

## **Simulation Case for an Interprofessional group of Nursing, Physician Assistant and PharmD Students**

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**I. Title:** The evaluation of a patient complaining of shortness of breath

**II. Target Audience:** Nursing, physician assistant and PharmD students

### **III. Learning Objectives or Assessment Objectives**

#### **A. Primary:**

1. Demonstrate appropriate discipline specific (nursing medicine, pharmacy) skills to assess a dyspneic patient.
2. Identify correct diagnosis and develop and implement an appropriate initial treatment plan for the dyspneic patient

#### **B. Secondary:**

1. Demonstrate professional communication skills and behaviors while working as a member of the healthcare team.
2. Effectively communicate patient specific information by presenting a patient case for nursing change of shift and/or a clinical case presentation to a consultant or precepting physician.

### **IV. Environment**

- A. Timing : 15-20 minutes
- B. Lab Set Up: ED monitored bed
- C. Manikin set up: SimMan<sup>®</sup> in bed supine
- D. Props: EKG, BP, Pulse and O<sub>2</sub> saturation monitoring. CXRs and PFTs were appropriate. Bedside equipment would include O<sub>2</sub> and airway adjuncts, nebulizer; medical record/chart; medications (beta-agonist inhaler, injectable steroids, Anticholinergic inhaler
- E. Lab personnel needed in control room: I would be the voice of the patient.
- F. Distracters: None need

### **V. Roles**

- A. PA student coordinates care and does initial evaluation of the patient after reviewing the chart information.
- B. Nursing student assesses the patient and helps with making sure the IV is patent, O<sub>2</sub> is placed on the patient and advises regarding other things that are needed.
- C. Pharmacy student advises regarding any potential drug interaction related to formulating and implementing a treatment plan.

## VI. Case Narratives/Scenario Backgrounds

1. 60 year old man presents to the ER with a 4 day history of increasing shortness of breath. Nothing makes the breathing better except supplemental O<sub>2</sub>. Over the last couple of years the patient has experienced dyspnea on exertion to the point of having some dyspnea at rest. He reports a morning cough with yellowish-brown sputum over the past year. Past Medical History: Type II diabetes, Hypertension. ROS: denies chest pain, fever, chills, or lower extremity edema. Smokes 1.5pk/per day of cigarettes and has done so since age 15. Does not drink alcohol.

Meds: Ipratropium inhaler (MDI) 4 puffs q 6 hr, NKDA  
 Glyburide 5mg po tid  
 Metformin 500mg po bid  
 Albuterol inhaler (MDI) i-ii puffs q 4-6 hrs prn  
 Carvedilol 12.5mg ½ tablet po bid  
 Cozaar<sup>®</sup> 50mg ½ tablet po bid  
 Home O<sub>2</sub> therapy

PE: VS: BP 160/100, HR 115, Resp 30 Temp 99.0<sup>0</sup>F, O<sub>2</sub> Saturation 78% on room air.

Appearance: lying in bed, tachypneic with perioral cyanosis. No cyanosis, clubbing or edema of the extremities

Neck: no adenopathy, carotid bruits or JVD

Lungs: Wheezes and rhonchi are heard bilaterally but no crackles

Cardiac: Distant heart sounds with regular rate and rhythm.

2. A 62 year old male presents to the ER acutely short of breath and chest discomfort described as tightness and difficulty catching his breath. He



Settings for SimMan® manikin	1-5 MIN INITIAL STATE	5-10 MIN PE TREND	10-20 MIN		
<b>SimMan® actions (COPD) Run 1</b>	Resp:30, HR:115 BP 160/100, temp99,O <sub>2</sub> sat:78%, EKG sinus tachycardia C/c SOB, “I can’t breathe” “Why are my lips blue”?	Resp: 22, HR: 95 BP 140/98, O <sub>2</sub> Sat: 90%, EKG sinus tachycardia, “I’m feeling a little better”, <b>If O<sub>2</sub> not on or too high</b> O <sub>2</sub> sat <70%. “I don’t feel so good. PE: lungs wheezes & rhonchi, no crackles Cardiac: tachycardia without (m) or other extra heart sounds	<b>PE:</b> distant heart and lung sounds. After treatment with bronchodilator resp: 20, BP 130/92, O <sub>2</sub> sat 94, EKG sinus rhythm, “I’m feeling much better”		
<b>STUDENT ACTIONS # 1 Nurse</b>	Intro self, wash hands, IV, monitor,O <sub>2</sub> (make sure O <sub>2</sub> it works,)	Assess for signs of cyanosis and respiratory distress. Auscultate lung fields. Prop pt in semi-sitting position. Work with other practitioners	Work with the other students to formulate and implement an initial treatment plan. Pt stabilized gives a “change of shift” presentation.		
<b>STUDENT</b>	Intro self, wash hands, IV,	HPI “what is different now?” meds,	Order & interpret labs, PFTs, CXR,		

<b>ACTIONS # 2 Physician Assistant</b>	monitor, O <sub>2</sub> (make sure O <sub>2</sub> it works,)	allergies, hospitalizations, SH; smokes, drinks, PE: lips, fingers, resp, cardiac, "my legs look a little swollen"	Treatment: nebulizer, albuterol, IV steroids, Pt stabilized, verbal report to MD (telephone)		
<b>STUDENT ACTIONS PharmD #3</b>	Intro self, wash hands, IV, monitor, O <sub>2</sub> (make sure O <sub>2</sub> it works,)	Review historical findings in light of drug list and ask additional appropriate history questions	Work with the other students to formulate and implement an initial treatment plan.		

<b>Settings for SimMan® manikin</b>	<b>1-5 MIN INITIAL STATE</b>	<b>5-10 MIN PE TREND</b>	<b>10-20 MIN</b>		
<b>SimMan® actions (pulmonary Emboli) Run2</b>	Resp:30, HR:124 BP 160/80, temp97.2 ,O <sub>2</sub> sat:90%, EKG sinus tachycardia	Resp: 22, HR: 100 BP 145/76, O <sub>2</sub> Sat: 96, EKG sinus tachycardia, "I'm feeling a little better",	PE: lungs clear, tachycardia, loud S <sub>2</sub> , No change in Sim Man®.		

<b>STUDENT ACTIONS #1</b> <b>Nurse</b>	Intro self, wash hands, IV, monitor, O <sub>2</sub> (make sure O <sub>2</sub> it works,)	Assess for signs of respiratory distress. Auscultate lung fields. Prop pt in semi-sitting position. Work with other practitioners	Work with the other students to formulate and implement an initial treatment plan. Pt stabilized give a “change of shift” presentation		
<b>STUDENT ACTIONS #2</b> <b>Physician Assistant</b>	Intro self, wash hands, IV, monitor, O <sub>2</sub> (make sure O <sub>2</sub> it works)	HPI “what is different now?” meds, allergies, hospitalizations, SH; smokes, drinks,	Order & interpret labs, PFTs, CXR, Treatment: symptomatic, further workup, hospitalization, IV heparin, verbal report to MD(telephone)		
<b>STUDENT ACTIONS #3</b> <b>Pharm D</b>	Intro self, wash hands, IV, monitor, O <sub>2</sub> (make sure O <sub>2</sub> it works,)	Review historical findings in light of drug list and ask additional appropriate history questions	Work with the other students to formulate and implement an initial treatment plan.		