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Comparative antimicrobial activity of lomefloxacin, norfloxacin, ofloxacin, ciprofloxacin and enoxacin against > 500 bacterial isolates.

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Abstract

An agar dilution technique was used to compare the antimicrobial activities of lomefloxacin, norfloxacin, ofloxacin, ciprofloxacin and enoxacin against 544 strains of bacterial isolates. Among the five quinolone agents tested, ciprofloxacin was the most active. Enoxacin was the most active after ciprofloxacin against Escherichia coli, Enterobacter aerogenes, Proteus mirabilis, Shigella spp., Yersinia enterocolitica, and Haemophilus influenzae with an MIC90 of < or = 0.25 micrograms/ml. Ofloxacin was the most active agent after ciprofloxacin against Klebsiella pneumoniae, Enterobacter cloacae, Citrobacter diversus, and Legionella pneumophila with an MIC of < or = 0.25 micrograms/ml. Ciprofloxacin inhibited Staphylococcus spp. and Streptococcus spp., at < or = 0.5 micrograms/ml and 2 micrograms/ml, respectively. Norfloxacin and enoxacin had the same antimicrobial activity (MIC90) against Staphylococcus aureus, Staphylococcus epidermidis, Streptococcus pyogenes, Streptococcus agalactiae and some other Gram-positive species, but these activities were weak when compared with ciprofloxacin. The results of this in vitro study show that ciprofloxacin is very active against Gram-negative and Gram-positive species.