

CROUP

5 MINUTE MASTERCLASS

Common childhood disease that is usually caused by a virus. It is usually self-limiting after around 48 hours and can often be managed at home

- Acute respiratory illness
- Caused by inflammation and narrowing of subglottic region of larynx
- Most often caused by viral illness
- Commonly sudden onset
- Affects approx. 3% children / year
- Most common age 6 months to 3 years – peak incidence aged 2 years
- Boys affected slightly more than girls 1.4:1 ratio
- Peak admissions Sept-Dec but cases all year round

Signs & Symptoms:

Sudden onset
Seal-like barking cough
Often accompanied by stridor +/- recession
Worse at night
Hoarse voice
Preceding 24 - 48 hours may display coryzal symptoms

Differential diagnosis:

Bacterial tracheitis – fever, sudden onset stridor, resp. distress after viral illness with sudden worsening of symptoms

Epiglottitis – fever, dysphagia, drooling, anxiety, cough, very upright posture
Foreign body upper airway – sudden onset dyspnoea & stridor, no viral or coryzal symptoms, no fever
Tonsillar abscess – dysphagia, drooling, stridor, dyspnoea, cervical lymphadenopathy, gradual onset, fever
Allergic reaction – sudden onset dysphagia, stridor, rash, facial swelling / oedema (tongue, lips, eyes etc)

Categorise Symptoms:

Mild: no stridor or recession at rest
Moderate: stridor +/- recession, no agitation/lethargy
Severe: stridor, recession, agitation +/- lethargy
Impending resp. failure: stridor, recession, fatigue, pallor, cyanosis, reduced consciousness, tachycardia

Management:

Keep child calm, allow the child to remain in a parent's arms and avoid any unnecessary painful interventions. Persistent crying increases oxygen demands, respiratory muscle fatigue and worsens the obstruction

Mild: dexamethasone 0.15mg/kg – stat dose, parental education, worsening advice, analgesia if distressed, fluids (ice-cold), monitor incl. overnight (admit if concomitant illness – chronic lung disease, congenital heart disease, neuromuscular disorders, immunodeficiency, under 3 months age, long distance from hospital if deteriorates, significant parental anxiety, late evening or night-time presentation)
Moderate to severe: dexamethasone 0.15mg/kg stat dose, admit to hospital, if severe illness/impending resp. failure give oxygen

Important points:

1. Dexamethasone to be given to all suspected croup cases
2. Onward referral for all cases if more than mild symptoms or concomitant illness

Where is Dexamethasone kept?

Bottles of Dexamethasone are kept in the triage rooms and room 8 (International house) and room 5 (wic).

Please only give stat dose and not the bottles and record the amount given in the adastra record.

Provide self-care advice:

- Advise the parents/carers to use either paracetamol or ibuprofen to treat a child who is distressed due to fever. Antipyretic agents should not be used with the sole aim of reducing body temperature and should be continued for only as long as the child appears distressed.
 - Advise them to consider changing to the other agent if the child's distress is not alleviated, but not to give both agents simultaneously, and to only alternate these agents if the distress persists, or recurs before the next dose is due.
 - Advise them not attempt to reduce fever by under-dressing the child, or with use of tepid sponging.
 - Advise them to encourage the child to take fluids regularly. For infants that are breastfed, advise continued breastfeeding.
 - Advise the parents/ carers to check on the child regularly, including through the night.
- Arrange follow-up, using clinical judgment to determine the appropriate interval.

Guidance:

<https://cks.nice.org.uk/croup>

<https://www.nhs.uk/conditions/Croup/>

<https://www.nhsinform.scot/illnesses-and-conditions/lungs-and-airways/croup>