

Annex 1 Assessment & Management of a Child with Croup in Hospital

EXCLUSIONS: Not for management of children with pre-existing upper airway abnormalities.

DIAGNOSIS

The diagnosis of croup is clinical.

A diagnosis of croup is likely if a child presents with

- Abrupt onset of barking cough, and
- Inspiratory stridor, and
- Hoarseness;
- Particularly if these symptoms are preceded by symptoms of a mild upper respiratory tract infection.

Consider diagnoses other than croup in a child with croup-like symptoms who also has any one of:

- Expiratory wheeze or loss of voice
- Toxic appearance or high-grade fever
- Drooling, difficulty swallowing, anxiety
- Prolonged, or recurrent stridor
- Poor response to treatment
- Age less than 3 months

ASSESSMENT OF DEGREE OF AIRWAY OBSTRUCTION

Mild	Moderate	Severe	Life Threatening
<ul style="list-style-type: none"> • Normal mental state • No stridor or only when distressed • No or subtle accessory muscle use, tracheal tug or chest wall retraction • Normal heart rate • Able to talk and/or feed 	<ul style="list-style-type: none"> • Anxious, tired • Stridor at rest • Minor accessory muscle use, tracheal tug or chest wall retraction • Increased heart rate • Some limitation of ability to talk and/or feed • Oxygen saturation 92-95%* 	<ul style="list-style-type: none"> • Agitated, exhausted • Marked accessory muscle use, tracheal tug or chest wall retraction • Markedly increased heart rate • Increased respiratory rate • Too breathless to talk and/or feed • Oxygen saturation <92%* • Extreme pallor • Low muscle tone 	<ul style="list-style-type: none"> • Confused, drowsy • Maximal accessory muscle use, tracheal tug or chest wall retraction or exhaustion • Poor respiratory effort • Silent chest • Cyanosis*

N.B. If patient has signs or symptoms across categories, always treat according to their most severe features.

Take special care with children who have relevant comorbidities or chronic illnesses, and consult appropriate specialist clinicians.

INITIAL TREATMENT

<ul style="list-style-type: none"> • Consider oral prednisolone 1 mg/kg • Allow the child to adopt the position they find most comfortable. • Provide parent information • Discharge if stable or reassess after 1 hour if any concern <p>Assess mental state, stridor, accessory muscle use, tracheal tug or chest wall retraction and respiratory rate.</p>	<ul style="list-style-type: none"> • Oral prednisolone 1 mg/kg • Allow the child to adopt the position they find most comfortable. • Provide parent information • Reassess within 1 hour 	<ul style="list-style-type: none"> • Consult senior paediatric or emergency clinician • Provide oxygen • Nebulised adrenaline - four 1ml vials (a total of 4mls) of 1:1000 solution. • Oral prednisolone 1 mg/kg OR IM dexamethasone 0.6 mg/kg • Allow the child to adopt the position they find most comfortable. • Provide parent information • Reassess within 5 minutes <p>Assess mental state, stridor, accessory muscle use, tracheal tug or chest wall retraction and respiratory rate.</p>	<ul style="list-style-type: none"> • Consult Intensive Care Unit • Provide oxygen • Nebulised adrenaline - four 1ml vials (a total of 4mls) of 1:1000 solution. • Oral prednisolone 1 mg/kg OR IM dexamethasone 0.6 mg/kg • Allow the child to adopt the position they find most comfortable. • Provide parent information • Reassess within 5 minutes
---	--	---	---

RESPONSE TO TREATMENT

RESPONDING
<ul style="list-style-type: none"> • Discharge when child has no signs of moderate or severe croup and is clinically well • Provide patient information, including reasons to return • Fax or post letter to GP • Discharge

NOT RESPONDING
<ul style="list-style-type: none"> • Reconsider diagnosis • Consult senior paediatric or emergency clinician • Assess degree of airway obstruction • Treat as per Initial Treatment as appropriate for degree of airway obstruction - DO NOT give an additional dose of prednisolone if one has already been given

RESPONSE TO TREATMENT

RESPONDING
<ul style="list-style-type: none"> • Observe for at least 3 hours after administration of adrenaline • Discharge when child has no signs of moderate or severe croup and is clinically well • Provide patient information, including reasons to return • Fax or post letter to GP • Discharge

NOT RESPONDING
<ul style="list-style-type: none"> • Reconsider diagnosis • Arrange High Dependency Unit/Intensive Care Unit transfer • Provide oxygen • In consultation with senior clinician consider a repeat dose of adrenaline

*Decreased oxygen saturation is a late sign of severity. Oxygenation may be maintained even in severe croup.