

Antimicrobial Resistance and Serogroup Distribution of *Neisseria meningitidis* (Nme) Isolates Causing Invasive Disease in Argentina (ARG): Eight Years of National Surveillance.

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Nme is one of the major causative agents of bacterial meningitis and septicemia in children and young adults. From 1998 to 2005, 1188 meningococcal strains from invasive disease were submitted to the National Reference Laboratory (INEI) as part of the "National Surveillance Programme for Serogroup and Antimicrobial Resistance" (NSP). Strains were from 190 hospitals located in all the provinces of ARG (23) and Capital Federal.

Aim: To estimate the prevalence of serogroup and antibiotic resistance in Nme isolates causing invasive disease in ARG.

Methods: Serogroup was determined by slide agglutination. MICs to penicillin (PEN), ampicillin (AMP), ceftriaxone (CRO), rifampicin (RFA), chloramphenicol (CMP), tetracycline (TET), ciprofloxacin (CIP) and trimethoprim-sulfamethoxazol (SXT) were performed according to CLSI guidelines.

Results: Serogroup B increases from 26.4% in '98/9 to 63.2% in '04/5 in contrast to serogroup C that decreases from 67.7 to 18.9%. Serogroups Y+W135+X increase from 5.9 to 16.2% during the study. Susceptibility tests were determined for 892 isolates. Moderated susceptibility (MS) to PEN (MIC \geq 0.12 mg/l) and AMP (MIC \geq 0.25 mg/l) was detected in 68.0 and 68.2% respectively. MS to PEN was observed in 57.7, 90.4 and 29.3% of serogroup B, C and Y+W135+X isolates respectively. All strains were susceptible (MIC₉₀ mg/l) to CRO (0.002), CMP (1), TET (0.25) and RFA (0.03) while 94% were resistant to SXT (4). We detected 3 strains with decreased susceptibility to CIP (MIC 0.06-0.12 mg/l) showing zones from 6 to 18 mm with nalidixic acid disk and MIC 64 mg/l.

Conclusions: Changes in the prevalence of dominant serogroups B and C, the increase of isolates with serogroups Y+W135+X, the high frequency of MS to PEN and the detection of emergent mechanisms of resistance, highlight the epidemiological relevance of a NSP in Nme.