**Initial visit H&P**

CC: The patient is a 62 year old male with a history of mild COPD who complains of cough, shortness of breath, fatigue, and fever progressively worsening for the past week.

HPI: The patient believes the fatigue and dry cough began just over one week ago. Shortly thereafter the cough became productive of yellowish/green sputum and he developed a mild fever. Today he measured a fever of 101 $^{o}$F. After experiencing significant shortness of breath with minor exertion from simply walking around the house he decided it was time to come to the hospital. He recalls developing cold-like symptoms about a week prior to developing the fatigue and cough.

The productivity of his cough has progressively increased over the past two days. His shortness of breath is exacerbated by exertion and alleviated by rest. He has been using his albuterol inhaler two to three times daily but it is helping only minimally.

He has a history of COPD, which he believes is only mild. This is treated with an albuterol inhaler, which he typically uses only once or twice a week. He states that he is treated with antibiotics for a case of bronchitis or pneumonia almost every year by his primary care provider. He typically only has a cough though and not the shortness of breath, which is why he came to the hospital today. He has never been hospitalized for pneumonia. He denies any known sick contacts recently. He denies chest pain but admits to some chest tightness and an increase in heart rate when he coughs a lot and is short of breath. He denies any recent weight changes or lower extremity pain or swelling. He denies any recent travel. He denies a history of lung disease, heart disease, or diabetes. He currently is a non-smoker but did smoke a pack a day for approximately 15 years prior to quitting five years ago.

PMH: He currently is being treated for HTN, hyperlipidemia, and COPD. He denies a history of renal disease or cancer.

Allergies: PCN causes rash

Meds: HCTZ 25mg daily, simvastatin 20mg daily, albuterol MDI PRN

Social Hx: 15 pack year history quit 5 years ago. No alcohol consumption. Retired. Lives alone. Wife passed five years ago from lung cancer. One daughter who lives in town.

Family Hx: Father- died at age 82 from an MI
Mother- died at age 79 from breast CA
Brother- alive, 68 years old, HTN, and hyperlipidemia
Daughter- alive and well, 41 years old

Surgical Hx: Cholecystectomy in his 20s.

ROS: Constitutional- as above

Skin- No rashes, pruritis, or jaundice.
Head- No headaches or dizziness
Eyes- No vision changes or pain
Ears- No tinnitus or changes in hearing
Nose- Some recent congestion and rhinitis. No epistaxis.
Mouth/Throat- So throat soreness and dryness. No oral sores or dysphagia.
Neck- No pain or swelling.
Respiratory- as above
Cardiovascular- Tachycardia as mentioned above. No history of CV disease. No recent orthopnea or PND.
GI- No recent nausea, vomiting, diarrhea or constipation. No melena or hematochezia
GU- No dysuria or hematuria. No nocturia.
Endocrine- No history of diabetes or hypothyroidism. No history of heat or cold intolerance or changes in hair or skin. No polydipsia or polyuria.

Physical Exam

Vitals: T-101.9$^{o}$F, P-105, R-32, BP-125/85, $PO_2$-94% on room air, Ht-5'9" Wt-195lb BMI-28.9

General Appearance: Appears tachypneic but without accessory muscle use.

HEENT: TMs pearly gray with good cone of light bilaterally, no tenderness over maxillary sinuses, nasal mucosa is moist and has some clear discharge present but no bleeding. Oral mucosa is dry but without lesions, oropharynx is slightly erythematous.

Neck: supple with mild cervical lymphadenopathy, no JVD, no thyroidomegaly or thyroid masses.

Cardiovascular: S1S2, RRR, no murmurs, no gallops. DP and radial pulses equal bilaterally. No lower extremity edema. Capillary refill less than 2 seconds.

Lungs: Crackles are auscultated posteriorly over the left lung at the base. There are mild expiratory wheezes heard in the left chest. There is egophony over the lowest portion of the left lower lobe. The right lung breath sounds are slightly diminished but without adventitial sounds. No egophony of the right lung. No use of accessory muscles.

Skin: No Cyanosis. No lesions or rashes.

Abdomen: soft, non-tender, non-distended, no bruits or pulsatile masses, bowel sounds are active, no organomegaly.

Lower extremities: No tenderness or edema. Calves are equal in size bilaterally.

Labs: CBC: WBC-17.1, RBC- 5.4, Hct- 39%, Hgb-12.2, Neutros- 82%, Platelets 252,000. Na- 140, K- 3.7, Cl-101, bicarb-23, BUN- 17, Creat- 0.9, BNP- 45.

CXR- Area of consolidation in the left lower lobe with suspected minimal left pleural effusion. Remaining lung parenchyma bilaterally shows evidence of emphysematous changes with mild hyperexpansion.

Assessment/Plan: 62 year old male patient with a history of COPD with one week of productive cough, fever and fatigue.

1. Pneumonia: Suspect “typical pneumonia” organisms given the presentation of rapid onset and higher fevers. The chest x-ray showing consolidation supports this as well. We will initiate empiric treatment with IV cefotaxime and IV azithromycin. Begin medrol dose pack taper. Albuterol nebulizer treatments every 4 hours PRN. We will repeat CBC and chest x-ray daily.

Differential diagnosis:

Congestive heart failure, this is supported by the shortness of breath, cough, and cardiovascular risk factors. However, the normal BNP supports a pulmonary process as well as the consolidation seen on chest x-ray. On exam, the patient lacks JVD and lower extremity edema that would be suspected in right sided heart failure. The adventitial breath sounds are unilateral where in left sided heart failure they would be noted bilaterally. The fever supports an infectious process.

Pulmonary embolism, this is supported by the shortness of breath. However, the patient lacks the risk factors of hypercoagulability and inactivity. The progression of the symptoms over the course of a week does not support a diagnosis of a PE. On exam there is no evidence of a deep venous thrombosis. There are no abnormal EKG findings, which often appear in the setting of a PE.

Acute exacerbation of chronic bronchitis, a history of smoking puts the patient at risk for this. Common symptoms include progressively worsening shortness of breath, fatigue, and wheezing. However, the wheezing would most likely be bilateral and the classic chest x-ray findings would be a diffuse interstitial pattern of infiltrate instead of the notable consolidation seen in our patient. Treatment is similar to acute pneumonia but the organisms usually are “atypical organisms.”

3. COPD: Albuterol and Medrol dose pack as above.

2. Hypertension: we will continue the patient’s hydrochlorothiazide.

3. Hyperlipidemia: we will continue the patient’s simvastatin.

4. FEN/IVF: We will give the patient a fluid bolus of 500ml normal saline for rehydration. We will then continue NS at a maintenance rate of 125ml/hr. General diet.