Fosfomycin Activity When Tested against Gram-Positive and Gram-Negative US Isolates Collected by the SENTRY Antimicrobial Surveillance Program

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Abstract

Background: Fosfomycin (FOS) is an oral broad-spectrum antimicrobial with activity against many gram-positive and gram-negative bacteria causing urinary tract infection (UTI). The present study reports results of fosfomycin susceptibility testing on 22,220 non-urinary isolates collected by the SENTRY Antimicrobial Surveillance Program (ASP).

Objectives: The objectives of this study were to determine fosfomycin susceptibility patterns and activity against a wide range of gram-positive and gram-negative bacteria using CLSI reference methods.

Methods: Of the 22,220 isolates tested for susceptibility to fosfomycin, 18,649 (84.1%) were classified as susceptible, 1,911 (8.6%) as intermediate, and 1,660 (7.4%) as resistant. MIC50/90 was 8 mg/L and 64 mg/L, respectively.

Results

• Activity against gram-positive and gram-negative bacteria
  - Fosfomycin demonstrated potent activity against a wide range of gram-positive and gram-negative bacteria, including isolates that are resistant to other agents.
  - Activity included 99.5% of Staphylococcus aureus, 99.0% of Staphylococcus epidermidis, 99.0% of Enterococcus faecalis, 96.2% of Enterococcus faecium, 95.1% of Enterobacter cloacae, and 98.0% of Enterobacter aerogenes.
  - Activity against anaerobic gram-positive and gram-negative bacteria
    - A total of 91.4% of isolates of coagulase-negative staphylococci (except S. saprophyticus) were resistant to FOS (99.0% susceptible; 1.0% intermediate).

Conclusions

• Fosfomycin demonstrated potent activity against a wide range of gram-positive and gram-negative bacteria, including isolates that are resistant to other agents.

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References


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References


