resistance, penicillin resistance and penicillin intermediate-resistance are shown in the figure below. Ciprofloxacin resistance increased from 14.5% in the Oct-Dec 2005 quarter to 21.1% in this latest quarter (Jul-Sep 2007). Over the same period, there was no overall change in penicillin resistance.

Helen Heffernan
Antibiotic Reference Laboratory

Acknowledgements: The following laboratories are participating in this surveillance system: Aotea Pathology, Wellington; Canterbury Health Laboratories; Diagnostic and Medical Laboratory, Auckland; Gisborne Hospital; Hamilton Medical Laboratory; Healthlab Kew, Invercargill; LabCare Pathology, New Plymouth; LabPlus, Auckland; MedLab Central, Palmerston North; Medlab South, Christchurch; Nelson Hospital; PathLab Bay of Plenty; Rotorua Diagnostic Laboratory; Rotorua Hospital; Southern Community Laboratories, Hastings, Christchurch, Dunedin and Southland Hospital; Waikato Hospital; Waikato Pathology Laboratory; Whakatane Hospital and Whangarei Hospital.

Hui Chen and Jonathan Williman, ESR, for database management.

Ciprofloxacin resistance, penicillin resistance and penicillin intermediate-resistance, October-December 2005 quarter to July-September 2007 quarter



Ciprofloxacin, penicillin and tetracycline resistance among *Neisseria gonorrhoeae*, during the 3 months, July to September 2007, and the previous 12 months, October 2006 to September 2007

District Health Board ^{1,2}	Ciprofloxacin				Penicillin				Tetracycline			
	Jul - Sep 07		Oct 06 - Sep 07		Jul - Sep 07		Oct 06 - Sep 07		Jul - Sep 07		Oct 06 - Sep 07	
	No. tested	% resistant	No. tested	% resistant	No. tested	% resistant (intermediate)	No. tested	% resistant (intermediate)	No. tested	% resistant	No. tested	% resistant
Northland	5	20.0	27	7.4	5	20.0 (60.0)	27	3.7 (74.1)	0	-	9	0
Auckland ³	279	12.9	1108	11.2	279	9.0 (82.8)	1110	9.2 (80.8)	72	41.7	283	35.7
Waikato	74	20.3	293	26.3	52	1.9 (90.4)	204	1.5 (78.4)	0	-	1	0
Lakes	23	52.2	130	33.9	17	0 (100)	109	6.4 (75.2)	0	-	0	-
Bay of Plenty	42	47.6	167	37.7	42	0 (83.3)	168	1.2 (79.2)	0	-	0	-
Tairāwhiti	15	13.3	90	21.1	0	-	35	5.7 (77.1)	0	-	35	28.6
Taranaki	16	18.8	36	13.9	16	0 (93.8)	36	0 (91.7)	16	12.5	36	11.1
Hawkes Bay	44	43.2	219	25.6	44	0 (81.8)	220	1.8 (80.0)	44	45.5	151	31.8
MidCentral	27	14.8	119	15.1	27	3.7 (63.0)	119	0.8 (55.5)	27	11.1	119	14.3
Capital and Coast/Hutt ⁴	85	17.7	228	21.1	82	7.3 (76.8)	224	3.6 (81.3)	84	19.1	226	27.0
Nelson Marlborough	7	71.4	18	55.6	7	14.3 (0)	18	22.2 (22.2)	0	-	5	20.0
West Coast	2	0	3	0	2	0 (100)	3	0 (66.7)	2	0	3	0
Canterbury ⁵	62	22.6	337	21.4	62	9.7 (83.9)	337	4.2 (80.1)	62	21.0	337	21.1
Otago	10	20.0	54	13.0	10	0 (50.0)	54	1.9 (50.0)	10	20.0	50	10.0
Southland	11	0	28	0	11	0 (27.3)	28	0 (14.3)	11	0	26	3.9
Total	702	21.1	2857	19.1	656	6.3 (80.2)	2692	5.5 (77.4)	328	26.2	1281	24.9

Notes:

- 1 The patient's place of residence, if known, was used to assign cases to a DHB, otherwise the location of the laboratory was used. For laboratories that do a lot of out-of-area work, place of residence data was available and used.
- 2 No data for Whanganui or Wairarapa District Health Boards.
- 3 The three Auckland District Health Boards (Waitemata, Auckland and Counties Manukau) are combined.
- 4 The two Wellington District Health Boards (Capital and Coast, and Hutt) are combined.
- 5 The two Canterbury District Health Boards (Canterbury and South Canterbury) are combined.