

Respiratory Emergencies

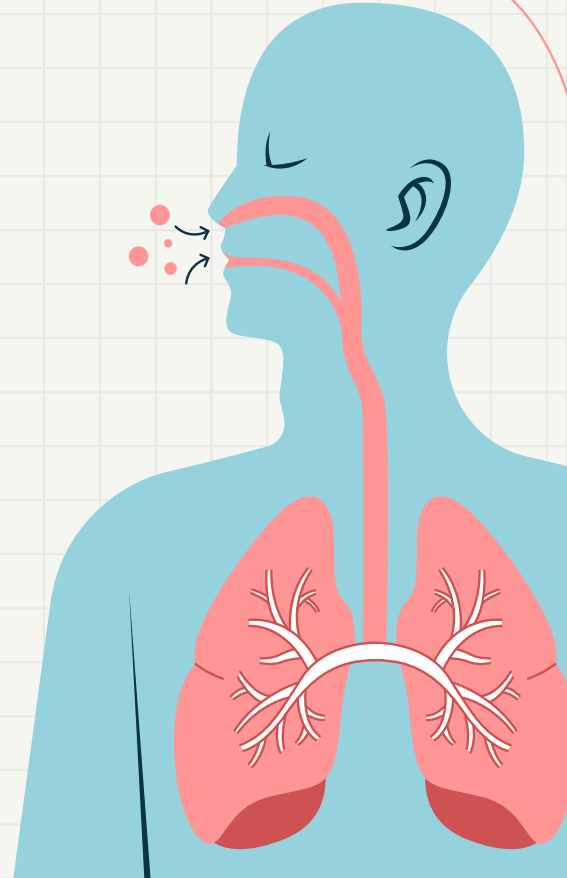




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Kahoot





Scenario 1

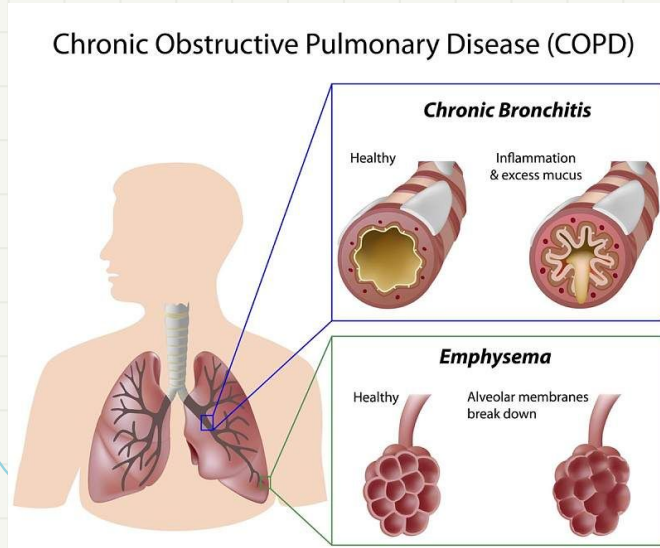
71 YOM presented at home with audible wheezing and SOB. Pt is barely able to pronounce 2 syllables and is using accessory muscles even with nasal cannula at 2 LPM. His son said “uhh, he might have bronchitis since he’s 50, I don’t really know...”

What is your field impression?

Answer: COPD exacerbation

(EMT's don't diagnose emphysema/ bronchitis)

COPD: Chronic swelling/
obstruction of airway
commonly caused by long
term exposure to irritants



Common findings:

- SOB/ Dyspnea on exertion
- Wheezing, crackles, rhonchi
- Family aware of Hx, low-flow cannula at home/ at SNF
- **88%-92% Spo2** (hypoxic drive)
- **Barrel chest**
- Cyanosis (severe)
- Accessory muscle use (severe)
- Tripod position
- White/ yellow/ green sputum

BLS Treatment Consideration

O2 titrate to 88-92%/ baseline

- Auscultate lung sounds

Mild Respiratory Distress

- O2 delivery via nasal cannula (2-6 LPM)
- (Semi-) Fowler position or position of comfort

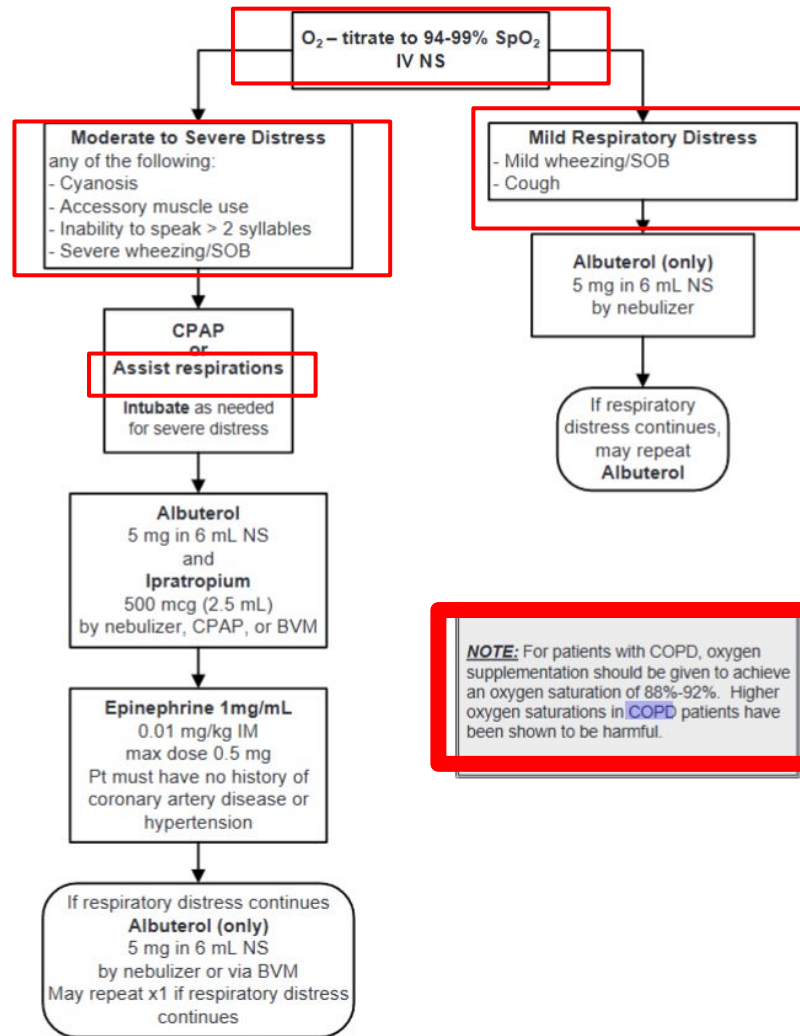
Moderate/ Severe Respiratory Distress (**Call ALS**)

- Ensure ABC's (Consider BVM if breathing is shallow)
- O2 via NRM, 10-15 LPM titrate to 88-92%
- **CPAP is an ALS skill in ALCO, only bring Pt's CPAP if prescribed**

Primary assessment shows an SpO₂ of 87% while Pt is still breathing spontaneously with same symptoms. What O₂ delivery method should be used?

Answer: Non-rebreather mask @ 10-15 LPM depends on SpO₂ reaction. Patient's symptoms (accessory muscle use, 2 syllables max.) indicate moderate/severe distress.

ALCO Protocol (BLS squared in red)



BMRC First Aid Protocol

- Call 911/ UCPD
- Obtain ABC vitals, OPQRST, SAMPLE, and **PASTE**
- COPD can be exacerbated by new infection, wear appropriate BSI and alert dispatch for sepsis if:
 - Pt has recent documented infection **AND** ≥ 2 **symptoms below**
 - Temp. (if obtainable) > 100.4 or < 96 **OR**
 - HR > 90 **OR**
 - RR > 20
- Assist with prescribed MDI/ relevant medications
- Re-assess every 5 minutes and (Semi-) fowler position

PASTE - Acronym for Resp. Emergencies

- **Provocation (Sudden? Chronic? Allergic rxn.? Inhaled substances? Exertion? Temperature?...)**
- **Associated chest pain (OPQRST)**
- **Sputum (Color? Frequency? Provocation? Texture? Taste? (Blood tastes metallic))**
- **Talking Difficulty (Ask Pt to count to 10, consider distress if unable to)**
- **Exertion (does moving/ exercising make it worse)**

Scenario 2

27 YOF who is pregnant presented on her bed with acute severe SOB, sharp right chest 8/10 pain and hemoptysis. Pt said she has been prescribed injectable “Lovenox” but missed her last dose because she’s tired.

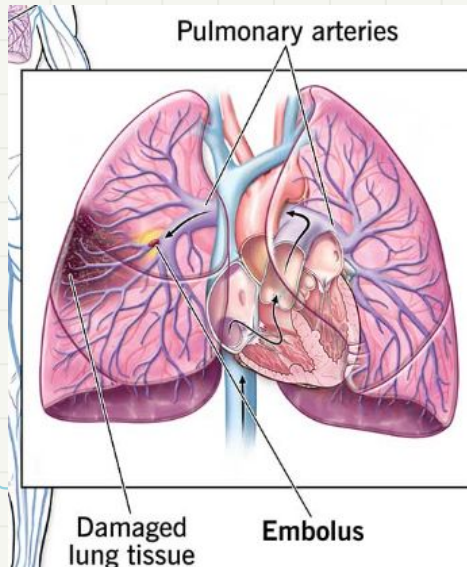


What is your field impression?

Answer: Respiratory distress

(EMT's don't diagnose pulmonary embolism)

Pulmonary embolism:
blood clot blocking blood
flow to (a) pulmonary
artery/ arteries



Common findings:

- Acute respiratory distress (severity varies)
- Acute, very sudden and sharp chest pain
- Hemoptysis (coughing blood)

Risk Factors:

- Hx of Thrombophilia
- Missed blood thinner dose (Coumadin, Lovenox, Eliquis, etc)
- Pregnancy/ lack of movement

BLS Treatment Consideration


Treat for respiratory Distress & chest pain (Call ALS)

- Ensure ABC's, auscultate lung sound, treat chest pain/ resp. distress first **based on severity**
- Treat chest pain as possible cardiac event (ASA/ NTG)
- NRM O2 (10-15LPM) titrate to 94-99%
- Do **not** help administer blood thinner (out of scope)
- If **>20 weeks pregnant**, always perform left uterine displacement; else, transport in Fowler/ position of comfort
- Re-assess every 3-5 minutes, monitor for cardiogenic shock/ respiratory arrest

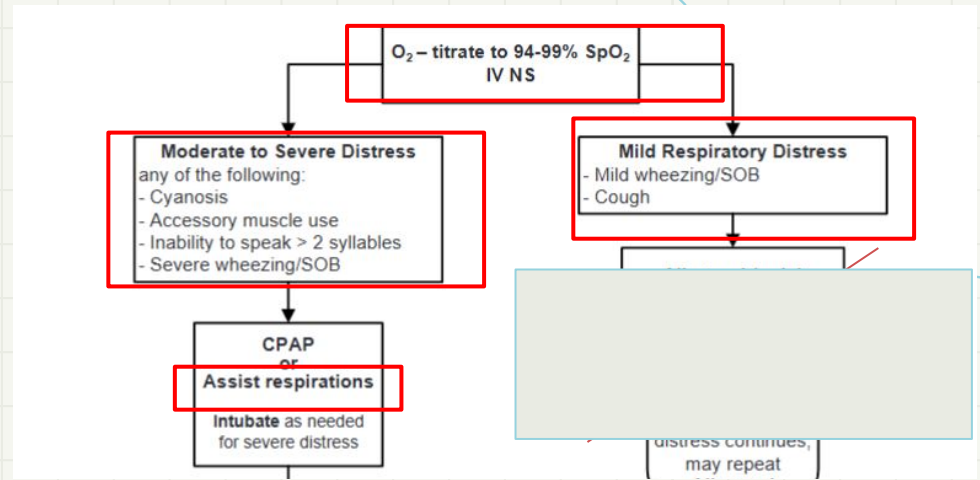
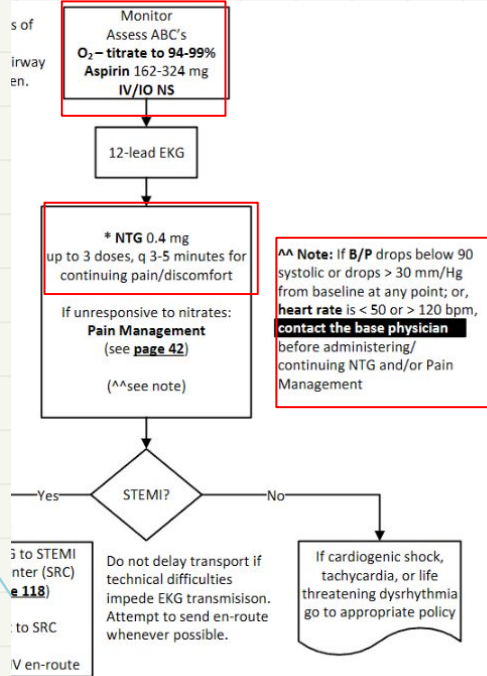


Why is it important to call ALS in addition to rapid transport?

Answer: This could be a cardiac event. Even if it's not, further deteriorations (apnea/ new cardiac events) require prompt ALS treatment.



ALCO Protocol (BLS squared in red)



8.4 **Pregnancy:** Do not lay the patient flat if more than 20 weeks pregnant. Transport either in semi-fowlers position or left lateral decubitus position. If patient requires SMR, secure to a backboard first then tilt the board 20 – 30 degrees to the left

BMRC First Aid Protocol

- Call 911/ UCPD
- Obtain ABC vitals, OPQRST, SAMPLE, and **PASTE**
- Re-assess every 3-5 minutes and monitor for cardiac event/ shock
- Left-uterine displacement while pt is in position of comfort (left recumbent supine position may worsen SOB)
- Prepare to give a transfer of care report to arriving providers



Scenario 3

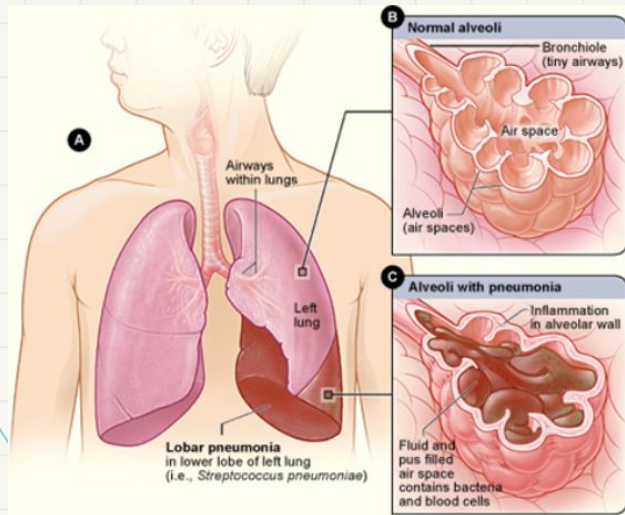
19 YOM AOX4 sophomore presented with worsening SOB, audible rhonchi, high-grade fever, brown phlegm since 4 days ago.

What is your field impression?

Answer: Respiratory distress + Sepsis

(EMT's don't diagnose pneumonia unless Dx'ed)

Pneumonia: infection of the lung causing fluid build-up and inflammation of alveoli



Common findings:

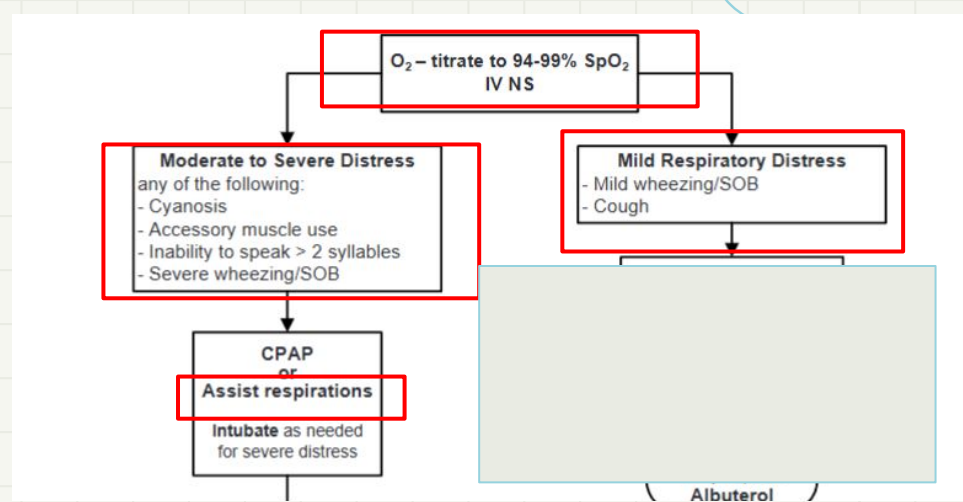
- Acute/ subacute fever
- Cough/ sneezing/ nasal congestion
- Recently diagnosed infection
- Severe symptoms among children/ seniors/ immunocompromised pt
- **Crackles/ rhonchi worsening down the lung**
- Thick sputum (color varies)
- Nausea/ diarrhea
- SOB/ dyspnea on exertion

BLS Treatment Consideration

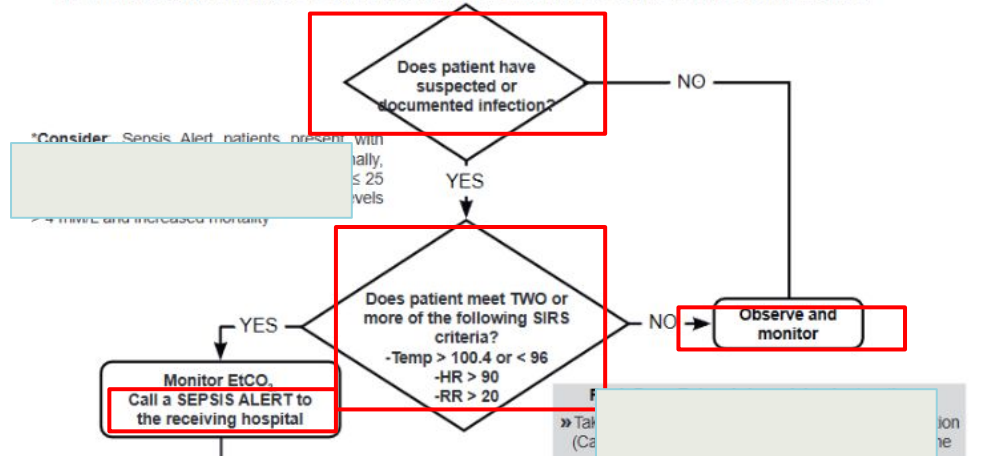
Wear proper BSI & call sepsis alert if criteria met, call ALS

- Ensure ABC's
- **Auscultate all 6 points starting from the bottom, record where adventitious lung sound stopped**
- O2 via NRM at 10-15 LPM, titrate to 94-99%
- If BVM is indicated, N95 mask and BVM with HEPA filter is recommended
- Ask for travel history
- Monitor for septic shock
- For nausea, always ensure airway is maintained

ALCO Protocol (BLS squared in red)



2. Although sepsis patients can be any age, the Prehospital Sepsis Screening Tool triages for sepsis patients aged 15 years and older. For these patients, notify the receiving hospital of a SEPSIS ALERT as early as possible via radio or phone.



BMRC First Aid Protocol

- Wear proper BSI
- Call 911/ UCPD
- Obtain ABC vitals, OPQRST, SAMPLE, and **PASTE**
- Re-assess every 5 minutes and monitor for septic shock
- (Semi-) Fowler or position of comfort
- Monitor fever (if febrile seizure occurs, place pt in recovery position and document time of seizure, adopt cooling measures)
- Prepare to give a transfer of care report to arriving providers

Important Points

- BSI, ABC's, PASTE, lung sounds
- **Titrate O2 to 94-99% (88-92% for COPD)**, ALCO protocol explicitly stated harm of hyperoxia for COPD pt's:
 - **“Higher oxygen saturations in COPD patients have been shown to be harmful”** (ALCO FM p. 47)
- Monitor for other possible complications (Respiratory emergencies can distract from other, more serious cardiac/septic events)
- Consider ALS (BLS treatment is insufficient in most respiratory emergencies)

KAHOOT!

<https://create.kahoot.it/share/respiratory-emergencies-quiz/17688cd7-139b-48b1-90f1-e6df16c28f8a>



Thank you!