

Streptococcus pneumoniae (Spn) Invasive Diseases: Surveillance of Serotypes in Children in Argentina

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Background: In 1993 the PAHO-SIREVA group organized a nationwide laboratory based surveillance system of invasive Spn infections in children in 6 Latin American countries, (actually 23). **Aim:** To identify invasive Spn serotypes (ST), changes through the time, representation in conjugated vaccines

Methods: Prospective study. Surveillance period: 1994-2006. Inclusion criteria: Spn isolated from normally sterile sites in children < 6 y. old with invasive disease, admitted to 37 hospitals located in 22 cities representing all geographic regions, identified by standard procedures. Capsular serotyping: Quellung reaction. Statistical Analysis: Whonet 5.3 - EpiInfo 6.04

Results: N = 2040 Spn evaluated. Age < 2 y. old: 67%. Diagnosis: pneumonia (P) 57.4%; meningitis (M) 26%; sepsis 8%; fever without focus 4%; other 3%. M and sepsis were prevalent in 1^o year of life (p<.0001). ST founded 49; the main were (%): 14 (32.5); 5 (13.1); 1 (10.3); 6B (6.7); 7F (4.3); 9V (3.4); 19A (3.3) 23F (2.9); 18C (3.2). Comparing period 1994-2003 vs. 2004-06, few changes were observed: ST **14** decreased (35.3% vs. 25.8%), p < .0001; **ST 1** increased (8.7% vs. 13.8%), p<.0001). Other ST without significant changes. **ST 1** and **5** were less prevalent in children < than 2 y. old vs. ≥ 2 y. old: 5.1% vs. 20.6%: OR: 0.21 (95% CI 0.15-0.28) p < .0001, and 10.2% vs. 19.0%: OR: 0.50 (95% CI 0.38-0.65) p<.0001, respectively; **ST 14** was prevalent in children < than 2 years old (p<.0001). ST 1, 9V and 14 were prevalent in P vs. M. ST represented in conjugated vaccines: 7-V: 52.2%; 9-V: 75.6%; 10-V: 79.9%; 13-V: 86%. The 7-V shown a higher coverage in children < 2 y. old with P (67%).

Conclusions: Continuous surveillance network was achieved. High proportion of ST 1 and 5 influenced moderate coverage of 7-V vaccine; the best coverage was observed for children < than 2 years old with P.