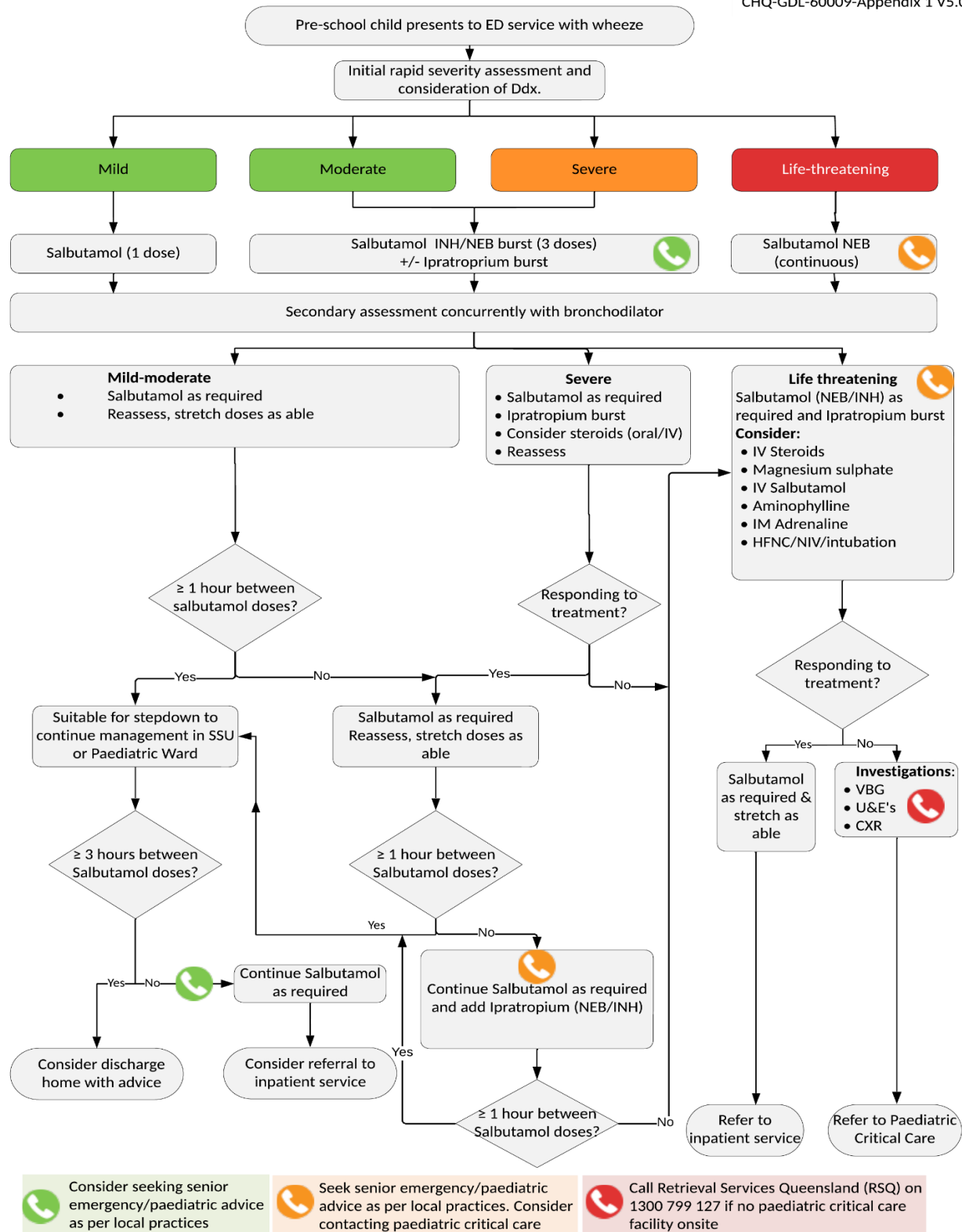


Queensland Paediatric Flowchart and Medications

Emergency

Pre-school wheeze – Emergency management in children– Flowchart

CHQ-GDL-60009-Appendix 1 V5.0



CHQ-GDL-60009-1 Pre-school wheeze – Emergency management in children - Flowchart



Pre-school wheeze – Emergency management in children – Medications

Inhaled Salbutamol dosing for the treatment of wheeze in pre-school children

Metered dose inhaler (MDI) 100 micrograms	Age 1 to 5 years: 6 puffs
Nebulised	Age 1 to 5 years: 2.5 mg
Salbutamol burst	Administer three doses as above at twenty-minute intervals
Continuous nebulised Salbutamol	Use two 5 mg/1 mL nebulisers and replenish where reservoir empty.

*Always use with a spacer. Also use a mask if unable to form a reliable seal around the spacer.



ALERT – Cumulative Salbutamol doses can cause agitation, tremor, tachycardia, tachypnoea and rarely, hypertension. Raised lactate, hypokalaemia and raised glucose on VBG are markers of Salbutamol toxicity.

Steroid dosing for the treatment of wheeze in pre-school children

Dexamethasone (oral/IM/IV)	Single dose on day 1 of 0.6mg/kg (maximum 16mg) ¹ The IV Dexamethasone preparation can be given orally, is tasteless and well tolerated in children. If IV stock is unavailable or in short supply, give oral liquid suspension noting the taste is unpleasant. Dexamethasone 0.5mg and 4mg tablets are available but they are not easily dispersed in water to give a partial dose. Doses that can be rounded to half or full tablet size can however be crushed and dispersed in water ¹³ .
Prednisolone (Oral)	Day 1: 2 mg/kg (maximum 50 mg) Day 2 and 3: 1 mg/kg Can extend course to five days if still symptomatic after three-day course
Hydrocortisone (IV)	4 mg/kg (maximum 100 mg) then every six hours on day one
OR Methylprednisolone (IV)	1 mg/kg (maximum 60 mg) then every six hours on day one

Ipratropium dosing for the treatment of wheeze in Pre-School children

Age 5 years	4 puffs (84 micrograms) via spacer OR 250 micrograms nebulised every twenty minutes for three doses. Can be mixed in nebuliser with Salbutamol. Followed by 2 puffs (42 micrograms) every six hours.
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Magnesium sulphate (IV) dosing for the treatment of wheeze in pre-school children

Bolus dose	0.2 mmol/kg (equivalent to 50 mg/kg) infused intravenously over twenty minutes (maximum 10 mmol = equivalent to 2,500 mg) Doses up to 0.4 mmol/kg (maximum of 10 mmol) have been used. Must be administered in syringe driver using safety software.
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Side effects	Usually minor, including epigastric or facial warmth and flushing, pain and/or numbness at infusion site and dry mouth. Severe reactions include allergy, hypotension, respiratory depression and circulatory collapse.
Monitoring	Full cardiac monitoring with blood pressure every five minutes. Cease infusion if hypotension persists. Monitor knee reflexes if repeating dose to assess for magnesium toxicity which can result in respiratory failure. Cease magnesium if reflexes absent.
Salbutamol (IV) dosing for the treatment of wheeze in pre-school children	
Bolus dose	15 microgram/kg (maximum 300 micrograms) infused over twenty minutes
Infusion	0.5-1 microgram/kg/min (maximum 40 micrograms per min). Higher doses may be required under the direction of the PMC or Intensivist.
Monitoring	Full cardiac monitoring Monitor venous potassium levels.

