

## Abstract 649

### STREPTOCOCCUS PNEUMONIAE COLONIZATION AMONG HEALTHY SPANISH CHILDREN: THE NATIONWIDE NECOPEL STUDY

Type: AS: Regular Abstracts

Topic: AS04. Public health and epidemiology (only non-SARS-CoV2 content) / AS04a. Population studies and surveillance

Authors: Josefa Ares, [Teresa del Rosal](#), José Yuste, César García-Vera, María Rosa Albañil, Ana Lorente, Isabel Mellado-Sola, Paula Rodríguez-Molino, Cristina Calvo, Ramona Mínguez, Santiago Alfayate, Juan García Sánchez, Elena Sánchez Almeida, Marta Carballal, Patricia Álvarez, Alberto Bercedo, Alicia Bonet, Rosario Guerrero, Laura Somalo, Guadalupe del Castillo, Ana Gallego, Raúl Peiró, Montserrat de Alaiz, Sonia Alonso, Milagros Martínez, María José Galán, María José Edo, María Teresa Martínez, María Isabel Gómez Martín, María José Martín Sierra, María José Arconada, Victoria Lanzadera, Esther Bernal, Beatriz Sánchez de la Vara, María Escorial, Daniel Gros, Mercedes Lozano, Silvia Prado, Gloria Landín, Catarina Ferverza, Zerezade Coello, Nayra Carmona, Esther Diaz, Sofía Hernández, Esther Ruiz, María Liberata García, Jessica Martin, Pablo Fernández, Ramona Fernández, Miguel García Boyano, Marina Rico, Jesús Rodríguez, Rosa Sánchez, Enriqueta Rico, Carmen Torres, Fernando Baquero-Artigao; Spain

#### Background

*Streptococcus pneumoniae* is one of the most frequent bacteria in community-acquired infections. Nasopharyngeal colonization anticipates the development of pneumococcal disease.

The aims of this study were to evaluate *S. pneumoniae* nasopharyngeal carriage rates of healthy children in Spain, to identify the most prevalent serotypes, and to compare them according to patient age.

#### Method

Observational, transversal, prospective and multicenter study coordinated by the Primary Care Pediatric Research Network (PAPenRED). Healthy children between 6 months and 5 years old were recruited when they attended well-child visits, in the period April 2022–June 2023. Nasopharyngeal swabs were sent to local Microbiology laboratories for culture. Pneumococcal isolates were sent to the National Center of Microbiology for antibiotic susceptibility testing and serotype identification.

#### Results

The study included 849 healthy children (98.8% fully vaccinated with PCV-13), with a median age of 20.5 months (IQR 12.1–36.3). Pneumococcal carriage rate was 31.7%. Serotype identification was available for 175 samples: 16 (9.1%) were PCV13 serotypes and 159 (90.9%) non-PCV13 serotypes. Eighty (45.7%) were serotypes included in PCV20. The most prevalent serotypes were 15B (n=35, 20%), 23B (n= 14, 8%), followed by 15A, 23A and 21 (n=12, 6.9%). PCV-13 serotypes represented 6.3% of colonizations in children below 1 year, 5.2% in those 1–2 years and 13.1% in > 2 years (p= 0.215). Amoxicillin-R (MIC  $\geq$  2  $\mu$ g/ml) was found in 7% of serotypes (58% by serotype 11A) and erythromycin-R (MIC  $\geq$ 0.5  $\mu$ g/ml) in 28% (31% by serotypes 15A/B).

#### Conclusions/Learning Points

Almost one third of healthy children aged between 6 months and 5 years of age are colonized by *S. pneumoniae*, especially by non-PCV13 serotypes. PCV20 could cover almost half of the serotypes currently colonizing healthy children in Spain.

Print