Preliminary Report

Name:	Abhinav Aggarwal
Age:	22 years
Gender:	male
Height:	174 cm
Weight:	80 kg



Diseases and Probabilities

Disease	Probability
Infiltration	33.00%
Effusion	15.80%
Atelectasis	9.30%

Analysis Insights

Based on the provided questionanswer pairs for each disease in conjunction with the stated probabilities:

Infiltration displays a strong correlation between the symptoms described by the patient and the characteristic symptoms of Infiltration such as persistent or worsening cough, possibly with sputum

production, difficulty breathing especially under physical exertion, fever indicating an infection, and additional symptoms including fatigue or weight loss. Given these matches with a probability of 33.00001311302185%, the certainty level for Infiltration can be categorized as High. This conclusion is drawn from the patient affirmatively answering to experiencing symptoms directly aligning with Infiltration's profile, notably the persistent cough, fever, and additional systemic symptoms.

Effusion is identified with a probability of 15.800000727176666%, reflecting a range of symptoms including shortness of breath, which can vary depending on fluid accumulation, potential for sharp chest pain particularly with deep breaths or coughing, and the presence of dry cough or fever and chills. The patient's response to having shortness of breath and a dry cough aligns with Effusion symptoms, yet the absence of specific critical symptoms such as sharp chest pain, general fatigue, or specific preceding events suggests a lesser degree of match. Therefore, the certainty for Effusion should be considered Medium. It shows a partial symptom overlap, yet not robustly covering the entire symptomatic profile.

Atelectasis is attributed with a probability of 9.300000220537186%. Symptoms pertinent to Atelectasis involve noticeable difficulty breathing on exertion, potential changes in breathing patterns like rapid, shallower breaths, coughing, and chest pain, with severe cases showing cyanosis. The patient validated having difficulty breathing during exertion, experiencing cough, and chest pain, yet denied rapid, shallower breaths and cyanosis. This partial symptom alignment coupled with the lowest specified probability positions the certainty level for Atelectasis as Low. The affirmative answers align partially with Atelectasis but lack full confirmation of its symptomatic range, and the lesser probability further emphasizes this lower certainty.

Each disease's probability and corresponding certainty level provide a structured understanding of the patient's potential condition in light of their symptoms and the specificity of those symptoms to the diseases in question.