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| **The Impact of COVID-19 on the Lung Function Trajectory of Patients with Chronic Obstructive Pulmonary Disease: A preliminary feasibility study** |
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| **Introduction/Aim:**  To determine how COVID-19 infection impacts the lung function trajectory of patients with COPD, as expressed by a change in FEV1Q. A secondary objective was to assess the use of FEV1Q as a method of measuring the rate of lung function decline.  **Methods:**  This project was conducted on secondary data from the collected Lung Function Reports from the Respiratory Lab at Bendigo Health. The timeframe of reports analysed ranged from 01/01/2022 to 02/02/2023 (The date that the study was commenced). Participants were found who had been diagnosed with COPD, and had had at least 2 Lung Function Reports available, with the most recent one occurring in the timeframe. Participants were also checked for past hospitalisation at Bendigo Health with COVID-19. In this manner, participants were divided into two groups: those who had a recorded hospitalisation with COVID-19, and those who had not.  The dependent variable in this study was the change in lung function, expressed as change in FEV1Q per year. The independent variable was whether the participant had been hospitalised with COVID-19. The average change in lung function was compared between the two groups, to see if hospitalisation with COVID-19 infection was associated with a difference in rate of change.  **Results:**  As the p-value was 0.06, there was no statistically significant difference between the average rate of change in FEV1Q per year between the hospitalised and non-hospitalised groups. As such, conclusions cannot be drawn regarding whether COVID-19 impacts lung function in a population with COPD. A larger sample size may be needed to clarify any true effect.  **Conclusion:**  Though no statistically significant conclusions were found, this preliminary study proved the feasibility of this approach in examining the effects of COVID-19 on lung function, especially regarding the possibility of using the FEV1Q metric.      **Grant Support:** |