## CLINICAL PATHWAY: Croup

THIS PATHWAY SERVES AS A GUIDE AND DOES NOT REPLACE CLINICAL

Inclusion Criteria: ≥6 months old with suspected group (Symptoms include: sudden onset barky cough, inspiratory stridor, respiratory distress, hoarse voice, fever) Exclusion Criteria: <6 months old, toxic appearance, symptoms suggestive of alternative diagnosis<sup>1</sup>, neuromuscular disorder, hypotonia, known upper airway abnormality \* Initial Assessment: Assess respiratory status: Stridor at rest versus with activity, work of breathing, drooling, cyanosis, air entry Assess hydration status Assess mental status, level of distress/anxiety Standing Nursing Order: RN may administer Dexamethasone 0.6 mg/kg PO/IM x1 dose (max 16 mg) prior to provider assessment Moderate/Severe Mild Stridor at rest PLUS ≥1 criteria: No stridor or mild stridor at rest, increased work of breathing, hypoxia, no increased work of breathing, agitation, fatigue, difficulty no oxygen requirement speaking Dexamethasone 0.6 mg/kg PO/IM (max 16mg) if not already given AND Nebulized Racemic Epinephrine 2.25% Dexamethasone 0.6 mg/kg PO/IM solution, 0.5 mLin 3 mLNS x1 dose (max 16mg) if not already given May administer 2<sup>nd</sup> dose of Nebulized Racemic Epinephrine if no improvement after 1st Supplemental O2 if hypoxic Discharge Criteria Observe for at No stridor or mild stridor at rest, least 2 hours to little or no increased work of ■ If stable Improvement? Yes ensure does not breathing, no hypoxia, maintaining worsen oral hydration No Admission Criteria: Requires IVFs to maintain hydration, or If worsens stridor at rest PLUS one of the following: moderate-severe respiratory distress, hypoxia, agitation, fatigue, difficulty speaking Admit to PHM OR 0 Admit to PICU if signs of impending 0 respiratory failure<sup>2</sup> and treat off pathway OR Consider alternative diagnosis<sup>1</sup> 0 Admission to PHM: Requires provider assessment. Nebulized Racemic Epinephrine q2hr PRN Requires Consider: stridor at rest, increased WOB >1 dose Alternative diagnosis<sup>1</sup> Continuous SpO2 monitoring of racemic MET activation epinephrine after Supplemental oxygen if unable to maintain SpO2 >90% (preferably humidified) Blood gas admission? ENT consult IVF if unable to tolerate sufficient PO No Discharge Criteria: Minimal stridor at rest, minimal or no WOB, maintaining hydration without need for IVF, able to speak and eat without difficulty, minimum of 4 hours since last racemic epinephrine treatment, no supplemental oxygen for >4 hours, caregiver education complete, responsible caregiver able to care for child as an outpatient, PCP follow up appointment made Medications: Consider administration of 2<sup>nd</sup> dose of dexamethasone prior to discharge Discharge Instructions: Return to ED if increased WOB, stridor at rest, drooling, cyanosis, lethargy, signs of dehydration

## <sup>1</sup>Consider alternative diagnoses:

- Bacteria I tracheitis
- Epiglottitis (especially if under-immunized)
- $Retropharyng\,eal\\$ abscess
- Foreign body aspiration or upper airway injury
- Anaphylaxis
- Congenital abnormality

## <sup>2</sup>Signs of impending respiratory failure:

- poor aeration stridor decreased
- or absent
- severe stridor listless/decreased
- LOC
- hypoxemia/ cyanosis

The following tests and treatments are NOT routinely indicated if the suspicion for a diagnosis of croup is strong:

- Viral testing Chest or lateral neck x-rays
- Antibiotics
- Albuterol
- Prednisolone (Dexa methasone preferred)
- Inhaled corticosteroids
- Cool mist humidification