

Detection of Respiratory Pathogens by Multiplex PCR

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Abstract—As pollution is increasing, respiratory infections are becoming a major health problem in cities of India and World. These infections may be caused by either viruses, bacteria or fungus. This study was carried out to find the causative agent of respiratory infections of Max Hospital, Saket patients suffering from respiratory infections from January 2016 to June 2016. For the total patients considered, two age groups were demarcated - below 18 yrs and above 18 yrs. Briefly, nucleic acid was extracted from the BAL samples of patients with automatic magnetic bead based Qiasymphony following the manufacturers guidelines(Qiagen, USA/Germany). Multiplex PCR assay was carried out from the extracted DNA with the FTD Respiratory Pathogens 33.(Qiagen, USA/Germany) following the kit protocol. Master mix with the positive control(supplied with the kit) was used as positive control and mastermix with distilled water was used as negative control for this PCR assay. Of the total patients taken for the study, patients in age group below 18 years suffered more for *Klebsiella pneumonia* and those in age group above 18 suffered more from *Streptococcus pneumonia*.