

Health Care

Lung Cancer Case Prediction



Background

Lung Cancer causes to lung function decline, reduced quality of life and finally loss of life. The most common symptoms are coughing (including coughing up blood), weight loss, shortness of breath, and chest pains.

Such respiratory disease lead to significant increases in resource utilization and cost to the health care system. Lung Cancer patients pose an additional burden to the healthcare system.

Early recognition of symptoms and prompt treatment along with change in life style (e.g. stop smoking) have shown to ameliorate recovery while improving health-related quality of life and reducing the risk of hospital admission.

Objective

- > To identify patients that are most likely to have Lung Cancer

Tasks – Stage 1

- > Develop a model to predict Lung Cancer likelihood (probability)
- > Provide the probability of having Lung Cancer for 596 patient in Evaluation data

Sector

- > Respiratory Diseases
- > US geography

Database



- > Data on patient clinical studies and their follow-up outcomes.

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Objective

- > To identify patients that are most likely to have Lung Cancer

Tasks – Stage 2

- > Develop a model to predict Lung Cancer events / Non-Event
- > Predict event and non-event of Lung Cancer for 596 patient in Evaluation data
- > Identify key variables from the above model and showcase their effect on Lung Cancer through intuitive visualizations / dashboards

Sector

- > Respiratory Diseases
- > US geography

Database



- > Data on patient clinical studies and their follow-up outcomes.

Rules and Guidelines

General Guidelines

- > Assumptions should be realistic
- > All assumptions should be clearly mentioned along with appropriate logic
- > All recommendations and insights should be supported by data analysis
- > No student can participate in more than one team
- > One team may participate in more than one case, but is eligible for only one award

Submission Guidelines

- > Answer to all questions should be submitted only in given format
- > Submission in any other format will not be accepted
- > Solution file should be named as
<**Team_Name_Team_Id_Stage1/2**>

