Introduction

More than 80% of skin and skin structure infections are caused by Gram-positive bacteria, and antibiotic resistance is a growing public health concern for many of these pathogens. Iclaprim is a dihydrofolate reductase inhibitor being developed to treat drug-resistant infections. Clinical isolates of Streptococcus pyogenes collected from 2013 through 2017 are being evaluated.

Methods

Clinical isolates of S. pyogenes (n=204), S. agalactiae (n=122), S. constellatus (n=106), S. dysgalactiae (n=11), S. anginosus (n=18), S. intermedius (n=10) were investigated. Isolates were collected globally between 2013 to 2017 from patients with skin and skin structure infections. Iclaprim was tested along with linezolid, daptomycin, and comparator antibiotics including trimethoprim-sulfamethoxazole.

Results

The distribution of isolates is shown in Figure 1; most isolates had an iclaprim MIC of 0.03 µg/ml or lower. The MIC90 for all Streptococcus sp. isolates is shown in Table 1. In addition, the MIC90s of ampicillin, azithromycin, ceftriaxone, clindamycin, penicillin, tetracycline, trimethoprim-sulfamethoxazole are listed. Iclaprim MIC90s were either lower or similar to most of the comparators including trimethoprim-sulfamethoxazole.

Conclusions

Iclaprim exhibited potent activity against all 583 Streptococcus isolates, including 44 (7.5%) with multidrug resistance to azithromycin, clindamycin and tetracycline collected from 2013 through 2017 from locations worldwide. Continued surveillance is warranted to monitor the activity of iclaprim against streptococci as well as to detect any emerging resistance.

References


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