



The Children's Hospital

Croup Clinical Care Guideline Age 6 Mos – 3 Yrs

*Always check intranet for latest version:

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Brief Highlights

Key Recommendations:

1. Croup is a clinical diagnosis that can be made based upon history and physical examination
2. Parainfluenza type 1 virus is the most common cause of croup
3. Treatment is based on the Modified Westley Croup Score and Severity Classification, which also serve as monitoring guideline.

Croup Clinical Care Guideline

4. Dexamethasone is indicated for croup and is given as a one time dose to reduce airway inflammation. Dose: 0.15 - 0.6 mg/kg PO (preferred), IV or IM
5. Nebulized Epinephrine is effective and can be given for Croup Score >3 and stridor. The term 'rebound phenomenon' is a misnomer. Epinephrine doesn't change the duration of croup and benefits last ≤ 2 h. It is safe to send children home after receiving racemic epinephrine if they have been observed for a minimum of 3 h post therapy and have appropriate follow-up arranged.
6. The use of mist (humidified air with or without oxygen) is a therapy without supporting evidence of benefit.
7. Antibiotics have no role in uncomplicated croup; antibiotics are indicated only for bacterial component (tracheitis) which is a more severe disease suggesting the need for specialty consultation.
8. Routine viral testing is not indicated.
9. Routine airway x-rays are not indicated.

Key Clinical symptoms indicative of tracheitis

Sudden worsening of airway symptoms is indicative of more severe or invasive disease and warrants immediate specialty consultation.

Aphonia
Cyanosis
Prolonged disease process
Acute onset high fever
Toxic appearance
Severe stridor
Tripodding

Key references:

1. Bjornson, C.L., et al., *A randomized trial of a single dose of oral dexamethasone for mild croup.* N Engl J Med, 2004. **351**(13): p. 1306-13
2. Chub-Uppakarn, S. and P. Sangsupawanich (2007). "A randomized comparison of dexamethasone 0.15 mg/kg versus 0.6 mg/kg for the treatment of moderate to severe croup." *Int J Pediatr Otorhinolaryngol* **71**(3): 473-7.
3. Neto, G. M., O. Kentab, et al. (2002). "A randomized controlled trial of mist in the acute treatment of moderate croup." *Acad Emerg Med* **9**(9): 873-9.
4. Westley, C. R., E. K. Cotton, et al. (1978). "Nebulized racemic epinephrine by IPPB for the treatment of croup: a double-blind study." *Am J Dis Child* **132**(5): 484-7