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[Fosfomycin].

[Article in Spanish]

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Source

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Abstract

Fosfomycin is an natural antibiotic with an epoxide structure and low molecular weight which acts in the first stage of peptidoglycan synthesis of the bacterial wall. It has a rapid bactericide effect, and a wide spectrum, including methicillin-resistant Staphylococcus aureus and intermediate glycopeptide-susceptible or -resistant enterococci. Over the years it has maintained its activity and has shown stable rates of resistance. It has synergistic action, which is additive or indifferent with glycopeptides, linezolid, quinupristin-dalfopristin, betalactams, aminoglycosides, ansamycines, nitroimidazoles and quinolones, without antagonism. It can be administered orally or parenterally in a wide range of doses, it does not bind to plasma proteins, and has a good distribution volume, reaching high concentrations in the interstitial fluid and tissues. It is eliminated in the kidneys in its active form without metabolites and is dialyzable. It has been used in a number of indications, including urinary, respiratory, intraabdominal, obstetric-gynecologic, central nervous system and osteoarticular infections, with satisfactory overall results in 80% of cases and minimal side effects. It does not cause important changes in the normal human flora. As additional effects it has the capacity to favor phagocytosis, act as an immunomodulator and protect human cells from cisplatin, cyclosporin, aminoglycoside, vancomycin, amphotericin B and polymixin toxicity. Oral fosfomycin is currently clearly indicated in urinary infections and gastroenteritis, and parenteral fosfomycin in high doses and in combination with other drugs in severe inhospital infections caused by problematic pathogens, including multiresistant staphylococci and enterococci, and in immunodepressed patients treated with nephrotoxic drugs.

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