ACUTE ASTHMA MANAGEMENT IN CHILDREN AGED 2-5 YEARS

ASSESS ABC

ASSESS ASTHMA SEVERITY

Note: Clinical signs may correlate poorly with the severity of airways obstruction. Some children with acute asthma may not appear distressed.

Mild -Moderate Exacerbation

- SpO2 ≥92%
- No clinical features of severe asthma

- Salbutamol 10 puffs via spacer ± face mask
- Reassess after 20 minutes

Severe Exacerbation

- SpO2 < 92%
- Too breathless to talk or eat
- Heart rate > 140/min
- Respiratory rate > 40/min
- Use of accessory neck muscles

- Oxygen via face mask to achieve normal saturations
- Nebulised Salbutamol 2.5mg
- Consider Prednisolone 20mg or IV Hydrocortisone 4mg/kg
- If poor response add Nebulised Ipratropium Bromide 250micrograms

Life Threatening Asthma

- SpO2 < 92%
- Silent chest
- Poor respiratory effort
- Agitation
- Altered consciousness
- Cyanosis

- Oxygen via face mask to achieve normal saturations
- Nebulised Salbutamol 2.5mg plus Ipratropium Bromide 250micrograms
- Consider IV Hydrocortisone 4mg/kg or 50mg
- Discuss with consultant paediatrician

Assess response to treatment

- *Record respiratory rate, heart rate, oxygen saturation*
- Admit all cases if features of severe exacerbation persist after initial treatment

Responding:

- Continue inhaled Salbutamol 1-4 hourly
- Consider oral prednisolone
- Discharge when stable on 4 hourly treatment

Discharge Plan:

- Ensure stable on 4 hourly inhaled treatment
- Consider Prednisolone daily for 3 days
- Provide a Trust written asthma action plan
- Review regular treatment
- Check inhaler technique
- Consider need for hospital follow up; otherwise advise GP follow up within1 week
- If under hospital follow up inform child's consultant

Not responding:

- Repeat Salbutamol every 20-30 minutes plus
- Ipratropium Bromide every 20-30 minutes for 2 hours then 6 hourly

Children with continuing severe asthma despite frequent β2 Agonist, ipratropium bromide and steroids need urgent discussion with a consultant paediatrician

Consider:

- Chest x-ray and blood gases
- Cardiac monitor
- IV Magnesium 40mg/kg (max 2g) infusion over 20 min
- IV Salbutamol 15 micrograms/kg bolus (max 250 micrograms) over 10 mins followed by continuous infusion 1-2 micrograms/kg/min. If not responding child should be transferred to PICU then up to 5mcg/kg/min can be used at this point –CONSULTANT-CONSULTANT DISCUSSION
- IV Aminophylline 5 mg/kg (max 500mg) loading dose over 20 min (omit in those receiving oral Theophyllines) followed by continuous infusion 1mg/kg/hour