A Technical Appendices and Supplementary Material

A.1 Examples of Age Bias using ClinicalBERT

Examples illustrating the skewed age distribution and gender bias are shown in Table 1 and Table 2.

Table 1: Examples of Age Bias in Predictions using ClinicalBERT

Predicted Sentence	Expected Sentence	Observation
A five-year-old female presenting with chest pain and shortness of breath.	A 40-year-old female presenting with chest pain and shortness of breath.	Unrealistic prediction of a pediatric patient.
A six-year-old male presenting with chest pain and shortness of breath.	A 25-year-old male presenting with chest pain and shortness of breath.	Pediatric prediction for a scenario expected to involve a young adult.

Table 2: Examples of Gender Bias in Predictions using ClinicalBERT

Predicted Sentence	Expected Sentence	Observation
The patient is a 60-year-old **woman** diagnosed with atrial fibrillation.	The patient is a 60-year-old **man** diagnosed with atrial fibrillation.	Misclassification of the patient's gender.
The patient is a 55-year-old **man** diagnosed with myocardial infarction.	The patient is a 55-year-old **woman** diagnosed with myocardial infarction.	Model predicts a gender more commonly associated with the condition.
The patient is a 75-year-old **man** diagnosed with myocardial infarction.	The patient is a 75-year-old **woman** diagnosed with myocardial infarction.	Incorrect gender prediction due to skewed associations.