



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	Neat Salbutamol nebuliser solution (5 mg/mL), replenish where reservoir empty. Use 5 mg/1 mL nebulisers or 30 mL multi-use bottle.

*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.

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 8 mmol) have been used. Must be administered in syringe driver using safety software.
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.

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

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 200 mg) then every six hours on day one
OR Methylprednisolone (IV)	1 mg/kg (maximum 60 mg) then every six hours on day one

Salbutamol (IV) dosing for the treatment of wheeze in pre-school children

Bolus dose	100 microgram/kg infused over twenty minutes (maximum 5 milligrams)
Infusion	1-2 microgram/kg/min (to maximum weight 50 kg)
Monitoring	Full cardiac monitoring Monitor venous potassium levels.

