

# RISK STACKING FOR PNEUMOCOCCAL DISEASE IN COSTA RICA

Jorge Chaverri-Murillo<sup>1</sup>, Manuel Ramírez-Cardoce<sup>1</sup>, José Castro-Crodero<sup>1</sup>

<sup>1</sup>Universidad de Costa Rica



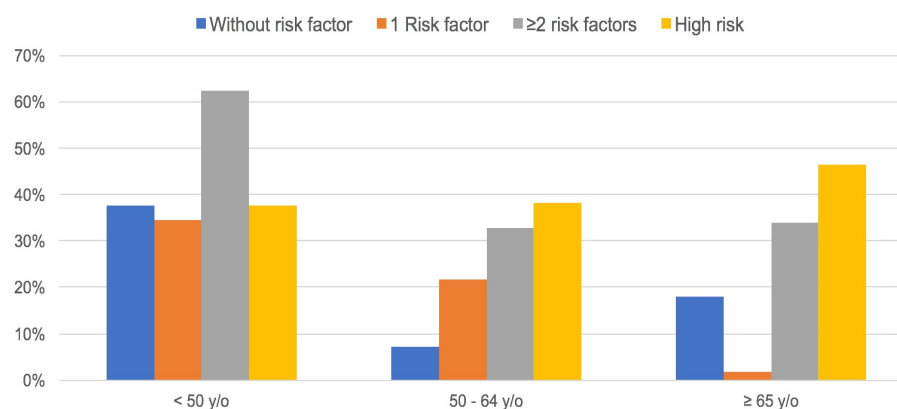
## Background

The value of non-traditional high-risk factor stacking is not known in the Costa Rican population. We aim to describe risk factor stacking for pneumococcal disease (PD) in patients seeking care at Social Security Hospitals in Costa Rica.

## Methods

Methods: Descriptive study of adult patients with microbiological culture-positive *Streptococcus pneumoniae* disease seeking care at two tertiary hospitals in Costa Rica between years 2014-2016. Information on underlying comorbidities (non-traditional) and other risk factors for PD was analyzed and stalked for each age group (G1: <50, G2: 50-64, and G3: ≥65 y/o).

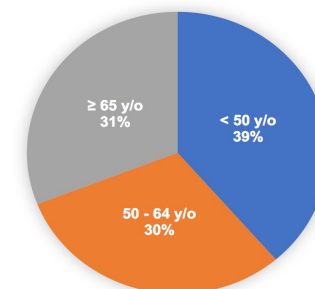
Figure 2. Risk Factor Stacking By Age Group



## Results

Results: We included 181 culture-positive patients. We found that patients in G1 predominantly stacked ≥2 risk factors (63%), the proportion of patients with ≥2 risk factor was similar to high-risk patients in G2 (33% vs 38%). In G3, 18% didn't stacked any other risk factor and 46% was on high-risk. Most frequent risk factors in G1/G2 were smoking and alcoholism, and in G3 chronic pulmonary and heart diseases.

Figure 1. Pneumococcal disease by age group



## Conclusion

Conclusion: We conclude that risk factor stacking is more relevant than high-risk conditions and PD also occurs in persons < 50 y/o. We recommend that risk factor stacking should be considered in prevention strategies for PD.

## Contact

Jorge Chaverri-Murillo: [jorge.chaverri@ucr.ac.cr](mailto:jorge.chaverri@ucr.ac.cr)  
 Manuel Ramírez-Cardoce: [menracar@gmail.com](mailto:menracar@gmail.com)  
 José Castro-Cordero: [josecaco@gmail.com](mailto:josecaco@gmail.com)

