ESSAY RESEARCH PAPER

Introduction

- Definition of COPD
- Prevalence in the population, including figures and graphs
- Diagnosis and treatment of the disease

Speech characteristics of COPD patients

- Breathing pattern while speaking
- Intensity (amplitudes)
- Pitch and formants

Current diagnostic methods for exacerbations

- Sputum analysis
- Dyspnea assessment
- Cough assessment

New diagnostic aid

- Introduction of mobile application, including the design of a prototype
- Discussion of metrics, such as number of in- and exhalations
- Discussion of privacy protection, safety and accuracy

Relationship between current diagnostic measures and diagnostic aid

- Scenario 1: Full replacement
- Scenario 2: Combined diagnostic approach

Conclusion and discussion

- Discussion of status quo
- Discussion of new diagnostic method
- Concluding statement