(10 min case)
Case: You are the night float intern. The nurse calls you at 3:30am to let you know that Mr. Neah, a 66 y/o M with PMHx of COPD who was admitted for acute hypoxic respiratory failure of unclear etiology has worsening dyspnea.

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PCP: Muller

Contact: Sara Neah, wife, 838-9382</td>
<td>66 y/o M with PMHx of HTN and COPD w/o baseline O2 requirement admitted for AHRF w/ unclear etiology (O2 requirement currently 2L)

Abx: AZT
Fluids: mIVF
Diet: Regular</td>
<td>Meds

Azithromycin
Lisinopril
Amlodipine
DuoNebs prn</td>
<td>If worsening SOB, give DuoNebs</td>
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Enoxaparin ppx</td>
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>>The nurse asks what you would like to do?

On the phone, ask for VS, O2 sat, mental status, did anything just happen? Think if there is anything you'd like prior to arrival (O2, monitor, IV, etc)

HR 95, BP 160/105, RR 24, T38.1, SpO2 82% on 5L, alert & oriented, no recent changes

>>What is your differential diagnosis?

Don't need to spend a lot of time on this, just mention that thinking about a differential early on is helpful and important

ABCDE (*acknowledgement: Dr. Kenneth Steinberg at UW Internal Medicine)*

Dyspnea: A – B – C – D – E

- Airway
  - Partial Obstruction
- Breathing (Lung)
  - Asthma, Atelectasis, COPD, Pleural Effusion, Pneumonia, Pneumothorax, Other Infiltrative Processes
- Circulation
  - Anemia, Arrhythmia, CHF, Ischemia, Pericardial Effusion, Shock, PE
- "Deficits"
  - Neuro & Musculoskeletal Abnormalities (e.g., Myasthenia gravis, Scoliosis)
- "Electrolytes/extras"
  - Abdominal disorders, Acidosis, Sepsis, Anxiety, Over-feeding, Electrolyte Abnormalities (K+, Phosphate)

>>Now that you've talked to the nurse on the phone, what would you like to do?

-Go see him!

>>What do you want to pay attention to when you go see him?

Patient wearing nasal cannula in both nostrils, oxygen is at 5L in the wall, bag of NS running at a maintenance rate

Exam: older, ill appearing, overweight male, A&O x3
VS: HR 95, BP 160/105, RR 24, T38.1, SpO2 82% on 5L
Mild respiratory distress with diaphoresis, diffuse expiratory wheezing and crackles. No JVD, distant heart sounds, no peripheral edema.

>>What would you like to do?

-Get more history

Has been increasingly short of breath over the last few hours, feels like "can't get enough air", no palpitations or chest pain

-What if he says SOB happened suddenly?
Think about mucous plugging-->suction may be helpful

-Order CBC with differential, BMP, CXR, VBG, EKG

>>What do you think is going on with Mr. P?

-COPD exacerbation, arrhythmia, PE, PNA, fluid overload, mucous plugging

>>What would you like to do for him?

-STOP FLUIDS if patient does not appear dehydrated/fluid down. Fluid overload could be contributing.
-DuoNebs given his wheezing (go over how nebs need to be ordered with RT and that RT should be called if you order them)
-Oxygen therapy (quick review of max O2 on the floor, what you can try if that is not helping)

3 Key Points (10 min)

1. Assessment
    - Room: is the oxygen connected to the wall? What level is the oxygen at on the wall? Is the patient wearing the oxygen correctly? What infusions/IVs are running?
        - Consider interventions currently occurring: should fluids be stopped? Is oxygen delivery optimal?
    - Exam: how does the patient appear overall? Signs of respiratory distress "across the room"/work of breathing? Is the waveform on the pulse oximeter appropriate?
2. Testing
    - Get CXR, EKG, BMP, CBC with diff on patients with dyspnea
    - Get lactate level if patient is meeting SIRS criteria, and also to help assess need for fluids
    - Unless cause of dyspnea is slam dunk, order a ABG/VBG! Helps to refine differential and MICU will want one if you need to call them
    - Default order is "routine" in PowerChart, **be sure to order things stat**
3. Interventions
    - Always verify code status in chart
    - If waveform not adequate consider: changing probe to another finger, covering probe with glove for better contact, putting on a forehead probe, or getting a new probe.
        a. Oxygen delivery - Want to maintain O2 sat of 88-92%
            - Nasal cannula - flow rate of up to 6L - FiO2 of 40%
            - Simple face mask - flow rate of up to 10L - FiO2 of up to 55%
            - Venturi mask - can titrate FiO2 more precisely - FiO2 up to 60% with high flow

- Non-rebreathing masks with reservoir - FiO2 up to 90% - 100%
- Can consider BiPap in patients who are hemodynamically stable, able to control secretions and protect airway, cooperative, and who persist to be hypoxemic or have increased WOB - consider ABG before initiating and reassess after 2 hours

b. Nebulizations

When ordering, place order that says "RT" and call them or ask nurse to do so

- Albuterol 2.5 mg q/4 hours
- Ipratropium 500 mcg q/4 hours (RT can't do more frequently than q/4 hours on the floor)

c. When to call for help

i. RT - nebulizations, initiating non-invasive ventilation (BiPap)

ii. Rapid Response - if patient starts to become hemodynamically unstable, altered mentation, concern that they might need mechanical ventilation.

iii. MICU:

When to think about it?

- Patient is failing to improve or is deteriorating despite all previous measures
- Patient is hemodynamically unstable, has deteriorating mental status
- If patient would benefit from non invasive ventilation (BiPap) but has contraindications and mechanical ventilation will be needed

Useful information to have before calling:

- ABG, lactate, results from other tests, CXR
- What interventions have been done, over what amount of time, how has the patient responded

Resident Handout

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