

Activity of SPR206 and Comparator Agents Against *Pseudomonas aeruginosa* and *Acinetobacter* spp. Causing Infections in Europe and Adjacent Regions

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Introduction

- Non-fermentative Gram-negative bacilli (NF-GNB) are opportunistic organisms that have emerged as important healthcare-associated pathogens, mainly in immunocompromised patients.
- These organisms are innately less susceptible to many antimicrobial classes due to the presence of intrinsic genes encoding β -lactamases and efflux pumps.
- SPR206 is a next-generation polymyxin under clinical development to treat pneumonia, bloodstream, and urinary tract infections caused by GNB multidrug-resistant (MDR) pathogens.
- The *in vitro* activity of SPR206 and comparator agents was monitored against GNB pathogens causing infection in US and European hospitals during 2021 as part of the SENTRY Antimicrobial Surveillance Program.
- This study reports the activity of SPR206 against *Acinetobacter* spp. and *Pseudomonas aeruginosa* recovered from patients hospitalized in European countries and adjacent regions.

Results

Acinetobacter spp.

- A total of 61.6% of all *Acinetobacter* spp. included exhibited an MDR phenotype.
 - Clinical isolates originating from hospitals located in Eastern European countries plus Israel and Turkey had an MDR phenotype prevalence (77.6%) higher than those isolates from Western European hospitals (50.0%) (data not shown).
- Overall, SPR206 had MIC_{50/90} values of 0.12/1 mg/L against all *Acinetobacter* spp. (Table 1), whereas colistin had MIC_{50/90} results of various agents were active (95.8%–99.4% susceptible) against non-MDR *Acinetobacter* spp., including SPR206 that inhibited all but 2 strains at 2 mg/L (Table 2).
- SPR206 (MIC_{50/90}, 0.12/32 mg/L) and colistin (MIC_{50/90}, 0.5/>8 mg/L) MICs against the MDR subset from Eastern Europe were higher than those MICs obtained against isolates from Western Europe (MIC_{50/90}, 0.06/0.5 mg/L for SPR206 and MIC