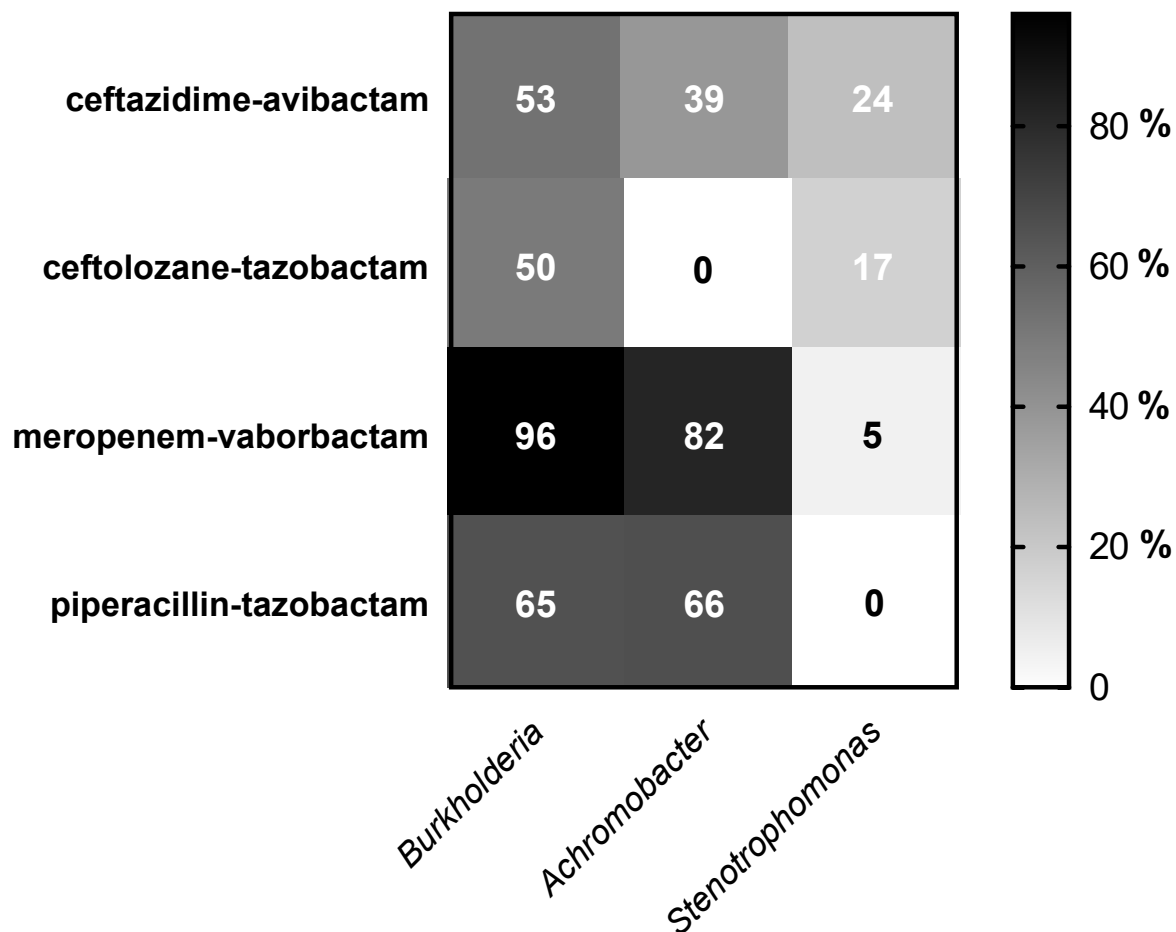


% MDR/XDR strains with MIC \leq 4 μ g/ml



SUPPLEMENTAL FIGURE 1: Activities of β lactam- β -lactamase inhibitor agents against MDR/XDR *Burkholderia* (n=118), *Achromobacter* (n=76), and *Stenotrophomonas* (n=88) strains. Shown are the percentage of MDR/XDR strains in each group with MIC \leq 4 μ g/ml.

SUPPLEMENTAL TABLE 1 Activities (MIC₅₀ / MIC₉₀ in µg/ml) of β-lactam-β-lactamase inhibitor agents against *Burkholderia* spp.

Species or group							
Antimicrobial	<i>Burkholderia</i> spp. (n = 200)	<i>B. cenocepacia</i> (n = 50)	<i>B. cepacia</i> (n = 20)	<i>B. contaminans</i> (n = 10)	<i>B. gladioli</i> (n = 50)	<i>B. multivorans</i> (n = 50)	<i>B. vietnamiensis</i> (n = 20)
ceftazidime-avibactam	4 / 16	4 / 4	4 / 8	4 / 4	16 / 16	2 / 4	2 / 2
ceftolozane-tazobactam	2 / 16	1 / 4	1 / 8	2 / 2	16 / 32	1 / 32	1 / 2
meropenem-vaborbactam	1 / 2	1 / 2	1 / 2	1 / 1	1 / 2	1 / 2	0.5 / 0.5
piperacillin-tazobactam	≤2 / 32	4 / 128	16 / 64	8 / 32	≤2 / ≤2	≤2 / >128	≤2 / ≤2

SUPPLEMENTAL TABLE 2 Activities (MIC₅₀ / MIC₉₀ in µg/ml) of β-lactam-β-lactamase inhibitor agents against *Achromobacter* spp., *Stenotrophomonas maltophilia*, and *Pandoraea* spp.

Species or group								
Antimicrobial	<i>Achromobacter</i> spp. (n = 100)	<i>A. dolens</i> (n = 25)	<i>A. ruhlandii</i> (n = 25)	<i>A. xylosoxidans</i> (n = 50)	<i>S. maltophilia</i> (n = 100)	<i>Pandoraea</i> spp (n = 20)	<i>P. apista</i> (n = 10)	<i>P. sputorum</i> (n = 10)
ceftazidime-avibactam	8 / 32	8 / 16	8 / 16	8 / 32	16 / >32	>32 / >32	>32 / >32	>32 / >32
ceftolozane-tazobactam	>32 / >32	>32 / >32	>32 / >32	>32 / >32	32 / >32	>32 / >32	>32 / >32	>32 / >32
meropenem-vaborbactam	≤0.5 / 8	≤0.5 / 4	2 / 16	≤0.5 / 8	>32 / >32	>32 / >32	>32 / >32	>32 / >32
piperacillin-tazobactam	≤2 / 128	≤2 / >128	8 / 128	≤2 / 16	128 / >128	64 / >128	>128 / >128	64 / 128

SUPPLEMENTAL TABLE 3 Activities of antimicrobial agents against bacterial strains

Species or group	Antimicrobial	MIC (µg/ml)		
		Range	MIC ₅₀	MIC ₉₀
<i>Achromobacter</i> , all isolates (n = 100)	Aztreonam	32 to >32	>32	>32
	Ceftazidime	1 to >32	8	32
	Ceftazidime-avibactam	1 to >32	8	32
	Ciprofloxacin	≤0.5 to >8	4	>8
	Colistin	≤0.5 to >8	4	>8
	Ceftolozane-tazobactam	≤0.5 to >32	>32	>32
	Imipenem	≤0.5 to >32	2	8
	Levofloxacin	≤0.5 to >8	4	>8
	Meropenem	≤0.5 to >32	1	>32
	Meropenem-vaborbactam	≤0.5 to 32	≤0.5	8
	Minocycline	≤0.25 to 16	2	8
	Moxifloxacin	≤0.5 to >8	4	>8
	Piperacillin-tazobactam	≤2 to >128	≤2	128
	Tigecycline	≤0.25 to 4	1	2
	Trimethoprim-sulfamethoxazole	≤0.5 to >8	≤0.5	4

Species or group	Antimicrobial	MIC (µg/ml)		
		Range	MIC ₅₀	MIC ₉₀
<i>Achromobacter dolens</i> (n = 25)	Aztreonam	>32	>32	>32
	Ceftazidime	4 to 32	8	32
	Ceftazidime-avibactam	2 to 32	8	16
	Ciprofloxacin	≤0.5 to >8	2	8
	Colistin	≤0.5 to >8	2	>8
	Ceftolozane-tazobactam	8 to >32	>32	>32
	Imipenem	≤0.5 to >32	1	2
	Levofloxacin	≤0.5 to >8	2	8
	Meropenem	≤0.5 to >32	1	8
	Meropenem-vaborbactam	≤0.5 to 32	≤0.5	4
	Minocycline	≤0.25 to 8	1	4
	Moxifloxacin	≤0.5 to >8	4	>8
	Piperacillin-tazobactam	≤2 to >128	≤2	>128
	Tigecycline	≤0.25 to 4	0.5	2
	Trimethoprim-sulfamethoxazole	≤0.5 to >8	≤0.5	8

Species or group	Antimicrobial	MIC (µg/ml)		
		Range	MIC ₅₀	MIC ₉₀
<i>Achromobacter ruhlandii</i> (n = 25)	Aztreonam	32 to >32	>32	>32
	Ceftazidime	2 to >32	8	>32
	Ceftazidime-avibactam	2 to 32	8	16
	Ciprofloxacin	≤0.5 to >8	8	>8
	Colistin	≤0.5 to >8	4	>8
	Ceftolozane-tazobactam	≤0.5 to >32	>32	>32
	Imipenem	≤0.5 to 32	4	16
	Levofloxacin	≤0.5 to >8	8	>8
	Meropenem	≤0.5 to >32	8	>32
	Meropenem-vaborbactam	≤0.5 to 16	2	16
	Minocycline	0.5 to 16	2	8
	Moxifloxacin	≤0.5 to >8	4	>8
	Piperacillin-tazobactam	≤2 to >128	8	128
	Tigecycline	≤0.25 to 4	1	4
	Trimethoprim-sulfamethoxazole	≤0.5 to >8	≤0.5	2

Species or group	Antimicrobial	MIC (µg/ml)		
		Range	MIC ₅₀	MIC ₉₀
<i>Achromobacter xylosoxidans</i> (n = 50)	Aztreonam	32 to >32	>32	>32
	Ceftazidime	1 to >32	8	>32
	Ceftazidime-avibactam	1 to >32	8	32
	Ciprofloxacin	1 to >8	4	>8
	Colistin	≤0.5 to >8	4	>8
	Ceftolozane-tazobactam	8 to >32	>32	>32
	Imipenem	1 to >32	2	4
	Levofloxacin	1 to >8	4	>8
	Meropenem	≤0.5 to >32	≤0.5	32
	Meropenem-vaborbactam	≤0.5 to 32	≤0.5	8
	Minocycline	≤0.25 to 16	4	8
	Moxifloxacin	1 to >8	4	>8
	Piperacillin-tazobactam	≤2 to >128	≤2	16
	Tigecycline	≤0.25 to 4	1	2
	Trimethoprim-sulfamethoxazole	≤0.5 to >8	≤0.5	4

Species or group	Antimicrobial	MIC (µg/ml)		
		Range	MIC ₅₀	MIC ₉₀
<i>Burkholderia</i> , all isolates (n = 200)	Aztreonam	≤1 to >32	16	>32
	Ceftazidime	≤0.5 to >32	4	16
	Ceftazidime-avibactam	≤0.5 to >32	4	16
	Ciprofloxacin	≤0.5 to >8	1	4
	Colistin	1 to >8	>8	>8
	Ceftolozane-tazobactam	≤0.5 to >32	2	16
	Imipenem	≤0.5 to >32	4	16
	Levofloxacin	≤0.5 to >8	1	4
	Meropenem	≤0.5 to >32	2	4
	Meropenem-vaborbactam	≤0.5 to >32	1	2
	Minocycline	≤0.25 to >16	1	4
	Moxifloxacin	≤0.5 to >8	1	4
	Piperacillin-tazobactam	≤2 to >128	≤2	32
	Tigecycline	≤0.25 to >8	1	4
	Trimethoprim-sulfamethoxazole	≤0.5 to 4	≤0.5	1

Species or group	Antimicrobial	MIC (µg/ml)		
		Range	MIC ₅₀	MIC ₉₀
<i>Burkholderia cenocepacia</i> (n = 50)	Aztreonam	8 to >32	16	>32
	Ceftazidime	≤0.5 to >32	4	8
	Ceftazidime-avibactam	2 to 16	4	4
	Ciprofloxacin	≤0.5 to >8	1	4
	Colistin	1 to >8	>8	>8
	Ceftolozane-tazobactam	≤0.5 to >32	1	4
	Imipenem	2 to >32	8	16
	Levofloxacin	≤0.5 to >8	2	8
	Meropenem	1 to 16	2	4
	Meropenem-vaborbactam	≤0.5 to 16	1	2
	Minocycline	≤0.25 to 16	1	8
	Moxifloxacin	≤0.5 to >8	1	4
	Piperacillin-tazobactam	≤2 to >128	4	128
	Tigecycline	≤0.25 to 8	0.5	4
	Trimethoprim-sulfamethoxazole	≤0.5 to 4	≤0.5	1

Species or group	Antimicrobial	MIC (µg/ml)		
		Range	MIC ₅₀	MIC ₉₀
<i>Burkholderia cepacia</i> (n = 20)	Aztreonam	4 to >32	16	>32
	Ceftazidime	2 to 32	4	16
	Ceftazidime-avibactam	2 to 16	4	8
	Ciprofloxacin	≤0.5 to >8	1	4
	Colistin	>8	>8	>8
	Ceftolozane-tazobactam	≤0.5 to 8	1	8
	Imipenem	4 to 16	8	16
	Levofloxacin	1 to >8	2	8
	Meropenem	1 to 8	4	8
	Meropenem-vaborbactam	≤0.5 to 2	1	2
	Minocycline	0.5 to 16	2	8
	Moxifloxacin	≤0.5 to >8	1	8
	Piperacillin-tazobactam	≤2 to 128	16	64
	Tigecycline	≤0.25 to >8	1	4
	Trimethoprim-sulfamethoxazole	≤0.5 to 1	≤0.5	1

Species or group	Antimicrobial	MIC (µg/ml)		
		Range	MIC ₅₀	MIC ₉₀
<i>Burkholderia contaminans</i> (n = 10)	Aztreonam	8 to >32	32	>32
	Ceftazidime	2 to 8	4	4
	Ceftazidime-avibactam	2 to 4	4	4
	Ciprofloxacin	≤0.5 to 8	1	1
	Colistin	>8	>8	>8
	Ceftolozane-tazobactam	1 to 4	2	2
	Imipenem	4 to 8	8	8
	Levofloxacin	1 to 8	2	2
	Meropenem	2 to 4	4	4
	Meropenem-vaborbactam	≤0.5 to 2	1	1
	Minocycline	1 to 8	2	4
	Moxifloxacin	≤0.5 to 8	1	2
	Piperacillin-tazobactam	≤2 to 32	8	32
	Tigecycline	≤0.25 to 2	1	2
	Trimethoprim-sulfamethoxazole	≤0.5 to 2	1	2

Species or group	Antimicrobial	MIC (µg/ml)		
		Range	MIC ₅₀	MIC ₉₀
<i>Burkholderia gladioli</i> (n = 50)	Aztreonam	4 to >32	32	>32
	Ceftazidime	4 to >32	16	32
	Ceftazidime-avibactam	2 to >32	16	16
	Ciprofloxacin	≤0.5 to 8	≤0.5	≤0.5
	Colistin	1 to >8	>8	>8
	Ceftolozane-tazobactam	2 to >32	16	32
	Imipenem	≤0.5 to 2	≤0.5	2
	Levofloxacin	≤0.5 to 8	≤0.5	1
	Meropenem	≤0.5 to 4	1	2
	Meropenem-vaborbactam	≤0.5 to 4	1	2
	Minocycline	≤0.25 to 8	2	2
	Moxifloxacin	≤0.5 to 4	≤0.5	≤0.5
	Piperacillin-tazobactam	≤2 to 4	≤2	≤2
	Tigecycline	≤0.25 to 4	0.5	1
	Trimethoprim-sulfamethoxazole	≤0.5	≤0.5	≤0.5

Species or group	Antimicrobial	MIC (µg/ml)		
		Range	MIC ₅₀	MIC ₉₀
<i>Burkholderia multivorans</i> (n = 50)	Aztreonam	2 to >32	4	>32
	Ceftazidime	1 to >32	2	16
	Ceftazidime-avibactam	≤0.5 to >32	2	4
	Ciprofloxacin	≤0.5 to >8	1	>8
	Colistin	1 to >8	>8	>8
	Ceftolozane-tazobactam	≤0.5 to >32	1	32
	Imipenem	≤0.5 to >32	16	32
	Levofloxacin	≤0.5 to >8	2	8
	Meropenem	≤0.5 to >32	2	8
	Meropenem-vaborbactam	≤0.5 to >32	1	2
	Minocycline	≤0.25 to 8	1	4
	Moxifloxacin	≤0.5 to >8	1	8
	Piperacillin-tazobactam	≤2 to >128	≤2	>128
	Tigecycline	≤0.25 to >8	1	8
	Trimethoprim-sulfamethoxazole	≤0.5 to 2	≤0.5	1

Species or group	Antimicrobial	MIC (µg/ml)		
		Range	MIC ₅₀	MIC ₉₀
<i>Burkholderia vietnamiensis</i> (n = 20)	Aztreonam	≤1 to >32	4	4
	Ceftazidime	1 to 8	2	2
	Ceftazidime-avibactam	1 to 4	2	2
	Ciprofloxacin	≤0.5 to >8	≤0.5	1
	Colistin	>8	>8	>8
	Ceftolozane-tazobactam	≤0.5 to 16	1	2
	Imipenem	≤0.5 to 4	≤0.5	≤0.5
	Levofloxacin	≤0.5 to >8	2	2
	Meropenem	≤0.5 to 2	≤0.5	1
	Meropenem-vaborbactam	≤0.5 to 1	≤0.5	≤0.5
	Minocycline	0.5 to >16	1	2
	Moxifloxacin	≤0.5 to >8	1	1
	Piperacillin-tazobactam	≤2 to 16	≤2	≤2
	Tigecycline	0.5 to 8	1	2
	Trimethoprim-sulfamethoxazole	≤0.5 to 1	≤0.5	≤0.5

Species or group	Antimicrobial	MIC (µg/ml)		
		Range	MIC ₅₀	MIC ₉₀
<i>Stenotrophomonas maltophilia</i> (n = 100)	Aztreonam	≤1 to >32	>32	>32
	Ceftazidime	≤0.5 to >32	32	>32
	Ceftazidime-avibactam	≤0.5 to >32	16	>32
	Ciprofloxacin	≤0.5 to >8	4	>8
	Colistin	≤0.5 to >8	1	>8
	Ceftolozane-tazobactam	≤0.5 to >32	32	>32
	Imipenem	4 to >32	>32	>32
	Levofloxacin	≤0.5 to >8	2	8
	Meropenem	≤0.5 to >32	>32	>32
	Meropenem-vaborbactam	≤0.5 to >32	>32	>32
	Minocycline	≤0.25 to 4	0.5	2
	Moxifloxacin	≤0.5 to >8	1	4
	Piperacillin-tazobactam	≤2 to >128	128	>128
	Tigecycline	≤0.25 to 4	0.5	2
	Trimethoprim-sulfamethoxazole	≤0.5 to >8	≤0.5	1

Species or group	Antimicrobial	MIC (µg/ml)		
		Range	MIC ₅₀	MIC ₉₀
<i>Pandoraea</i> , all isolates (n = 20)	Aztreonam	>32	>32	>32
	Ceftazidime	>32	>32	>32
	Ceftazidime-avibactam	>32	>32	>32
	Ciprofloxacin	1 to >8	4	>8
	Colistin	>8	>8	>8
	Ceftolozane-tazobactam	>32	>32	>32
	Imipenem	1 to >32	2	4
	Levofloxacin	1 to >8	4	>8
	Meropenem	32 to >32	>32	>32
	Meropenem-vaborbactam	32 to >32	>32	>32
	Minocycline	0.5 to 8	2	4
	Moxifloxacin	1 to >8	4	8
	Piperacillin-tazobactam	8 to >128	64	>128
	Tigecycline	0.5 to 8	2	8
	Trimethoprim-sulfamethoxazole	≤0.5 to 4	≤0.5	≤0.5

Species or group	Antimicrobial	MIC (µg/ml)		
		Range	MIC ₅₀	MIC ₉₀
<i>Pandoraea apista</i> (n = 10)	Aztreonam	>32	>32	>32
	Ceftazidime	>32	>32	>32
	Ceftazidime-avibactam	>32	>32	>32
	Ciprofloxacin	1 to >8	2	>8
	Colistin	>8	>8	>8
	Ceftolozane-tazobactam	>32	>32	>32
	Imipenem	2 to >32	4	16
	Levofloxacin	1 to >8	2	>8
	Meropenem	>32	>32	>32
	Meropenem-vaborbactam	>32	>32	>32
	Minocycline	2 to 8	2	8
	Moxifloxacin	1 to >8	1	8
	Piperacillin-tazobactam	32 to >128	>128	>128
	Tigecycline	0.5 to 8	1	8
	Trimethoprim-sulfamethoxazole	≤0.5 to 4	≤0.5	≤0.5

Species or group	Antimicrobial	MIC (µg/ml)		
		Range	MIC ₅₀	MIC ₉₀
<i>Pandoraea sputorum</i> (n = 10)	Aztreonam	>32	>32	>32
	Ceftazidime	>32	>32	>32
	Ceftazidime-avibactam	>32	>32	>32
	Ciprofloxacin	2 to >8	4	8
	Colistin	>8	>8	>8
	Ceftolozane-tazobactam	>32	>32	>32
	Imipenem	1 to 2	1	1
	Levofloxacin	4 to >8	8	>8
	Meropenem	32 to >32	>32	>32
	Meropenem-vaborbactam	32 to >32	>32	>32
	Minocycline	0.5 to 4	2	2
	Moxifloxacin	4 to >8	4	8
	Piperacillin-tazobactam	8 to >128	64	128
	Tigecycline	1 to 8	2	4
	Trimethoprim-sulfamethoxazole	≤0.5	≤0.5	≤0.5