

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