

Clinical Management Summary

EDcare : Handbook for Emergency Practice

Available from the Amazon Kindle Bookstore

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Clinical Management Summary Assessment / Management of Acute Asthma

Bronchodilator Doses	Adult / Child <u>></u> 6 years	Child < 6 years
Salbutamol MDI spacer	12 puffs	6 puffs
Ipatropium MDI spacer	8 puffs	4 puffs
Salbutamol Nebulised	10 mg	5 mg
Ipatropium Nebulised	0.5 mg	0.25 mg

Prednisolone : 2mg/kg (to 50mg) first dose and then 1mg/kg (to 50 mg) for subsequent doses

Mild

Normal Mental State Normal activity Talks normally

SaO2 > 95% (Air)

Moderate - Severe

Unable to speak sentences Visibly breathless Increased work of breathing SaO2 90 - 94% on (Air)

Life Threatening

Drowsy, collapsed, exhausted Cyanotic Poor respiratory effort SaO2 < 90% on (Air)



Management

Give Salbutamol (6 – 12 puffs) via MDI spacer Review after 20 - 60 minutes

- Poor response → treat as severe
- Good response → discharge after observation.
 Prescribe Salbutamol +/- Steroids (3 5 days)

Management

Commence Oxygen + Bronchodilators

- Give 3 doses Salbutamol MDIspacer q20min
- Give 3 doses Ipratropium MDIspacer q20min
- Give Prednisolone

Review at one hour

- Improves. Review frequency of salbutamol. Admit for observation / titration of Salbutamol.
- No improvement or deteriorating : Treat as for life threatening. Notify GPA. Contact Retrieval Service.

Management

Commence High flow Oxygen + Bronchodilators

- Give continuous nebulised Salbutamol
- Give 3 doses Ipratropium via neb q20min
- Give Prednisolone (or Hydrocortisone)

If not improving commence IV therapy

- IV Magnesium 10 mmol in 100ml NS over 20 mins
- In children : Consider IV Aminophylline 10mg/kg to maximum of 500 mg over 60 mins

Notify GP Anaesthetist : Prepare for Intubation

Consider NIV

Clinical Management Summary Paediatric Infusions in Severe Asthma

PAEDIATRIC ACUTE ASTHMA : DRUG INFUSIONS

MAGNESIUM INFUSION

Paediatric dose = 0.1 – 0.2 mmol/kg

Add the Magnesium dose determined from the table below to 0.9%NS of 5% Glucose to a total of 50 ml.

Determine the appropriate dose (to be added to the bag of 0.9%NS or 5% Glucose) using the table below. Administer the dose over 20 mins.

For example in a 20kg child using the 0.1mmol/kg dose : Add 2 mmol to 50ml 0.9% NS and administer over 20 minutes.

WEIGHT (kg)	Dose/kg	3	6	8	10	12	14	16	18	20	22	24	28	32	36
MAGNESIUM DOSE (mmol)	0.1mmol/kg	0.3	0.6	0.8	1	1.2	1.4	1.6	1.8	2	2.2	2.4	2.8	3.2	3.6
	0.2mmol/kg	0.6	1.2	1.6	2	2.4	2.8	3.2	3.6	4	4.4	4.8	5.6	6.4	7.2

AMINOPHYLLINE INFUSION

Paediatric dose = 10mg/kg

Determine the appropriate dose using the table below and administer over 60 mins

Preparation and Delivery

Intravenous Aminophylline can be diluted with either 5% glucose or 0.9%NS. Remove 20 mls from a 500ml bag of 5% glucose or 0.9%NS and discard. Then add 500mg (20mLs) Aminophylline to the bag. This creates a solution of 1mg/ml.

For example in a 20 kg child, add 500mg of Aminophylline to a 500ml bag of 5%glucose or 0.9% NS. Administer 10mg/kg = 200mg (200 ml) over 60 minutes.

WEIGHT (kg)	Dose/kg	3	6	8	10	12	14	16	18	20	22	24	28	32	36
AMINOPHYLLINE DOSE (mg)	10mg/kg	30	60	80	100	120	140	160	180	200	220	240	280	320	360

Please Note : The table is a guide to drug dosing. It remains the clinician's responsibility to verify that the doses are appropriate to the patient before administering medications.