

INTRODUCTION

Chronic Obstructive Pulmonary Disease (COPD) is a leading cause of morbidity and mortality worldwide and results in an economic and social burden that is both substantial and increasing. COPD prevalence, morbidity, and mortality vary across countries and across different groups within countries but, in general, are directly related to the prevalence of tobacco smoking although in many countries, air pollution resulting from the burning of wood and other biomass fuels has also been identified as a COPD risk factor. The prevalence and burden of COPD are projected to increase in the coming decades due to continued exposure to COPD risk factors and the changing age structure of the world's population (with more people living longer, and thus reaching the age at which COPD normally develops) (*GOLD, 2006*).

Acute respiratory failure (ARF) may develop in patients with COPD as a result of any condition that increases the work of breathing and decreases the respiratory drive. Such conditions include:

- Respiratory tract infection (such as bronchitis or pneumonia).
- Central nervous system (CNS) depression — head trauma or injudicious use of sedatives, opioids, tranquilizers, or oxygen (O₂).
- Cardiovascular disorders — myocardial infarction, heart failure, or pulmonary emboli.
- Airway irritants — smoke or fumes.

- Endocrine and metabolic disorders — myxoedema or metabolic alkalosis.
- Thoracic abnormalities — chest trauma, pneumothorax, or thoracic or abdominal surgery (**Springhouse, 2005**).

The short term mortality in Acute Respiratory failure was reviewed by **Hudson, 1987** in number of studies between 1960 and 1970 and has been found that the mortality ranged between 22% and 34% during Acute Episode

While **Jeffrey et al., 1992** have reported in more recent studies mortality for on acute episode of respiratory failure between 6%-16% and shown that the best predictor of mortality in patient with acute on top or chronic respiratory failure is the degree of acidemia thus the PH of less than 7.26 is associated with on increased mortality.