

Joint Webinar on
7th World Conference on
Applied Microbiology and Beneficial Microbes
&
3rd International Conference on Applied Microbiology
February 21-22, 2022 | Webinar

Bacteriological profile and antibiotic sensitivity pattern among lower respiratory tract infections patients attending tertiary health care center Jhalawar

Abstract: Introduction - Lower respiratory tract infections (LRTIs) is one of the leading human diseases causing high morbidity and mortality worldwide. The prevalent etiological agents and their antimicrobial resistance patterns differ, both geographically and over time.

Aims and Objective - This study was conducted to identify the bacterial aetiology of LRTI among patients and to ascertain the current scenario of bacterial susceptibility in respiratory tract infections in order to optimize empiric therapy in Hospitals and community.

Material & Methods - A retrospective, record based study was conducted on culture and sensitivity reports of lower respiratory samples obtained in the microbiology lab from June 2021 to November 2021. The samples were processed by standard methods for isolation and identification followed by antimicrobial sensitivity testing using Kirby Bauer disc diffusion method.

Results - Out of total 322 samples collected from the cases of lower respiratory tract infection. Bacterial pathogens were isolated in 96 samples. Remaining 226 samples had normal commensal oropharyngeal floral growth. *Klebsiella pneumonia* (33.33%) was the commonest isolate followed by *pseudomonas aeruginosa* (30.20%), *staphylococcus aureus* (13.54%) *Escherichia coli* (9.37%) and citrobacter species (5.20%) and Acinetobacter

(2.08%). Other includes group- A, Beta hemolytic *streptococcus*, *enterococcus* and coagulase negative staphylococcus species (CONS). The overall susceptibility of GNB was highest towards Amikacin followed by Imipemem and piperacillin - tazobactam. Gram positive organisms exhibited highest susceptibility towards Vancomycin Linezolid and Amikacin.

Conclusions - The study revealed GNB as major pathogens causing LRTIs. *Klebsiella pneumoniae* was the predominant respiratory pathogen followed by *pseudomonas aeruginosa*. Amikacin was the most sensitive antibiotic against both gram positive *staphylococcus spp.* and gram negative bacteria. The Treatment should be modified as per the culture and sensitivity report from the Microbiology Lab.

Biography

Dr. Mahesh Dan has passed MBBS Examination from RNT Medical College, Udaipur (Rajasthan) and currently pursuing PG Course in M.D. Microbiology at Jhalawar Medical College, Jhalawar India.

maheshdan2009@gmail.com