

***In vitro* Activity of Moxifloxacin against Local Bacterial Isolates**

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Abstract

Introduction: The emergence of resistance to common antimicrobials in bacteria has been increasingly reported in various countries. Empirical antimicrobial therapy of various infections would therefore need to be reviewed. The introduction of new fluoroquinolones has created an interest in the use of these as possible agents in the empirical treatment of respiratory tract infections. ***Materials and Methods:*** The minimum inhibitory concentration (MIC) of the new fluoroquinolone, moxifloxacin, against 400 clinical bacterial isolates was determined by the E-test method. ***Results:*** All *Streptococcus pneumoniae* isolates (penicillin sensitive or resistant) were susceptible to moxifloxacin. Similarly, both β -lactamase and non β -lactamase producing *Haemophilus influenzae* and *Moraxella catarrhalis* isolates were susceptible to moxifloxacin. As for Enterobacteriaceae, 88.6% of the isolates tested were susceptible to moxifloxacin with MIC <8 mg/L, but resistance was noted for some of *Proteus mirabilis*, *Klebsiella* spp. and *Escherichia coli*. Enterococci and *Acinetobacter baumannii* were resistant to moxifloxacin, whilst the anaerobes tested were susceptible to moxifloxacin. ***Conclusion:*** Moxifloxacin has good in vitro activity against common organisms associated with community and nosocomial infections, with the exception of enterococci, methicillin-resistant *Staphylococcus aureus* and ciprofloxacin-resistant gram-negative bacteria. There was good anti-anaerobic activity against *Bacteroides fragilis* and *Clostridium* spp. Results of this study are consistent with other similar published in vitro studies.

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Key words: Fluoroquinolone, Respiratory tract infection, *Streptococcus pneumoniae*

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