

Student Name(s):

Name: Kylan Ali

Age: 63

Height: 5'10"

Weight: 185 lbs.

Sex: Male

Blood Pressure: 140/85 mm Hg

Heart Rate: 83 bpm

Respiratory Rate: 37 bpm

Temperature: 98.8 °F

**SpO**<sub>2</sub>: **94% (Low)** 

BMI: 26.39 (Overweight)

# Part I - Patient History

### Alerts:

- Renew prescription for albuterol inhaler

### **Patient Reminders:**

- Schedule flu shot
- Follow up with dermatologist about annual skin cancer check

### **Medications:**

- Uses albuterol inhaler as needed for wheezing, shortness of breath

**Appointment Notes: N/A** 

### **History:**

- Heavy smoker for 35 years, quit last year after diagnosis of COPD
- Eats diet high in calories and fat, has been adding more fruits and vegetables into diet over the last few months
- Takes walks with his dog before and after work everyday
- No alcohol
- Family history of heart attack (paternal grandfather), father has hypertension; healthy mother, no siblings
- Divorced, no children
- Full time job as a software engineer
- Not on supplemental oxygen

### **Health Conditions:**

- Chronic obstructive pulmonary disorder (COPD)

**Lab Results:** (Indicate all tests performed, but only highlight values outside of the acceptable range).

- Low hemoglobin- anemia, iron deficiency (trouble breathing, fatigue)
- High partial pressure of CO2- COPD causes blockages in the airway so CO2 is unable to be let out.
- High total cholesterol difficult for blood to flow through arteries
- High bicarbonate- buffer keeps things mutualized; build up due to build up of CO2
- High LDL cholesterol collects in walls of arteries, making it hard for blood to flow
- Low HDL- High risk factor for heart disease; can't remove cholesterol from blood stream

Medical Procedures: (Indicate all procedures performed, and briefly discuss results/findings).

- Routine colonoscopy at age 50: negative result, no abnormalities or concerns
- Spirometry results from 1 year ago
  - Forced Expiratory Volume (FEV1) measured at 60%
    - For reference:

FEV1	=
greater than 80% of predicted	normal
60-79% of predicted	mild obstruction
40-59% of predicted	moderate obstruction
less of 40% predicted	severe obstruction

**Imaging Results:** (Include all relevant images, by capturing the image(s) from the patient portal).



Lung x-ray from 1 year ago shows a flattened diaphragm indicating hyperinflation of the lungs, a sign of COPD

# **Patient Condition Research**

### What body system(s) are affected by the condition?

- damages the lungs and affects how you breath
- airways of lungs become inflamed and narrowed
- can collapse when exhaling and can become clogged with mucus
   What patient information (vitals, symptoms, tests at physical exams, blood work, and lab results)
   can be used to monitor the condition?
- respiratory rate and blood oxygen saturation
- · shortness of breath or coughing
- spirometry test (testing amount of air you can breathe in and out)
   How does the condition affect daily life?
- difficulty breathing, coughing, wheezing can affect physical activity, day-to-day functions, and sleep

What precautions or lifestyle modifications are needed to help control the condition?

- quit smoking
- keep exercising
- eat a healthy diet

What medications, therapies, and/or other treatments are used to control the condition?

- use an inhaler
- getting spirometry tests done on a regular basis
   Is the condition acute or chronic?
- chronic

# Plan of Care

### Part II - Patient Interview Questions

10 interview questions for 1<sup>st</sup> office visit:

- 1. What brings you in today?
- 2. Do you do any exercise other than walking your dog
- 3. Have you been able to eat a consistently healthy diet after adding in more fruits and veggies?
- 4. How has your job been lately?
- 5. Is there anything new or exciting happening in your life right now?
- 6. Have you traveled lately or do you plan on traveling?
- 7. How often are you around people who smoke?
- 8. How often have you experienced symptoms with your COPD?
- 9. How do you deal with your COPD when symptoms occur?
- 10. Has any coughing or wheezing been affecting your sleep?

Relevant tests to be performed during 1st office visit

- Spirometry measures how much air you can breathe in and out of you lungs and how easily you can do it, needed because of patient's COPD
- Chest x-ray check for emphysema (condition where air sacs in the lungs are damaged and enlarged, causing breathlessness) and check for worsening of COPD, both related to patient's shortness of breath
- Cholesterol test/ lipid panel- used to provide information about the level of HDL, LDL and total cholesterol in the bloodstream; usually taken by blood draw and it is mainly taken when risk factors of heart disease are present in the patient's lifestyle and physical health

## Part III - Discharge directions

• Stay away from smoking, continue to exercise regularly, eat a healthy diet (lower calories and saturated and trans fat intake).

## Part IV - Ongoing monitoring

Data collection including how, why, what and when

- Monitoring for the patient's condition of COPD should be monitored through monthly spirometry
  tests in order to measure the amount of air the patient is able to inhale and exhale and how easy
  breathing is for them. Monthly chest x-rays should also be taken to analyze the condition of
  COPD and the effect it is having on the lungs to check for signs of worsening.
- Spirometry tests are taken by the patient blowing all of their air out into a machine so that the machine can calculate and graph the results of how well you are breathing.
- Chest x-rays are taken by the patient being positioned by an x-ray technician in between a plate
  and a machine producing the x-rays. Sometimes the patient is instructed to take a deep breath to
  get a clearer image. The results are then shown as an image to be analyzed.