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Title: Properties of cultures of M. tuberculosis isolated from the surfaces of objects TB facilities

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Body: Goal: determine the degree of contamination of M. tuberculosis (MBT) of the surface of objects of TB facilities. Material and methods. The specimens from the surfaces were taken by washout method. One part of washout was tested by Real-Time PCR to determine IS6110. If the quantity of DNA was sufficient enough to detecting RIF-, INH-, FQ-resistance mutations determined by TB-Biochip system. The second part of washout was inoculated on medium Lowenstein-Jensen (L-J). Drug susceptibility of MBT cultures to firstand second-line were determined by absolute concentration method. The MBT cultures were genotyped by MIRU-VNTR method. Genetic family was established by comparing MIRU-VNTR isolates profiles obtained with available the data-base «MIRU-VNTRpius» (http://www.miru-vntrplus.org). Results and discussion. 137 samples of washouts have been obtained. IS6110 of MBT was found in 132 samples. RIF-, INH-, FQ-resistance mutations was found in 44 samples. 15 MBT cultures on L-J were found. All MBT cultures were drug-resistance to first-line of anti-TB drugs and capreomycin, kanamycin. 8 MBT cultures were also resistant to ofloxacin. The results of genotyping have been were obtained for 13 MBT cultures, in 9 of them having genotype Beijing. In 4 MBT cultures mix of genotypes such as Beijing and Ural have been revealed. Conclusion. The surfaces in TB facilities are contaminated with MDR and XDR strains of MBT, mainly Beijing genotype. So there are very dangerous for staff and patients because there is a high risk of catching of TB.