Multicenter Retrospective Evaluation of Tigecycline Tested Against Clinical Pathogens from Japan (2003-2004) S KOHNO, M INUOE, Y ONO, RN JONES, JD TURNIDGE JMI Laboratories Nagasaki University School of Medicine, Nagasaki, Japan; Kitasato University School of Medicine, North Liberty, IA, USA Kanagawa, Japan; Teikyo University School of Medicine, Tokyo, Japan; JMI Laboratories, North Liberty, IA USA; www.jmilabs.com Women's and Children's Hospital, North Adelaide, SA, Australia 319.665.3370, fax 319.665.3371 ronald-jones@jmilabs.com

ABSTRACT

- **Background:** In preparation for therapeutic use of tigecycline (first in class glycylcycline) in Japan, a retrospective sample of clinical isolates (2003-2004) was tested by the SENTRY Antimicrobial Surveillance Program. All tests were by reference methods.
- Methods: Three university hospitals collected 1,033 pathogens for central laboratory processing by the CLSI procedures (fresh MH broth media) with concurrent quality control. Tigecycline and 23 comparators were tested including minocycline and tetracycline. Most numerous organisms were: staphylococci (303), enterococci (67), streptococci (194), *E. coli* (141), other Enterobacteriaceae (132), H. influenzae (73), M. catarrhalis (56) and Acinetobacter (16). Interpretive criteria were those of the US-FDA as published in the product package insert.

ACKNOWLEDGEMENTS

This study was supported by an educational/research grant from Wyeth Pharmaceuticals.

SELECTED REFERENCES

- 1. Clinical and Laboratory Standards Institute. (2006). M7-A7, Methods for dilution antimicrobial susceptibility tests for bacteria that grow aerobically; approved standard - seventh edition. Wayne, PA: CLSI.
- 2. Clinical and Laboratory Standards Institute. (2008). M100-S18, Performance standards for antimicrobial susceptibility testing, 18th
- 5. Jones RN, Ferraro MJ, Reller LB, Schreckenberger PC, Swenson JM, Sader HS (2007). Multicenter studies of tigecycline disk diffusion susceptibility results for Acinetobacter spp. J Clin Microbiol 45: 227-230.

ICID 2008

- 6. Kobayashi H (2005). National hospital infection surveillance on methicillinresistant Staphylococcus aureus. J Hosp Infect 60: 172-175.
- 7. Kohno S, Yamaguchi K, Aikawa N, Sumiyama Y, Odagiri S, Aoki N, Niki Y, Watanabe S, Furue M, Ito T, Croos-Dabrera R, Tack KJ (2007). Linezolid versus vancomycin for the treatment of infections caused by methicillinresistant Staphylococcus aureus in Japan. J Antimicrob Chemother 60: 1361-1369.
- 8. Petersen PJ, Bradford PA (2005). Effect of medium age and supplementation with the biocatalytic oxygen-reducing reagent oxyrase on in vitro activities of tigecycline against recent clinical isolates. Antimicrob Agents Chemother 49: 3910-3918.

Results: Tigecycline MIC_{50} and susceptibility rates among species were identical between sampled years and more potent than either tetracycline or minocycline. The MIC₉₀ range (mg/L)/% susceptible for ENT was 0.25-4/36-100 with lowest potency noted against Proteae. Amp-C (19-46%) and ESBL strains (4-12%) were tigecycline-susceptible (≤2 mg/L). Only 2 (*E. faecalis*) Gram-positive cocci (GPC; 0.3%) were tigecycline-non-susceptible at 2 mg/L. The MRSA and MR-coagulase-negative staphylococcal rates were 67 and 84%. No vancomycin-resistant enterococci and only one VISA strain was detected. *H. influenzae* (MIC₉₀, 0.5 mg/L; 40%) B-lactamase-negative ampicillin-resistant) and *M. catarrhalis* (MIC₉₀, 0.25 mg/L) were inhibited by tigecycline, as were all Acinetobacter strains at $\leq 4 \text{ mg/L}$ (bimodal MIC distribution). Tigecycline was not active against *P. aeruginosa* (MIC₉₀, 32 mg/L).

	MIC (mg/L)	% by ca	tegory: ^a	
Organism (no. tested)	50%	90%	Susceptible	Resistant	
S. aureus (202)	0.12	0.5	100	0	
CoNS (101) ^b	0.25	0.5	100	0	
Enterococci (67)	0.12	0.25	97	-	
Streptococci (194)	0.03	0.06	100	-	
<i>E. coli</i> (141)	0.12	0.25	100	0	
HI (73)	0.5	0.5	-	-	
MCAT (56)	0.12	0.25	-	-	
AC (16)	0.12	4	88 ^c	0	
a. Interpreted per US-FDA produc	ct package ins	ert; - = no crite	ria.		
b. CoNS = coagulase-negative sta	aphylococci.				
c. Per Jones et al. (2006).					

informational supplement. Wayne, PA: CLSI.

- 3. Hiramatsu K (1998). The emergence of Staphylococcus aureus with reduced susceptibility to vancomycin in Japan. Am J Med 104: 7S-10S.
- 4. Jones RN (2003). Global epidemiology of antimicrobial resistance among community-acquired and nosocomial pathogens: A five-year summary from the SENTRY Antimicrobial Surveillance Program (1997-2001). Semin Respir Crit Care Med 24: 121-134.

RESULTS

- Tigecycline demonstrated remarkable activity at US-FDA breakpoints against Gram-positive organisms (MIC₉₀ mg/L; % susceptible): S. aureus (0.5; 100.0), CoNS (0.5; 100.0), E. faecalis (0.25; 96.0), B-haemolytic streptococci (0.06; 100.0) and viridans group streptococci (0.06; 100.0). S. pneumoniae interpretive criteria have not been established, but all tigecycline MIC results were at ≤ 0.25 mg/L (MIC₉₀, 0.06 mg/L; Table 1).
- Tigecycline activity against Enterobacteriaceae was excellent against indicated species including C. freundii, Enterobacter spp., E. coli, Klebsiella spp. and S. marcescens (MIC₉₀ range, 0.25-2 mg/L); susceptibility rates were 96.2-100.0%. As noted here and cited in

- 9. Sader HS, Jones RN, Stilwell MG, Dowzicky MJ, Fritsche TR (2005). Tigecycline activity tested against 26,474 bloodstream infection isolates: A collection from 6 continents. *Diagn Microbiol Infect Dis* 52: 181-186.
- 10. Tygacil[™] Package Insert (2005). Philadelphia (PA): Wyeth Pharmaceuticals Inc. (June, 2005).
 - the US-FDA product package insert, "tigecycline has decreased in vitro activity against Morganella spp., Proteus spp. and Providencia spp." (Table 1).
- *H. influenzae* were inhibited by tigecycline at $\leq 2 \text{ mg/L}$, including 33 isolates that were ampicillin-resistant (only four produced BLNAR and BLN-amoxicillin/clavulanate-resistant B-lactamase). strains are very common (45.2%) in Japan.
- Acinetobacter spp. had a bimodal MIC distribution for tigecycline e.g. 0.06-0.25 and 1-4 mg/L without resistance (0.0%) by US-FDA/ Jones et al. definitions for Enterobacteriaceae.

Table 1.	Summary of tigecycline activity tested by reference (CLSI) broth microdilution methods against 1,033 pathogens	,
	isolated in Japan (2003-2004; SENTRY Antimicrobial Surveillance Program). ^a	

					rences		; (mg/	L) of:						MIC:		% by cat	
Organism (no. tested)) ≤0	015 0.0	0.0	0.12	0.25	0.5	1	2	4	8	16	32	50%	90%	6	Susceptible	Resistant
S. aureus (202)		1 2	20) 86	61	32	0	0	0	0	0	0	0.12	0.5		100.0	0.0
CoNS (101) ^c		0 0	16	5 33	41	11	0	0	0	0	0	0	0.25	0.5		100.0	0.0
Enterococci (67)		0 1	14	1 30	20	2	0	0	0	0	0	0	0.12	0.2	5	97.0	-
<i>E. faecalis</i> (50)		0 1	11	22	14	2	0	0	0	0	0	0	0.12	0.2		96.0	-
B-haemolytic streptod	cocci (18)	1 14	1 3	0	0	0	0	0	0	0	0	0	0.03	0.0		100.0	-
S. pneumoniae (151)		2 10		3 1	1	0	0	0	0	0	0	0	0.03	0.0		100.0	_
Viridans group strept	ococci (25)	1 11			1	0	0	0	0	0	0	0	0.06	0.0		100.0	-
<i>C. freundii</i> (11)		0 0	0	0	8	3	0	0	0	0	0	0	0.25	0.5		100.0	0.0
Enterobacter spp. (26	5)	0 0	0	0	3	17	1	4	1	0	0	0	0.5	2		96.2	0.0
<i>E. coli</i> (141)	·)		2	84	51	4	0	0	0	0	0	0	0.12	0.2	5	100.0	0.0
Klebsiella spp. (57)		0 0 0 0	0	0	14	36	۵ ۵	3	0	0	0	0	0.5	1	0	100.0	0.0
K. pneumoniae (5	(2)	0 0 N N	0	0	13	32	-т Д	3	0	0	0	0	0.5	1		100.0	0.0
Proteus mirabilis (11)	<i>'C</i>)	0 0 0 0	0	0	0	02		1	7	0	0	0	4	1		36.4	0.0
Indole-positive <i>Protea</i>	(11)			0	0	1	7	- 3	0	0	0	0	-+	4		100.0	0.0
•						1	/ 	1	0	0	0	0		ے ۲		100.0	
S. marcescens (16)				0	0	4		- 1	0	0	0	0				100.0	0.0
H. influenzae (73)					23 17	40	2			0		0	0.5	0.5		-	-
M. catarrhalis (56)	C)d		6	33	17	0	0	0	0	0	U O	0	0.12	0.2	0		-
Acinetobacter spp. (1	0)	0 0	1	(3	U	2		2	0	U	0	0.12	4		87.5°	0.0
P. aeruginosa (51) a. Three medical centers par		<u> </u>	0	0	0	U	I	0	5	22	15	8	8	32		-	=
_	ative antimic sizes of ≥50 is		_	-	-		-								•		
Sample			•														
Sample			-		catego	rv ^a								MIC (ma/L)	% by ca	tegory ^{,a}
		MIC	(mg/L)	% by	catego		_ Orc	aanisr	n (no	tester	h) Anti	microb	ial agent	MIC (% by ca	
Drganism (no. tested)	Antimicrobial ag	MIC ent 50%	(mg/L) 90%	% by Susceptik	ole Res	sistant		0			d) Anti		ial agent	t 50%	90%	% by ca Susceptible	<u> </u>
	Antimicrobial ag Tigecycline	MIC ent 50% 0.5	(mg/L) 90% 0.5	% by Susceptik 100.0	ole Res	sistant _ ^b		ganisn <i>influer</i>				Tigecy	cline	t 50% 0.5	90% 0.5	Susceptible	Resistant -
Drganism (no. tested)	Antimicrobial ag Tigecycline Minocycline	MIC ent 50% 0.5 ≤0.25	(mg/L) 90% 0.5 5 >8	% by Susceptik 100.0 65.3	ole Res	sistant _ ^b 31.7		0				Tigecy Tetracy	cline cline	t 50%	90% 0.5 ≤2	Susceptible - 97.3	Resistant - 2.7
Drganism (no. tested)	Antimicrobial ag Tigecycline Minocycline Oxacillin	MIC 50% 0.5 ≤0.25 >2	(mg/L) 90% 0.5 >8 >2	% by Susceptik 100.0 65.3 32.7	ole Res	sistant _ ^b 31.7 57.3		0				Tigecy Tetracy Ampic	cline cline cline	t 50% 0.5 ≤2 1	90% 0.5 ≤2 48	Susceptible - 97.3 54.8	Resistant - 2.7 26.0 ^c
Drganism (no. tested)	Antimicrobial ag Tigecycline Minocycline Oxacillin Erythromycin	MIC 50% 0.5 ≤0.25 >2	(mg/L) 90% 0.5 >8 >2 >8 >8	% by Susceptik 100.0 65.3 32.7 25.7	ole Res	sistant _ ^b 31.7 57.3 74.3		0			,	Tigecy Tetracy Ampio A/C	cline cline cline cline	t 50% 0.5 ≤2 1 2	90% 0.5 ≤2 48 0.25	Susceptible - 97.3 54.8 75.3	Resistant - 2.7
Drganism (no. tested)	Antimicrobial ag Tigecycline Minocycline Oxacillin Erythromycin Levofloxacin	MIC 50% 0.5 ≤0.25 >2 >8 4	(mg/L) 90% 0.5 >8 >2 >8 >2 >8 >4	% by Susceptik 100.0 65.3 32.7 25.7 34.7	ole Res	sistant _ ^b 31.7 57.3 74.3 54.9		0			,	Tigecy Tetracy Ampic A/C Ceftria	cline cline cline cline cline cline	t 50% 0.5 ≤2 1 2 0.015	90% 0.5 ≤2 48 0.25 ≤0.03	Susceptible - 97.3 54.8 75.3 100.0	Resistant - 2.7 26.0 ^c
Drganism (no. tested)	Antimicrobial ag Tigecycline Minocycline Oxacillin Erythromycin Levofloxacin TMP/SMX ^b	MIC 50% 0.5 ≤0.25 >2	(mg/L) 90% 0.5 >8 >2 >8 >2 >8 >4 ≤0.5	% by Susceptik 100.0 65.3 32.7 25.7 34.7 100.0	ole Res	sistant _ ^b 31.7 57.3 74.3 54.9 0.0		0	``		,	Tigecy Tetracy Ampic A/C Ceftria _evoflo	cline cline	t 50% 0.5 ≤2 1 2 0.015 ≤0.03	90% 0.5 ≤2 48 0.25 ≤0.03 4	Susceptible 97.3 54.8 75.3 100.0 100.0	Resistant 2.7 26.0° 24.7° -
Organism (no. tested) S. aureus (252)	Antimicrobial ag Tigecycline Minocycline Oxacillin Erythromycin Levofloxacin TMP/SMX ^b Vancomycin	MIC 50% 0.5 ≤0.25 >2 >8 4 ≤0.5 1	(mg/L) 90% 0.5 >8 >2 >8 >4 ≤0.5 2	% by Susceptik 100.0 65.3 32.7 25.7 34.7 100.0 99.5	ole Res	sistant _ ^b 31.7 57.3 74.3 54.9	H. 1	influer	nzae (7	73)		Tigecy Tetracy Ampic A/C Ceftria Levoflo TMP/S	cline cline cline cline cline xone xone xacin	t 50% 0.5 ≤2 1 2 0.015 ≤0.03 ≤0.5	90% 0.5 ≤2 48 0.25 ≤0.03 4 4	Susceptible - 97.3 54.8 75.3 100.0	Resistant - 2.7 26.0 ^c
Drganism (no. tested)	Antimicrobial ag Tigecycline Minocycline Oxacillin Erythromycin Levofloxacin TMP/SMX ^b Vancomycin Tigecycline	MIC50%0.5≤0.25>2>84≤0.510.25	(mg/L) 90% 0.5 >8 >2 >8 >4 ≤0.5 2 0.5	% by Susceptik 100.0 65.3 32.7 25.7 34.7 100.0 99.5 100.0	ole Res	sistant - ^b 31.7 57.3 74.3 54.9 0.0 0.0 -	H. 1	0	nzae (7	73)		Tigecy Tetracy Ampic A/C Ceftria _evoflo TMP/S Tigecy	cline cline cline cline cline xacin SMX cline	t 50% 0.5 ≤2 1 2 0.015 ≤0.03 ≤0.5 0.12	90% 0.5 ≤2 48 0.25 ≤0.03 4 4 4 0.25	Susceptible 97.3 54.8 75.3 100.0 100.0	Resistant 2.7 26.0° 24.7° -
Organism (no. tested) S. aureus (252)	Antimicrobial ag Tigecycline Minocycline Oxacillin Erythromycin Levofloxacin TMP/SMX ^b Vancomycin Tigecycline Minocycline	MIC 50% 0.5 ≤0.25 >2 >8 4 ≤0.5 1	(mg/L) 90% 0.5 >8 >2 >8 >4 ≤0.5 2 0.5	% by Susceptik 100.0 65.3 32.7 25.7 34.7 100.0 99.5 100.0 97.0	ole Res	sistant - ^b 31.7 57.3 74.3 54.9 0.0 0.0 - 2.0	H. 1	influer	nzae (7	73)		Tigecy Tetracy Ampic A/C Ceftria Levoflo TMP/S	cline cline cline cline cline xacin SMX cline	t 50% 0.5 ≤2 1 2 0.015 ≤0.03 ≤0.5 0.12	90% 0.5 ≤2 48 0.25 ≤0.03 4 4	Susceptible 97.3 54.8 75.3 100.0 100.0	Resistant - 2.7 26.0 ^c 24.7 ^c -
Organism (no. tested) S. aureus (252)	Antimicrobial ag Tigecycline Minocycline Oxacillin Erythromycin Levofloxacin TMP/SMX ^b Vancomycin Tigecycline	MIC50%0.5≤0.25>2>84≤0.510.25≤0.25≤2>2	(mg/L) 90% 0.5 >8 >2 >8 >4 ≤0.5 2 0.5	% by Susceptik 100.0 65.3 32.7 25.7 34.7 100.0 99.5 100.0 97.0 15.8	ole Res	sistant - ^b 31.7 57.3 74.3 54.9 0.0 - 2.0 34.2	H. 1	influer	nzae (7	73)		Tigecy Tetracy Ampic A/C Ceftria Levoflo TMP/S Tigecy Minocy A/C	cline cline cline cline cline xacin SMX cline cline	t 50% 0.5 ≤2 1 2 0.015 ≤0.03 ≤0.5 0.12	90% 0.5 ≤2 48 0.25 ≤0.03 4 4 4 0.25	Susceptible 97.3 54.8 75.3 100.0 100.0	Resistant - 2.7 26.0 ^c 24.7 ^c -
Organism (no. tested) S. aureus (252)	Antimicrobial ag Tigecycline Minocycline Oxacillin Erythromycin Levofloxacin TMP/SMX ^b Vancomycin Tigecycline Minocycline Oxacillin Erythromycin	MIC50%0.5≤0.25>2>84≤0.510.25≤0.25≤2>2	$(mg/L) 90% 0.5 >8 >2 >8 >4 ≤0.5 2 0.5 0.5 0.5 0.5 0.5 0.5 0.5 \\ $	% by Susceptik 100.0 65.3 32.7 25.7 34.7 100.0 99.5 100.0 99.5 100.0 97.0 15.8 29.7	ole Res	sistant - ^b 31.7 57.3 74.3 54.9 0.0 - 2.0 34.2 70.3	H. 1	influer	nzae (7	73)		Tigecy Tetracy Ampic A/C Ceftria _evoflo TMP/S Tigecy Minocy A/C Ceftria	cline cline cline cline xone xacin SMX cline cline cline cline	t 50% 0.5 ≤2 1 2 0.015 ≤0.03 ≤0.5 0.12 ≤0.25 0.25 0.5	90% 0.5 ≤2 48 0.25 ≤0.03 4 4 4 0.25 ≤0.25 ≤0.25 1 1	Susceptible 97.3 54.8 75.3 100.0 100.0	Resistant - 2.7 26.0 ^c 24.7 ^c -
Organism (no. tested) S. aureus (252)	Antimicrobial ag Tigecycline Minocycline Oxacillin Erythromycin Levofloxacin TMP/SMX ^b Vancomycin Tigecycline Minocycline Oxacillin Erythromycin Levofloxacin	$ \begin{array}{r} MIC \\ 50\% \\ 0.5 \\ \leq 0.25 \\ >2 \\ >8 \\ 4 \\ \leq 0.5 \\ 1 \\ 0.25 \\ \leq 0.25 \\ \leq 0.25 \\ >2 \\ >8 \\ 4 \\ 4 \\ \end{array} $	$(mg/L) \\ 90\% \\ 0.5 \\ >8 \\ >2 \\ >8 \\ >4 \\ \le 0.5 \\ 2 \\ 0.5 \\ 2 \\ 0.5 \\ >2 \\ >8 \\ >4 \\ \le 0.5 \\ 2 \\ >8 \\ >4 \\ \le 0.5 \\ 2 \\ >8 \\ >4 \\ >4 \\ \le 0.5 \\ 2 \\ >8 \\ >4 \\ >4 \\ \le 0.5 \\ 2 \\ >8 \\ >4 \\ >4 \\ >4 \\ \le 0.5 \\ 2 \\ >8 \\ >4 \\ >4 \\ >4 \\ \le 0.5 \\ 2 \\ >8 \\ >4 \\ >4 \\ >4 \\ = 0.5 \\ 2 \\ >8 \\ >4 \\ >4 \\ >4 \\ = 0.5 \\ 2 \\ >8 \\ >4 \\ >4 \\ >4 \\ >4 \\ >4 \\ >4 \\ >4 \\ >4$	% by Susceptik 100.0 65.3 32.7 25.7 34.7 100.0 99.5 100.0 99.5 100.0 97.0 15.8 29.7 34.7	ole Res 7 6 7 6 7 6 7 6 7 6 7 6 7 6 7 6	sistant - ^b 31.7 57.3 74.3 54.9 0.0 - 2.0 34.2 70.3 51.5	H. 1	influer	nzae (7	73)		Tigecy Tetracy Ampio A/C Ceftria _evoflo TMP/S Tigecy Minocy A/C Ceftria _evoflo	cline cline cline cline cline xacin SMX cline cline cline cline cline	t 50% 0.5 ≤2 1 2 0.015 ≤0.03 ≤0.5 0.12 ≤0.25 0.25	90% 0.5 ≤2 48 0.25 ≤0.03 4 4 4 0.25 ≤0.25 ≤0.25 1 1	Susceptible 97.3 54.8 75.3 100.0 100.0	Resistant - 2.7 26.0 ^c 24.7 ^c -
Organism (no. tested) S. aureus (252)	Antimicrobial ag Tigecycline Minocycline Oxacillin Erythromycin Levofloxacin TMP/SMX ^b Vancomycin Tigecycline Minocycline Oxacillin Erythromycin	MIC50%0.5≤0.25>2>84≤0.510.25≤0.25≤2>2	$(mg/L) \\ 90\% \\ 0.5 \\ >8 \\ >2 \\ >8 \\ >4 \\ \le 0.5 \\ 2 \\ 0.5 \\ 2 \\ 0.5 \\ >2 \\ >8 \\ >4 \\ \le 0.5 \\ 2 \\ >8 \\ >4 \\ \le 0.5 \\ 2 \\ >8 \\ >4 \\ >4 \\ \le 0.5 \\ 2 \\ >8 \\ >4 \\ >4 \\ \le 0.5 \\ 2 \\ >8 \\ >4 \\ >4 \\ >4 \\ \le 0.5 \\ 2 \\ >8 \\ >4 \\ >4 \\ >4 \\ \le 0.5 \\ 2 \\ >8 \\ >4 \\ >4 \\ >4 \\ = 0.5 \\ 2 \\ >8 \\ >4 \\ >4 \\ >4 \\ = 0.5 \\ 2 \\ >8 \\ >4 \\ >4 \\ >4 \\ >4 \\ >4 \\ >4 \\ >4 \\ >4$	% by Susceptik 100.0 65.3 32.7 25.7 34.7 100.0 99.5 100.0 99.5 100.0 97.0 15.8 29.7	ole Res 7 6 7 6 7 6 7 6 7 6 7 6 7 6 7 6	sistant - ^b 31.7 57.3 74.3 54.9 0.0 - 2.0 34.2 70.3	H. 1	influer	nzae (7	73)		Tigecy Tetracy Ampic A/C Ceftria _evoflo TMP/S Tigecy Minocy A/C Ceftria	cline cline cline cline cline xacin SMX cline cline cline cline cline	t 50% 0.5 ≤2 1 2 0.015 ≤0.03 ≤0.5 0.12 ≤0.25 0.25 0.5	90% 0.5 ≤2 48 0.25 ≤0.03 4 4 4 0.25 ≤0.25 ≤0.25 1 1	Susceptible 97.3 54.8 75.3 100.0 100.0	Resistant - 2.7 26.0 ^c 24.7 ^c -
Organism (no. tested) S. aureus (252)	Antimicrobial ag Tigecycline Minocycline Oxacillin Erythromycin Levofloxacin TMP/SMX ^b Vancomycin Tigecycline Minocycline Oxacillin Erythromycin Levofloxacin	$ \begin{array}{r} MIC \\ 50\% \\ 0.5 \\ \leq 0.25 \\ >2 \\ >8 \\ 4 \\ \leq 0.5 \\ 1 \\ 0.25 \\ \leq 0.25 \\ \leq 0.25 \\ >2 \\ >8 \\ 4 \\ 4 \\ \end{array} $	$(mg/L) \\ 90\% \\ 0.5 \\ >8 \\ >2 \\ >8 \\ >4 \\ \le 0.5 \\ 2 \\ 0.5 \\ 2 \\ 0.5 \\ >2 \\ >8 \\ >4 \\ \le 0.5 \\ 2 \\ >8 \\ >4 \\ \le 0.5 \\ 2 \\ >8 \\ >4 \\ >4 \\ \le 0.5 \\ 2 \\ >8 \\ >4 \\ >4 \\ \le 0.5 \\ 2 \\ >8 \\ >4 \\ >4 \\ >4 \\ \le 0.5 \\ 2 \\ >8 \\ >4 \\ >4 \\ >4 \\ \le 0.5 \\ 2 \\ >8 \\ >4 \\ >4 \\ >4 \\ = 0.5 \\ 2 \\ >8 \\ >4 \\ >4 \\ >4 \\ = 0.5 \\ 2 \\ >8 \\ >4 \\ >4 \\ >4 \\ >4 \\ >4 \\ >4 \\ >4 \\ >4$	% by Susceptik 100.0 65.3 32.7 25.7 34.7 100.0 99.5 100.0 99.5 100.0 97.0 15.8 29.7 34.7	ole Res 7 6 7 6 7 7 6 7 7 8 7 8 7 8 7 8 7 8 7 8	sistant - ^b 31.7 57.3 74.3 54.9 0.0 - 2.0 34.2 70.3 51.5	H. M.	influer	nzae (7	73)		Tigecy Tetracy Ampio A/C Ceftria _evoflo TMP/S Tigecy Minocy A/C Ceftria _evoflo	cline cline cline cline xone xacin SMX cline cline cline cline cline SMX	$ \begin{array}{c cccc} & 50\% \\ & 0.5 \\ & \leq 2 \\ & 1 \\ & 2 \\ & 0.015 \\ & \leq 0.03 \\ & \leq 0.5 \\ & 0.12 \\ & \leq 0.25 \\ & 0.25 \\ & 0.25 \\ & 0.5 \\ & \leq 0.03 \\ \end{array} $	90% 0.5 ≤2 48 0.25 ≤0.03 4 4 4 0.25 ≤0.25 ≤0.25 1 1 1 0.06	Susceptible 97.3 54.8 75.3 100.0 100.0	Resistant - 2.7 26.0 ^c 24.7 ^c -
Organism (no. tested) S. aureus (252)	Antimicrobial ag Tigecycline Minocycline Oxacillin Erythromycin Levofloxacin TMP/SMX ^b Vancomycin Tigecycline Minocycline Oxacillin Erythromycin Levofloxacin TMP/SMX	$ \begin{array}{r} MIC \\ 50\% \\ 0.5 \\ \leq 0.25 \\ >2 \\ >8 \\ 4 \\ \leq 0.5 \\ 1 \\ 0.25 \\ \leq 0.25 \\ \leq 0.25 \\ >2 \\ >8 \\ 4 \\ \leq 0.5 \\ \end{array} $	$(mg/L) \\ 90\% \\ 0.5 \\ >8 \\ >2 \\ >8 \\ >4 \\ \le 0.5 \\ 2 \\ 0.5 \\ 2 \\ 0.5 \\ >2 \\ >8 \\ >4 \\ \le 0.5 \\ 2 \\ >8 \\ >4 \\ >2 \\ >8 \\ >4 \\ >2 \\ >8 \\ >4 \\ >2 \\ >2 \\ >8 \\ >4 \\ >2 \\ >2 \\ >8 \\ >4 \\ >2 \\ >2 \\ >8 \\ >4 \\ >2 \\ >2 \\ >8 \\ >4 \\ >2 \\ >2 \\ >8 \\ >4 \\ >2 \\ >2 \\ >8 \\ >4 \\ >2 \\ >2 \\ >8 \\ >4 \\ >2 \\ >2 \\ >8 \\ >4 \\ >2 \\ >2 \\ >8 \\ >4 \\ >2 \\ >2 \\ >8 \\ >4 \\ >2 \\ >2 \\ >8 \\ >4 \\ >2 \\ >2 \\ >8 \\ >4 \\ >2 \\ >2 \\ >8 \\ >4 \\ >2 \\ >2 \\ >8 \\ >4 \\ >2 \\ >2 \\ >2 \\ >8 \\ >4 \\ >2 \\ >2 \\ >2 \\ >8 \\ >4 \\ >2 \\ >2 \\ >2 \\ >8 \\ >4 \\ >2 \\ >2 \\ >2 \\ >8 \\ >4 \\ >2 \\ >2 \\ >2 \\ >8 \\ >4 \\ >2 \\ >2 \\ >2 \\ >8 \\ >4 \\ >2 \\ >2 \\ >2 \\ >8 \\ >4 \\ >2 \\ >2 \\ >2 \\ >8 \\ >4 \\ >2 \\ >2 \\ >2 \\ >8 \\ >4 \\ >2 \\ >2 \\ >2 \\ >8 \\ >4 \\ >2 \\ >2 \\ >2 \\ >8 \\ >4 \\ >2 \\ >2 \\ >2 \\ >8 \\ >8 \\ >4 \\ >2 \\ >2 \\ >2 \\ >8 \\ >8 \\ >4 \\ >2 \\ >2 \\ >2 \\ >8 \\ >8 \\ >4 \\ >2 \\ >2 \\ >2 \\ >8 \\ >8 \\ >4 \\ >2 \\ >2 \\ >2 \\ >8 \\ >8 \\ >4 \\ >2 \\ >2 \\ >8 \\ >2 \\ >2 \\ >8 \\ >8 \\ >4 \\ >2 \\ >2 \\ >2 \\ >8 \\ >8 \\ >4 \\ >2 \\ >2 \\ >8 \\ >8 \\ >4 \\ >2 \\ >2 \\ >8 \\ >8 \\ >4 \\ >2 \\ >2 \\ >8 \\ >8 \\ >4 \\ >2 \\ >2 \\ >8 \\ >8 \\ >8 \\ >4 \\ >2 \\ >8 \\ >8 \\ >8 \\ >4 \\ >8 \\ >8 \\ >8 \\ >8 \\ >8 \\ >8 \\ >8 \\ >8$	% by Susceptik 100.0 65.3 32.7 25.7 34.7 100.0 99.5 100.0 97.0 15.8 29.7 34.7 34.7 34.7	ole Res 7 6 7 6 7 7 6 7 7 8 7 8 7 8 7 8 7 8 7 8	sistant - ^b 31.7 57.3 74.3 54.9 0.0 - 2.0 34.2 70.3 51.5 26.7	H. M.	influer catarr	nzae (7	73)		Tigecy Tetracy Ampio A/C Ceftria _evoflo TMP/S Tigecy Minocy A/C Ceftria _evoflo TMP/S	cline cline cline cline xone xacin SMX cline cline cline SMX cline	$ \begin{array}{c cccc} & 50\% \\ & 0.5 \\ & \leq 2 \\ & 1 \\ & 2 \\ & 0.015 \\ & \leq 0.03 \\ & \leq 0.5 \\ & 0.12 \\ & \leq 0.25 \\ & 0.25 \\ & 0.25 \\ & 0.5 \\ & \leq 0.03 \\ & \leq 0.5 \\ \end{array} $	90% 0.5 ≤2 48 0.25 ≤0.03 4 4 4 0.25 ≤0.25 ≤0.25 1 1 0.06 ≤0.5	Susceptible - 97.3 54.8 75.3 100.0 100.0 89.0 - - - - - - - - - - - - -	Resistant - 2.7 26.0° 24.7° - 11.0
Drganism (no. tested) S. aureus (252) CoNS (101) ^b	Antimicrobial ag Tigecycline Minocycline Oxacillin Erythromycin Levofloxacin TMP/SMX ^b Vancomycin Gxacillin Erythromycin Levofloxacin TMP/SMX	MIC50%0.5≤0.25>2>84≤0.510.25≤0.25>2>84≤0.52>84≤0.52	$(mg/L) \\ 90\% \\ 0.5 \\ >8 \\ >2 \\ >8 \\ >4 \\ \leq 0.5 \\ 2 \\ 0.5 \\ 0.5 \\ 2 \\ 0.5 \\ >2 \\ >8 \\ >4 \\ >2 \\ >8 \\ >4 \\ >2 \\ >2 \\ 2 \\ 2 \\ 2 \\ 2 \\ 2 \\ 2 \\ 2 \\ 2 \\ 2 \\ $	% by Susceptik 100.0 65.3 32.7 25.7 34.7 100.0 99.5 100.0 97.0 15.8 29.7 34.7 34.7 34.7 73.3 100.0	ole Res	sistant - ^b 31.7 57.3 74.3 54.9 0.0 - 2.0 34.2 70.3 51.5 26.7	H. M.	influer catarr	nzae (7	73)		Tigecy Tetracy Ampio A/C Ceftria Levoflo TMP/S Tigecy Minocy A/C Ceftria Levoflo TMP/S Tigecy	cline cline cline cline xone xacin SMX cline cline xone xacin SMX cline xacin SMX cline	$ \begin{array}{c cccc} & 50\% \\ & 0.5 \\ & \leq 2 \\ & 1 \\ & 2 \\ & 0.015 \\ & \leq 0.03 \\ & \leq 0.5 \\ & 0.12 \\ & \leq 0.25 \\ & 0.25 \\ & 0.25 \\ & 0.5 \\ & \leq 0.03 \\ & \leq 0.5 \\ \end{array} $	90% 0.5 ≤2 48 0.25 ≤0.03 4 4 0.25 ≤0.25 ≤0.25 1 1 0.06 ≤0.5 0.25 8	Susceptible - 97.3 54.8 75.3 100.0 100.0 89.0 - - - - 100.0	Resistant 2.7 26.0° 24.7° - 11.0
Drganism (no. tested) S. aureus (252) CoNS (101) ^b	Antimicrobial ag Tigecycline Minocycline Oxacillin Erythromycin Levofloxacin TMP/SMX ^b Vancomycin Tigecycline Oxacillin Erythromycin Levofloxacin TMP/SMX Vancomycin	$ \begin{array}{r} MIC \\ 50\% \\ 0.5 \\ \leq 0.25 \\ >2 \\ >8 \\ 4 \\ \leq 0.5 \\ 1 \\ 0.25 \\ \leq 0.25 \\ \leq 0.25 \\ >2 \\ >8 \\ 4 \\ \leq 0.5 \\ 2 \\ >8 \\ 4 \\ \leq 0.5 \\ 2 \\ 0.12 \\ \end{array} $	$(mg/L) 90% 0.5 >8 >2 >8 >4 \leq 0.520.50.5>2>8>4\leq 0.520.5>2>8>4\leq 0.520.5>20.5>220.5>220.5-220.5-2-8-2-2-8-2-2-8-2-2-2-2-2-2-2-2-2-2$	% by Susceptik 100.0 65.3 32.7 25.7 34.7 100.0 99.5 100.0 97.0 15.8 29.7 34.7 34.7 34.7 73.3 100.0 97.0	ole Res 7 6 7 6 7 6 7 6 7 6 7 6 7 6 7 6 7 6 7	sistant - ^b 31.7 57.3 74.3 54.9 0.0 - 2.0 34.2 70.3 51.5 26.7 0.0 -	H. M.	influer catarr	nzae (7	73)		Tigecy Tetracy Ampio A/C Ceftria _evoflo TMP/S Tigecy Minocy A/C Ceftria _evoflo TMP/S Tigecy Tigecy Minocy	cline cline cline cline xone xacin SMX cline cline xone xacin SMX cline cline cline	$ \begin{array}{c cccc} & 50\% \\ & 0.5 \\ & \leq 2 \\ & 1 \\ & 2 \\ & 0.015 \\ & \leq 0.03 \\ & \leq 0.5 \\ & 0.12 \\ & \leq 0.25 \\ & 0.25 \\ & 0.25 \\ & 0.5 \\ & \leq 0.03 \\ & \leq 0.5 \\ & 0.12 \\ & 1 \\ \end{array} $	90% 0.5 ≤2 48 0.25 ≤0.03 4 4 0.25 ≤0.25 ≤0.25 1 1 0.06 ≤0.5 0.25 8	Susceptible 97.3 54.8 75.3 100.0 100.0 89.0 - - - - - 100.0 85.8	Resistant 2.7 26.0° 24.7° - 11.0 0.0 5.7
Drganism (no. tested) S. aureus (252) CoNS (101) ^b	Antimicrobial ag Tigecycline Minocycline Oxacillin Erythromycin Levofloxacin TMP/SMX ^b Vancomycin Tigecycline Minocycline Cxacillin Erythromycin Levofloxacin TMP/SMX Vancomycin	$ \begin{array}{r} MIC \\ 50\% \\ 0.5 \\ \leq 0.25 \\ >2 \\ >8 \\ 4 \\ \leq 0.5 \\ 1 \\ 0.25 \\ \leq 0.25 \\ \leq 0.25 \\ >2 \\ >8 \\ 4 \\ \leq 0.5 \\ 2 \\ >8 \\ 4 \\ \leq 0.5 \\ 2 \\ 0.12 \\ 8 \\ \leq 1 \end{array} $	$(mg/L) 90% 0.5 >8 >2 >8 >4 \leq 0.520.520.5>2>8>4\leq 0.520.5>20.5>2>8>4\leq 0.520.5>2>8>4\leq 0.520.5>2>8>4\leq 0.520.5>2>8>4\leq 0.52> 2> 8> 4\leq 0.5> 2> 8> 4\leq 0.5> 2> 8> 4\leq 0.5> 2> 8> 4> 2> 8> 4> 2> 8> 4> 2> 8> 4> 2> 8> 4> 2> 8> 4> 2> 8> 4> 2> 8> 4> 2> 8> 4> 22> 8> 8> 4> 22223> 8> 8> 4> 2223> 8$	% by Susceptik 100.0 65.3 32.7 25.7 34.7 100.0 99.5 100.0 97.0 15.8 29.7 34.7 34.7 73.3 100.0 97.0 40.3	ole Res ole Res 7 6 7 6 7 6 7 6 7 6 7 6 7 6 7 6 7 6 7	sistant - ^b 31.7 57.3 74.3 54.9 0.0 - 2.0 34.2 70.3 51.5 26.7 0.0 - 38.8	H. M.	influer catarr	nzae (7	73)		Tigecy Tetracy Ampio A/C Ceftria Levoflo TMP/S Tigecy Minocy A/C Ceftria Levoflo TMP/S Tigecy Minocy Ceftria	cline cline cline cline xone xacin SMX cline cline xone xacin SMX cline cline cline	$ \begin{array}{c cccc} & 50\% \\ & 0.5 \\ & \leq 2 \\ & 1 \\ & 2 \\ & 0.015 \\ & \leq 0.03 \\ & \leq 0.5 \\ & 0.12 \\ & \leq 0.25 \\ & 0.25 \\ & 0.25 \\ & 0.5 \\ & \leq 0.03 \\ & \leq 0.5 \\ & 0.12 \\ & 1 \\ \end{array} $	90% 0.5 ≤2 48 0.25 ≤0.03 4 4 0.25 ≤0.25 1 1 0.06 ≤0.5 0.25 8 ≤0.25	Susceptible 97.3 54.8 75.3 100.0 100.0 89.0 - - - 100.0 85.8 97.9	Resistant 2.7 26.0° 24.7° - 11.0 - 11.0 0.0 5.7 2.1 0.7
Drganism (no. tested) S. aureus (252) CoNS (101) ^b	Antimicrobial ag Tigecycline Minocycline Oxacillin Erythromycin Levofloxacin TMP/SMX ^b Vancomycin Tigecycline Oxacillin Erythromycin Levofloxacin TMP/SMX Vancomycin Tigecycline Minocycline Ampicillin	$ \begin{array}{r} MIC \\ 50\% \\ 0.5 \\ \leq 0.25 \\ >2 \\ >8 \\ 4 \\ \leq 0.5 \\ 1 \\ 0.25 \\ \leq 0.25 \\ \leq 0.25 \\ >2 \\ >8 \\ 4 \\ \leq 0.5 \\ 2 \\ >8 \\ 4 \\ \leq 0.5 \\ 2 \\ 0.12 \\ 8 \\ \leq 1 \end{array} $	$(mg/L) 90% 0.5 >8 >2 >8 >4 \leq 0.520.520.5>2>8>4\leq 0.520.5>20.5>2>8>4>20.5>2>8>4>20.5>2>8>4>20.5>2>8>4>20.5>2>8>4>20.5>2>8>4>20.5>2>8>4>20.5>2>8>4>20.5>2>8>4>20.5>2>8>4>20.5>2>8>4>220.5>2>8>4>220.5>2>8>4>22>8>4>2220.5>8>4>2220.5>8>4>22222222222222$	% by Susceptik 100.0 65.3 32.7 25.7 34.7 100.0 99.5 100.0 97.0 15.8 29.7 34.7 34.7 34.7 73.3 100.0 97.0 40.3 80.6	ole Res ole Res 7 6 7 6 7 6 7 6 7 6 7 6 7 6 7 6 7 6 7	sistant - ^b 31.7 57.3 74.3 54.9 0.0 0.0 - 2.0 34.2 70.3 51.5 26.7 0.0 - 38.8 19.4	H. M.	influer catarr	nzae (7	73)		Tigecy Tetracy Ampio A/C Ceftria _evoflo TMP/S Tigecy Minocy A/C Ceftria _evoflo TMP/S Tigecy Minocy TMP/S Tigecy Minocy Ceftria F/T Minocy	cline cline cline cline cline xacin SMX cline cline cline xacin SMX cline cline cline cline cline	$ \begin{array}{c cccc} & 50\% \\ & 0.5 \\ & \leq 2 \\ & 1 \\ & 2 \\ & 0.015 \\ & \leq 0.03 \\ & \leq 0.5 \\ & 0.25 \\ & 0.25 \\ & 0.25 \\ & 0.25 \\ & 0.5 \\ & \leq 0.03 \\ & \leq 0.5 \\ & 0.12 \\ & 1 \\ & \leq 0.25 \\ & 2 \\ & 1 \\ & \leq 0.25 \\ & 2 \\ & 2 \\ & 2 \\ & 2 \\ & 2 \\ & 2 \\ & 1 \\ & 1 \\ & 1 \\ & 1 \\ & 1 \\ & 2 \\ & 1 \\ & 1 \\ & 2 \\ & 1 \\ & 1 \\ & 2 \\ & 1 \\ & 1 \\ & 2 \\ & 1 \\ & 1 \\ & 2 \\ & 1 \\ & 1 \\ & 1 \\ & 1 \\ & 2 \\ & 1 \\ & 1 \\ & 1 \\ & 1 \\ & 1 \\ & 2 \\ & 1$	90% 0.5 ≤2 48 0.25 ≤0.03 4 4 0.25 ≤0.25 1 1 0.06 ≤0.5 0.25 8 ≤0.25 8 ≤0.25 2	Susceptible 97.3 54.8 75.3 100.0 100.0 89.0 - - - 100.0 85.8 97.9 98.6 100.0	Resistant 2.7 26.0° 24.7° - 11.0 - 11.0 - 0.0 5.7 2.1 0.7 0.0
Drganism (no. tested) S. aureus (252) CoNS (101) ^b	Antimicrobial ag Tigecycline Minocycline Oxacillin Erythromycin Levofloxacin TMP/SMX ^b Vancomycin Tigecycline Minocycline Oxacillin Erythromycin Levofloxacin TMP/SMX Vancomycin Chloramphenic	$ \begin{array}{r} MIC \\ 50\% \\ 0.5 \\ \leq 0.25 \\ >2 \\ >8 \\ 4 \\ \leq 0.5 \\ 1 \\ 0.25 \\ \leq 0.25 \\ \leq 0.25 \\ >2 \\ >8 \\ 4 \\ \leq 0.5 \\ 2 \\ >8 \\ 4 \\ \leq 0.5 \\ 2 \\ 0.12 \\ 8 \\ \leq 1 \end{array} $	$(mg/L) 90% 0.5 >8 >2 >8 >4 \leq 0.520.50.5>20.5>2>8>4\geq 2>8>4\leq 0.520.5>2>8>4\geq 2>8>4\geq 220.5>8>220.5>8>16>16>16$	% by Susceptik 100.0 65.3 32.7 25.7 34.7 100.0 99.5 100.0 97.0 15.8 29.7 34.7 34.7 34.7 73.3 100.0 97.0 40.3 80.6 85.1	ole Res ole Res 7 6 7 6 7 6 7 6 7 7 6 7 6 7 6 7 6 7 6	sistant - ^b 31.7 57.3 74.3 54.9 0.0 - 2.0 34.2 70.3 51.5 26.7 0.0 - 38.8 19.4 14.9	H. M.	influer catarr	nzae (7	73)		Tigecy Tetracy Ampio A/C Ceftria _evoflo TMP/S Tigecy Minocy A/C Ceftria _evoflo TMP/S Tigecy Minocy Ceftria F/T Minocy Ceftria F/T Minocy	cline cline cline cline cline xacin SMX cline cline xacin SMX cline cline cline cline cline cline cline	$ \begin{array}{c cccc} & 50\% \\ & 0.5 \\ & \leq 2 \\ & 1 \\ & 2 \\ & 0.015 \\ & \leq 0.03 \\ & \leq 0.5 \\ & 0.12 \\ & \leq 0.25 \\ & 0.25 \\ & 0.5 \\ & \leq 0.5 \\ & \leq 0.5 \\ & 2 \\ & \leq 0.5 \\ & \leq 2 \end{array} $	90% 0.5 ≤ 2 48 0.25 ≤ 0.03 4 4 4 0.25 ≤ 0.25 1 1 0.06 ≤ 0.5 0.25 8 ≤ 0.25 8 ≤ 0.25 2 ≤ 0.25 8	Susceptible - 97.3 54.8 75.3 100.0 100.0 89.0 100.0 89.0 - 100.0 85.8 97.9 98.6 100.0 90.1	Resistant 2.7 26.0° 24.7° - 11.0 - 11.0 - 0.0 5.7 2.1 0.7 0.0 9.9
Drganism (no. tested) S. aureus (252) CoNS (101) ^b Enterococci (67)	Antimicrobial ag Tigecycline Minocycline Oxacillin Erythromycin Levofloxacin TMP/SMX ^b Vancomycin Chacillin Chloramphenic Levofloxacin	MIC50%0.5≤0.25>2>84≤0.510.25≤0.25>2>84≤0.52>84≤0.52>84≤0.52>10.128≤111	$(mg/L) 90% 0.5 >8 >2 >8 >4 \leq 0.520.520.5>2>8>4\geq 220.5>8>4>220.5>8>4>220.5>8>16>16>16>42$	% by Susceptik 100.0 65.3 32.7 25.7 34.7 100.0 99.5 100.0 97.0 15.8 29.7 34.7 34.7 34.7 73.3 100.0 97.0 40.3 80.6 85.1 65.7	ole Res ole Res 7 6 7 6 7 6 7 6 7 7 6 7 6 7 6 7 6 7 6	sistant - ^b 31.7 57.3 74.3 54.9 0.0 - 2.0 34.2 70.3 51.5 26.7 0.0 - 88.8 19.4 14.9 34.3	Н. М. <i>М.</i>	influer catarr	nzae (7	73) (56)		Tigecy Tetracy Ampio A/C Ceftria _evoflo TMP/S Tigecy Minocy Ceftria _evoflo TMP/S Tigecy Minocy Ceftria _P/T Imiper Gentar _evoflo	cline cline		90% 0.5 ≤ 2 48 0.25 ≤ 0.03 4 4 4 0.25 ≤ 0.25 1 1 0.06 ≤ 0.25 0.25 8 ≤ 0.25 8 ≤ 0.25 2 ≤ 0.5 4	Susceptible - 97.3 54.8 75.3 100.0 100.0 89.0 100.0 89.0 - 100.0 85.8 97.9 98.6 100.0 90.1 83.7	Resistant 2.7 26.0° 24.7° - 11.0 - 11.0 - 0.0 5.7 2.1 0.7 0.0 9.9 12.8
Drganism (no. tested) S. aureus (252) CoNS (101) ^b	Antimicrobial ag Tigecycline Minocycline Oxacillin Erythromycin Levofloxacin TMP/SMX ^b Vancomycin Tigecycline Minocycline Oxacillin Erythromycin Levofloxacin TMP/SMX Vancomycin Tigecycline Minocycline Ampicillin	MIC50%0.5≤0.25>2>84≤0.510.25≤0.25>2>84≤0.52>84≤0.520.1284≤110.03	$(mg/L) 90% 0.5 >8 >2 >8 >4 \leq 0.520.520.5>2>8>4\geq 220.5>8>4>20.5>2>8>4>220.5>8>16>16>16>16>420.06$	% by Susceptik 100.0 65.3 32.7 25.7 34.7 100.0 99.5 100.0 97.0 15.8 29.7 34.7 34.7 34.7 73.3 100.0 97.0 40.3 80.6 85.1 65.7 100.0	ole Res ole Res 7 6 7 6 7 6 7 6 7 7 6 7 6 7 6 7 6 7 6	sistant - ^b 31.7 57.3 74.3 54.9 0.0 - 2.0 34.2 70.3 51.5 26.7 0.0 - 88.8 19.4 14.9 34.3 0.0	Н. М. <i>М.</i>	influer catarr	nzae (7	73) (56)		Tigecy Tetracy Ampio A/C Ceftria _evoflo TMP/S Tigecy Minocy Ceftria _evoflo TMP/S Tigecy Minocy Ceftria P/T Imiper Gentar _evoflo	cline cline cline cline cline xone xacin SMX cline		90% 0.5 ≤ 2 48 0.25 ≤ 0.03 4 4 0.25 ≤ 0.25 1 1 0.06 ≤ 0.5 0.25 8 ≤ 0.25 8 ≤ 0.25 2 ≤ 0.5 4 > 4 > 4 1 1 1 0.06 ≤ 0.5 0.25 8 ≤ 0.25 1 1 1 0.05 2 ≤ 0.25 1 1 1 1 0.06 ≤ 0.5 0.25 8 ≤ 0.25 1 1 1 1 0.25 2 ≤ 0.5 4 2 ≤ 0.5 4 2 2 ≤ 0.5 4 2 2 2 2 2 2 2 2	Susceptible - 97.3 54.8 75.3 100.0 100.0 89.0 100.0 85.8 97.9 98.6 100.0 90.1 83.7 100.0	Resistant 2.7 26.0° 24.7° - 11.0 - 11.0 - 0.0 5.7 2.1 0.7 0.0 9.9 12.8 0.0
Drganism (no. tested) S. aureus (252) CoNS (101) ^b Enterococci (67)	Antimicrobial ag Tigecycline Minocycline Oxacillin Erythromycin Levofloxacin TMP/SMX ^b Vancomycin Tigecycline Oxacillin Erythromycin Levofloxacin TMP/SMX Vancomycin Tigecycline Minocycline Ampicillin	MIC50%0.5≤0.25>2>84≤0.510.25≤0.25≥2>84≤0.52>84≤0.520.1284≤0.520.1284≤0.520.1284≤0.520.128410.038	$(mg/L) 90% 0.5 >8 >2 >8 >4 \leq 0.520.520.5>20.5>20.5>20.5>20.5>20.5>2>8>4>220.25>8>16>16>16>16>16>420.06>8$	% by Susceptik 100.0 65.3 32.7 25.7 34.7 100.0 99.5 100.0 97.0 15.8 29.7 34.7 73.3 100.0 97.0 40.3 80.6 85.1 65.7 100.0 -	ole Res	sistant - ^b 31.7 57.3 74.3 54.9 0.0 - 2.0 34.2 70.3 51.5 26.7 0.0 - 88.8 19.4 14.9 34.3 0.0 - 38.8 19.4 14.9 34.3 0.0 - -	Н. М. <i>М.</i>	influer catarr	nzae (7	73) (56)		Tigecy Tetracy Ampio A/C Ceftria _evoflo TMP/S Tigecy Minocy Ceftria _evoflo TMP/S Tigecy Minocy Ceftria P/T Imiper Gentar _evoflo TMP/S	cline cline cline cline cline xacin SMX cline cline cline cline cline cline cline cline cline cline cline cline cline cline		90% 0.5 ≤ 2 48 0.25 ≤ 0.03 4 4 4 0.25 ≤ 0.25 1 1 0.06 ≤ 0.5 0.25 8 ≤ 0.25 8 ≤ 0.25 2 ≤ 0.5 4 >4 1 >4 >4 >4 >4 >4 >4 >4 >4 >4 >4 >4 >4 >4 >8	Susceptible 97.3 54.8 75.3 100.0 100.0 89.0 - - - 100.0 85.8 97.9 98.6 100.0 85.8 97.9 98.6 100.0 85.8 97.9 98.6 100.0 85.8 97.9 98.6	Resistant 2.7 26.0° 24.7° - 11.0 - 11.0 - 11.0 - 0.0 5.7 2.1 0.7 0.0 9.9 12.8 0.0 14.0
Drganism (no. tested) S. aureus (252) CoNS (101) ^b Enterococci (67)	Antimicrobial ag Tigecycline Minocycline Oxacillin Erythromycin Levofloxacin TMP/SMX ^b Vancomycin Tigecycline Minocycline Oxacillin Erythromycin Levofloxacin TMP/SMX Vancomycin Tigecycline Minocycline Ampicillin Chloramphenic Levofloxacin Tigecycline	MIC50%0.5≤0.25>2>84≤0.510.25≤0.25>2>84≤0.52>84≤0.520.1284≤110.03	$(mg/L) 90% 0.5 >8 >2 >8 >4 \leq 0.520.520.5>20.5>20.5>20.5>20.5>2>8>4>20.5>2>8>4>20.5>2>8>4>20.5>220.5>8>4>20.5>8>4>20.5>8>4>20.5>8>4>20.5>8>4>20.5>8>4>20.5>8>4>20.5>8>4>20.5>8>4>220.25>8>16>16>16>16>420.06>8>16>16>16>842$	% by Susceptik 100.0 65.3 32.7 25.7 34.7 100.0 99.5 100.0 97.0 15.8 29.7 34.7 73.3 100.0 97.0 40.3 80.6 85.1 65.7 100.0 - 31.8	ole Res	sistant - ^b 31.7 57.3 74.3 54.9 0.0 - 2.0 34.2 70.3 51.5 26.7 0.0 - 88.8 19.4 14.9 34.3 0.0 - 35.1	Н. М. <i>М.</i>	influer catarr	nzae (7	73) (56)		Tigecy Tetracy Ampio A/C Ceftria _evoflo TMP/S Tigecy Minocy Ceftria _evoflo TMP/S Tigecy Minocy Ceftria P/T Imiper Gentar _evoflo Tigecy Minocy Ceftria	cline cline cline cline cline xacin SMX cline cline cline cline cline cline cline cline cline cline cline cline cline cline		90% 0.5 ≤ 2 48 0.25 ≤ 0.03 4 4 4 0.25 ≤ 0.25 1 1 0.06 ≤ 0.5 0.25 8 ≤ 0.25 8 ≤ 0.25 2 ≤ 0.5 4 > 32	Susceptible - 97.3 54.8 75.3 100.0 100.0 89.0 100.0 85.8 97.9 98.6 100.0 90.1 83.7 100.0 75.4 87.7	Resistant 2.7 26.0° 24.7° - 11.0 - 11.0 0.0 5.7 2.1 0.7 0.0 9.9 12.8 0.0 14.0 10.5 (12.3)
Drganism (no. tested) S. aureus (252) CoNS (101) ^b Enterococci (67)	Antimicrobial ag Tigecycline Minocycline Oxacillin Erythromycin Levofloxacin TMP/SMX ^b Vancomycin Erythromycin Chloramphenic Levofloxacin TMP/SMX Vancomycin Tigecycline Minocycline Ampicillin Chloramphenic Levofloxacin Tigecycline Ampicillin	$ \begin{array}{c c} & MIC \\ & 50\% \\ & 0.5 \\ & <0.25 \\ & >2 \\ & >8 \\ & 4 \\ & <0.5 \\ & 1 \\ & 0.25 \\ & <0.25 \\ & >2 \\ & >8 \\ & 4 \\ & <0.5 \\ & 2 \\ & >8 \\ & 4 \\ & <0.5 \\ & 2 \\ & >8 \\ & 4 \\ & <0.5 \\ & 2 \\ & >8 \\ & 4 \\ & <0.5 \\ & 2 \\ & >8 \\ & 4 \\ & <0.5 \\ & 2 \\ & >8 \\ & 4 \\ & <0.5 \\ & 2 \\ & >8 \\ & 4 \\ & <0.5 \\ & 2 \\ & >8 \\ & 4 \\ & <0.5 \\ & 2 \\ & >8 \\ & 4 \\ & <0.5 \\ & 2 \\ & >8 \\ & 4 \\ & <0.5 \\ & 2 \\ & >8 \\ & 4 \\ & <0.5 \\ & 2 \\ & >8 \\ & 4 \\ & <0.5 \\ & 2 \\ & >8 \\ & 4 \\ & <0.5 \\ & 2 \\ & >8 \\ & 4 \\ & <0.5 \\ & 2 \\ & >8 \\ & 4 \\ & <0.5 \\ & 2 \\ & >8 \\ & 4 \\ & <0.5 \\ & 2 \\ & >8 \\ & 4 \\ & <0.5 \\ & 2 \\ & >8 \\ & 4 \\ & <0.5 \\ & 2 \\ & >8 \\ & 4 \\ & <0.5 \\ & 2 \\ & >8 \\ & 1 \\ & 1 \\ & 0.03 \\ & 8 \\ & 0.25 \\ & 1 \\ & 1 \\ & 1 \\ & 0.03 \\ & 8 \\ & 0.25 \\ & 1 \\ & 1 \\ & 1 \\ & 0.03 \\ & 8 \\ & 0.25 \\ & 1 \\ & 1 \\ & 1 \\ & 0.03 \\ & 8 \\ & 0.25 \\ & 1 \\ & 1 \\ & 1 \\ & 0.03 \\ & 8 \\ & 0.25 \\ & 1 \\ & 1 \\ & 1 \\ & 1 \\ & 0.03 \\ & 8 \\ & 0.25 \\ & 1 \\ & $	$(mg/L) 90% 0.5 >8 >2 >8 >4 \leq 0.520.50.520.5>20.5>2>8>4>220.25>8>4>220.25>8>16>16>16>16>16>16>16>16$	% by Susceptik 100.0 65.3 32.7 25.7 34.7 100.0 99.5 100.0 99.5 100.0 99.5 100.0 97.0 15.8 29.7 34.7 73.3 100.0 97.0 15.8 29.7 34.7 73.3 100.0 97.0 15.8 29.7 34.7 73.3 100.0 97.0 40.3 80.6 85.1 65.7 100.0 - - 31.8 88.7	ole Res ole Res 7 6 7 6 7 6 7 6 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	sistant - ^b 31.7 57.3 74.3 54.9 0.0 0.0 - 2.0 34.2 70.3 51.5 26.7 0.0 - 38.8 19.4 14.9 34.3 0.0 - 35.1 2.0	Н. М. <i>М.</i>	influer catarr	nzae (7	73) (56)		Tigecy Tetracy Ampio A/C Ceftria _evoflo TMP/S Tigecy Minocy Ceftria _evoflo TMP/S Tigecy Minocy Ceftria P/T Imiper Gentar _evoflo Tigecy Minocy Ceftria	cline cline		90% 0.5 ≤ 2 48 0.25 ≤ 0.03 4 4 0.25 ≤ 0.25 1 1 0.06 ≤ 0.5 0.25 8 ≤ 0.25 2 ≤ 0.5 4 > 32 8	Susceptible 97.3 54.8 75.3 100.0 100.0 89.0 - - 100.0 89.0 - - - - - - - - - 100.0 85.8 97.9 98.6 100.0 85.8 97.9 98.6 100.0 85.7 96.5	Resistant 2.7 26.0° 24.7° - 11.0 - 11.0 0.0 5.7 2.1 0.7 0.0 5.7 2.1 0.7 0.0 9.9 12.8 0.0 14.0 10.5 (12.3) 3.5
Drganism (no. tested) S. aureus (252) CoNS (101) ^b Enterococci (67)	Antimicrobial ag Tigecycline Minocycline Oxacillin Erythromycin Levofloxacin TMP/SMX ^b Vancomycin Tigecycline Minocycline Oxacillin Erythromycin Levofloxacin TMP/SMX Vancomycin Chloramphenic Levofloxacin Tigecycline Minocycline Ampicillin Chloramphenic Levofloxacin Tigecycline Minocycline Ampicillin	$ \begin{array}{c c} & MIC \\ & 50\% \\ & 0.5 \\ & \leq 0.25 \\ & 4 \\ & \leq 0.5 \\ & 1 \\ & 0.25 \\ & \leq 0.25 \\ & >2 \\ & >8 \\ & 4 \\ & \leq 0.5 \\ & 2 \\ & >8 \\ & 4 \\ & \leq 0.5 \\ & 2 \\ & 0.12 \\ & 8 \\ & 4 \\ & \leq 0.5 \\ & 2 \\ & 0.12 \\ & 8 \\ & 4 \\ & \leq 0.5 \\ & 1 \\ & 1 \\ & 0.03 \\ & 8 \\ & 0.25 \\ & 1 \\ & 8 \\ & 0.25 \\ & 1 \\ & 8 \\ & 0.25 \\ & 1 \\ & >8 \\ & 0.25 \\ & 1 \\ & 0.8 \\ & 0.25 \\ & 1 \\ & 0.8 \\ & 0.25 \\ & 1 \\ & 0.8 \\ & 0.25 \\ & 1 \\ & 0.8 \\ & 0.25 \\ & 1 \\ & 0.8 \\ & 0.25 \\ & 1 \\ & 0.8 \\ & 0.25 \\ & 1 \\ & 0.8 $	$(mg/L) 90% 0.5 >8 >2 >8 >4 \leq 0.520.520.5>20.5>2>8>4>220.25>8>4>220.25>8>16>16>16>16>16>16>420.06>8420.06>8>16>16>16>16>16>8420.06>8>8>16>16>83333333333333$	% by Susceptik 100.0 65.3 32.7 25.7 34.7 100.0 99.5 100.0 99.5 100.0 99.5 100.0 97.0 15.8 29.7 34.7 73.3 100.0 97.0 15.8 29.7 34.7 73.3 100.0 97.0 40.3 80.6 85.1 65.7 100.0 97.0 40.3 80.6 85.1 65.7 100.0 - 31.8 88.7 18.5	ble Res ble Res 7 7 6 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	sistant - ^b 31.7 57.3 74.3 54.9 0.0 - 2.0 34.2 70.3 51.5 26.7 0.0 - 38.8 19.4 14.9 34.3 0.0 - 35.1 2.0 30.8	Н. М. <i>М.</i>	influer catarr	nzae (7	73) (56)		Tigecy Tetracy Ampio A/C Ceftria _evoflo TMP/S Tigecy Minocy Ceftria _evoflo TMP/S Tigecy Minocy Ceftria P/T Imiper Gentar _evoflo Tigecy Minocy Ceftria	cline cline		90% 0.5 ≤ 2 48 0.25 ≤ 0.03 4 4 0.25 ≤ 0.25 1 1 0.06 ≤ 0.5 0.25 8 ≤ 0.25 2 ≤ 0.5 4 >32 8 ≤ 0.5 4 >32 8 ≤ 0.5	Susceptible 97.3 54.8 75.3 100.0 100.0 89.0 - - - 100.0 85.8 97.9 98.6 100.0 85.8 97.9 98.6 100.0 85.8 97.9 98.6 100.0 85.8 97.9 98.6 100.0 85.8 97.9 98.6 100.0 85.8 97.9 98.6 100.0 85.8 97.9 98.6 100.0 85.8 97.9 98.6 100.0 90.1 83.7 100.0 90.1 83.7 100.0 90.1 83.7	Resistant 2.7 26.0° 24.7° - 11.0 - 11.0 11.0 0.0 5.7 2.1 0.7 0.0 5.7 2.1 0.7 0.0 9.9 12.8 0.0 14.0 10.5 (12.3) 3.5 0.0
Drganism (no. tested) S. aureus (252) CoNS (101) ^b Enterococci (67)	Antimicrobial ag Tigecycline Minocycline Oxacillin Erythromycin Levofloxacin TMP/SMX ^b Vancomycin Tigecycline Minocycline Oxacillin Erythromycin Levofloxacin TMP/SMX Vancomycin Chloramphenic Levofloxacin Tigecycline Minocycline Ampicillin Chloramphenic Levofloxacin Tigecycline Minocycline Ampicillin	$ \begin{array}{c c} & MIC \\ & 50\% \\ & 0.5 \\ & <0.25 \\ & >2 \\ & >8 \\ & 4 \\ & <0.5 \\ & 1 \\ & 0.25 \\ & <0.25 \\ & >2 \\ & >8 \\ & 4 \\ & <0.5 \\ & 2 \\ & >8 \\ & 4 \\ & <0.5 \\ & 2 \\ & >8 \\ & 4 \\ & <0.5 \\ & 2 \\ & >8 \\ & 4 \\ & <0.5 \\ & 2 \\ & >8 \\ & 4 \\ & <0.5 \\ & 2 \\ & >8 \\ & 4 \\ & <0.5 \\ & 2 \\ & >8 \\ & 4 \\ & <0.5 \\ & 2 \\ & >8 \\ & 4 \\ & <0.5 \\ & 2 \\ & >8 \\ & 4 \\ & <0.5 \\ & 2 \\ & >8 \\ & 4 \\ & <0.5 \\ & 2 \\ & >8 \\ & 4 \\ & <0.5 \\ & 2 \\ & >8 \\ & 4 \\ & <0.5 \\ & 2 \\ & >8 \\ & 4 \\ & <0.5 \\ & 2 \\ & >8 \\ & 4 \\ & <0.5 \\ & 2 \\ & >8 \\ & 4 \\ & <0.5 \\ & 2 \\ & >8 \\ & 4 \\ & <0.5 \\ & 2 \\ & >8 \\ & 4 \\ & <0.5 \\ & 2 \\ & >8 \\ & 4 \\ & <0.5 \\ & 2 \\ & >8 \\ & 4 \\ & <0.5 \\ & 2 \\ & >8 \\ & 1 \\ & 1 \\ & 0.03 \\ & 8 \\ & 0.25 \\ & 1 \\ & 1 \\ & 1 \\ & 0.03 \\ & 8 \\ & 0.25 \\ & 1 \\ & 1 \\ & 1 \\ & 0.03 \\ & 8 \\ & 0.25 \\ & 1 \\ & 1 \\ & 1 \\ & 0.03 \\ & 8 \\ & 0.25 \\ & 1 \\ & 1 \\ & 1 \\ & 0.03 \\ & 8 \\ & 0.25 \\ & 1 \\ & 1 \\ & 1 \\ & 1 \\ & 0.03 \\ & 8 \\ & 0.25 \\ & 1 \\ & $	$(mg/L) 90% 0.5 >8 >2 >8 >4 \leq 0.520.50.520.5>20.5>2>8>4>220.25>8>4>220.25>8>16>16>16>16>16>16>16>16$	% by Susceptik 100.0 65.3 32.7 25.7 34.7 100.0 99.5 100.0 99.5 100.0 97.0 15.8 29.7 34.7 73.3 100.0 97.0 15.8 29.7 34.7 73.3 100.0 97.0 15.8 29.7 34.7 73.3 100.0 97.0 40.3 80.6 85.1 65.7 100.0 - 31.8 88.7 18.5 44.4	ole Res ole Res 7 6 7 6 7 6 7 7 6 7 7 7 7 7 7 7 7 7 7	sistant - ^b 31.7 57.3 74.3 54.9 0.0 0.0 - 2.0 34.2 70.3 51.5 26.7 0.0 - 38.8 19.4 14.9 34.3 0.0 - 35.1 2.0 30.8 55.6	Н. М. <i>М.</i>	influer catarr	nzae (7	73) (56)		Tigecy Tetracy Ampio A/C Ceftria _evoflo TMP/S Tigecy Minocy Ceftria _evoflo TMP/S Tigecy Minocy Ceftria P/T Imiper Gentar _evoflo Tigecy Minocy Ceftria	cline cline		90% 0.5 ≤ 2 48 0.25 ≤ 0.03 4 4 0.25 ≤ 0.25 1 1 0.06 ≤ 0.5 0.25 8 ≤ 0.25 8 ≤ 0.5 4 > 32 8 ≤ 0.5 ≤ 2	Susceptible 97.3 54.8 75.3 100.0 100.0 89.0 - - - 100.0 85.8 97.9 98.6 100.0 85.8 97.9 98.6 100.0 90.1 83.7 100.0 90.1 83.7 100.0 90.1 83.7 100.0 90.1 83.7	Resistant 2.7 26.0° 24.7° - 11.0 - 11.0 - 0.0 5.7 2.1 0.7 0.0 5.3
Drganism (no. tested) S. aureus (252) CoNS (101) ^b Enterococci (67)	Antimicrobial ag Tigecycline Minocycline Oxacillin Erythromycin Levofloxacin TMP/SMX ^b Vancomycin Tigecycline Minocycline Oxacillin Erythromycin Levofloxacin TMP/SMX Vancomycin Chloramphenic Levofloxacin Tigecycline Minocycline Ampicillin Chloramphenic Levofloxacin Tigecycline Minocycline Ampicillin Chloramphenic Levofloxacin Tigecycline Minocycline Ampicillin	$ \begin{array}{c c c c c c c } & & & & & & \\ \hline & & & & & \\ \hline & & & & &$	$(mg/L) 90% 0.5 >8 >2 >8 >4 \leq 0.520.520.5>2>8>4>220.25>8>4>220.25>8>16>16>16>16>16>16>16>16$	% by Susceptik 100.0 65.3 32.7 25.7 34.7 100.0 99.5 100.0 99.5 100.0 99.5 100.0 97.0 15.8 29.7 34.7 73.3 100.0 97.0 15.8 29.7 34.7 73.3 100.0 97.0 40.3 80.6 85.1 65.7 100.0 97.0 40.3 80.6 85.1 65.7 100.0 - - 31.8 88.7 18.5 44.4 99.3	ole Res ole Res 7 6 7 6 7 7 6 7 7 7 7 7 7 7 7 7 7 7 7	sistant - ^b 31.7 57.3 74.3 54.9 0.0 - 2.0 34.2 70.3 51.5 26.7 0.0 - 88.8 19.4 14.9 34.3 0.0 - 35.1 2.0 30.8 55.6 0.7	Н. М. <i>М.</i>	influer catarr	nzae (7	73) (56)		Tigecy Tetracy Ampio A/C Ceftria _evoflo TMP/S Tigecy Minocy Ceftria _evoflo TMP/S Tigecy Minocy Ceftria P/T Imiper Gentar _evoflo Tigecy Minocy Ceftria	cline cline		90% 0.5 ≤ 2 48 0.25 ≤ 0.03 4 4 0.25 ≤ 0.25 1 1 0.06 ≤ 0.5 0.25 8 ≤ 0.25 2 ≤ 0.5 4 >32 8 ≤ 0.5 4 >32 8 ≤ 0.5	Susceptible 97.3 54.8 75.3 100.0 100.0 89.0 - - - 100.0 85.8 97.9 98.6 100.0 85.8 97.9 98.6 100.0 85.8 97.9 98.6 100.0 85.8 97.9 98.6 100.0 85.8 97.9 98.6 100.0 85.8 97.9 98.6 100.0 85.8 97.9 98.6 100.0 85.8 97.9 98.6 100.0 90.1 83.7 100.0 90.1 83.7 100.0 90.1 83.7	Resistant 2.7 26.0° 24.7° - 11.0 - 11.0 - 0.0 5.7 2.1 0.7 0.0 5.7 2.1 0.7 0.0 9.9 12.8 0.0 14.0 10.5 (12.3) 3.5 0.0
Drganism (no. tested) S. aureus (252)	Antimicrobial ag Tigecycline Minocycline Oxacillin Erythromycin Levofloxacin TMP/SMX ^b Vancomycin Tigecycline Minocycline Oxacillin Erythromycin Levofloxacin TMP/SMX Vancomycin Chloramphenic Levofloxacin Tigecycline Minocycline Ampicillin Chloramphenic Levofloxacin Tigecycline Minocycline Ampicillin	$ \begin{array}{c c} & MIC \\ & 50\% \\ & 0.5 \\ & \leq 0.25 \\ & 4 \\ & \leq 0.5 \\ & 1 \\ & 0.25 \\ & \leq 0.25 \\ & >2 \\ & >8 \\ & 4 \\ & \leq 0.5 \\ & 2 \\ & >8 \\ & 4 \\ & \leq 0.5 \\ & 2 \\ & 0.12 \\ & 8 \\ & 4 \\ & \leq 0.5 \\ & 2 \\ & 0.12 \\ & 8 \\ & 4 \\ & \leq 0.5 \\ & 1 \\ & 1 \\ & 0.03 \\ & 8 \\ & 0.25 \\ & 1 \\ & 8 \\ & 0.25 \\ & 1 \\ & 8 \\ & 0.25 \\ & 1 \\ & >8 \\ & 0.25 \\ & 1 \\ & 0.8 \\ & 0.25 \\ & 1 \\ & 0.8 \\ & 0.25 \\ & 1 \\ & 0.8 \\ & 0.25 \\ & 1 \\ & 0.8 \\ & 0.25 \\ & 1 \\ & 0.8 \\ & 0.25 \\ & 1 \\ & 0.8 \\ & 0.25 \\ & 1 \\ & 0.8 $	$(mg/L) 90% 0.5 >8 >2 >8 >4 \leq 0.520.520.5>2>8>4>220.25>8>4>220.25>8>16>16>16>16>16>16>16>16$	% by Susceptik 100.0 65.3 32.7 25.7 34.7 100.0 99.5 100.0 99.5 100.0 97.0 15.8 29.7 34.7 73.3 100.0 97.0 15.8 29.7 34.7 73.3 100.0 97.0 15.8 29.7 34.7 73.3 100.0 97.0 40.3 80.6 85.1 65.7 100.0 - 31.8 88.7 18.5 44.4	ole Res ole Res 7 6 7 6 7 7 6 7 7 7 7 7 7 7 7 7 7 7 7	sistant - ^b 31.7 57.3 74.3 54.9 0.0 0.0 - 2.0 34.2 70.3 51.5 26.7 0.0 - 38.8 19.4 14.9 34.3 0.0 - 35.1 2.0 30.8 55.6	Н. М. <i>М.</i>	influer catarr	nzae (7	73) (56)		Tigecy Tetracy Ampio A/C Ceftria _evoflo TMP/S Tigecy Minocy Ceftria _evoflo TMP/S Tigecy Minocy Ceftria P/T Imiper Gentar _evoflo Tigecy Minocy Ceftria	cline cline		90% 0.5 ≤ 2 48 0.25 ≤ 0.03 4 4 0.25 ≤ 0.25 1 1 0.06 ≤ 0.5 0.25 8 ≤ 0.25 8 ≤ 0.5 4 > 32 8 ≤ 0.5 ≤ 2	Susceptible 97.3 54.8 75.3 100.0 100.0 89.0 - - - 100.0 85.8 97.9 98.6 100.0 85.8 97.9 98.6 100.0 90.1 83.7 100.0 90.1 83.7 100.0 90.1 83.7 100.0 90.1 83.7	Resistan - 2.7 26.0° 24.7° - 11.0 - 11.0 - 11.0 - 0.0 5.7 2.1 0.7 0.0 5.7 2.1 0.7 0.0 14.0 10.5 (12.3 3.5 0.0 14.0 10.5 (12.3 3.5 0.0 5.3

Conclusions: Using US-FDA breakpoints, tigecycline-resistant rates among Japanese isolates were nil for Enterobacteriaceae and only 0.3% for GPC. Tigecycline appears to be active against current pathogens from Japan including prevalent resistance phenotypes (extended-spectrum B-lactamases, MRSA, penicillin-resistant pneumococci).

INTRODUCTION

Tigecycline is a semisynthetic glycylcycline derived from minocycline that induces its bacteriostatic effect by binding to a high affinity intracellular site on the bacterial 30S-ribosome, thus blocking entry of amino-acyl tRNA molecules into the A site of the ribosome and preventing further protein synthesis. Tigecycline overcomes the two major determinants of tetracycline resistance: active efflux and protection of ribosomes.

Tigecycline is an important advance in treatment for a range of infections where mixed and/or resistant organisms play a role, and include a very broad spectrum comprising virtually all Gram-positive bacteria, most Gram-negative bacteria including anaerobes, and many strains harbouring resistance to other antimicrobial classes. In preparation for expanded clinical trials in Japan and the Asia-Pacific (APAC) region, the SENTRY Antimicrobial Surveillance Program retrospectively tested year 2003 and 2004 strains from Japan against tigecycline.

MATERIALS AND METHODS

Bacterial isolates. A total of 1,033 bacterial isolates collected during 2003-2004 in three medical centers located in Japan (Nagasaki University, Nagasaki; Kitasato University, Kanagawa; and Teikyo University, Tokyo) were evaluated as part of the SENTRY Antimicrobial Surveillance Program. The isolates were consecutively collected from bloodstream infections, skin and soft tissue infections, urinary tract infections and pneumonia in hospitalized patients according to a common protocol. Only isolates from documented infections were included in the study. Species identification was confirmed by standard biochemical tests and the Vitek System (bioMerieux, Hazelwood, MO), when necessary. Antimicrobial susceptibility testing. All isolates were susceptibility tested using the broth microdilution method as described by the Clinical and Laboratory Standards Institute (CLSI). Fresh cation-adjusted Mueller-Hinton broth was used in validated panels manufactured by TREK Diagnostics (Cleveland, OH). Categorical interpretations for comparator antimicrobials were those found in M100-S18; breakpoints for tigecycline were those of the United States (US) Food and Drug Administration (FDA). Quality control (QC) was performed using Escherichia coli ATCC 25922, S. aureus ATCC 29213 and Pseudomonas aeruginosa ATCC 27853; all QC results were within specified ranges as published in M100-S18. All strains were tested either at the Women's and Children's Hospital (Adelaide, Australia) or at JMI Laboratories (North Liberty, Iowa, USA).

Data were analyzed for MIC_{50} , MIC_{90} and percentage susceptible and resistant according to US-FDA tigecycline product labeling interpretive criteria (2005). Enterobacteriaceae with elevated MIC values (≥2 mg/L) for ceftazidime and/or ceftriaxone and/or aztreonam were considered as extended-spectrum *B*-lactamase (ESBL)-producing phenotypes (see Table 2).

b. - = no interpretive criteria have been published. TMP/SMX = trimethoprim/sulfamethoxazole, CoNS = coagulase-negative staphylococci, A/C = amoxicillin/clavulanate, P/T = piperacillin/tazobactam. c. Evidence of B-lactamase-negative ampicillin-resistant isolates. d. Percentage ESBL phenotype.

CONCLUSIONS

- When reference tested against 1,033 Japanese isolates from 2003-2004, tigecycline was very active against Gram-positive cocci (all MIC values at ≤ 0.5 mg/L).
- against • Tigecycline was also active most Enterobacteriaceae at $\leq 2 \text{ mg/L}$ and all strains had MIC values at $\leq 4 \text{ mg/L}$ (Table 1).
- Tigecycline appears to be a promising glycylcycline for use in Japan, including application against isolates having resistances to other antimicrobial classes.