
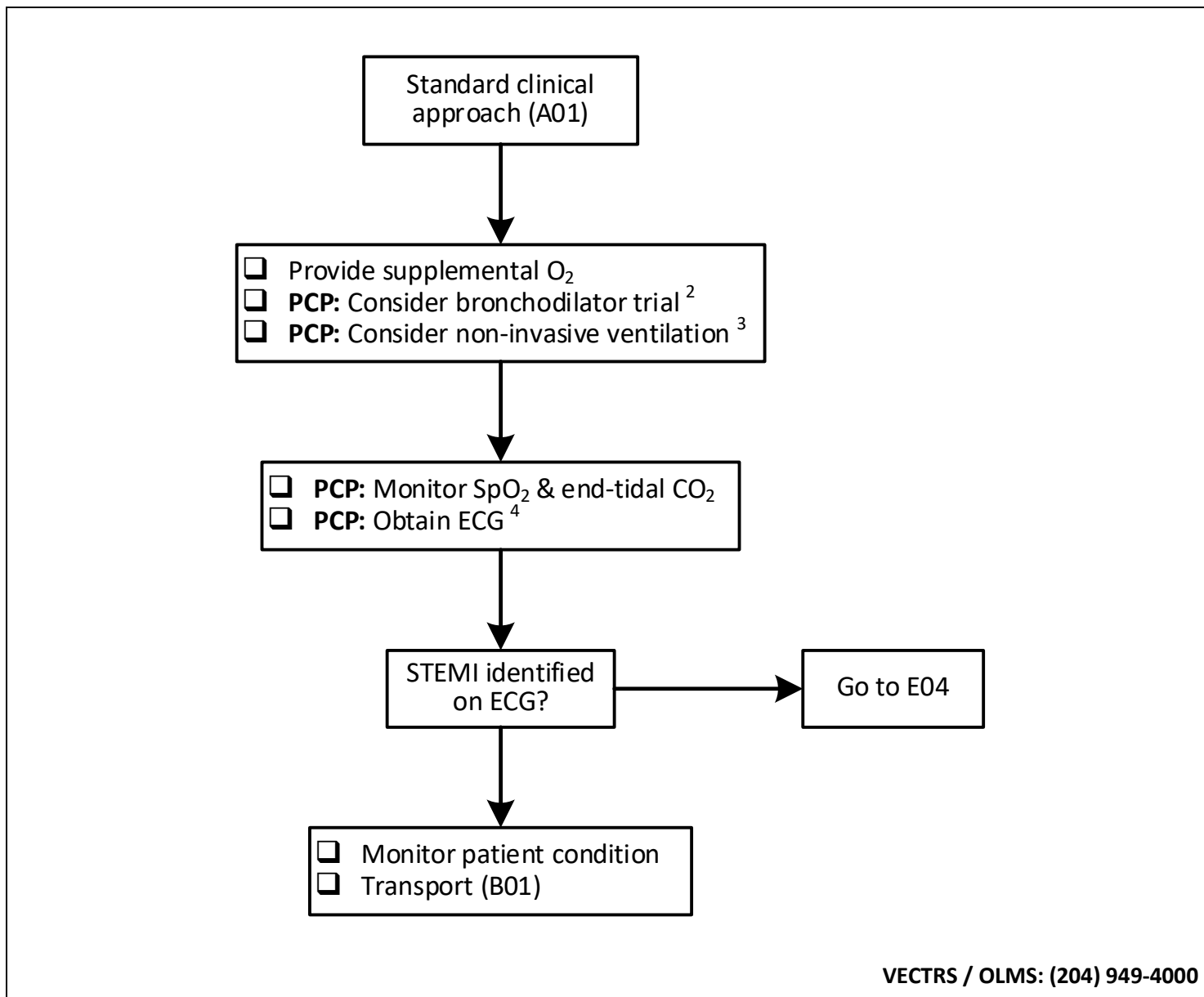


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|---|--|----------------------------------|------------------|
|  | E06 - RESPIRATORY DISTRESS (ALL AGES) | | |
| | Version date: 2025-03-19 | Effective date: 2025-04-3007:00) | |
| PCP = PCP = ACP | ICP = ICP & ACP | ACP = ACP only | None = EMR - PCP |



INDICATIONS

- Patients with acute dyspnea, worsening of chronic dyspnea, respiratory distress, or respiratory failure of that is not known or suspected to be due to asthma, COPD, heart failure or pulmonary edema

WARNINGS

- For patients with be due to asthma or COPD refer to E07
- For patients with heart failure or pulmonary edema refer to E08

NOTES

1. Patients with respiratory distress can rapidly progress to respiratory failure despite initial normal readings. In the absence of arterial blood gas analysis, respiratory failure should be presumed with an SpO₂ of less than 90% on room air, or an ETCO₂ of more than 45 mmHg.
2. Continuous monitoring of oxygen saturation (SpO₂) and end-tidal carbon dioxide (ETCO₂) as well as continuous cardiac monitoring and frequent blood pressure measurement is essential (appendix A). As important if , paramedics should continuously observe the patient's work of breathing (WOB) and level of consciousness (LOC).
Decreasing WOB and LOC may be signs of hypercapnia due to worsening respiratory failure.
3. Constant monitoring of oxygen saturation (SpO₂) and end-tidal carbon dioxide (ETCO₂) as well as continuous cardiac monitoring and frequent blood pressure measurement is essential (appendix A). Equally important, paramedics should frequently reassess the patient's work of breathing (WOB) and level of consciousness (LOC).
Decreasing WOB and LOC may be signs of hypercapnia due to worsening respiratory failure.
Agitation may indicate worsening hypoxemia. Do not sedate a patient with agitation who has a low oxygen saturation.
4. A trial of bronchodilation with salbutamol can be considered even if the patient does not have asthma, COPD, or audible wheezing. Correcting mild degrees of bronchoconstriction in patient with respiratory distress from other causes such as infection or inflammation may improve lung function and reduce work of breathing.
5. Non-invasive ventilation (NIV) with continuous positive airway pressure (CPAP) or bilevel positive airway pressure (BPAP) may lessen the patient's WOB and reduce fatigue. NIV is an aerosol generating medical procedures, and appropriate personnel protective equipment (PPE) is required (A09).
6. Acute coronary syndrome (ACS) with myocardial ischemia, injury or infarction may present with painless dyspnea, and may not have signs of heart failure.

LINKS

- A01 - Standard Clinical Approach

- A09 - Aerosol Generating Medical Procedures
- B01 - Standard Destination & Redirection
- E07 - Asthma / COPD
- E08 - Heart Failure & Pulmonary Edema
- M15.1 - Salbutamol

| APPROVED BY | |
|---|---|
|  |  |
| EMS Medical Director | EMS Associate Medical Director |

| VERSION CHANGES (REFER TO X05 FOR CHANGE TRACKING) |
|--|
| <ul style="list-style-type: none"> • Addition of advanced work scope identifier |

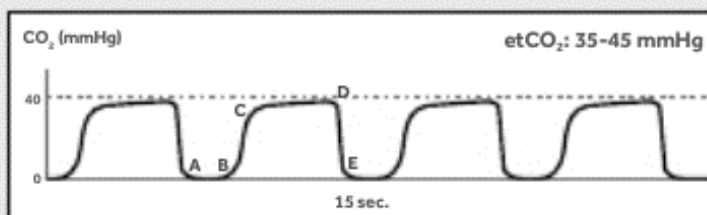
APPENDIX A: CAPNOGRAPH WAVEFORMS

Normal Capnogram

The normal capnogram is a waveform which represents the varying CO₂ level throughout the breath cycle.

Waveform Characteristics:

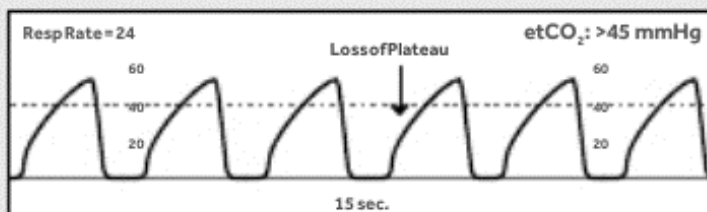
- A-B: Baseline D: End-Tidal Concentration
 B-C: Expiratory Upstroke D-E: Inspiration
 C-D: Expiratory Plateau



Bronchospasm/Asthma

Other Possible Causes:

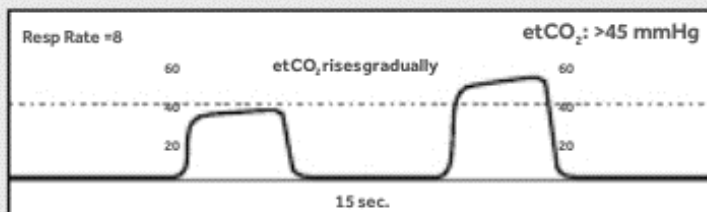
- Bronchospasm/COPD
- Obstruction in the expiratory limb of the breathing circuit
- Presence of a foreign body in the upper airway
- Partially kinked or occluded artificial airway



*Increasing etCO₂ (Hypoventilation)

Other Possible Causes:

- Decrease in respiratory rate
- Decrease in tidal volume
- Increase in metabolic rate
- Rapid rise in body temperature (malignant hyperthermia)



*Decreasing etCO₂ (Hyperventilation)

Other Possible Causes:

- Increase in respiratory rate
- Increase in tidal volume
- Metabolic acidosis
- Fall in body temperature

