

f *Streptococcus pneumoniae* to 22 selected antimicrobial agents.

<i>S. pneumoniae</i> isolates phenotype/genotype (no. isolates)				
<i>ermB</i> (n=157)	<i>mefE</i> (n=58)	<i>terM</i> (n=240)	Levofloxacin non-susceptible (n=25)	TMP/SMX-resistant (n=50)
MIC ₅₀ MIC ₉₀ Range				
0.025, 0.008-0.5	0.015, 0.125, 0.004-0.5	0.015, 0.25, 0.004-0.5	0.06, 0.25, 0.008-0.5	0.015, 0.125, 0.004-0.5
0.5, 2, <0.015>8	0.06, 1, <0.015>8	0.12, 2, <0.015>8	<0.015, 2, <0.015>2	0.5, 2, <0.015>8
0.5, 2, <0.06>16	<0.06, 2, <0.06>4	0.25, 2, <0.06>16	<0.06, 2, <0.06>16	0.5, 4, <0.06>16
0.12, 2, <0.12>16	<0.12, 2, <0.12>4	<0.12, 2, <0.12>16	0.25, 2, <0.12>4	0.5, 4, <0.12>16
<0.64, <0.12>64	0.5, 32, <0.12>64	1, <0.64, <0.12>64	8, 32, 0.12-32	16, 32, <0.12>64
0.025, <0.03>0.5	4, >8, <0.03>8	1, >8, <0.25>8	1, 0.25, <0.25>8	1, >8, <0.25>8
1, >8, <0.06>8	0.25, 4, <0.06>8	0.25, 4, <0.06>8	0.25, 4, <0.06>8	2, 8, <0.06>16
16, <0.12>16	0.5, 8, <0.12>16	0.5, 16, <0.12>16	0.5, 16, <0.12>16	4, 16, <0.12>16
0.25, 2, <0.03>8	0.06, 2, <0.03>4	0.06, 2, <0.03>8	0.06, 2, <0.03>2	1, 2, <0.03>8
4, >4, 0.12>4	0.25, >4, 0.03>4	1, >4, <0.03>4	>4, >4, 0.25>4	>4, >4, <0.03>4
>4, >4, 1>4	>4, >4, 0.5>4	>4, >4, 0.5>4	>4, >4, 1>4	>4, >4, 1>4
0.12, 1, <0.004>2	0.06, 1, <0.004>2	0.06, 1, <0.004>2	0.06, 1, <0.004>1	0.25, 1, <0.004>4
0.5, <0.12>32	1, 8, <0.12>16	1, 16, <0.12>32	1, 8, <0.12>16	4, 16, <0.12>32
0.03, 1, <0.03>8	<0.03, 1, <0.03>8	0.12, 1, <0.03>8	0.12, 1, <0.03>1	0.5, 2, <0.03>8
1, 2, 0.12>4	1, 2, 0.12>4	1, 2, 0.12>4	4, 4, 4>4	1, 2, 0.06>4
1, 1, <0.25>2	1, 1, <0.25>2	1, 1, <0.25>2	2, 4, 2>4	1, 1, <0.25>2
<32, >32, >32	>32, >32, >32	2, >32, <0.12>32	1, >32, <0.12>32	0.5, >16, <0.12>16
>16, >16, >16	2, >16, <0.12>16	8, >16, <0.12>16	1, >16, <0.12>16	0.5, >16, <0.12>16
<32, >32, >32	1, >32, <0.12>32	2, >32, <0.12>32	1, >32, <0.12>32	1, >32, <0.12>32
>8, >8, >8	<0.06, 1, <0.06>2	0.25, >8, <0.06>8	<0.06, >8, <0.06>8	<0.06, >8, <0.06>8
>16, >16, >16	8, >16, <0.12>16	>16, >16, >16	<1, >16, <0.12>16	16, >16, 1>16
>4, <0.25>8	<0.25, 4, <0.25>8	0.5, 4, <0.25>8	2, 4, <0.25>4	>8, >8, >8

isolates collected, 385 (92%) were beta-BRO-1 (n=363) and BRO-2 (n=22) isolates

of beta-lactamase production occurred with the incidence of beta-lactamase-
erm33 to 98% in the 13 participating

was detected at similar levels in both
specimens, regardless of specimen source or

ing isolates were collected from 10 of
cated in Belgium, France, Germany,
Switzerland, and the UK

• The comparative *in vitro* activities of the 23 compounds tested are listed in Table 2

• With the exception of penicillin, ampicillin, and amoxicillin, all other beta-lactam antimicrobials tested had excellent activity against *M. catarrhalis*, regardless of beta-lactamase production

• Faropenem exhibited potent *in vitro* activities with MIC₅₀ values of 1 mg/L for BRO-1 and 0.25 mg/L for BRO-2 and beta-lactamase-negative isolates

• All quinolones tested demonstrated excellent *in vitro* activities (ie, maximum MIC of 1 mg/L)

Table 2: Susceptibility of *Moraxella catarrhalis* to 23 selected antimicrobial agents.

Antimicrobial Agent	<i>M. catarrhalis</i> isolates, Phenotype/Genotype (no isolates)		
	Beta-lactamase-negative BRO-1 (n=34)	Beta-lactamase positive BRO-1 (n=363)	Beta-lactamase positive BRO-2 (n=22)
	MIC ₅₀ MIC ₉₀ Range [mg/L]		
Faropenem	0.03, 0.25, 0.03-0.25	0.12, 1, 0.03-1	0.03, 0.25, 0.03-0.5
Penicillin	<0.03, 0.25, <0.03>0.5	4, >4, <0.03>4	1, >4, 0.25>4
Amoxicillin	<0.06, 0.25, <0.06>0.5	2, 8, <0.06>8	0.25, 8, <0.06>8
Amoxicillin-clavulanate	<0.25, 0.25, <0.25>0.5	0.25, 0.25, <0.25>4	0.25, 0.25, <0.25>0.5
Cefaclor	0.25, 2, <0.25>2	0.5, 1, <0.25>2	<0.25, <0.25, <0.25>0.5
Lonsarcel	0.25, 2, <0.25>2	1, 2, <0.25>16	1, 1, 0.5>2
Cefuroxime	0.5, 1, <0.06>2	1, 2, <0.06>4	0.5, 1, 0.12>2
Cefprozil	0.5, 4, 0.12>4	2, 4, 0.12>4	2, 4, 0.5>4
Cefpodoxime	0.12, 0.5, <0.03>0.5	0.5, 1, <0.03>4	0.25, 0.5, 0.06>1
Cefazime	<0.03, 0.03, <0.03>0.5	0.12, 0.25, <0.03>2	0.06, 0.5, <0.03>0.5
Ceftibutin	0.12, 1, 0.03>4	1, 4, <0.03>4	0.25, 4, 0.06>4
Ceftazidime	0.06, 0.5, <0.06>1	0.25, 0.5, <0.06>4	0.06, 0.5, 0.03>1
Ceftaxidime	0.25, 0.25, <0.25>2	0.25, 0.25, <0.25>8	0.25, 0.25, <0.25>2
Cefepime	0.12, 0.5, <0.06>2	0.5, >0.06>4	0.25, 1, 0.12>4
Ciprofloxacin	<0.015, 0.03, <0.015>0.25	<0.015, 0.03, <0.015>0.5	<0.015, 0.03, <0.015>0.06
Levofloxacin	<0.5, <0.5>0.5	<0.5, <0.5>1	<0.5, 0.5, 0.5
Erythromycin	<0.25, <0.25>0.25	<0.25, <0.25>0.25	<0.25, <0.25>0.25
Azithromycin	<0.12, <0.12>0.12	<0.12, <0.12>0.12	<0.12, <0.12>0.12
Clarithromycin	<0.25, <0.25>0.25	<0.25, <0.25>0.25	<0.25, <0.25>0.25
Tetracycline	<0.06, 0.12, <0.06>0.5	0.06, 0.12, <0.06>0.5	<0.06, 0.12, <0.06>0.5
Trimethoprim	<2, <2>2	<2, <2>2	<2, <2>2
Rifampin	<1, <1>1	<1, <1>1	<1, <1>1
TMP/SMX	<0.25, 0.25, <0.25>8	<0.25, 0.25, <0.25>8	<0.25, 0.25, <0.25>8

CONCLUSIONS

- Faropenem had potent *in vitro* activity against 530 genetically characterized *S. pneumoniae* isolates, including those which exhibited multiple-antibiotic resistance (ie, MIC₅₀ = 0.25 mg/L)
- Antimicrobial susceptibility patterns for *M. catarrhalis* have changed little in recent years in Europe
- Faropenem demonstrated potent *in vitro* activity against both BRO-1 and BRO-2 beta-lactamase-producing *M. catarrhalis* isolates (ie, MIC₅₀ values ≤ 1 mg/L)
- Faropenem, a promising novel oral penem, warrants further clinical investigation for the treatment of RTIs

REFERENCES

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- Mortensen JE, Egleton JH. Comparative *in vitro* activity of faropenem against aerobic bacteria isolated from pediatric patients. *Diagn Microbiol Infect Dis* 1995; 22:301-6.