Consider differential diagnosis:
- Asthma
- Pneumonia (See CPAP for respiratory failure)
- Bronchiolitis
- Anaphylaxis (See Anaphylaxis Protocol 2.)

Routine Patient Care.
- Attempt to keep oxygen saturation between 94% - 99%
- Observe for fatigue, decreased mentation, and respiratory failure.
- Assist the patient with his/her metered dose inhaler (MDI): 4 - 6 puffs.
  - May repeat every 5 minutes, as needed.
  - MDI containing either albuterol, levalbuterol, or a combination of albuterol/ipratropium bromide.
- For patients ≤ 2 who present with increased work of breathing and rhinorrhea, provide nasal suctioning with saline drops and bulb syringe; no more than 2 attempts.

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Consider:
- Dexamethasone 0.6 mg/kg PO/IM/IV (PO preferred), maximum 10 mg
  - OR
- Methylprednisolone 2 mg/kg IV/IM, maximum 125 mg.
- For patients who do not respond to treatment or for impending respiratory failure consider:
  - Magnesium sulfate 40 mg/kg in 100ml 0.9% NaCl IV over 20 minutes.
  - Epinephrine:
    - If < 25 kg, epinephrine (1 mg/mL) 0.15 mg IM, lateral thigh preferred.
    - If > 25 kg, epinephrine (1 mg/mL) 0.3 mg IM, lateral thigh preferred

For croup, for patients who do not respond to treatment or for impending respiratory failure:
- Nebulized epinephrine (1 mg/mL) 3 mg (3 mL) in 3 mL 0.9% NaCl.

Respiratory distress in children must be promptly recognized and aggressively treated. Respiratory arrest is the most common cause of cardiac arrest in children.
Child with a "silent chest" may have severe bronchospasm with impending respiratory failure.
PEARLS
- The IV formulation of dexamethasone may be given by mouth.
- For suspected epiglottitis, transport the patient in an upright position and limit your assessment and interventions.

Bronchiolitis
- Incidence peaks in 2-6 month old infants.
- Frequent history of low-grade fever, runny nose, and sneezing.
- Signs and symptoms include: tachypnea, rhinorrhea, wheezes and / or crackles.

Croup
- Incidence peaks in children over age 6 months.
- Signs and symptoms include: hoarseness, barking cough, inspiratory stridor, signs of respiratory distress.
- Avoid procedures that will distress child with severe croup and stridor at rest.

Pneumonia
- Signs and symptoms include: tachypnea, fever, intercostal retractions, cough, hypoxia and chest pain.

Tachypnea in children is defined as:
- < 2 months: 60 bpm
- 2-12 months: 50 bpm
- 1-5 years: 40 bpm
- >5 years: 20 bpm