

## Respiratory Quick-Cases

### Case 1

A 62 y/o M presents CAO in moderate respiratory distress stating “I can’t catch my breath”. He is on home O<sub>2</sub> 2 L/min via NC. You note that he is breathing deep about 20/min with pursed lips and that he has a prolonged expiratory phase. He coughs occasionally without any sputum production. His skin is cool, pale, and dry. Auscultation of lung sounds reveal inspiratory and expiratory wheezes with noticeably decreased air movement in all fields. You note that he is very thin, has prominent accessory muscles in his neck, and that his chest has an increased anterior-posterior diameter and is hyperresonant to percussion. The patient states that he has smoked 2 packs of cigarettes per day for 42 years. VS: HR = 112/min s/r, RR = 20/min, BP = 162/102 mmHg, SpO<sub>2</sub> = 88% on 2 lpm.

1. What is the patient’s ABC status? Are there any issues that you want to address during the primary exam? Are they stable or unstable, rapid transport or delayed?
  - **Airway = open, there’s no gurgling, snoring, or stridor.**
  - **Breathing = adequate RR and TV**
  - **Circulation = skin pale, but no shock present.**
  - **Primary Exam Issues = administer oxygen. Can increase flow through NC or place Pt on NRM.**
  - **Unstable (respiratory distress approaching failure), rapid transport.**
2. Make your best guess at a diagnosis. Be prepared to defend your best guess by using the patient’s signs and symptoms as well as your knowledge of the pathophysiology of disease.
  - **COPD: specifically emphysema.**
3. Write out your treatment plan, and discuss how it will help the patient.
  - **Call ALS = pt unstable.**
  - **oxygen via CPAP = will reduce the work of breathing, improve ventilation, improve oxygenation.**
  - **Place pt in position of comfort, most likely sitting up and tripodding = he is working hard to breathe, positioning helps him.**
  - **Rapid transport to ED = definitive care.**

<b>COPD</b> Pneumonia Pulmonary Embolism Asthma Pulmonary Edema Pneumothorax Hyperventilation Syndrome Epiglottitis
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### Case 2

A 58 y/o obese F presents sitting in a chair in mild respiratory distress c/o diff brth. She describes a 6-week Hx of productive cough and respiratory distress, and also says “this is the same cold I’ve been getting every winter for 10 years now”. You note many tissues on the floor around you with dark yellow, blood-tinged sputum. Auscultation of lung fields reveals coarse ronchi and diffuse wheezing to the upper and middle lobes  $\perp$ . The patient describes a 40 pack-year smoking history. VS: HR = 82/min s/r, RR = 21/min GTV, BP = 122/80 mmHg, SpO<sub>2</sub> = 93% RA.

1. What is the patient’s airway, breathing, and circulation status? Are there any issues that you want to address during the primary exam? Are they stable or unstable, rapid transport or delayed?
  - **Airway = open, theres no gurgling, snoring, or stridor.**
  - **Breathing = adequate RR and TV.**
  - **Circulation = good, no shock present.**
  - **Primary Exam Issues = administer oxygen via NC or NRM.**
  - **Unstable (c/o diff breathing, SpO<sub>2</sub> low), rapid transport.**
2. Make your best guess at a diagnosis. Be prepared to defend your best guess by using the patient’s signs and symptoms as well as your knowledge of the pathophysiology of disease.
  - **COPD: chronic bronchitis**
3. Write out your treatment plan, and discuss how it will help the patient.
  - **Call ALS = pt unstable.**
  - **Oxygen via NC or NRM, bring SpO<sub>2</sub> above 94% up to 100% = correct hypoxia.**
  - **Position of comfort on stretcher, keep warm.**
  - **Transport to ED = definitive care.**

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## Respiratory Quick-Cases

### Case 3

A 34 y/o F presents CAO and anxious in obvious respiratory distress sitting on a couch stating “I can’t catch my breath”. The patient describes an acute onset of diff brth while watching TV, states that she is also experiencing some R sided CP located about the 6<sup>th</sup> intercostal space on the midaxillary line. Your exam reveals her lung sounds to be clear/=  $\perp$ , her skin in cool, pale, and slightly diaphoretic, she is peripherally cyanotic, and has JVD. She also has a cast on her R lower leg for a tib/fib Fx suffered 3 weeks prior. She states that she has no PMH, is taking Ortho-Novum, and smokes about 2 packs per week. VS: HR = 108/min reg & weak, RR = 24/min and deep, BP = 92/48 mmHg, SpO<sub>2</sub> = 86% on RA.

1. What is the patient’s airway, breathing, and circulation status? Are there any issues that you want to address during the primary exam? Are they stable or unstable, rapid transport or delayed?
  - **Airway = open, theres no gurgling, snoring, or stridor.**
  - **Breathing = adequate RR and TV.**
  - **Circulation = S/S of decompensated shock present.**
  - **Primary Exam Issues = administer oxygen via NRM.**
  - **Unstable (c/o diff breathing, SpO<sub>2</sub> low), rapid transport.**
2. Make your best guess at a diagnosis. Be prepared to defend your best guess by using the patient’s signs and symptoms as well as your knowledge of the pathophysiology of disease.
  - **Pulmonary embolism**
3. Write out your treatment plan, and discuss how it will help the patient.
  - **Call ALS = pt unstable.**
  - **Oxygen via NRM, bring SpO<sub>2</sub> above 94% up to 100% = correct hypoxia.**
  - **Position of comfort on stretcher, keep warm.**
  - **Transport to ED = definitive care.**

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## Respiratory Quick-Cases

### Case 4

A 32 y/o M presents CA though disoriented in respiratory distress slumping on a bench in a shopping mall. Bystanders called 911 when they noted that the patient was having difficulty breathing and “didn’t seem to know what was going on”. Your exam reveals skin that is cool, diaphoretic, and peripherally cyanotic and lung sounds that are decreased in all fields with diffuse inspiratory wheezing. He has intercostal and supersternal retractions and his head is bobbing. VS: HR = 114/min s/r, RR = 12/min & shallow, BP = 132/82 mmHg, SpO<sub>2</sub> = 72% RA.

1. What is the patient’s airway, breathing, and circulation status? Are there any issues that you want to address during the primary exam? Are they stable or unstable, rapid transport or delayed?
  - **Airway = open, theres no gurgling, snoring, or stridor.**
  - **Breathing = inadequate TV.**
  - **Circulation = signs of hypoxia present**
  - **Primary Exam Issues = administer oxygen via NRM.**
  - **Unstable (c/o diff breathing, breathing inadequate, SpO<sub>2</sub> low), rapid transport.**
2. Make your best guess at a diagnosis. Be prepared to defend your best guess by using the patient’s signs and symptoms as well as your knowledge of the pathophysiology of disease.
  - **Asthma**
3. Write out your treatment plan, and discuss how it will help the patient.
  - **Call ALS = pt unstable.**
  - **Oxygen via BVM 15 lpm assist ventilations 12/min bring SpO<sub>2</sub> above 94% up to 100% = correct hypoxia.**
  - **Supine on stretcher = need to perform BVM ventilations, pt slumping/unable to sit self up.**
  - **Keep warm.**
  - **Transport to ED = definitive care.**

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### Case 5

A 62 y/o F presents CA though disoriented in bed at a nursing home c/o diff brth. The nursing home staff reports that the patient has experienced increasing diff brth x 3 days and that the physician, who is not on site, requested that she be transported to the ED. The staff reports that the pt “has not been feeling well” for about 3 days, has had a loss of appetite, is normally CA&O x 3, and has a rectal temp of 101.2°F. Your exam reveals heavy ronchi and crackles to the L lower lobe, and skin that is warm, dry, and pale with peripheral cyanosis. PMH of atrial fibrillation and dementia. VS: HR = 104/min weak and irregular, RR = 20/min and deep, BP = 102/62 mmHg, SpO<sub>2</sub> = 82% RA

1. What is the patient’s airway, breathing, and circulation status? Are there any issues that you want to address during the primary exam? Are they stable or unstable, rapid transport or delayed?

- **Airway = open, theres no gurgling, snoring, or stridor.**
- **Breathing = adequate RR and TV.**
- **Circulation = signs of hypoxia present,**

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**possibly in compensated/decompensated shock.**

- **Primary Exam Issues = administer oxygen via NRM.**
  - **Unstable (AMS, S/S of hypoxia), rapid transport.**
2. Make your best guess at a diagnosis. Be prepared to defend your best guess by using the patient’s signs and symptoms as well as your knowledge of the pathophysiology of disease.
    - **Pneumonia**
  3. Write out your treatment plan, and discuss how it will help the patient.
    - **Call ALS = pt unstable.**
    - **Oxygen via NRM 15 lpm bring SpO<sub>2</sub> above 94% up to 100% = correct hypoxia.**
    - **Position of comfort on stretcher, attempt to lay supine = see if it improves cerebral blood flow & her mental status!**
    - **Keep warm.**
    - **Transport to ED = definitive care.**

## Respiratory Quick-Cases

### Case 6

A 17 y/o M high school wrestler presents CAO in NAD supine on the ground stating “there’s nothing wrong with me now, but I had a panic attack”. The patient states that he has a hx of anxiety and panic attacks, feels that he suffered one today prior to a “big match” while warming up. He describes an acute onset of chest tightness, dizz, and diff brth that subsided after lying down and “breathing deep” for about 5 minutes. He has no other medical Hx, no meds, and NKDA. Skin is p/w/d. VS: HR = 92/min s/r, RR = 16/min GTV, BP = 132/90 mmHg, SpO<sub>2</sub> = 98% RA.

1. What is the patient’s airway, breathing, and circulation status? Are there any issues that you want to address during the primary exam? Are they stable or unstable, rapid transport or delayed?
  - **Airway = open, theres no gurgling, snoring, or stridor.**
  - **Breathing = adequate RR and TV.**
  - **Circulation = normal.**
  - **Primary Exam Issues = none. Can consider oxygen via NC simply as precaution but not directly indicated.**
  - **Stable (no current complaint, no PE finds), delayed transport.**
2. Make your best guess at a diagnosis. Be prepared to defend your best guess by using the patient’s signs and symptoms as well as your knowledge of the pathophysiology of disease.
  - **Hyperventilation Syndrome**
3. Write out your treatment plan, and discuss how it will help the patient.
  - **Transport in position of comfort to ED.**
  - **Students may elect to call ALS, administer oxygen, go with the discussion. If it does not come up on it’s own, ask “would anyone call for ALS, why or why not?” and try to start the discussion.**

COPD  
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