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INVASIVE PNEUMOCOCCAL DISEASE (IPD) IN ARGENTINA: EARLY IMPACT OF 13-VALENT PNEUMOCOCCAL CONJUGATE VACCINE (PCV13) IN PEDIATRIC POPULATION.

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Background and aims: PCV13 was introduced into National Vaccination Program (NVP) in Jan-2012 for children <1 y.o with 2+1 schedule and catch-up between 12-24 months. The aim was to evaluate changes in the serotype distribution and antimicrobial susceptibility among *S.pneumoniae* causing IPD in children <2 y.o before(pre-PCV13) and after(post-PCV13) the introduction of PCV13 in NVP.

Methodology: *S. pneumoniae* isolates from 115 hospitals/21 provinces were received at NRL between Jan-2010 and Dec-2014. Isolates from sterile fluids were serotyped by Quellung. MIC was performed by agar dilution(CLSI 2014). Three periods were defined:pre-PCV13(2010-11), transitional(2012) and post-PCV13(2013-14). Pre-PCV13 and post-PCV13 periods were compared. $p< 0.05$ were considered significant.

Results: From 1491 *S. pneumoniae* isolated in children <6 y.o, 836(56.1%) were <2 y.o. Diagnosis: pneumonia(42%), meningitis(27%), sepsis(15%), other(16%). The number of IPD cases received at NRL decreased 46.5%, from 385(annual average) in pre-PCV13 to 206 in post-PCV13. PCV13-serotypes decreased from 86.3% to 42.4%, related to serotypes 14, 5 and 6A. Non-PCV13-serotypes increase from 12.8% to 57.1%, mainly in 24, 12F, 16F and 23B serotypes. Antibiotic resistance in pre-PCV13/post-PV13 periods was: penicillin(PEN)MIC≥0.12mg/L 38.6%/41.6%; PEN MIC≥4mg/L 0.2%/0%; cefotaxime(CTX) MIC≥1mg/L 5.1%/4.6%; CTX MIC≥2mg/L 0.6%/0%; erythromycin(ERY) 32.4%/28.9%, tetracycline(TET)20.2%/27.9%; trimethoprim-sulfamethoxazole (SXT) 39.1%/41.6%. Only the increase of TET resistance was significative. All isolates were susceptible to chloramphenicol, levofloxacin, rifampicin and vancomycin. Main serotypes associated with PEN/TET/ERY/SXT resistance during post-PCV13 period were 24 and 14.

Conclusions: We observed early decrease in PCV13-serotypes and increase in some non-PCV13-serotypes in <2 y.o. Antibiotic resistance keeps without significant changes, except for TET. Surveillance is needed to continue monitoring the impact of NVP.