Treatment Protocol: Respiratory Distress

Base Hospital Contact: Required for respiratory failure, severe respiratory distress or hypoxia and for patients < 1 year old with moderate respiratory distress

1. Use appropriate PPE

2. Assess airway and initiate basic and/or advanced airway maneuvers prn (MCG 1302)

3. Maintain patient in position of comfort

4. Administer Oxygen prn (MCG 1302)
   High flow Oxygen 15 L/min for all patients with impending respiratory failure, suspected pneumothorax, inhalation injury, or carbon monoxide exposure
   Use Oxygen with caution in patients with known congenital heart disease

5. If patient with stridor or concern for airway obstruction, treat per TP 1234-P, Airway Obstruction

6. If anaphylaxis suspected, treat in conjunction with TP 1219-P, Allergy

7. Initiate cardiac monitoring prn (MCG 1308)
   For suspected dysrhythmia, perform 12-lead ECG and CONTACT BASE
   For patients with dysrhythmias, treat per TP 1212-P, Cardiac Dysrhythmia - Bradycardia or TP 1213-P, Cardiac Dysrhythmia - Tachycardia

8. For bronchospasm, wheezing or asthma exacerbation:
   < 1 year of age: Albuterol 2.5mg (3mL) via neb per MCG 1309
   ≥ 1 year of age: Albuterol 5mg (6mL) via neb per MCG 1309
   May repeat x2 prn wheezing
   Document Provider Impression – Respiratory Distress / Bronchospasm

9. For deteriorating respiratory status despite albuterol:
   Epinephrine (1mg/mL) 0.01mg/kg IM, dose per MCG 1309
   Consider giving initially if wheezing with poor perfusion or severe respiratory distress CONTACT BASE concurrent with Epinephrine

10. Establish vascular access prn (MCG 1375)

11. Initiate CPAP for alert patients with moderate or severe respiratory distress with length greater than the length-based resuscitation tape (e.g., Broselow Tape™) and SBP ≥ 90mmHg
    Hold CPAP for patients with suspected pneumothorax, upper airway edema/obstruction, or other contraindications (MCG 1315)

12. For poor perfusion:
    Normal Saline 20mL/kg IV rapid infusion per MCG 1309
    For patients with persistent poor perfusion, treat in conjunction with TP 1207-P, Shock/Hypotension
13. Consider etiology
   For bronchospasm, wheezing, bronchiolitis, or asthma exacerbation document Provider Impression – *Respiratory Distress / Bronchospasm*
   For other and unknown causes of respiratory distress document Provider Impression – *Respiratory Distress / Other*

14. If sepsis suspected, treat in conjunction with *TP 1204-P, Fever/Sepsis*

15. If accidental or intentional overdose or toxic exposure is suspected, treat in conjunction with *TP 1241-P, Overdose/Poisoning/Ingestion*

16. If inhalation injury suspected, treat in conjunction with *TP 1236-P, Inhalation Injury*

17. Perform needle thoracostomy for suspected tension pneumothorax *(MCG 1335)*
SPECIAL CONSIDERATIONS

❶ Consider wearing surgical mask when caring for patients with respiratory distress of unclear etiology, which may be infectious.

❷ Patients with cyanotic congenital heart disease may be expected to have a measured SpO2 of 75-85%. Parents/caretakers may also know the patient’s “normal” SpO2 range. It is important to ask caretakers and consider this possibility, as administration of Oxygen in these patients will worsen respiratory status.

❸ If BMV, CPAP or intubation performed, document Provider Impression as Respiratory Arrest / Respiratory Failure. BMV is the preferred method to support oxygenation and ventilation if the pediatric patient is in respiratory failure.

❹ Fowler’s or Semi-Fowler’s positioning is likely to be most comfortable for awake patients with respiratory distress. Avoid agitating children with suspected partial foreign body obstruction and/or impending airway failure. Allow parents/caretakers to handle/facilitate patient if safe to do so.

❺ In pediatric patients with respiratory distress, bradycardia is likely to represent a pre-terminal event, ensure that oxygenation and ventilation is adequate; bradycardic dysrhythmia is persistent despite adequate oxygenation and ventilation before moving to TP 1212-P, Cardiac Dysrhythmia – Bradycardia. Respiratory rates vary by age and normal ranges can be found in MCG 1309.

❻ Consider blow-by to avoid agitation in pediatric patients if a mask cannot be tolerated (e.g., infants and toddlers).

❼ Epinephrine may be administered prior to albuterol as initial drug therapy in patients with Respiratory Failure due to bronchospasm.

❽ Contraindications to CPAP include: ALOC with inability to follow commands or hold head up independently, active vomiting, facial trauma, or inability to protect airway. While CPAP may be used in pediatric patients, current ALS equipment does not support use of CPAP in pediatric patients who are not longer than the length-based resuscitation tape (e.g., Broselow Tape™).

❾ Etiologies of respiratory distress in pediatrics are varied; etiologies may include the following:
  - Bronchospasm due to asthma, bronchiolitis, reactive airway disease or viral illness – document Provider Impression as Respiratory Distress / Bronchospasm
  - Pneumonia or Upper Respiratory Illness – document Provider Impression as Respiratory Distress / Other
  - Croup or Bacterial Tracheitis – document Provider Impression as Airway Obstruction
  - Spontaneous pneumothorax – document Provider Impression as Respiratory Distress / Other
  - Acute Chest Syndrome in patients with Sickle Cell Disease – document Provider Impression as Chest Pain – Not Cardiac. For patients with history of Sickle Cell Disease presenting with chest pain, respiratory distress, and hypoxia, treat in conjunction with TP 1202-P, General Medical.