

## ***To identify the frequency and occurrence of 3rd generation mdr hospital acquired bacterial pneumonia and a design a suitable therapeutic regimen***

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### ***Abstract***

The current study would focus on isolation and identification of frequency and occurrence of third generation MDR bacterial strains and check their susceptibility for in-practice antibiotics. Irrational drug use and inappropriate antibiotic usage has resulted in the development of multi drug resistant bacterial strains which causes severe symptoms of related disease and increased mortality ratio in the patients admitted in the main healthcare facilities of Rawalpindi and Islamabad. Specifically positively diagnosed patients of Hospital-Acquired Pneumonia, patients with recurrent pneumonia infection, those with unresolved pneumonia infection, patients which developed pneumonia while on ventilator during treatment for a pre-existing condition; such cases were identified and marked for study. Both pediatrics and adults were included in the study since the pneumonia infection is prevalent in all age groups and shows more severity in neonates. Sputum and tracheal fluid samples were collected from patients fitting the inclusion criteria and inoculated on blood agar media. The colonies presented on the growth were identified and their susceptibility was tested against antibiotics included in the hospital formulary. The zone of inhibitions were observed and analyzed to deduce the resistance and susceptibility of different bacterial species against the prescribed antibiotics. This inference showed the therapeutic effectiveness of the in-practice course of treatment and the ratio of progress to resistant pathogenic species. By evaluating the results of culture and sensitivity testing, we concluded the severity of pneumonia being presented in the patients and the increased mortality ratio could be due to the inappropriate antibiotic regimen being prescribed as initial course of treatment, LAMA cases that causes unresolved pneumonia to progress into more severe symptoms, which causes the development of multi-drug resistance in bacterial species. Hence increasing the mortality ratio in pneumonia infected population.

### ***Biography:***

Zeeshan Razzaq has completed his graduation at the age of 26 years from The University of Lahore Islamabad Campus. Zeeshan Razzaq is a chief pharmacist at Sandal Surgical Pharmacy where he is required to ensure staff and medicines are managed in line with relevant legislation and regulations.

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