European Respiratory Society
Annual Congress 2012

Abstract Number: 1556

Publication Number: P1419

Abstract Group: 10.2. Tuberculosis

Keyword 1: Tuberculosis - management **Keyword 2:** No keyword **Keyword 3:** No keyword

Title: Population-based study of fluoroquinolone-resistance in clinical isolates of Mycobacterium tuberculosis in Novosibirsk Oblast, Russian Federation

Dr. Yana 10701 Batyrshina batirshina@inbox.ru [1], Dr. Tatyana 10702 Petrenko tpetrenko@nsk-nniit.ru [1] and Dr. Pavel 10703 Filimonov pfilimonov@yandex.ru [1]. [1] Microbiology, Novosibirsk TB Research Institute, Novosibirsk, Russian Federation .

Body: Background: Fluroquinolones(FQ) are used for treatment of many bacterial infections frequently. These drugs are being used for treatment of MDR-TB in Novosibirsk Oblast(NO) since 2003. Aims:To evaluate prevalence of primary drug resistance of M.tuberculosis to FQ in NO. To estimate contribution of common prescription of FQ for treatment of non-TB infections to resistance selection in mycobacterial population. Methods: Minimal inhibitory concentrations(MIC) of ofloxacin(OFL) were determined for 344 isolates of M.tuberculosis from 344 patients with newly diagnosed TB. This selection consisted from 165 isolates obtained in 2000-2002 and 179 - in 2006-2010. DST was conducted on all isolates and based on results they were divided additionally in to the following groups - 141 fully susceptible to first-line anti-tuberculosis drugs isolates, 83 MDR isolates and 120 resistant other than MDR. Results: An increase in MIC of OFL(to 16,0-32,0 mcg/ml) was detected in the MDR-group,(7,2%, 95%CI:3,4-14,9) exclusively and only among isolates obtained in 2006-2010 (3,4%, 95%CI:1,5-7,1). FQs have not been prescribed to 6 patients with FQ-resistant MTB (MIC of OFL > 4,0 mcg/ml) within the period prior to establishing of TB diagnosis, 3 from them have had a contact with an MDR-TB patient. The calculated prevalence of primary FQ-resistance of M. tuberculosis in NO was 6,4%, 95%CI:2,9-13,2 (result of the sampling of 94 isolates obtained in 2008-2010). Conclusions: These findings indicate that emerging FQ-resistance in MBT strains in NO is the result of treatment of patients with MDR-TB rather than from FQ prescriptions to general population for non-TB infections.