

FACTORS ASSOCIATED WITH NOT RECOMMENDED ANTIBIOTIC PRESCRIPTIONS IN SWISS PRIMARY CARE PHYSICIANS



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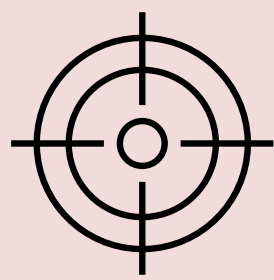
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Introduction

Since 2019, the Swiss Society of Infectious Diseases¹ (SSI) has introduced national guidelines for common infectious diseases as an effort to reduce inappropriate antibiotic prescribing.²



To determine factors associated with the prescription of antibiotics by primary care physicians that are not recommended by SSI guidelines (Figure 1).

Results

Out of 91,424 entries, 17,447 met the inclusion criteria, with 53% (9,265/17,447) concerning pediatric patients. Among adults, 59% (4,813/8,182) were female, compared to 47% (4,348/9,265) in pediatric patients. The proportion of antibiotics not recommended by guidelines was 31% (2,543/8,182) in adults and 19% (1,769/9,265) in pediatric patients. See Figure 2 for the proportions of not recommended antibiotics by indication and Figure 3 for patient and physician factors associated with prescribing of recommended or not recommended antibiotics.

Fig.1 Example of the national guideline¹.

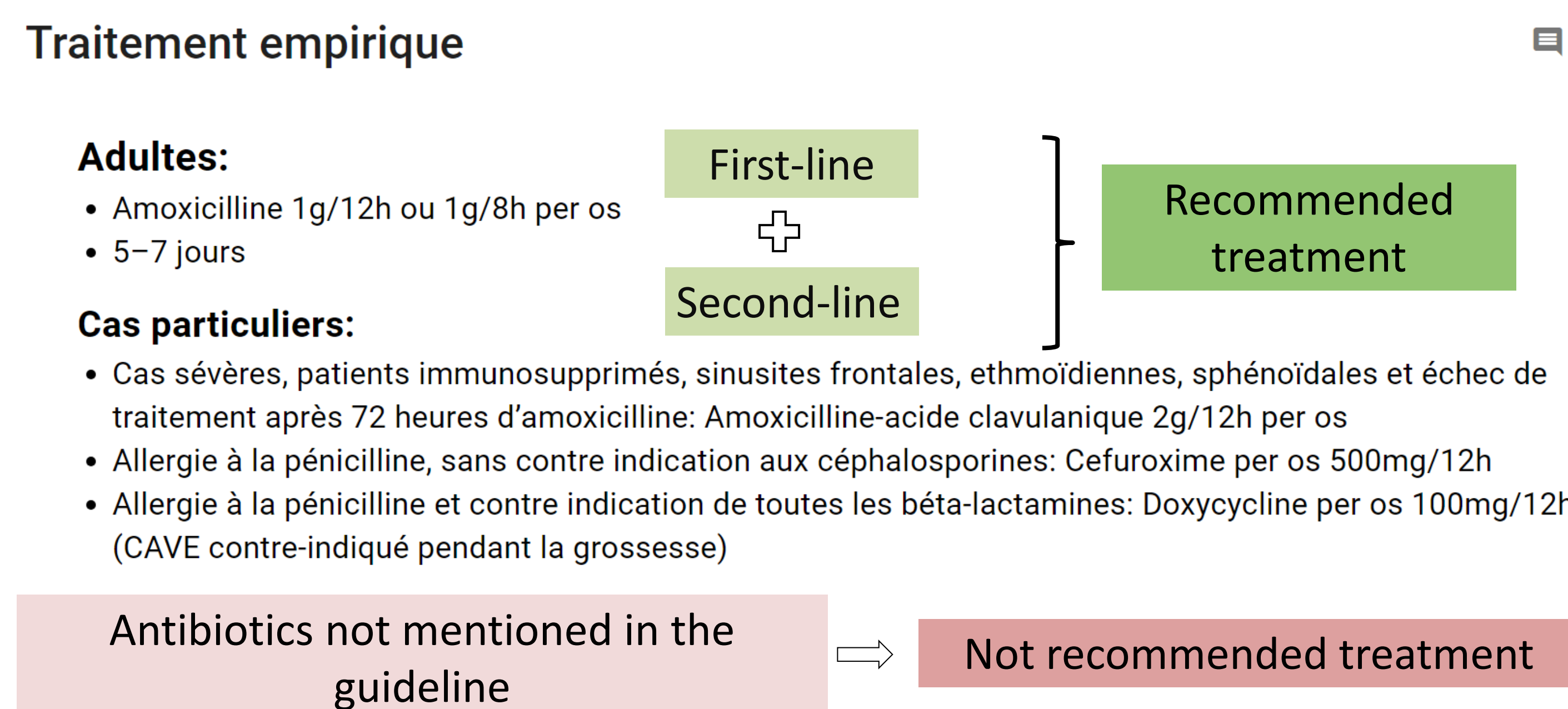
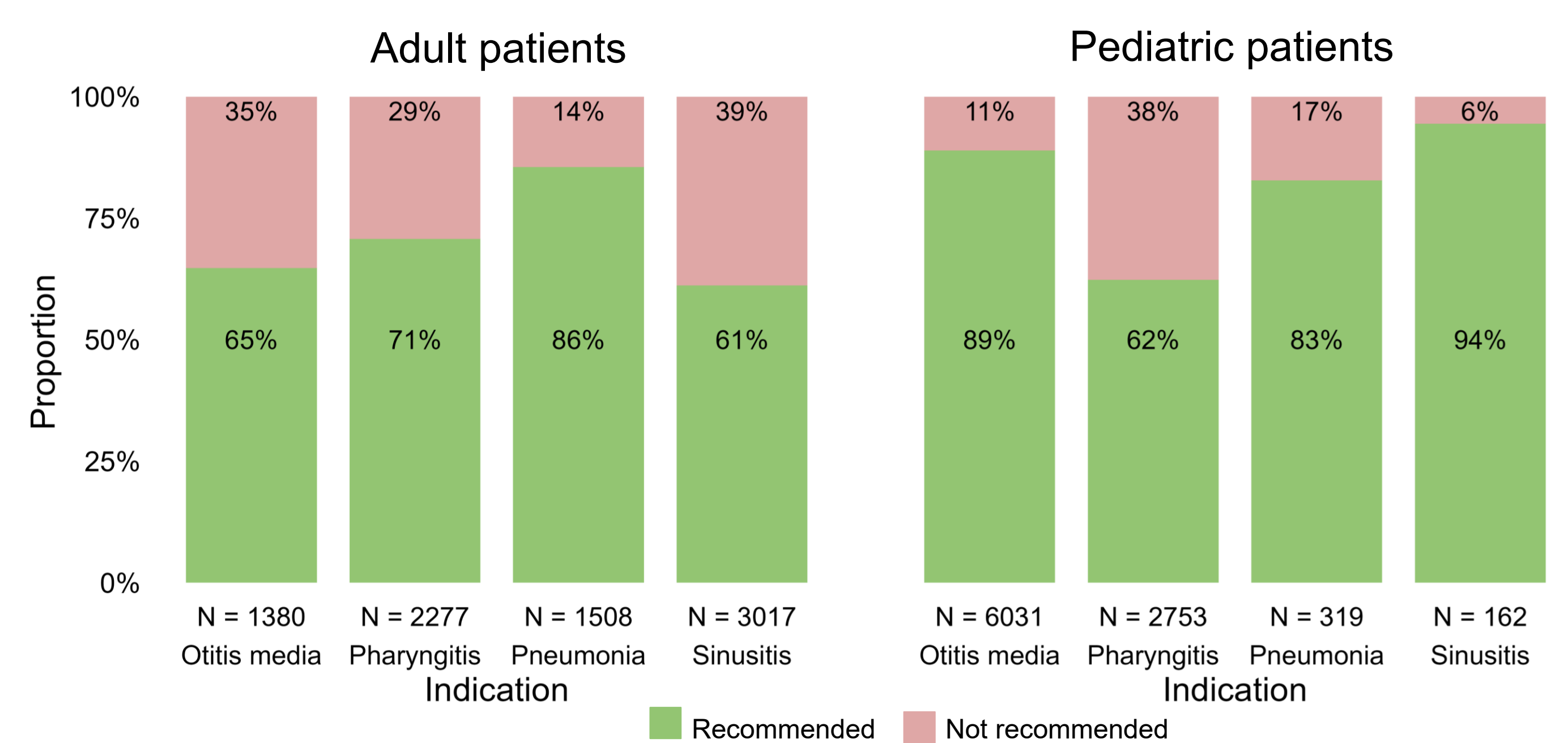


Fig. 2 Proportions of not recommended antibiotics by indication.



Methods

Design: cross-sectional study examining antibiotic prescriptions by clinical indication from 2017 to 2022.

Data: reports on antibiotic prescriptions from physicians in the Sentinella network.

Indications analysed: pharyngitis, otitis media, sinusitis, and pneumonia.

Time frame: periods during which guidelines were in place.

Analysis: multilevel model, treating physician/group practice code as a random effect.

Physician-Level predictors: linguistic region, urban-rural typology, practice type, specialty, mean age category, sex. Patient-Level predictors: age category, clinical indication, sex, attitude towards antibiotic prescription, consultation year.

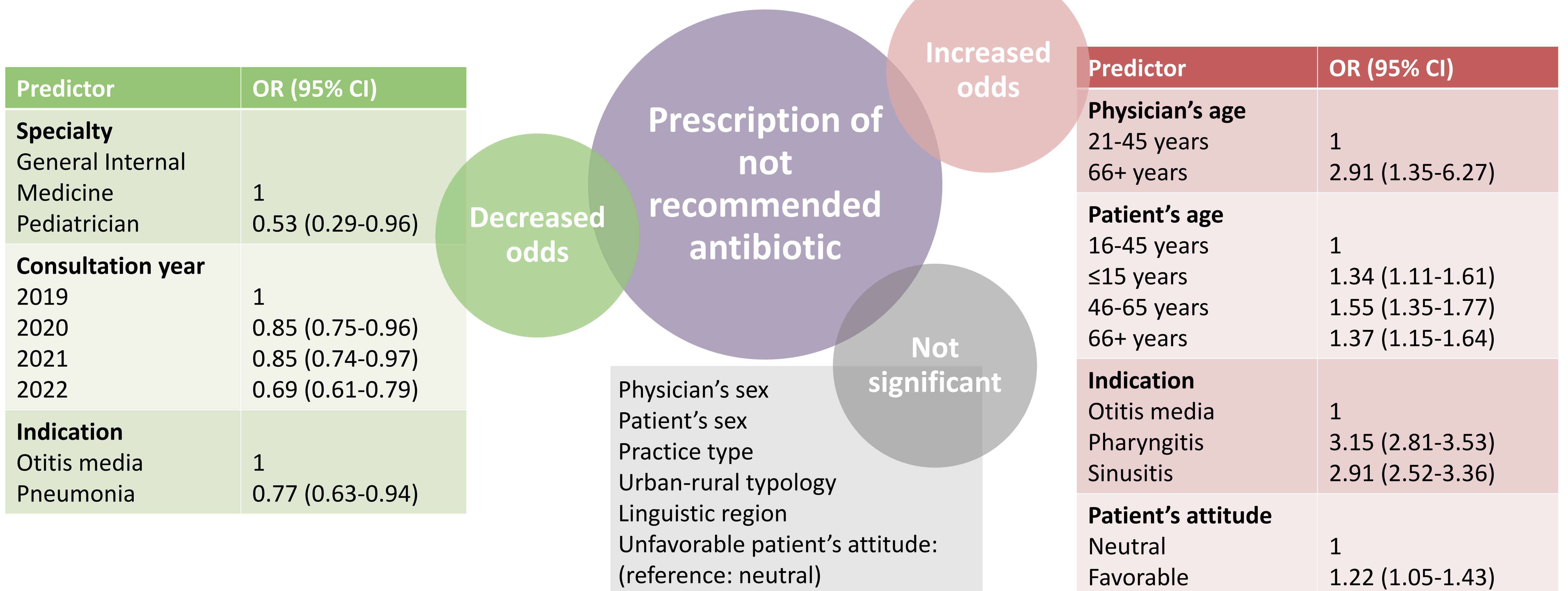
Conclusions

- Older physicians and specific clinical indications, such as pharyngitis and sinusitis, were associated with increased odds of prescribing not recommended antibiotics, while pediatricians and consultations in recent years were associated with lower odds.
- These findings highlight key factors influencing inappropriate antibiotic prescribing, emphasizing the need for targeted antimicrobial stewardship interventions to improve prescribing practices.

References

1. Guidelines. Swiss Society for Infectious Diseases. Available from: <https://ssi.guidelines.ch/>
2. Smith, D. R., et al. (2018). "Defining the appropriateness and inappropriateness of antibiotic prescribing in primary care." *Journal of Antimicrobial Chemotherapy* 73(suppl_2): ii11-ii18.

Fig.3 Factors associated with prescribing of not recommended antibiotics.



Abbreviations: OR – odds ratio, CI – confidence interval.