COPD

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Chronic airflow restriction in the airways characterizes as a chronic obstructive pulmonary disease (COPD), which is a lung disorder. The complications associated with the disease are signs of progress that become more acute. Breathing becomes increasingly difficult at rest, as exercise-induced shortness of breath progresses. This condition generally goes unnoticed, but it can have serious consequences. The phrases "emphysema" and "chronic bronchitis" often identify COPD. The onset of COPD is significantly typical after the age of 40. The presence of a genetic flaw (deficiency of the enzyme Alpha-1-antitrypsin) combined with a lengthy "history" of smoking, on the other hand, increases the likelihood of early onset of the disease. The 16 million people in the United States who suffer from COPD have breathing problems. More than a million people have COPD, but they have not been diagnosed and are not getting treatment (Halbert et al., 2006). Toxins that can irritate the airways include vulnerability to fumes and gases at work, second-hand smoking, and regular use of cooking gas without adequate ventilation. People who smoke throughout their lives can still avoid developing chronic obstructive pulmonary disease (COPD). This paper will investigate the COPD issues, their concerning factors, and the concerned authorities' practical strategies to mitigate the issue.

Tobacco smoking is the primary cause of COPD (including inhalation of second-hand smoke or passive smoking). Air pollution, cooking with fuelwood; working in a facility where particles and toxins are present such as in a factory; numerous lower respiratory tract disorders throughout adolescence are other risk factors. There are several ways to avoid developing COPD. Reducing the number of people who smoke can lower the global death toll from COPD.

COPD is considered a concerning issue due to various factors due to significant mortality and cost associated with the condition. Every disease has a pathophysiologic explanation for how

and why it manifests itself in the body. The American Academy of Family Physicians has yet to establish a definite etiology for COPD. Chronic inflammation of the bronchial tree is a significant feature of COPD. Cigarette smoke and other contaminants can trigger this inflammation. A bronchial tube inflammation causes the airway's flexible muscles to contract aggressively, resulting in an inability to breathe. During this hyperactivity, the airways become enlarged, mucus is produced in excess, and the cilia becomes less efficient. Prolonged chronic wheezing, coughing, and respiration difficulties are symptoms of COPD. Patients who cannot navigate their intense coughs end up experiencing mucus accumulating in their airways. The accumulation of mucus is problematic because it serves as a breeding ground for germs that can lead to illness. Both emphysema and chronic bronchitis obstruct the airways. The mucus-filled airways of chronic bronchitis are obstructed by mucous buildup. Emphysema is a lung disease in which the alveoli gets enlarged and subsequently destroyed. This impedes the exchange of gases, which is necessary for survival. Chronic obstructive pulmonary disease (COPD) negatively affects the body's ability to breathe properly for various reasons. The most common age for the development of Chronic obstructive pulmonary disease (COPD) is between 40-50 years.

Living an everyday life may be a daily challenge for the 16 million Americans who have been infected with obstructive pulmonary disease (COPD) and the large numbers of others who are uninformed of their condition. This condition is not only debilitating but is also considered fatal. As a primary cause of mortality in the U.S., COPD is surpassed by unintentional injuries, cancer, and heart disease. Although fatalities from other chronic disorders have significantly decreased since 1969, COPD's associated death rate has increased. The Medicare system has to deal with a significant load because of the disease's prevalence and severity. In 2010, more than

32 billion dollars were spent on care coordination linked to COPD, and this sum is expected to rise to 49 billion by 2020 (Ford et al., 2015).

Among adults under 40, chronic obstructive pulmonary disease (COPD) is a primary cause of mortality, with a prevalence rate of 10%. Annually, around half of all patients with COPD experience one exacerbation, and over a quarter are admitted to hospital again within 30 days, contributing more than a million inpatient admissions and a projected 50 billion dollars in health care expenses. As a result, the Hospital Readmissions Reduction Program, established by the Centers for Medicaid and Medicare Services, effectively enforce financial penalties on hospitals with 30-day readmissions following exacerbations of COPD (Jalota & Jain, 2016).

In collaboration with the CDC, governmental organizations have developed a vital goal to cure and mitigate the disease with five intervention plans regarding mitigation: Support individuals with COPD, including family members and caretakers, to understand the disease and provide awareness to cope with it. Improve patient outcomes and care provided throughout the care continuum to successfully prevent, diagnose, administer, and cure COPD. COPD related population health data should be collected, analyzed, reported, and disseminated. Additional studies should be done to precisely investigate the causes of COPD and how to avoid, diagnose, and treat it. Take proposals for government legislation and education into consideration and implement them into research and healthcare initiatives. Chronic bronchitis and emphysema are among the conditions for which the American Lung Association campaigns at the federal, state, and local levels on behalf of individuals experiencing chronic obstructive pulmonary disease (COPD). The Lung Association is a significant advocate for those who suffer from COPD. The Lung Association advocates for additional revenue for COPD research at the National Institutes of Health to better understand the disease. In order to assist in the prevention of COPD, the Lung

Association is working on legislative measures that will support its prevention. Cigarette smokers would be less likely to get COPD if cigarette taxes increase, smoke-free indoor air restrictions are enforced, and substantially sponsored tobacco cessation campaigns are introduced. Moreover, the proposed timeline for controlling advocacy is 2030, which is also included in the goals proposed by Healthy People 2030.

The additional intervention includes an action plan as a conventional concept; an action plan is a tailored document created by health professionals to encourage patients to self-manage acute care-related exacerbations by recognizing and initiating actions when an exacerbation occurs as early as possible (typically oral corticosteroids and antibiotics). Peak expiratory flow (PEF) is used to indicate variations in disease severity in asthma action programs. The COPD Outcomes-based Network for Clinical Effectiveness and Research Translation (CONCERT) organized pre-meeting teleconferences and in-person workshops over two years to bring together stakeholders for involvement in COPD. Involved parties include patient advocacy groups, private Medicare plans/payers, research organizations, physicians and non-physician professional associations, quality improvement organizations, industry, and governmental agencies that support research (Krishnan et al., 2013).

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