secondary outcomes (Table 1). Overall treatment failure did not differ by treatment regimens utilized. On multivariable analysis controlling for age, renal disease, CCI, immunosuppression, ICU admission, SOFA score, and receipt of MT, only SOFA score was associated with treatment failure [OR 1.43 (95% CI 1.15 to 1.77); p=0.001] and not MT [OR 1.22 (95% CI 0.25 to 5.97); p=0.808].

Table 1: Treatment Outcomes – MT versus CT

Treatment Outcomes – MT versus CT

Outcome	MT (n=50)	CT (n=18)	P value
Overall treatment failure at 30 days, n (%)	18 (36.0)	7 (38.9)	.947
Clinical failure at 30 days, n (%)	13 (26.0)	5 (27.8)	1.000
Microbiologic failure at 30 days, n (%)	13 (27.1)	4 (23.5)	.972
Development of resistance while on initial treatment regimen, n (%)	4 (30.8)	1 (25.0)	1.000
Recurrence/ongoing infection at 90 days, n (%)	5 (10.0)	1 (5.6)	.569
Mortality at 14 days, n (%)	2 (4.0)	1 (5.6)	1.000
Mortality at 30 days, n (%)	4 (8.0)	2 (11.1)	1.000
Mortality at 90 days, n (%)	10 (27.8)	5 (29.4)	1.000
Discontinuation due to adverse drug reaction, n (%)	4 (8.0)	2 (11.1)	1.000

Conclusion. There were no differences in outcomes between MT and CT groups for the treatment of Bcc infection. Treatment outcomes appeared to be driven primarily by disease severity. Additional studies are needed to identify the optimal treatment regimens.

Disclosures. **All Authors**: No reported disclosures

1580. *In Vitro* Activity of Ceftazidime-Avibactam Against Enterobacterales and *Pseudomonas aeruginosa* Collected in Latin America as part of the ATLAS Global Surveillance Program, 2017-2019

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Session: P-71. Treatment of Antimicrobial Resistant Infections

Background. Ceftazidime-avibactam (CAZ-AVI) is a β-lactam/non-β-lactam β-lactamase inhibitor combination with *in vitro* activity against Enterobacterales (Ent) and *Pseudomonas aeruginosa* (*Psa*) carrying Class A, C and some Class D β-lactamases. We examined the *in vitro* activity of CAZ-AVI and comparators against isolates collected in Latin America (LA) as part of the ATLAS surveillance program.

Methods. Non-duplicate isolates of Ent (n=8416) and *Psa* (n=2521) were collected in 10 countries in Central America (CAC; Costa Rica, Dominican Republic, Guatemala, Panama [2018-2019 only]) and South America (SA; Argentina, Brazil, Chile, Colombia, Mexico, Venezuela [2017-2019]). Susceptibility testing was performed by CLSI broth microdilution and values were interpreted using CLSI 2020 breakpoints. CAZ-AVI was tested at a fixed concentration of 4 µg/mL AVI. Isolates with meropenem (MEM) MICs ≥2 µg/mL (Ent) or ≥4 µg/mL (*Psa*) were screened for β-lactamase genes.

Results. CAZ-AVI demonstrated potent *in vitro* activity against Ent collected in LA overall and in the CAC and SA subregions (95-99% susceptible (S)) that was comparable to or exceeded the activity of comparators including MEM, amikacin (AMK) and tigecycline (TGC) (Table). CAZ-AVI retained good activity against MEM non-susceptible (NS) Ent collected in SA (82% S; 6.9% of collected isolates) but activity was reduced against MEM-NS Ent from CAC (10% S; 5.7% of collected isolates), which included a high proportion of isolates carrying NDM-type metallo-β-lactamases (MBL). Among *Psa*, CAZ-AVI showed greater activity than the tested comparators against both all (86-92% S) and MEM-NS (61-66% S) isolates collected in LA overall and in the two subregions.

Table

		Drug/Percent susceptible (%)					
Organism/Region	Phenotype (n)	CAZ-AVI	CAZ	MEM	TZP	AMK	TGC
Ent/LA	All (n=8416)	98.2	67.9	93.2	82.7	96.2	97.2
	MEM-NS (n=570)	74.7	5.4	0.0	1.9	70.2	95.6
CAC	All (n=1058)	94.9	69.9	94.3	85.4	95.8	98.1
	MEM-NS (n=60)	10.0	1.7	0.0	1.7	48.3	98.3
SA	All (n=7358)	98.6	67.6	93.1	82.4	96.2	97.1
	MEM-NS (n=510)	82.4	5.9	0.0	2.0	72.8	95.3
Psa /LA	All (n=2521)	87.0	71.5	66.9	69.1	82.1	NA
	MEM-NS (n=835)	61.9	35.3	0.0	28.6	52.3	NA
CAC	All (n=348)	92.2	81.6	78.2	79.3	85.9	NA
	MEM-NS (n=76)	65.8	44.7	0.0	31.6	48.7	NA
SA	All (n=2173)	86.1	69.9	65.1	67.5	81.5	NA
	MEM-NS (n=759)	61.5	34.4	0.0	28.3	52.7	NA

LA, Latin America (includes all countries in CAC and SA); CAC, Central American Countries (Costa Rica, Dominican Republic, Guatemala, Panama; isolates collected in 2018-2019 only); SA, South America (Argentina, Brazil, Chile, Colombia, Mexico, Venezuela; isolates collected in 2017-2019). CAZ-AVI, ceftazidime-avibactam; CAZ, ceftazidime; MEM, meropenem; TZP, piperacillin-tazobactam; AMK, amikacin; TGC, tigecycline; NS, non-susceptible; NA, no CLSI interpretive criteria are available for this organism/drug combination.

Conclusion. CAZ-AVI showed potent *in vitro* activity against Ent and *Psa* collected from patients in the CAC and SA subregions of LA. Activity was also good against MEM-NS isolates from SA but was reduced against MEM-NS Ent from CAC that included a high proportion of MBL-positive isolates. The regional and country prevalence of different carbapenem-resistance mechanisms must be considered when evaluating treatment options; however, CAZ-AVI could provide a valuable therapeutic option for treatment of infections caused by Ent and *Psa* in LA.

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1581. *In Vitro* Activity of Ceftolozane/Tazobactam against *Pseudomonas aeruginosa* from ICU and Non-ICU Patients with Respiratory Tract Infections in the Asia/Pacific region – SMART 2016-2018

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Session: P-71. Treatment of Antimicrobial Resistant Infections

Background. Ceftolozane/tazobactam (C/T) is an antipseudomonal cephalosporin combined with a β-lactamase inhibitor approved by FDA and EMA for hospital-acquired and ventilator-associated bacterial pneumonia (HABP/VABP). Elevated antimicrobial resistance rates have been reported among pathogens collected in ICUs. Using isolates collected in Asia/Pacific as part of the global SMART surveillance program, we evaluated the activity of C/T and comparators against *P. aeruginosa* from patients with respiratory tract infections (RTI) in ICU and non-ICU wards.

Methods. In 2016-2018, 55 clinical laboratories in 11 Asia/Pacific countries collected 2530 *P. aeruginosa* isolates from RTI. MICs were determined using CLSI broth microdilution and interpreted with CLSI breakpoints. C/T-nonsusceptible isolates (except those from India) were screened by PCR and sequencing for genes encoding β-lactamases.

Results. Susceptibility to C/T in Asia/Pacific was 85.3% in ICUs and 92.2% in non-ICUs, 15-23 percentage points and 13-19 percentage points, respectively, higher than to meropenem, cefepime, and piperacillin-tazobactam. C/T maintained activity against 58.8% and 69.4% of meropenem-nonsusceptible isolates from ICU (n=294) and non-ICU patients (n=346), respectively. Acquired β-lactamases were detected in 64% of C/T-nonsusceptible isolates from ICUs (n=90; 54% MBL-positive, 1% GES carbapenemase-positive, 9% ESBL-positive) and in 47% of C/T-NS isolates from non-ICUs (n=86; 33% MBL-positive, 6% GES-carbapenemase-positive, 8% ESBL-positive). The table presents country-level rates of C/T-susceptible and carbapenemase-positive *P. aeruginosa* for countries with n >20 in both ICU and non-ICU subsets.

Table

	ICU		Non-ICU	
Country (n ICU | n non-ICU)	% C/T-Susceptible	% Carba-penemase+	% C/T-Susceptible	% Carba-penemase+
Australia (127|314)	97.6	0.8	97.1	0.0
India (86|94)	50.0	N/A	57.5	N/A
South Korea (84|168)	96.4	0.0	93.5	1.2
Malaysia (61|139)	91.8	0.0	98.6	0.7
New Zealand (36|179)	97.2	0.0	96.7	0.6
Philippines (29|65)	93.1	3.4	95.4	3.1
Taiwan (283|405)	95.1	0.0	96.5	0.2
Thailand (87|169)	74.7	13.8	86.4	7.1
Vietnam (86|34)	59.3	40.7	52.9	44.1

N/A, not available

Conclusion. In Asia/Pacific overall, C/T maintained susceptibility rates >85% in both ICU and non-ICU wards against *P. aeruginosa* isolates from RTI, with rates >91% in most countries. Susceptibility was lower in countries with higher rates of carbapenemase-positive *P. aeruginosa*. C/T could provide an important treatment option for RTI infections caused by *P. aeruginosa* in the Asia/Pacific region.

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1582. *In Vitro* Activity of Ceftolozane/Tazobactam against Enterobacterales and *Pseudomonas aeruginosa* Isolates from Geriatric Patients in the Asia/Pacific region – SMART 2016-2018

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