

Algorithm: Assessment and initial management of acute asthma

Reconsider diagnosis if the child is less than one year, has high fever or responds poorly to Asthma treatment

Initial Severity Assessment			
Treat in the highest category in which any symptom occurs			
Symptoms	Mild Likely to go home	Moderate Possibly be admitted	Severe and Life Threatening Will be admitted or transferred
Oximetry in Air	>94%	90-94%	<90%
Heart rate	Close to normal range for age	Mild-Moderate Tachycardia for age	Marked Tachycardia - beware relative Bradycardia for age
(age appropriate) Ability to talk in:	Sentences or Long vigorous Cry	Phrases or Shortened Cry	Words / Weak Cry or Unable to Speak / Cry
Accessory Muscle Use	None	Mild to Moderate	Moderate to Severe
Altered Consciousness	Alert Age Appropriate	Easily Engaged Age Appropriate	Be concerned if Agitated or Drowsy or Confused
Cyanosis in air	None	None	Any Cyanosis is very concerning
Treatment			
Oxygen	No	To maintain SaO2 >94%	To maintain SaO2 >94% Consider High flow Oxygen
Salbutamol 100 micrograms Metered Dose Inhaler(MDI) & Spacer	<6 years 6 x puffs stat ≥6 years 12 x puffs stat review frequently and repeat when required	<6 years 6 x puffs ≥6 years 12 x puffs Give 20 minutely x 3 then repeat as required	Severe – see page 10 <6 years 6 x puffs ≥6 years 12 x puffs Give 20 minutely x 3 with Ipratropium Reassess
Salbutamol Nebulised	Not recommended	Not recommended	OR Life Threatening - Continuous nebulised Salbutamol (5mg/mL undiluted) with Ipratropium (3 doses as below) until improvement Reassess Yes - 20 minutely x 3 <6 years - 4 puffs MDI or 250mcg Neb Ipratropium ≥6 years - 8 puffs MDI or 500mcg Neb Ipratropium
Ipratropium (Atrovent) 20 micrograms (3 doses always together with Salbutamol)	No	Consider 20 minutely x 3 <6 years - 4 puffs MDI ≥6 years - 8 puffs MDI	Immediate Senior Review -Consult PICU (via NETS if outside a children's hospital) If no or poor response to Nebulised Salbutamol, contact senior help or PICU via (NETS 1300 36 2500) for discussion regarding retrieval
No or Poor response to Treatment	Check diagnosis and treat as per Moderate	Check diagnosis and treat as per Severe and Life Threatening	
If contemplating giving any of IV Salbutamol, IV Aminophylline or IV Magnesium Sulphate	Not applicable	Not applicable	
Systemic corticosteroids	Consider Oral Prednisone 1-2mg/kg depending on history and response to treatment	Oral Prednisone 1-2mg/kg	Hydrocortisone IV 4mg/kg or Methylprednisone IV 1mg/kg
Investigations	Nil (routine) required	Nil routine required Consider Chest X-ray if focal signs	Consider Blood Gases, Chest X-ray and UEC
Observation & Review	Observations (HR, RR and O2 Sats) pre and post treatment – minimum hourly for 3 hours. MO review prior to discharge	Continuous observations (HR, RR and O2 Sats). Observations pre and post treatment –initially Q 30min then MO review within 1 hour	Continuous cardiorespiratory monitoring (HR, RR and O2 Sats) Regular medical review
Disposition	Home if Salbutamol requirement >3hourly See 'Discharge Criteria'	Observe for 3 hours after last dose. If not suitable for discharge then – Admit or Transfer. Otherwise home.	Admit to Level 4 facility or above if improving or retrieve to Paediatric ICU (call NETS)