Can the levels of exhaled nitric oxide during an acute exacerbation of COPD predict which patients will be at higher risk of further hospital admissions over the next twelve months?

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Status RECRUITING
Sponsor St John of God Hospital Midland
Enrollment 80 participants

Plain Language Summary

COPD (chronic obstructive pulmonary disease) is a serious lung condition — often caused by long-term smoking — that makes breathing progressively harder. People with COPD frequently experience severe flare-ups (called exacerbations) that require hospital admission and can cause lasting damage to lung function. Identifying which patients are at highest risk of being readmitted to hospital after a flare-up could help target better follow-up care and prevent future episodes.

This study is measuring a gas called exhaled nitric oxide (FeNO) in patients hospitalised with a COPD exacerbation. Nitric oxide is produced naturally in the lungs and its level can reflect inflammation. The researchers want to find out whether higher FeNO levels during a hospital admission predict a greater risk of coming back to hospital within the next year.

You may be eligible if you are 40 years or older, have a significant smoking history (at least 15 pack-years), have confirmed or suspected COPD (with airflow obstruction on lung function testing), and are being admitted to hospital with a COPD exacerbation. People in acute respiratory failure requiring a breathing machine, those with additional lung conditions like bronchiectasis or pulmonary embolism, and interstate or overseas visitors are not eligible for this study, which is based at St John of God Hospital Midland.

Key Eligibility Criteria

Inclusion (4)

- •Age greater than or equal to 40 years
- •Smoking history of greater than or equal to 15 pack years
- •Suspected or Known COPD defined as a FEV1/FVC ratio of <70% on spirometry
- •Hospital admission with primary diagnosis of AECOPD

Exclusion (5)

- •Patients who do not have airflow obstruction on spirometry (FEV1/FVC<70%)
- •Patients in acute respiratory failure requiring non-invasive positive pressure ventilation or invasive mechanical ventilation
- •Patients requiring ionotropic support
- •Patients with concurrent diagnosis of bronchiectasis, interstitial lung disease, pulmonary embolism or acute cardiac failure
- •Overseas and Interstate visitors

Locations (1 total)

St John of God Midland Public Hospital - Midland, WA, Australia