

MOSY

People with chronic respiratory problems.

Experience breathlessness, constant coughing, and daytime fatigue. The severity and frequency of those symptoms vary from person to person, but if it is not adequately treated in time, it could even cause the patient's death. This disease is predicted to become the third leading cause of death worldwide [1,2].

Medics and nurses **try to prevent that outcome by** giving oxygen therapy to patients.

However, that approach fails because the manual regulation used to provide oxygen therapy in today's treatments requires personnel to be present all the time, between 10 to 15 days, in order to monitor the quantity of oxygen given to the patients. Sometimes it is not possible to cover the demand of patients that exists.

A root cause for that failure is that if oxygen therapy is not provided adequately, it may cause problems in the lungs, oxygen intoxication and even death.

Actually, there is a need for a solution to ensure reliable, effective, and controlled oxygen therapy. Automatically adjusting the flow of oxygen needed will result in better care without risk of intoxication and also it will leave medical personnel available to cover the demand of patients.

If solved, it would reduce the time of hospitalization by 30%.

Bibliography

[1] "Chronic obstructive pulmonary disease (COPD)," *World Health Organization*. [Online]. Available: [https://www.who.int/news-room/fact-sheets/detail/chronic-obstructive-pulmonary-disease-\(copd\)](https://www.who.int/news-room/fact-sheets/detail/chronic-obstructive-pulmonary-disease-(copd)). [Accessed: 10-Jun-2022].

[2] "Global Alliance Against Chronic Respiratory Diseases Action plan", World Health Organization. [Online]. Available: http://apps.who.int/iris/bitstream/handle/10665/43984/9789241597203_eng.pdf?sequence=1. [Accessed: 10-Jun-2022].