Antimicrobial susceptibility of invasive *Neisseria meningitidis*, 2005

The antimicrobial susceptibility of all 128 viable meningococcal isolates received at ESR from cases of invasive disease in 2005 was tested. All isolates were susceptible to the four antimicrobials tested (see table). 14.8% (19/128) of isolates had reduced penicillin susceptibility: 60.0% (3/5) of serogroup W135 isolates, 14.3% (3/21) of serogroup C isolates, 13.3% (13/98) of serogroup B isolates and 10.0% (8/80) of isolates of the NZ epidemic strain (B:4:P1.4).

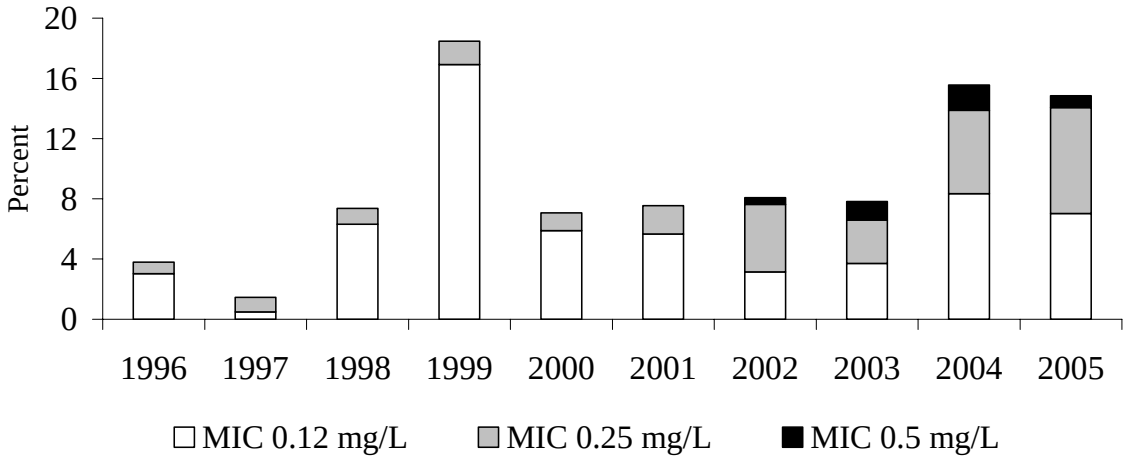
MIC range, MIC_{90} and resistance among N. meningitidis isolates from invasive disease cases, 2005

Antimicrobial	MIC range (mg/L)	MIC_{90} (mg/L)	Percent reduced susceptibility	Percent resistance
penicillin	0.008-0.5	0.12	14.8[1]	0
ceftriaxone	0.002-0.004	0.002	0	0
rifampicin	0.002-0.25	0.03	0	0
ciprofloxacin	0.002-0.008	0.004	0	0

[1] penicillin MIC ≥0.12 mg/L

The proportion of isolates with reduced penicillin susceptibility (MIC ≥0.12 mg/L) has generally increased in recent years. In addition, there appears to be a trend of increasingly higher penicillin MICs (see figure). Until 2002, the majority of isolates with reduced penicillin susceptibility had MICs of 0.12 mg/L. Since then, isolates with penicillin MICs of 0.25 mg/L have formed an increasing proportion of the isolates with reduced susceptibility, and isolates with penicillin MICs of 0.5 mg/L have emerged.

Reduced penicillin susceptibility among N. meningitidis from invasive disease, 1996-2005



No resistance to ceftriaxone or ciprofloxacin has been confirmed among meningococci isolated from cases of invasive disease in New Zealand. Four rifampicin-resistant isolates have been confirmed: one serogroup B (B:4:P1.4) isolate in 2003, one serogroup C (C:2b:P1.2) isolate in 1997, one serogroup B (B:15:P1.7,16) isolate in 1992, and one serogroup A isolate in 1986.