PEDIATRIC EMERGENCY DEPARTMENT CLINICAL GUIDELINE: CROUP

Population:
- Most common age group is 6mo – 3yrs
- Parainfluenza virus during fall to winter months

History:
- Sudden onset loud barking cough, most often in the middle of the night, invariably better by the time of arrival in the ED
- Usually preceded by 1-2 days of mild cough and URI symptoms
- May have a history of low grade fevers

Physical Exam:
- General appearance (including vital signs and pulse oximetry on room air)
- Rapid cardiopulmonary assessment
- Presence of stridor at rest (key differentiating factor)
- Evaluate for atypical features (drooling, high fever, toxic appearance)
- Evaluation of work of breathing (stridor, respiratory rate, retractions, air entry, wheezing, saturations, degree of dyspnea)

Evaluation & Management:
- No diagnostic evaluation usually necessary
- Corticosteroids indicated in essentially all patients:
  - Dexamethasone 0.6mg/kg IM or PO x 1 (10mg max)
  - Dexamethasone suspension has high rates of vomiting – an alternate is to crush and put in cherry chocolate sauce
  - Another option is to use 3-5 days of oral prednisolone 2mg/kg/d
  - Budesonide (Pulmocort®) 0.5mg nebulized is another consideration for severe cases
- Racemic epinephrine is reserved for patients with STRIDOR AT REST:
  - Racemic epinephrine 0.5cc neb is given to all children (the child’s tidal volume automatically limits their uptake)
  - Children receiving a racemic epinephrine neb must be observed for a MINIMUM of 2 hrs in the ED prior to discharge and should only be discharged after the clinician has assured himself/herself that the parent/guardian thoroughly understands the disease process and is able to return to the ED expeditiously should stridor at rest recur.
  - In general, admission should be strongly considered for children requiring 2 or more racemic epinephrine nebs.
  - If required, patients will generally recrudesce within ½-1 hr of the previous nebulization.
- Patients with atypical features in whom the diagnosis is questioned or unclear should have a work-up initiated to exclude other less common entities such as retropharyngeal abscess, epiglottitis, bacterial tracheitis, and/or foreign body.
  - Work-up may include:
    - Soft tissue plain films of the neck
    - CBC and BCx
    - CT scan of the neck with IV contrast
REFERENCES:


DISCLAIMER:
This clinical guideline has been developed for the purpose of unifying the general emergency care of children with croup. It is intended to aid, rather than substitute for, professional judgment. It is not intended to serve as a rigid protocol or a written proxy for the standard of care. Failure to comply with this guideline does not represent a breach of the standard of care.