Update of Dalbavancin Activity in the USA: Report from the SENTRY Program (2011)

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ABSTRACT

Background: Dalbavancin (DAL) is a late phase investigational lipoglycopeptide with an extended serum half-life allowing once weekly dosing. DAL potency was assessed in the 2011 SENTRY Antimicrobial Surveillance Program among 1,555 isolates sampled from all 9 USA Census regions to update the 37,258 organism collection reported for 2006-2009 (2011 ICAAC).

Methods: Monitored Gram-positive cocci included *Staphylococcus aureus* (SA; 1,036/50.4% MRSA), coagulase-negative staphylococci (CoNS; 115); *Enterococcus faecalis* (25); *E. faecium* (31); *Streptococcus pyogenes* (155); *S. agalactiae* (153) and viridans gr. streptococci (VGS; 40). All susceptibility (S) testing used CLSI reference broth microdilution methods and interpretations.

Results: DAL ($MIC_{50/90}$, 0.06/0.06 µg/ml) was eight and 16-fold more active than daptomycin (DAPT) and vancomycin (VANC), respectively against SA; with MSSA and MRSA having the same MIC_{90} results. CoNS was slightly more DAL-S (MIC_{50}, ≤0.03 µg/ml). The highest staphylococcal DAL MIC was only 0.25 µg/ml (**Table**). β-haemolytic streptococci (βHS) and VGS had DAL MICs ranging from ≤0.03 to 0.25 µg/ml (MIC_{90}, 0.06-0.12 µg/ml) and only enterococci showed elevated DAL MIC results. VanA phenotype-resistant *E. faecalis* or *E. faecium* had DAL MIC values at ≥1 µg/ml; VanB strains were DAL-S (MIC, ≤0.25 µg/ml). All cited DAL quantitative values were totally consistent with earlier surveillance data (2006-2009), without MIC creep.

	Cum. % inhibited at DAL MIC (µg/ml):						
Organism (no.)	≤0.03	0.06	0.12	0.25	0.5	1	≥2
S. aureus							
MRSA (522)	37.9	96.7	100.0	-	-	-*	-
MSSA (514)	37.5	96.7	99.6	100.0	-	-*	-
CoNS (115)	66.1	90.4	99.1	100.0	-	-	-*
βHS (308)	71.8	88.6	95.5	100.0	-*	-	-
VGS (40)	82.5	97.5	100.0	-	-	-*	-
Enterococci							
Van-susceptible (30)	50.0	93.3	100.0	-	-	-*	-
VanA (24)	-	-	-	4.2	4.2	12.5	100.0
VanB(2)	100.0	-	-	-	-	-	-

*=vancomycin MIC_{90}

Conclusions: Year 2011 SENTRY Program surveillance results for DAL document sustained potent activity against SA, CoNS, βHS, VGS and VANC-S enterococci, that averaged four-to 32-fold greater than VANC, DAPT or linezolid. Further development of DAL appears warranted by these in vitro potency criteria.

INTRODUCTION

Dalbavancin (also known as BI397, MDL 63,399, A-A1, VER001) is a late Phase investigational semisynthetic-lipoglycopeptide with an extended elimination half-life allowing once weekly dosing with reports of high clinical success and acceptable safety in Phase 2 and 3 trials. The antimicrobial spectrum of dalbavancin most closely resembles that of teicoplanin, however, it has greater potency against many Gram-positive organism groups. The compound is derived from a natural glycopeptide (A-40,926) by a 3,3-dimethylaminopropyl amide substitution on the peptide carboxyl group. Such modifications of existing structures of Gram-positive-active antimicrobial agents have been necessary to address emerging resistances to glycopeptides, as well as fostering the development of novel structures such as the oxazolidinones, streptogramin combinations and other classes.

In vitro international resistance surveillance programs for dalbavancin were initiated as early as 2002. The 2006-2009 results for the USA (37,258 Gram-positive cocci) were reported in 2011 (ICAAC, poster E-1323), using validated reference methods of the Clinical and Laboratory Standards Institute (CLSI). This database was derived from results obtained in the SENTRY Antimicrobial Surveillance Program with the inclusion of 1,555 Gram-positive organisms (protocol target of 1,500 strains) during the most recent surveillance year (2011). This database is intended to be used for regulatory purposes (in vitro testing reports) and as the baseline content for ongoing comprehensive microbiology activity and spectrum surveillance programs for dalbavancin (2012 and beyond).

MATERIALS AND METHODS

Study isolates: JMI Laboratories utilized in vitro testing results from the SENTRY Program platform during 2011 to provide dalbavancin antimicrobial resistance surveillance data, including numerous comparator agent results. A total of 1,555 Gram-positive cocci were selected from 29 monitored USA medical centers distributed among all nine census regions as follows (number of isolates in parentheses): New England (167); Mid-Atlantic (217); East North Central (219); West North Central (175); South Atlantic (207); East South Central (93); West South Central (168); Mountain (130); and Pacific (179).

Organisms included the following species (number of isolates): *Staphylococcus aureus* (1,036); methicillin-susceptible (MSSA; 514); methicillin-resistant (MRSA; 522); coagulase-negative staphylococci (CoNS; 115); *Enterococcus faecalis* (25); *E. faecium* (31); *Streptococcus pyogenes* (155); *S. agalactiae* (153); and viridans group streptococcus (VGS; 40).

Susceptibility methods/antimicrobial agents: Organisms were processed by the CLSI reference methods (M07-A9, 2012) in validated broth microdilution panels produced by ThermoFisher Scientific Inc., formerly TREK Diagnostics (Cleveland, Ohio, USA) under GMP conditions and validated as equivalent to those detailed in the CLSI M100-S22, 2012 document (which specifies preparation in 0.002% polysorbate-80 and a final broth concentration of DMSO at ≤1.0%).

MIC interpretive criteria for comparators were those of the CLSI (M100-S22) and EUCAST (2012). Quality control (QC) was performed per CLSI M07-A9 and CLSI M100-S22 recommendations and guidelines using the following American Type Culture Collection (ATCC) strains: *S. aureus* ATCC 29213; *S. pneumoniae* ATCC 49619; and *E. faecalis* ATCC 29212. All QC results were within the acceptable ranges.

RESULTS

- The dalbavancin MIC distributions for 21 organism analysis groups are listed in **Table 1**. The MIC values of dalbavancin against staphylococci ranged from ≤0.03 to 0.25 µg/ml, with only three organisms having a MIC at 0.25 µg/ml (99.7% at ≤0.12 µg/ml). Similarly, streptococci (β-haemolytic species and viridans group) had the same dalbavancin MIC range, and all 14 strains at 0.25 µg/ml were *S. agalactiae* (4.0%). Enterococcal dalbavancin MIC results (**Table 1**) were more diverse, being influenced by the vancomycin resistance mechanism patterns. Generally, vancomycin-susceptible and VanB phenotype strains were very dalbavancin-susceptible (MIC range, ≤0.03-0.12 µg/ml). Only VanA resistance phenotype enterococci (*E. faecalis* and *E. faecium)* had elevated dalbavancin MIC values (usually ≥1 µg/ml).

- *S. aureus* and CoNS MIC results for dalbavancin and 10 selected comparison agents are found in **Table 2**. Over one-half (50.4%) of sampled *S. aureus* were MRSA, but the dalbavancin MIC results ($MIC_{50/90}$, 0.06/0.06 µg/ml) were not affected by methicillin (oxacillin) resistance. However, some comparators were less active against MRSA (susceptibity rate by CLSI criteria for MRSA/MSSA in parentheses): erythromycin (10.2/60.7%), clindamycin (68.8/94.4%) and levofloxacin (28.9/86.4%). The agents remaining highly active (% susceptible) were: dalbavancin (100.0% at ≤0.25 µg/ml), vancomycin (100.0%), teicoplanin (100.0%), telavancin (100.0%), daptomycin (100.0%), and linezolid (99.8%; two resistant MRSA).

- Dalbavancin activity against CoNS (**Table 2**) was slightly greater than that documented for *S. aureus*, having a lower MIC_{50} (≤0.03 µg/ml).

- Beta-haemolytic streptococci (βHS; 155) were very susceptible to dalbavancin (MIC_{50}, ≤0.03 µg/ml and MIC_{90}, 0.12 µg/ml); see **Table 3**. All dalbavancin MIC results were at ≤0.25 µg/ml; and the MIC_{90} value for *S. agalactiae* (0.12 µg/ml) was higher when compared to *S. pyogenes* (MIC_{90}, ≤0.03 µg/ml).

- **Table 3** also demonstrates that dalbavancin was potent (MIC_{90}, 0.06 µg/ml) when tested against VGS representing at least eight different species. In contrast, penicillin (72.5% susceptible by CLSI criteria), erythromycin (42.5%), clindamycin (87.5%) and tetracyclines (60.0%) had compromised coverage of these *Streptococcus* species.

- Great variation of dalbavancin activity against *Enterococcus* spp. (**Table 4**) was documented as follows (**Tables 1** and **4**):

  – Against vancomycin-susceptible enterococci (VSE), regardless of species, dalbavancin was very active (MIC_{90}, 0.06 µg/ml; all strains inhibited at ≤0.12 µg/ml).

  – The vancomycin-resistant enterococci (VRE) were less susceptible to dalbavancin ($MIC_{50/90}$, >4/>4 µg/ml) and all other tested agents, except daptomycin and linezolid, each showing 100.0% susceptibility rates and $MIC_{50/90}$ values at 1 µg/ml.

  – VRE phenotype predicts the activities of dalbavancin and teicoplanin. VanB phenotypic strains were susceptible to dalbavancin (MIC_{50}, ≤0.03 µg/ml). VanA VRE had dalbavancin MIC values at ≥0.25 µg/ml (MIC_{50}, >4 µg/ml).

Table 1. Cumulative frequency distribution of dalbavancin MIC values for targeted Gram-positive pathogens collected from 29 medical centers in the United States during 2011.

	No. of occurrences (cumulative % inhibited) by MIC (µg/ml):										
Organism (no. tested)	≤ 0.03	0.06	0.12	0.25	0.5	1	2	4	> 4	MIC_{50}	MIC_{90}
Staphylococcus aureus (1036)	391 (37.7)	611 (96.7)	32 (99.8)	2 (100.0)	-	-	-	-	-	0.06	0.06
MSSA (514)	193 (37.5)	304 (96.7)	15 (99.6)	2 (100.0)	-	-	-	-	-	0.06	0.06
MRSA (522)	198 (37.9)	307 (96.7)	17 (100.0)	-	-	-	-	-	-	0.06	0.06
Coagulase-negative staphylococci (115)	76 (66.1)	28 (90.4)	10 (99.1)	1 (100.0)	-	-	-	-	-	≤0.03	0.06
MS-CoNS (41)	32 (78.0)	6 (92.7)	3 (100.0)	-	-	-	-	-	-	≤0.03	0.06
MR-CoNS (74)	44 (59.5)	22 (89.2)	7 (98.6)	1 (100.0)	-	-	-	-	-	≤0.03	0.12
Beta-haemolytic streptococci (308)	221 (71.8)	52 (88.6)	21 (95.5)	14 (100.0)	-	-	-	-	-	≤0.03	0.12
Group A Streptococcus (155)	143 (92.3)	11 (99.4)	1 (100.0)	-	-	-	-	-	-	≤0.03	≤0.03
Group B Streptococcus (153)	78 (51.0)	41 (77.8)	20 (90.8)	14 (100.0)	-	-	-	-	-	≤0.03	0.12
Viridans group streptococci (40)	33 (82.5)	6 (97.5)	1 (100.0)	-	-	-	-	-	-	≤0.03	0.06
Enterococcus spp. (56)	17 (30.4)	13 (53.6)	2 (57.1)	1 (58.9)	0 (58.9)	2 (62.5)	0 (62.5)	0 (62.5)	21 (100.0)	0.06	>4
vancomycin-susceptible (30)	15 (50.0)	13 (93.3)	2 (100.0)	-	-	-	-	-	-	≤0.03	0.06
vancomycin-resistant (26)[a]	2 (7.7)	0 (7.7)	0 (7.7)	1 (11.5)	0 (11.5)	2 (19.2)	0 (19.2)	0 (19.2)	21 (100.0)	>4	>4
VanA phenotype (24)	-	-	-	1 (4.2)	0 (4.2)	2 (12.5)	0 (12.5)	0 (12.5)	21 (100.0)	>4	>4
VanB phenotype (2)	2 (100.0)	-	-	-	-	-	-	-	-	≤0.03	-
Enterococcus faecalis (25)	10 (40.0)	9 (76.0)	0 (76.0)	0 (76.0)	0 (76.0)	0 (76.0)	0 (76.0)	6 (100.0)	0.06	>4	
vancomycin-susceptible (19)	10 (52.6)	9 (100.0)	-	-	-	-	-	-	-	≤0.03	0.06
vancomycin-resistant (6)	-	-	-	-	-	-	-	-	6 (100.0)	>4	-
Enterococcus faecium (31)	7 (22.6)	4 (35.5)	2 (41.9)	1 (45.2)	0 (45.2)	2 (51.6)	0 (51.6)	0 (51.6)	15 (100.0)	1	>4
vancomycin-susceptible (11)	5 (45.5)	4 (81.8)	2 (100.0)	-	-	-	-	-	-	0.06	0.12
vancomycin-resistant (20)	2 (10.0)	0 (10.0)	0 (10.0)	1 (15.0)	0 (15.0)	2 (25.0)	0 (25.0)	0 (25.0)	15 (100.0)	>4	>4

a. Includes: 18 *E. faecium* and six *E. faecalis* isolates with a VanA phenotype and two *E. faecium* with a VanB phenotype.

Table 2. Activity of dalbavancin and comparator antimicrobial agents when tested against isolates of *Staphylococcus* species (USA).

Antimicrobial agent (no. tested)	MIC (µg/ml)			CLSI[a]	EUCAST[a]
	MIC_{50}	MIC_{90}	Range	%S / %R	%S / %R
Staphylococcus aureus (1036)					
Dalbavancin	0.06	0.06	≤0.03 – 0.25	- / -	- / -
Oxacillin	>2	>2	≤0.25 – >2	49.6 / 50.4	49.6 / 50.4
Erythromycin	>16	>16	≤0.12 – >16	35.2 / 62.4	35.3 / 63.9
Clindamycin	≤0.25	>2	≤0.25 – >2	81.5 / 18.4	81.4 / 18.5
Vancomycin	1	1	≤0.12 – 2	100.0 / 0.0	100.0 / 0.0
Teicoplanin	≤2	≤2	≤2 – 4	100.0 / 0.0	99.9 / 0.1
Daptomycin	0.25	0.5	0.12 – 1	100.0 / -	100.0 / 0.0
Linezolid	1	2	0.5 – 8	99.8 / 0.2	99.8 / 0.2
Levofloxacin	0.25	>4	≤0.12 – >4	57.4 / 39.7	57.4 / 39.7
Tetracycline	≤0.25	0.5	≤0.25 – >8	94.5 / 4.9	92.7 / 6.3
TMP/SMX[b]	≤0.5	≤0.5	≤0.5 – >4	97.9 / 2.1	97.9 / 2.0
MSSA (514)					
Dalbavancin	0.06	0.06	≤0.03 – 0.25	- / -	- / -
Erythromycin	0.25	>16	≤0.12 – >16	60.7 / 36.4	60.7 / 38.1
Clindamycin	≤0.25	≤0.25	≤0.25 – >2	94.4 / 5.6	94.2 / 5.6
Vancomycin	1	1	≤0.12 – 2	100.0 / 0.0	100.0 / 0.0
Teicoplanin	≤2	≤2	≤2	100.0 / 0.0	100.0 / 0.0
Daptomycin	0.25	0.5	0.12 – 1	100.0 / -	100.0 / 0.0
Linezolid	1	2	0.5 – 2	100.0 / 0.0	100.0 / 0.0
Levofloxacin	≤0.12	4	≤0.12 – >4	86.4 / 12.5	86.4 / 12.5
Tetracycline	≤0.25	0.5	≤0.25 – >8	95.5 / 3.9	94.0 / 5.6
TMP/SMX[b]	≤0.5	≤0.5	≤0.5 – >4	98.6 / 1.4	98.6 / 1.2
MRSA (522)					
Dalbavancin	0.06	0.06	≤0.03 – 0.12	- / -	- / -
Erythromycin	>16	>16	≤0.12 – >16	10.2 / 87.9	10.3 / 89.3
Clindamycin	≤0.25	>2	≤0.25 – >2	68.8 / 31.0	68.8 / 31.2
Vancomycin	1	1	0.5 – 2	100.0 / 0.0	100.0 / 0.0
Teicoplanin	≤2	≤2	≤2 – 4	100.0 / 0.0	99.8 / 0.2
Daptomycin	0.25	0.5	0.12 – 1	100.0 / -	100.0 / 0.0
Linezolid	1	1	0.5 – 8	99.6 / 0.4	99.6 / 0.4
Levofloxacin	4	>4	≤0.12 – >4	28.9 / 66.5	28.9 / 66.5
Tetracycline	≤0.25	1	≤0.25 – >8	93.5 / 5.9	91.4 / 6.9
TMP/SMX[b]	≤0.5	≤0.5	≤0.5 – >4	97.1 / 2.9	97.1 / 2.9
Coagulase-negative staphylococci[c] (115)					
Dalbavancin	≤0.03	0.06	≤0.03 – 0.25	- / -	- / -
Oxacillin	1	>2	≤0.25 – >2	35.7 / 64.3	35.7 / 64.3
Erythromycin	>16	>16	≤0.12 – >16	39.1 / 60.9	39.1 / 60.9
Clindamycin	≤0.25	>2	≤0.25 – >2	74.8 / 24.3	73.9 / 25.2
Vancomycin	1	2	0.5 – 2	100.0 / 0.0	100.0 / 0.0
Teicoplanin	≤2	8	≤2 – 16	98.3 / 0.0	89.6 / 10.4
Daptomycin	0.25	0.5	≤0.06 – 1	100.0 / -	100.0 / 0.0
Linezolid	0.5	1	0.25 – 2	100.0 / 0.0	100.0 / 0.0
Levofloxacin	0.5	>4	≤0.12 – >4	51.3 / 47.0	51.3 / 47.0
Tetracycline	1	>8	≤0.25 – >8	81.7 / 17.4	67.8 / 20.0
TMP/SMX[b]	≤0.5	>4	≤0.5 – >4	62.6 / 37.4	62.6 / 25.2

a. Criteria as published by the CLSI [2012] and EUCAST [2012]. β-lactam susceptibility should be directed by the oxacillin test results.
b. Trimethoprim/sulfamethoxazole.
c. Includes: *Staphylococcus auricularis* (2 strains), *S. capitis* (6 strains), *S. carnosus* (1 strain), *S. epidermidis* (32 strains), *S. haemolyticus* (4 strains),*S. hominis* (4 strains), *S. lugdunensis* (6 strains), and unspecieated coagulase-negative staphylococci (60 strains).

Table 3. Activity of dalbavancin and comparator antimicrobial agents when tested against *Streptococcus* spp. (USA).

Antimicrobial agent (no. tested)	MIC (µg/ml)			CLSI[a]	EUCAST[a]
	MIC_{50}	MIC_{90}	Range	%S / %R	%S / %R
S. pyogenes (155)					
Dalbavancin	≤0.03	≤0.03	≤0.03 – 0.12	- / -	- / -
Penicillin	≤0.06	≤0.06	≤0.06	100.0 / -	100.0 / 0.0
Erythromycin	≤0.12	8	≤0.12 – >16	86.5 / 13.5	86.5 / 13.5
Clindamycin	≤0.25	≤0.25	≤0.25 – >2	95.5 / 3.9	96.1 / 3.9
Vancomycin	0.25	0.5	0.25 – 0.5	100.0 / -	100.0 / 0.0
Daptomycin	≤0.06	≤0.06	≤0.06 – 0.25	100.0 / -	100.0 / 0.0
Linezolid	1	1	0.25 – 1	100.0 / -	100.0 / 0.0
Levofloxacin	0.5	1	≤0.12 – >4	99.4 / 0.6	96.1 / 0.6
Ceftriaxone	≤0.06	≤0.06	≤0.06 – 0.12	100.0 / -	100.0 / 0.0
Tetracycline	≤0.25	0.5	≤0.25 – >8	91.6 / 8.4	91.0 / 8.4
TMP/SMX[b]	≤0.5	≤0.5	≤0.5 – >4	- / -	98.7 / 0.6
S. agalactiae (153)					
Dalbavancin	≤0.03	0.12	≤0.03 – 0.25	- / -	- / -
Penicillin	≤0.06	≤0.06	≤0.06 – 0.12	100.0 / -	100.0 / 0.0
Erythromycin	2	>16	≤0.12 – >16	45.1 / 54.2	45.1 / 54.2
Clindamycin	≤0.25	>2	≤0.25 – >2	67.3 / 32.7	67.3 / 32.7
Vancomycin	0.5	0.5	0.25 – 1	100.0 / -	100.0 / 0.0
Daptomycin	0.25	0.25	0.12 – 0.5	100.0 / -	100.0 / 0.0
Linezolid	1	1	0.5 – 2	100.0 / -	100.0 / 0.0
Levofloxacin	0.5	1	0.5 – >4	98.0 / 1.3	96.1 / 2.0
Ceftriaxone	≤0.06	0.12	≤0.06 – 0.25	100.0 / -	100.0 / 0.0
Tetracycline	>8	>8	≤0.25 – >8	5.9 / 93.5	5.9 / 94.1
TMP/SMX[b]	≤0.5	≤0.5	≤0.5 – >4	- / -	97.4 / 2.0
Viridans group streptococci[c] (40)					
Dalbavancin	≤0.03	0.06	≤0.03 – 0.12	- / -	- / -
Penicillin	≤0.06	0.25	≤0.06 – 2	72.5 / 0.0	90.0 / 0.0
Erythromycin	1	>16	≤0.12 – >16	42.5 / 57.5	- / -
Clindamycin	≤0.25	>2	≤0.25 – >2	87.5 / 12.5	87.5 / 12.5
Vancomycin	0.5	1	0.25 – 1	100.0 / -	100.0 / 0.0
Daptomycin	0.25	1	≤0.06 – 1	100.0 / -	- / -
Linezolid	1	1	0.25 – 2	100.0 / -	- / -
Levofloxacin	1	2	≤0.12 – >4	95.0 / 5.0	- / -
Ceftriaxone	0.12	0.5	≤0.06 – 2	97.5 / 0.0	92.5 / 7.5
Tetracycline	1	>8	≤0.25 – >8	60.0 / 35.0	- / -
TMP/SMX[b]	≤0.5	2	≤0.5 – >4	- / -	- / -

a. Criteria as published by the CLSI [2012] and EUCAST [2012].
b. Trimethoprim/sulfamethoxazole.
c. Includes: *Streptococcus anginosus* (9 strains), *S. constellatus* (4 strains), *S. gallolyticus* (3 strains), *S. intermedius* (3 strains),*S. mitis* (9 strains), *S. mutans* (1 strain), *S. oralis* (2 strains), *S.salivarius* (2 strains), unspecieated alpha-haemolytic streptococci (1 strain), and unspecieated viridans group (6 strains).

Table 4. Activity of dalbavancin and comparator antimicrobial agents when tested against *Enterococcus* spp. (USA).

Antimicrobial agent (no. tested)	MIC (µg/ml)			CLSI[a]	EUCAST[a]
	MIC_{50}	MIC_{90}	Range	%S / %R	%S / %R
Vancomycin-susceptible[b] (30)					
Dalbavancin	≤0.03	0.06	≤0.03 – 0.12	- / -	- / -
Ampicillin	1	>8	≤0.25 – >8	80.0 / 20.0	80.0 / 20.0
Vancomycin	1	1	0.5 – 2	100.0 / 0.0	100.0 / 0.0
Teicoplanin	≤2	≤2	≤2	100.0 / 0.0	100.0 / 0.0
Daptomycin	1	2	0.25 – 4	100.0 / -	- / -
Linezolid	1	1	0.5 – 2	100.0 / 0.0	100.0 / 0.0
Tetracycline	>8	>8	≤0.25 – >8	23.3 / 76.7	- / -
Trimethoprim/sulfamethoxazole	≤0.5	>4	≤0.5 – >4	- / -	66.7 / 33.3
VanA resistant[c] (24)					
Dalbavancin	>4	>4	0.25 – >4	- / -	- / -
Ampicillin	>8	>8	0.5 – >8	25.0 / 75.0	25.0 / 75.0
Vancomycin	>16	>16	>16	0.0 / 100.0	0.0 / 100.0
Teicoplanin	>16	>16	>16	0.0 / 100.0	0.0 / 100.0
Daptomycin	1	2	0.5 – 4	100.0 / -	- / -
Linezolid	1	1	0.5 – 2	100.0 / 0.0	100.0 / 0.0
Tetracycline	>8	>8	≤0.25 – >8	20.8 / 79.2	- / -
Trimethoprim/sulfamethoxazole	>4	>4	≤0.5 – >4	- / -	16.7 / 83.3
VanB resistant[d] (2)					
Dalbavancin	≤0.03	-	≤0.03	- / -	- / -
Ampicillin	>8	-	>8	0.0 / 100.0	0.0 / 100.0
Vancomycin	>16	-	>16	0.0 / 100.0	0.0 / 100.0
Teicoplanin	≤2	-	≤2	100.0 / 0.0	100.0 / 0.0
Daptomycin	0.5	-	0.5 – 1	100.0 / -	- / -
Linezolid	1	-	1	100.0 / 0.0	100.0 / 0.0
Tetracycline	>8	-	>8	0.0 / 100.0	- / -
Trimethoprim/sulfamethoxazole	>4	-	>4	- / -	0.0 / 100.0

a. Criteria as published by the CLSI [2012] and EUCAST [2012].
b. Includes: *Enterococcus faecalis* (19 strains), and *Enterococcus faecium* (11 strains).
c. Includes: *Enterococcus faecalis* (6 strains), and *Enterococcus faecium* (18 strains).
d. Includes: *Enterococcus faecium* (2 strains).

CONCLUSIONS

- Dalbavancin displayed a modal MIC for staphylococci and streptococci that ranged from ≤0.03 µg/ml (CoNS, βHS and VGS) to 0.06 µg/ml (*S. aureus*), having all MIC results for these genera at ≤0.25 µg/ml (99.7% at ≤0.12 µg/ml).

- Dalbavancin MIC results for year 2011 against USA Gram-positive pathogens (1,555 isolates) remain consistent with earlier surveillance reports and do not indicate MIC creep or emerging resistances among analyzed genera.

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