Friday-453

# *In Vitro* Activity of Tedizolid and Comparator Agents Tested against Gram-Positive Isolates Causing Serious Infections in Hospitalized Patients in the United States and Europe

Rodrigo E. Mendes, Dee Shortridge, Helio S. Sader,
Mariana Castanheira, Jennifer M. Streit, Robert K. Flamm
JMI Laboratories, North Liberty, Iowa, USA

## INTRODUCTION

- Bloodstream infections (BSIs) and the healthcare-associated subset of BSIs are associated with morbidity, mortality, and increased healthcare costs in hospitalized patients
- Although community-associated BSIs are less prevalent in hospitalized patients, recent studies indicate that the epidemiology of BSIs within US hospitals is changing, with increasing rates of community-onset healthcare-associated BSIs
- BSIs can cause numerous complications, such as osteomyelitis and endocarditis, and treatment courses tend to involve daily intravenous (IV) antibiotic administrations that last 6 weeks or more, which is a challenge for patients and providers
- Aerobic gram-positive cocci, most notably *Staphylococcus aureus,* coagulase-negative staphylococci (CoNS), and enterococci are leading causes of serious community-acquired and healthcare-associated infections
  - The epidemiology and antimicrobial susceptibilities of these pathogen populations are constantly evolving, challenging the empiric treatment of such infections
- Tedizolid, the newest clinically available oxazolidinone, was approved to treat acute bacterial skin and skin structure infections
- Tedizolid has demonstrated potent activity against numerous gram-positive isolates
- In this study, the activity of tedizolid was evaluated against isolates causing serious infections in patients hospitalized in medical centers in the United States, Europe, and regions adjacent to European countries

## MATERIALS AND METHODS

### Bacterial isolates

- A total of 15,355 gram-positive isolates responsible for skin and skin structure (n=6,046), blood (n=4,972), respiratory tract (n=4,263), and bone/joint (n=74) infections were included
- Isolates originated from 32 sites in the United States and 33 European countries/regions (65 sites) and were submitted to a monitoring laboratory as part of the Surveillance of Tedizolid Activity and Resistance (STAR) program for 2016–2017
- The STAR program is part of the SENTRY Antimicrobial Surveillance Program, which monitors antimicrobial resistance and prevalence of pathogens causing BSIs, community-acquired pneumonia, pneumonia in hospitalized patients, skin and skin structure infections, urinary tract infections, and intra-abdominal infections (6 main study protocols)
- Isolates that met the selection criteria for each protocol were initially identified by the participant laboratory and submitted to a central monitoring facility (JMI Laboratories, North Liberty, Iowa, USA)
- Bacterial identifications were confirmed using standard algorithms and supported by matrix assisted laser desorption ionization time of flight technology mass spectrometry (Bruker Daltonics, Bremen, Germany)

### Antimicrobial susceptibility testing

- Isolates were tested for susceptibility by broth microdilution following guidelines in the CLSI M07 (2018) document
- Frozen-form broth microdilution panels were manufactured by JMI Laboratories and contained cation-adjusted Mueller-Hinton broth (2.5%–5% lysed horse blood added for testing streptococci)
- Quality assurance was performed by concurrently testing CLSI-recommended quality control reference strains (*S. aureus* ATCC 29213, *Enterococcus faecalis* ATCC 29212, and *Streptococcus pneumoniae* ATCC 49619)
- Breakpoint criteria for comparator agents were from the CLSI M100 (2018) and EUCAST (2018) documents; tigecycline MIC interpretation used the FDA breakpoints

## RESULTS

- Overall, tedizolid showed an $MIC_{50}$ of 0.12 µg/mL and an $MIC_{90}$ of 0.25 µg/mL when tested against MSSA or MRSA, regardless of geographic region (Tables 1 and 2)
- When tested against MRSA, tedizolid ($MIC_{50/90}$, 0.12/0.25 µg/mL), daptomycin ($MIC_{50/90}$, 0.25/0.5 µg/mL), and tigecycline ($MIC_{50/90}$, 0.06/0.12 µg/mL) had the lowest $MIC_{50}$ and $MIC_{90}$ results (Table 3)
- Tedizolid ($MIC_{50/90}$, 0.12/0.25 µg/mL) and tigecycline ($MIC_{50/90}$, 0.06/0.25 µg/mL) showed similar MIC values against CoNS, followed by ceftaroline and daptomycin ($MIC_{50/90}$, 0.25/0.5 µg/mL for both agents) (Table 3)
- Equivalent $MIC_{90}$ results were obtained for tedizolid ($MIC_{90}$, 0.25 µg/mL) against enterococci, regardless of vancomycin phenotype, species, or geographic region (Tables 1 and 2)

**Table 1. MIC distribution of tedizolid tested against gram-positive pathogens causing serious infections in US medical centers**

| Organism[a] group (no. tested) | No. and cumulative % of isolates inhibited at MIC (µg/mL) of: | | | | | | | | MIC (µg/mL) | |
|---|---|---|---|---|---|---|---|---|---|---|
| | ≤0.015 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | >1 | 50% | 90% |
| MRSA (2,587) | 2<br>0.1 | 7<br>0.3 | 381<br>15.1 | 1,572<br>75.8 | 584<br>98.4 | 41<br>100.0 | | | 0.12 | 0.25 |
| MSSA (3,458) | 0<br>0.0 | 9<br>0.3 | 321<br>9.5 | 1,929<br>65.3 | 1,106<br>97.3 | 93<br>100.0 | | | 0.12 | 0.25 |
| CoNS (574) | 1<br>0.2 | 21<br>3.8 | 220<br>42.2 | 249<br>85.5 | 71<br>97.9 | 2<br>98.3 | 3<br>98.8 | 7<br>100.0 | 0.12 | 0.25 |
| *E. faecalis* (346) | | 1<br>(0.3) | 7<br>(2.3) | 152<br>(46.1) | 178<br>(97.7) | 8<br>(100.0) | | | 0.25 | 0.25 |
| VanA (13) | | 1<br>(7.7) | 1<br>(15.4) | 6<br>(61.5) | 5<br>(100.0) | | | | 0.12 | 0.25 |
| *E. faecium* (148) | | | 13<br>(8.8) | 67<br>(54.1) | 64<br>(97.3) | 3<br>(99.3) | 1<br>(100.0) | | 0.12 | 0.25 |
| VanA (100) | | | 12<br>(12.0) | 44<br>(56.0) | 41<br>(97.0) | 2<br>(99.0) | 1<br>(100.0) | | 0.12 | 0.25 |
| *S. pneumoniae* (981) | | 3<br>(0.3) | 21<br>(2.4) | 390<br>(42.2) | 525<br>(95.7) | 42<br>(100.0) | | | 0.25 | 0.25 |
| BHS (604) | | | 16<br>(2.6) | 324<br>(56.3) | 257<br>(98.8) | 7<br>(100.0) | | | 0.12 | 0.25 |
| VGS (131) | 1<br>(0.8) | 6<br>(5.3) | 19<br>(19.8) | 92<br>(90.1) | 13<br>(100.0) | | | | 0.12 | 0.12 |

[a] MRSA, methicillin-resistant *S. aureus*; MSSA, methicillin-susceptible *S. aureus*; CoNS, coagulase-negative staphylococci; VanA, vancomycin- (MIC, >8 µg/mL) and teicoplanin-resistant (MIC, >16 µg/mL) enterococci; BHS, β-hemolytic streptococci; VGS, viridans group streptococci.

**Table 2. MIC distribution of tedizolid tested against gram-positive pathogens causing serious infections in European countries and adjacent regions**

| Organism[a] group (no. tested) | No. and cumulative % of isolates inhibited at MIC (µg/mL) of: | | | | | | | | MIC (µg/mL) | |
|---|---|---|---|---|---|---|---|---|---|---|
| | ≤0.015 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | >1 | 50% | 90% |
| MRSA (815) | 0<br>0.0 | 2<br>0.2 | 67<br>8.5 | 440<br>62.5 | 290<br>98.0 | 16<br>100.0 | | | 0.12 | 0.25 |
| MSSA (2,770) | 1<br><0.1 | 3<br>0.1 | 175<br>6.5 | 1,442<br>58.5 | 1,095<br>98.1 | 54<br>100.0 | | | 0.12 | 0.25 |
| CoNS (628) | | 11<br>1.8 | 186<br>31.4 | 340<br>85.5 | 88<br>99.5 | 1<br>99.7 | 0<br>99.7 | 2<br>100.0 | 0.12 | 0.25 |
| *E. faecalis* (469) | | | 13<br>2.8 | 165<br>38.0 | 276<br>96.8 | 15<br>100.0 | | | 0.25 | 0.25 |
| *E. faecium* (305) | | | 10<br>3.3 | 154<br>53.8 | 128<br>95.7 | 11<br>99.3 | 2<br>100.0 | | 0.12 | 0.25 |
| VanA (50) | | | 2<br>(4.0) | 29<br>(62) | 18<br>(98.0) | 1<br>(100.0) | | | 0.12 | 0.25 |
| *S. pneumoniae* (918) | | | 26<br>2.8 | 303<br>35.8 | 520<br>92.5 | 69<br>100.0 | | | 0.25 | 0.25 |
| BHS (425) | | | 5<br>1.2 | 216<br>52.0 | 193<br>97.4 | 11<br>100.0 | | | 0.12 | 0.25 |
| VGS (162) | | 4<br>2.5 | 18<br>13.6 | 98<br>74.1 | 42<br>100.0 | | | | 0.12 | 0.25 |

[a] MRSA, methicillin-resistant *S. aureus*; MSSA, methicillin-susceptible *S. aureus*; CoNS, coagulase-negative staphylococci; VanA, vancomycin- (MIC, >8 µg/mL) and teicoplanin-resistant (MIC, >16 µg/mL) enterococci; BHS, β-hemolytic streptococci; VGS, viridans group streptococci

- A high number of *E. faecalis* isolates from both regions were susceptible (98.2%) to tedizolid, ampicillin, daptomycin, vancomycin, teicoplanin, and linezolid (Table 3)
- Tedizolid ($MIC_{50/90}$, 0.12/0.25 µg/mL) MIC results against *Enterococcus faecium* were 8-fold lower than linezolid ($MIC_{50/90}$, 1/2 µg/mL) and daptomycin ($MIC_{50/90}$, 1/2 µg/mL)
  - While tedizolid, linezolid, and daptomycin had on-scale $MIC_{90}$ results, other agents tested showed values of >16 µg/mL (Table 3)
- Antimicrobial agents tested against *S. pneumoniae* demonstrated suboptimal susceptibility results (64.3%–85.7% susceptible), except for linezolid, ceftaroline, levofloxacin, and vancomycin (Table 3)
- In general, tedizolid and most comparator agents tested against β-hemolytic streptococcal species were active (>99% susceptible) *in vitro,* except for erythromycin, clindamycin, and tetracycline (Tables 1, 2, and 3)
- Ceftaroline ($MIC_{50/90}$, 0.015/0.06 µg/mL) showed the lowest $MIC_{90}$ result when tested against viridans group streptococci (Table 3), followed by tedizolid ($MIC_{50/90}$, 0.12/0.25 µg/mL), ceftriaxone ($MIC_{50/90}$, 0.12/0.5 µg/mL), daptomycin ($MIC_{50/90}$, 0.25/0.5 µg/mL), and penicillin ($MIC_{50/90}$, 0.06/0.5 µg/mL)

**Table 3. Activity of tedizolid and comparator antimicrobial agents when tested against gram-positive pathogens causing serious infections in US and European countries and adjacent regions**

| Organism (no. tested)<br>Antimicrobial agent | MIC (mg/L) 50% | MIC (mg/L) 90% | Range | %S/%I/%R CLSI[a] | %S/%I/%R EUCAST[a] |
|---|---|---|---|---|---|
| MRSA (3,402) | | | | | |
| Tedizolid | 0.12 | 0.25 | 0.015 – 0.5 | 100.0/0.0/0.0 | 100.0/ /0.0 |
| Linezolid | 1 | 2 | ≤0.12 – 4 | 100.0/ /0.0 | 100.0/ /0.0 |
| Ceftaroline | 0.5 | 1 | 0.12 – 2 | 93.7/6.3/0.0 | 93.7/6.3/0.0[b] |
| Clindamycin | ≤0.25 | >2 | ≤0.25 – >2 | 74.3/0.4/25.3 | 74.3/0.1/25.7 |
| Daptomycin | 0.25 | 0.5 | ≤0.12 – 2 | 99.9/ / | 99.9/ /0.1 |
| Erythromycin | >8 | >8 | ≤0.06 – >8 | 19.7/4.1/76.2 | 20.1/1.6/78.3 |
| Levofloxacin | 4 | >4 | 0.06 – >4 | 29.9/1.2/68.9 | 29.9/ /70.1 |
| Teicoplanin | ≤0.5 | ≤0.5 | ≤0.5 – 4 | 100.0/0.0/0.0 | 99.9/ /0.1 |
| Tetracycline | ≤0.5 | 1 | ≤0.5 – >8 | 92.1/0.8/7.1 | 90.0/1.5/8.4 |
| Tigecycline | 0.06 | 0.12 | ≤0.015 – 1 | >99.9/ / [c] | >99.9/ /<0.1 |
| Trimethoprim-sulfamethoxazole | ≤0.5 | ≤0.5 | ≤0.5 – >4 | 97.0/ /3.0 | 97.0/0.1/2.9 |
| Vancomycin | 1 | 1 | 0.25 – 2 | 100.0/0.0/0.0 | 100.0/ /0.0 |
| CoNS[b] (1,202) | | | | | |
| Tedizolid | 0.12 | 0.25 | ≤0.008 – >1 | | 99.0/ /1.0 |
| Linezolid | 0.5 | 1 | ≤0.12 – >8 | 99.0/ /1.0 | 99.0/ /1.0 |
| Ceftaroline | 0.25 | 0.5 | ≤0.06 – 4 | | |
| Clindamycin | ≤0.25 | >2 | ≤0.25 – >2 | 73.0/1.3/25.6 | 72.0/1.0/27.0 |
| Daptomycin | 0.25 | 0.5 | ≤0.12 – 2 | 99.9/ / | 99.9/ /0.1 |
| Erythromycin | >8 | >8 | ≤0.06 – >8 | 39.8/2.2/58.1 | 40.3/0.9/58.8 |
| Levofloxacin | 0.25 | >4 | 0.06 – >4 | 54.7/3.9/41.4 | 54.7/ /45.3 |
| Oxacillin | 2 | >2 | ≤0.25 – >2 | 38.6/ /61.4 | 39.0/ /61.0 |
| Teicoplanin | 2 | 4 | ≤0.5 – >16 | 98.8/1.1/0.1 | 91.8/ /8.2 |
| Tetracycline | ≤0.5 | >8 | ≤0.5 – >8 | 87.3/1.2/11.4 | 78.3/7.9/13.8 |
| Tigecycline | 0.06 | 0.25 | ≤0.015 – 1 | | 99.9/ /0.1 |
| Trimethoprim-sulfamethoxazole | ≤0.5 | >4 | ≤0.5 – >4 | 68.2/ /31.8 | 68.2/16.1/15.7 |
| Vancomycin | 1 | 2 | ≤0.12 – 4 | 100.0/0.0/0.0 | 100.0/ /0.0 |
| *E. faecalis* (815) | | | | | |
| Tedizolid | 0.25 | 0.25 | 0.03 – 0.5 | 100.0/ / | |
| Linezolid | 1 | 2 | 0.25 – 4 | 99.8/0.2/0.0 | 100.0/ /0.0 |
| Ampicillin | 1 | 2 | ≤0.5 – 4 | 100.0/ /0.0 | 100.0/0.0/0.0 |
| Daptomycin | 1 | 1 | ≤0.25 – 4 | 100.0/ / | |
| Teicoplanin | ≤0.5 | ≤0.5 | ≤0.5 – >16 | 98.3/0.0/1.7 | 98.2/ /1.8 |
| Tetracycline | >16 | >16 | ≤0.12 – >16 | 22.9/0.9/76.3 | |
| Vancomycin | 1 | 2 | 0.25 – >16 | 98.3/0.0/1.7 | 98.3/ /1.7 |
| *E. faecium* (453) | | | | | |
| Tedizolid | 0.12 | 0.25 | 0.06 – 1 | | |
| Linezolid | 1 | 2 | 0.25 – 8 | 99.1/0.2/0.7 | 99.3/ /0.7 |
| Ampicillin | >16 | >16 | ≤0.5 – >16 | 12.6/ /87.4 | 11.5/1.1/87.4 |
| Daptomycin | 1 | 2 | ≤0.25 – >8 | 99.6/ / | |
| Teicoplanin | 1 | >16 | ≤0.5 – >16 | 66.9/4.6/28.5 | 66.0/ /34.0 |
| Tetracycline | >16 | >16 | ≤0.12 – >16 | 41.9/1.5/56.5 | |
| Vancomycin | 1 | >16 | 0.25 – >16 | 64.2/0.9/34.9 | 64.2/ /35.8 |
| *S. pneumoniae* (1,899) | | | | | |
| Tedizolid | 0.25 | 0.25 | 0.03 – 0.5 | | |
| Linezolid | 1 | 2 | 0.25 – 2 | 100.0/ / | 100.0/0.0/0.0 |
| Amoxicillin-clavulanic acid | ≤0.03 | 2 | ≤0.03 – >4 | 94.1/2.4/3.5 | |
| Ceftaroline | ≤0.008 | 0.12 | ≤0.008 – 0.5 | 100.0/ / | 99.7/ /0.3 |
| Ceftriaxone | 0.03 | 1 | ≤0.015 – >2 | 85.7/10.9/3.5[c] | 85.7/13.9/0.4 |
| Clindamycin | ≤0.25 | >2 | ≤0.25 – >2 | 82.8/0.2/17.0 | 83.0/ /17.0 |
| Erythromycin | 0.03 | >16 | ≤0.015 – >16 | 64.3/0.5/35.1 | 64.3/0.5/35.1 |
| Levofloxacin | 1 | 2 | 0.25 – >4 | 98.7/0.3/1.0 | 98.7/ /1.3 |
| Penicillin | 0.03 | 2 | ≤0.008 – >4 | 66.6/ /33.4[c] | 66.6/ /33.4[c] |
| Tetracycline | ≤0.25 | >4 | ≤0.25 – >4 | 78.6/0.4/21.0 | 78.6/0.4/21.0 |
| Trimethoprim-sulfamethoxazole | 0.25 | >4 | ≤0.12 – >4 | 74.0/9.0/17.1 | 79.2/3.7/17.1 |
| Vancomycin | 0.25 | 0.5 | ≤0.06 – 0.5 | 100.0/ / | 100.0/ /0.0 |
| β-hemolytic streptococci[d] (1,029) | | | | | |
| Tedizolid | 0.12 | 0.25 | 0.06 – 0.5 | | 100.0/ /0.0 |
| Linezolid | 1 | 2 | 0.5 – 2 | 100.0/ / | 100.0/0.0/0.0 |
| Amoxicillin-clavulanic acid | ≤0.03 | 0.06 | ≤0.03 – 0.12 | 100.0/ / | 100.0/ /0.0 |
| Ceftaroline | ≤0.008 | 0.015 | ≤0.008 – 0.03 | 100.0/ / | 100.0/ /0.0 |
| Ceftriaxone | 0.03 | 0.06 | ≤0.015 – 0.25 | 100.0/ / | 100.0/ /0.0 |
| Clindamycin | ≤0.25 | >2 | ≤0.25 – >2 | 86.0/0.8/13.2 | 86.8/ /13.2 |
| Daptomycin | ≤0.06 | 0.25 | ≤0.06 – 1 | 100.0/ / | 100.0/ /0.0 |
| Erythromycin | 0.03 | >16 | ≤0.015 – >16 | 73.6/1.0/25.4 | 73.6/1.0/25.4 |
| Levofloxacin | 0.5 | 1 | 0.12 – >4 | 99.0/0.2/0.8 | 99.0/ /1.0 |
| Penicillin | 0.015 | 0.06 | ≤0.008 – 0.12 | 100.0/ / | 100.0/ /0.0 |
| Tetracycline | 0.5 | >4 | ≤0.25 – >4 | 56.5/1.9/41.6 | 56.1/0.4/43.5 |
| Vancomycin | 0.5 | 0.5 | 0.12 – 1 | 100.0/ / | 100.0/ /0.0 |
| Viridans group streptococci[e] (293) | | | | | |
| Tedizolid | 0.12 | 0.25 | 0.015 – 0.25 | | |
| Linezolid | 1 | 1 | ≤0.12 – 2 | 100.0/ / | |
| Amoxicillin-clavulanic acid | 0.06 | 1 | ≤0.03 – >4 | | 84.9/11.3/3.8 |
| Ceftaroline | 0.015 | 0.06 | ≤0.008 – 0.5 | | |
| Ceftriaxone | 0.12 | 0.5 | ≤0.015 – >2 | 94.2/2.7/3.1 | 91.8/ /8.2 |
| Clindamycin | ≤0.25 | 1 | ≤0.25 – >2 | 87.7/1.4/10.9 | 89.1/ /10.9 |
| Daptomycin | 0.25 | 0.5 | ≤0.06 – 1 | 100.0/ / | |
| Erythromycin | 0.03 | >16 | ≤0.015 – >16 | 57.7/1.0/41.3 | |
| Levofloxacin | 1 | 2 | ≤0.06 – >4 | 94.2/0.3/5.5 | |
| Penicillin | 0.06 | 1 | ≤0.008 – >8 | 75.4/20.8/3.8 | 85.0/11.3/3.8 |
| Tetracycline | 0.5 | >4 | ≤0.25 – >4 | 63.1/3.8/33.1 | |
| Vancomycin | 0.5 | 0.5 | ≤0.06 – 1 | 100.0/ / | 100.0/ /0.0 |

[a] Criteria as published by CLSI (2018) and/or EUCAST (2018). Interpretations for tigecycline MIC used breakpoint criteria from the FDA package insert.
[b] Includes *Staphylococcus arlettae* (1), *S. auricularis* (3), *S. capitis* (74), *S. caprae* (10), *S. cohnii* (8), *S. epidermidis* (676), *S. haemolyticus* (117), *S. hominis* (126), *S. intermedius* (1), *S. lentus* (2), *S. lugdunensis* (128), *S. pasteuri* (1), *S. pettenkoferi* (12), *S. pseudintermedius* (4), *S. pseudintermedius/intermedius/delphini* (1), *S. saprophyticus* (5), *S. schleiferi* (4), *S. simulans* (15), *S. warneri* (13), *S. xylosus* (1).
[c] Interpretation based on most serious conditions (i.e., meningitis breakpoints).
[d] Includes *Streptococcus agalactiae* (358), *S. canis* (4), *S. dysgalactiae* (180), *S. equi* (1), *S. pyogenes* (486).
[e] Includes *Streptococcus anginosus* (49), *S. anginosus group* (15), *S. australis* (2), *S. bovis group* (4), *S. constellatus* (9), *S. cristatus* (3), *S. equinus* (1), *S. gallolyticus* (27), *S. gordonii* (9), *S. intermedius* (5), *S. lutetiensis* (7), *S. mitis group* (93), *S. mitis/oralis* (2), *S. mutans* (2), *S. oralis* (8), *S. parasanguinis* (18), *S. salivarius* (5), *S. salivarius group* (8), *S. salivarius/ vestibularis* (8), *S. sanguinis* (14), *S. vestibularis* (4).

## CONCLUSIONS

- Tedizolid continues to demonstrate potent *in vitro* activity when tested against gram-positive pathogens causing serious clinical infections in patients seen/hospitalized in US and European medical centers
- In general, tedizolid potency was greater than clinically available comparator agents used to treat serious gram-positive infections
- These results suggest that the tedizolid clinical use could extend beyond the approved skin and skin structure infections and the currently sought nosocomial pneumonia labels

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### References

Clinical and Laboratory Standards Institute (2018). *M100Ed28E. Performance standards for antimicrobial susceptibility testing: 28th Informational Supplement.* Wayne, PA, USA.

Clinical and Laboratory Standards Institute (2018). *M07Ed11E. Methods for dilution antimicrobial susceptibilty tests for bacteria that grow aerobically; Approved Standard—Eleventh edition*. Wayne, PA, USA.

EUCAST (2018). Breakpoint tables for interpretation of MICs and zone diameters. Version 8.0, January 2018. Available at: http://www.eucast.org/fileadmin/src/media/PDFs/EUCAST_files/Breakpoint_tables/v_8.0_Breakpoint_Tables.pdf. Accessed January 2018.

Sivextro® (tedizolid phosphate) for injection, for intravenous and oral use. Package Insert (2017). Merck & Co, Inc. Available at: https://www.merck.com/product/usa/pi_circulars/s/sivextro/sivextro_pi.pdf. Accessed April 2018.

Tygacil 2016. Wyeth Pharmeceuticals: Available at www.tygacil.com. Accessed February 23, 2017.

Zhanel GG, Love R, Adam H, et al. (2015). Tedizolid: a novel oxazolidinone with potent activity against multidrug-resistant gram-positive pathogens. *Drugs* 75: 253-270.

### Contact Information:

Rodrigo E. Mendes, PhD
JMI Laboratories
345 Beaver Kreek Centre, Suite A
North Liberty, IA 52317
Phone: (319) 665-3370
Fax: (319) 665-3371
Email: rodrigo-mendes@jmilabs.com

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