Paediatric Asthma Guidelines (Children Under 5 Years)

**Diagnosis of Asthma:**
- Wheeze in children under 5 should be seen as “wheezing disorders of childhood”; only some of these children will have “true” asthma.
- Children under 2 yr frequently have intermittent “viral associated wheeze” which often responds poorly to treatment.
- Key features in history are atopy in the child and the first degree relations (siblings and biological parents).
- Look out for exercise induced and/or nocturnal cough and wheeze and triggers such as pets, viral Upper Respiratory Tract Infection (URTI), cold/damp air etc.
- Periodically revisit the diagnosis as a proportion will grow out of their “asthma”.
- In case of poor response to treatment, reconsider the diagnosis and refer to Respiratory Paediatrician.
- Make sure you agree with what parents describe as “wheeze”!

**Treatment of Asthma**
- Spacer device – Volumatic device is ideal for use at home, Aerochamber device for outdoor use.
- Use device with mask in children less than 3 yr of age. Mask may also be required in other instances i.e. child with special needs.
- Treat “viral associated wheeze” only if it is “affecting” the wellbeing of child, not because parents can hear it.
- Use oral steroids sparingly for max. 3 days (10-20 mgs/day). Avoid giving more than 3-4 courses per year.
- Teach and then monitor inhaler technique at each visit.
- Use “minimum effective dose” of Inhaled Corticosteroid Steroid (ICS) and consider lowering/stoping if child is well over long periods of time.
- When giving a trial of treatment, stop after 2-3 months to see if the treatment needs to continue.
- Budesonide Metered Dose Inhaler (MDI) does not fit in the Volumatic Spacer Device.
- Montelukast Granules must not be mixed with fluid but can be mixed with food.
- Remember Fluticasone is twice as potent as Beclomethasone or Budesonide.
- Please Note that Fluticasone is not licensed for use in children under the age of 4 years.
- When using Inhaled steroids consider TOTAL DAILY STEROID LOAD (including intranasal, topical and oral steroids taken).

**Step 1**
- Salbutamol (occasionally Ipatropium in infants below 1 year)
  - Salbutamol MDI through spacer (with mask if < 3 yr old) – 100micrograms 2 puffs as required (up to 4 times daily)
  - If the symptoms affect well being but respond to Salbutamol, go to step 2 if needing more than 3-4 times week. Beware of intermittent “viral associated wheeze” with long intervening periods of “no symptoms”!

**Step 2**
- Salbutamol plus Inhaled Corticosteroid (ICS) or Leukotriene Receptor Antagonist (LTRA)
  - Prescribe Clenil Modulite 50 micrograms 2 puffs twice daily or equivalent through spacer device (Never without spacer) OR Montelukast 4 mgs granules or chewtab – 1 daily at night
  - If symptoms not controlled, increase Clenil Modulite to 100 micrograms 2 puffs twice daily (400 micrograms /day) or Fluticasone 50 micrograms 2 puffs twice daily (200 micrograms /day) (if 4 years or over)
  - Check inhaler technique and adherence to treatment. Is it really asthma?

**Step 3**
- Salbutamol plus ICS plus LTRA
  - If the child is on ICS, add Montelukast 4mgs granules or chewtab once daily at night
  - If the child is on LTRA, add Clenil Modulite 100 micrograms twice daily or Fluticasone 50 micrograms twice daily (if 4 years or over)
  - In children below 2 yr of age, consider referral to Respiratory Paediatrician

**Review in one month**
- If no/poor response, reconsider diagnosis.
- Consider referral to Respiratory Paediatrician

**Step 4**
- Refer to Respiratory Paediatrician

**Acute exacerbation**
- Best managed with Salbutamol up to 10 puffs through spacer +/- mask as needed but not exceeding 4 hourly
- 3 day course of Soluble Prednisolone, 1-2 mgs/kg/day, max 20 mgs/day (Use sparingly). Single dose to be taken in the morning. Be cautious when prescribing to children below 2 years of age.