Martin Olesen, 67, experiences considerable respiratory distress on mild exertion. He becomes winded and short of breath (SOB) when performing routine activities which he could once accomplish with ease. For example, he becomes quite SOB on climbing the steps en route to the bathroom located on the second floor of his home. He also becomes very exhausted walking from his car when parked in the lot at the local convenience store where he likes to buy the daily paper along with an egg, bacon and cheese sandwich. He has followed this routine for years but now skips going out on more days then he does follow the routine. His family has noticed that his personal hygiene is deteriorating somewhat, as well. He used to be quite fastidious. Additionally, he was once an avid bowler and a member of the local league. Mr. Olesen has given up this activity because "Now, it takes too much out of me."

Mr. Olesen's recent chest x-ray (CXR) shows that his lungs are hyper-inflated with flattening of the diaphragm and degenerative changes to the alveolar structure. On pulmonary function testing, his FEV1 was significantly prolonged. His CBC shows a marked elevation to his hematocrit.

Mr Olesen enjoys playing bingo on a regular basis, particularly since he is no longer bowling. He attends bingo at the local church with his close friend, Thomas Regis, 65. Their friendship dates back over 40 years when both men were stationed on the same aircraft carrier while serving in the Navy. The men have also served as each other’s best man in their respective weddings, shortly after discharge from the armed forces. Mr. Regis served as god-parent at the baptism of John Olesen’s first child.

Regarding his outings, Mr. Olesen off-handedly comments that there is "a lot of coughing going on at bingo." In particular, he states: "Lately, Tom is coughing like crazy again. Remember, he was like this last year, as well." In fact, Mr Regis was in the office 2 days ago. He does have a chronic cough and this cough is productive of copious mucus. Coughing has been ongoing for several months now and he has had similar episodes during the fall season over the last two or three years. Moreover, during his last visit, he was feverish. His coughing had worsened and he had been experiencing some malaise. Sputa production was now showing a yellowish-greenish color and was significantly increased in amount.. He left the office with a prescription for antibiotics.

Concerning Mr Regis, a CBC done at the time of his last office visit reveals that he has an elevated white count with a shift to the left. His hematocrit is also significantly elevated. A chest x-ray, ordered during this visit, is pending.
Choose ONE of the two patients presented above and complete the following questions.

1. What is your suspected diagnosis for the patient you have chosen? 10 points.

2. Rationale for choosing the diagnosis 15 points.

3. Considerable information - both from history and physical exam - is missing from the case presentation which would support the diagnosis. What is the additional information needed and why? Rationale should be included in this discussion. 15 points

4. Discuss the physiology and pathophysiology of the diagnosis chosen. Discussion should include a clear and succinct description of the inter-related body system physiology involved, the related pathophysiology and the relationship between the pathophysiology for the data presented. Be specific in this discussion. 50 points

5. Be certain to use APA format and attend to grammar, spelling and selection of references. 10 points