Identification of bacteriological aetiologic agents causing acute exacerbations in patients with chronic obstructive pulmonary disease.

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Objectives of the study was to identify the common bacterial aetiologic agents causing acute exacerbations in COPD patients by culturing of sputum. To test the antibiotic susceptibility of the isolated organisms. To detect the resistant mechanisms of isolated organisms such as production of beta lactamases, ESBL and penicillin resistance in Streptococcus pneumoniae. Sputum of 100 patients clinically diagnosed as have acute exacerbations of COPD were collected and analyzed. Suspected bacterial pathogens were diagnosed by biochemical tests. Antibiotic resistance was prevalence of among the isolates with resistance mechanisms. The work undertaken was able to enumerate the causative bacterial pathogens in acute exacerbations of COPD, their antibiotic sensitivity patterns and resistant mechanisms. Thus this study will provide useful information for the empirical management of COPD patients with acute exacerbations and will help in the development of an antibiotic policy for this alarming illness as haphazard and irrational antibiotic treatment for extended periods will enhance the emergence of antibiotic resistance.