**Results**

**Summary:**

- SOL was found to be 4- to 32-fold more potent than LZD against the EFA and EFM strains evaluated.
- Against the EFA-VR strain, neither SOL nor LZD achieved a cidal level of activity after 24 hours, regardless of the multiple of the MIC tested (Figure 1A - C).
- Similarly, against the EFA-VS strain, neither SOL nor LZD achieved a cidal level of activity after 24 hours, regardless of the multiple of the MIC tested (Figure 2A - C).
- For the EFM-VR strain, SOL demonstrated some level of cidal activity at 4X and 8X the MIC, but did not achieve the required 99.9% drop in CFU. LZD did not exhibit cidal activity against this strain at any of the three concentrations tested (Figure 3A - C).
- Interestingly, for the EFM-VS strain, SOL closely approached or met the strict definition of cidal activity with each multiple of the MIC tested. This level of cidal activity was not observed with LZD (Figure 4A - C).

**Methods:**

- A VR and VS strain of EFA and of EFM were analyzed.
- The time-kill assay was done in accordance with Eurofins SOPs and the CLSI guidance document M26-A. The MICs used were for selection of the concentration of each drug that was used in the time-kill assays.
- The time-kill assay was done in accordance with Eurofins SOPs and the CLSI document M26-A.
- For the EFA-VR strain, SOL demonstrated some level of cidal activity at 4X and 8X the MIC, but did not achieve the required 99.9% drop in CFU. LZD did not exhibit cidal activity against this strain at any of the three concentrations tested (Figure 3A - C).
- For the EFM-VR strain, SOL demonstrated some level of cidal activity at 4X and 8X the MIC, but did not achieve the required 99.9% drop in CFU. LZD did not exhibit cidal activity against this strain at any of the three concentrations tested (Figure 3A - C).
- For the EFM-VS strain, SOL closely approached or met the strict definition of cidal activity with each multiple of the MIC tested. This level of cidal activity was not observed with LZD (Figure 4A - C).

**Conclusions:**

Although SOL MICs for each enterococcal strain tested were relatively low (0.06 - 0.25 mg/L), bactericidal activity was not achieved against any of the strains. As a comparator, LZD also failed to demonstrate bactericidal activity against any of the four strains tested. However, against the EFM VS strain, SOL activity that approached cytality was noted. This may warrant further analysis of a greater variety of enterococcal strains and indicates that SOL's spectrum can be quite different from those of older macrolides and ketolides.

**Summary and Conclusions**

Few, if any, single drugs are bactericidal against EFA or EFM strains. Although the MICs for the enterococcal strains showed SOL was more potent than LZD, neither SOL nor LZD demonstrated bactericidal activity at any of the MIC multiples tested barring one notable exception (EFM-VS).

For the EFM-VS strain, each multiple of the SOL MIC closely approached or met the strict definition of cidal activity with each multiple of the MIC tested. This level of cidal activity was not observed with LZD (Figure 4A - C).

**References**


CLSI 2012. CLSI document M100-S22.

NCCLS (CLSI) 1999. CLSI document M26-A.


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