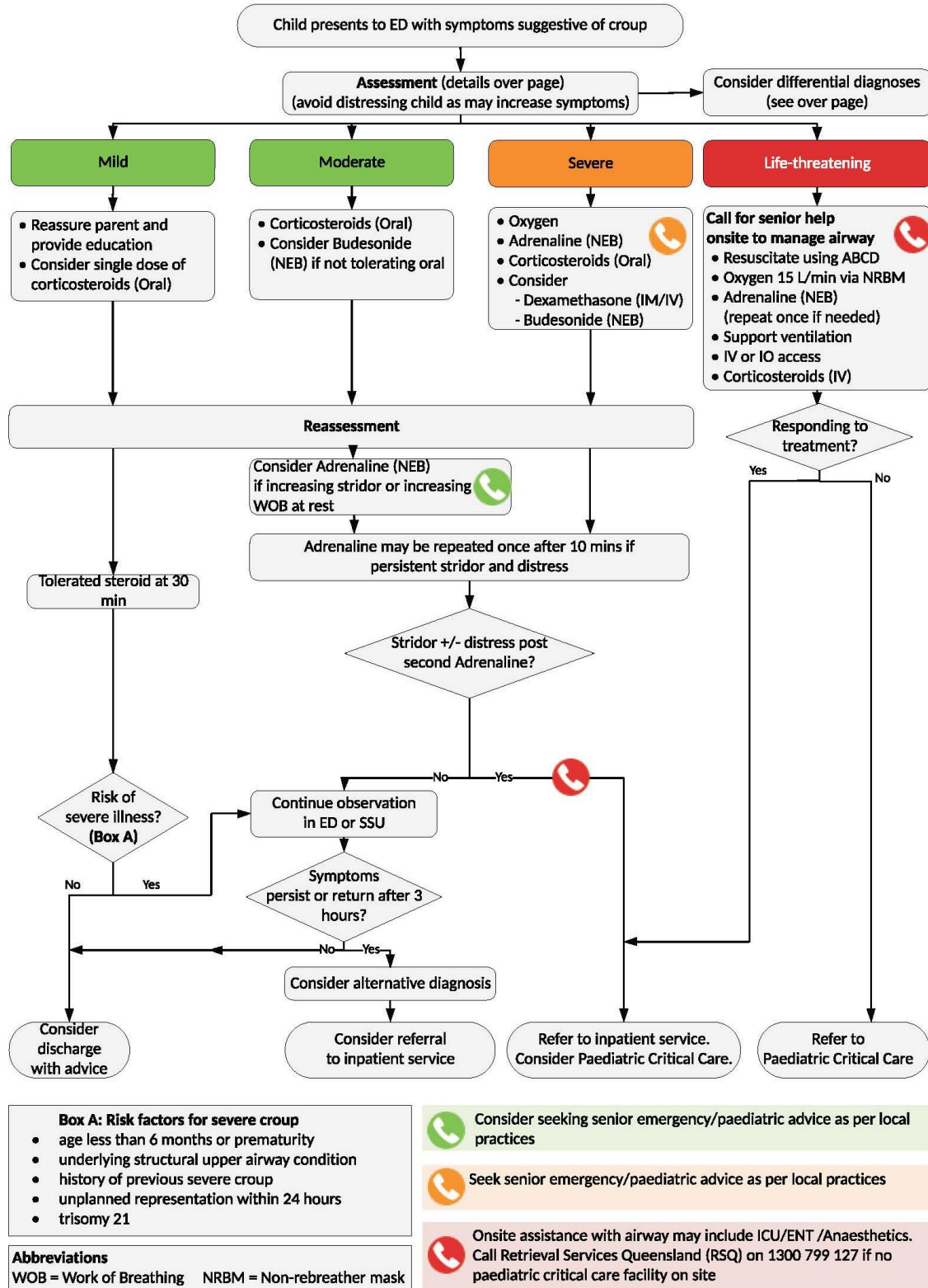


Queensland Paediatric Flowchart and Medications

Emergency

# Croup – Emergency management in children – Flowchart



CHQ-GDL-60004-1 Croup – Emergency management in children – Flowchart v3.0



## Croup – Emergency management in children – Medications

Assessment of severity of croup			
Mild	Moderate	Severe	Life -threatening
Occasional barking cough, no audible stridor at rest	Frequent barking cough, audible stridor at rest	Persistent stridor at rest (may be expiratory)	Audible stridor may be quieter
No or mild respiratory distress* at rest	Moderate respiratory distress	Severe respiratory distress	Exhausted, poor respiratory effort
Normal SpO <sub>2</sub> <sup>#</sup> , no cyanosis	Normal SpO <sub>2</sub> , no cyanosis	SpO <sub>2</sub> ≤ 93% or cyanosis	SpO <sub>2</sub> ≤ 93% or cyanosis
Alert	Little or no agitation	Fatigue or altered mental state	Lethargy or decreased level of consciousness

\*Signs of respiratory distress include accessory muscle use, abdominal breathing, intercostal recession, subcostal recession and tracheal tug. <sup>#</sup> Oxygen saturations using pulse oximetry, commonly referred to as "sats"

Differential diagnosis of acute onset stridor and respiratory distress	
Toxic appearance	Non-toxic appearance
<ul style="list-style-type: none"> <li>Bacterial tracheitis</li> <li>Epiglottitis</li> <li>Retropharyngeal abscess</li> <li>Peritonsillar abscess (quinsy)</li> </ul>	<ul style="list-style-type: none"> <li>Spasmodic croup</li> <li>Angioneurotic oedema</li> <li>Laryngeal foreign body</li> <li>Subglottic haemangioma</li> </ul>

Corticosteroid dosing for the treatment of croup	
<b>Dexamethasone (Oral/IM/IV)</b>	<p><b>Mild-moderate croup:</b> 0.15-0.3mg/kg<sup>20, 23</sup>, maximum 12mg<sup>23</sup></p> <ul style="list-style-type: none"> <li>Some uncertainty remains about optimal dexamethasone dosing in croup.<sup>20, 23</sup></li> <li>0.15 mg/kg is an effective dose in most cases. In practice clinicians may opt for a higher dose to ensure the desired dose is ingested in a child who is vomiting/having difficulty taking oral medicine.</li> </ul> <p><b>Severe or life-threatening:</b> 0.6mg/kg (oral/IV/IM), maximum 12mg.</p> <ul style="list-style-type: none"> <li>0.6 mg/kg may be used in more severe cases<sup>23</sup>. Adverse effects of higher doses are uncommon.<sup>20</sup></li> </ul> <p>Preferred corticosteroid as associated with lower representation rate, shorter course, less vomiting and fewer school days missed.<sup>20, 24-27</sup></p> <p>Oral suspension is not widely available. Dexamethasone 0.5mg and 4mg tablets are available but they are not easily dispersed in water to give in a partial dose. Doses that can be rounded to full tablet size can however be crushed and dispersed in water<sup>28</sup>. Dexamethasone injection can be given orally and is tasteless. If IV stock is in shortage, please give liquid suspension.</p>
<b>Prednisolone (Oral)</b>	<p>Day 1: 1mg/kg/day</p> <p>Day 2: 1mg/kg/day in the evening</p>

Budesonide (NEB) dosing for the treatment of croup	
<b>Dose</b>	2 mg nebulised with oxygen.
<b>Side effects</b>	Facial irritation – cover child's eyes while administering, wash face afterwards



**Adrenaline (NEB) dosing for the treatment of croup**

<b>Dose</b>	5 mL of undiluted 1:1000 Adrenaline nebulised with oxygen as a single dose. Dose may be repeated if there is inadequate response.
<b>Monitoring</b>	Clinical observations every 15 minutes for the first hour.

For more information refer to [CHQ-GDL-60004 Croup – Emergency management in children](#)

