Croup

Monroe Carell Jr. Children's Hospital at Vanderhilt

Clinical Practice Guideline

Inclusion Criteria

- 6 months to 6 years
- Previously healthy
- Signs and symptoms consistent with croup

Barking Cough and/or Stridor or history of stridor with illness

Exclusion Criteria

- Symptoms consistent with another diagnosis
- Upper airway abnormality
- Hypotonia or neuromuscular disorder
- Chronic lung disease

Give Dexamethasone 0.6mg/kg (max dose 16mg) PO/IV/IM Assess Westley Croup Score and severity of illness

Mild Score <2 Moderate Score 3-7

Stridor at rest or biphasic stridor?

Give Racemic Epinephrine (0.1ml/kg nebulized solution with a maximum of 0.5mg)

yes

Reassess for improvement

Stridor at rest within <1hour?

Monitor for 2 hours with hourly assessments.

Stridor at rest or still symptomatic?

Severe/Life
Threatening Score >8

Give Racemic Epinephrine (0.1ml/kg nebulized solution with a maximum of 0.5mg)

Improved

stridor at

rest?

nebulized solution with a

maximum of 0.5mg)

Requiring

epinephrine every two hours or less?

yes

Consider alternative diagnosis

Give additional Racemic Epinephrine (0.1ml/kg

Admit to PICU

imaging to
evaluate for
possible foreign
body aspiration
in persistent
stridor

Consider discharge if well appearing and tolerating PO

Discharge Criteria:

- Minimal stridor at rest (stridor with activity expected)
- Minimal Retractions
- Able to talk and PO without issue
- 2 hours since racemic epinephrine

PICU Admission:

Admit to Floor

- Racemic Epinephrine (0.1ml/kg nebulized solution with a maximum of 0.5mg) every 2 hours or less
- Toxic appearing or impending respiratory failure
- If not improving assess for diagnosis such as foreign body.

Severe Disease Therapeutic Adjuncts:

- Nebulized Budesonide (0.5mg/2ml) 0.5mg INH x1, if over 6 months old
- Racemic epinephrine q20 minutes
- Heliox
- If racemic epinephrine ineffective give IM Epinephrine 0.01mg/kg IM max of 0.3mg

Westley Croup Score

SCORE	Stridor	Retractions	Air Entry	SaO ₂	Level of
			~	<92%	consciousness
0	None	None	Normal	None	Normal
1	Upon	Mild	Mild		
	agitation		Decrease		
2	At rest	Moderate	Marked		
			Decrease		
3		Severe			
4				Upon	
				agitation	
5				At rest	Decreased

Differential Diagnosis to Consider:

- Retropharyngeal Abscess
- Bacterial Tracheitis
- Epiglottis
- Foreign body aspiration
- Airway Anomaly
- Asthma
- Allergic Reaction/Anaphylaxis
- GERD

Please review deep neck infection CPG if appropriate.

Foreign Body Consults:

1st week of month: ENT 2nd-4th week: Ped surgery

References

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