Activity of SPR206 and Comparator Agents Against Pseudomonas aeruginosa and Acinetobacter baumannii Causing Infections in United States Hospitals

Rodrigo E. Mendes1, Helio S. Sader1, S.J. Ryan Arends1, Nicole Cotroneo2, Ian A. Critchley2, Mariana Castanheira1

IDWeek 2022, October 19–23, 2022, Washington, D.C.

Poster #P1676

- Frozen-form broth microdilution panels were manufactured by JMI Laboratories (North Liberty, IA, USA) and contained cation-adjusted Mueller-Hinton broth as per CLSI guidelines.
- Quality assurance was performed by sterile check, colony counts, and testing CLSI-recommended quality control reference strains. MIC interpretations were performed using CLSI breakpoints for comparators. A susceptible breakpoint of ≤2 mg/L was used for SPR206 for comparison purposes.

Introduction

- Non-fermentative (Gram-negative bacilli) (NFGNB) are opportunistic organisms that have emerged as important hospital-associated pathogens, many in immunocompromised patients.
- These organisms are intrinsically less susceptible and/or resistant to many antibacterial classes due to the presence of intrinsic genes encoding β-lactamases and efflux pumps.

Materials and Methods

- Bacterial organisms: This study included 238 A. baumannii and 450 P. aeruginosa recovered from patients hospitalized in the USA. A. baumannii species complex (designated here as A. baumannii) and Pseudomonas aeruginosa recovered from patients hospitalized in the USA.

- Susceptibility testing: Isolates were tested for susceptibility by broth microdilution following the Clinical and Laboratory Standards Institute (CLSI) M07 11th Edition. Wayne, PA, USA.

Results

- SPR206 showed potent, in vitro activity against these recent collections of A. baumannii and P. aeruginosa from the USA. SPR206 potency was consistently greater than clinically relevant isolates and other comparator agents.
- These results, plus favorable safety and tolerability profiles of SPR206 in Phase 1 studies, support the clinical development of SPR206 for difficult-to-treat infections caused by these pathogens and their resistant subsets.

Conclusions

- SPR206 showed potent in vitro activity against these recent collections of A. baumannii and P. aeruginosa from the USA. SPR206 potency was consistently greater than clinically relevant isolates and other comparator agents.
- These results, plus favorable safety and tolerability profiles of SPR206 in Phase 1 studies, support the clinical development of SPR206 for difficult-to-treat infections caused by these pathogens and their resistant subsets.

Acknowledgements

This research and poster presentation were sponsored by Spero Therapeutics, which was supported by the Office of the Assistant Secretary for Defense Health Affairs through the Joint Surveillance Medical Research Program under Award No. W81XWH-13-1-0085.

References


Contact

Rodrigo E. Mendes, Ph.D.
Spero Therapeutics
350 Beaver Centre Court, Suite A
North Liberty, Iowa 52317
Email: rodrigo-mendes@jmilabs.com

To obtain a PDF of this poster, please visit www.idsociety.org. To obtain a PDF of any AIDWeek 2022 content, please visit www.idsociety.org/idsweek2022.