Acute exacerbation of asthma in children

- Short acting beta agonists and corticosteroids form the mainstay of management.
- Humidified oxygen by mask must target an SpO2 of 92-94%. Avoid hyper-oxygenation.
- Nebulization of salbutamol should be performed only through high flow oxygen and not through electronic nebulisers.
- It is very important to assess the vital parameters and response to treatment regularly and after every intervention.
- Endotracheal intubation can complicate the management and is to be avoided as far as possible.
- Nebulization of child with respiratory distress due to pneumonia or cardiac failure without treating primary cause is ineffective and is often detrimental.
- Arterial blood gas (ABG) analysis has little role in guiding management, clinical status is more important.

Childhood asthma

- The common symptoms in children are wheeze, cough, tightness or pain in the chest.
- The symptoms are often worse at night.
- Asthma triggers – exercise, cold weather, emotion, dust and air pollutants.
- Start inhaled corticosteroids in low dose and do not withhold it in a child who requires it, for fear of side effects.
- Inhalers with valved spacer should be used in all asthmatics for delivery of bronchodilators or steroids.
- Oral bronchodilators are best avoided and nebulizer bronchodilators should be reserved for severe exacerbations in emergency department.
- All children must use a valved spacer for delivery of bronchodilators and inhaled steroids.
- Follow up – assess response to treatment, review and modify treatment as required.

Atropine schedule for OP poisoning

1. An initial loading dose of 1.8–3.6 mg (three to six 0.6 mg vials) rapidly IV into a fast-flowing IV drip.
2. 3-5 minutes after giving atropine, check the markers of atropinisation. The most important parameters are clear chest on auscultation, increase in heart rate and blood pressure.
3. If, after 3–5 minutes, a consistent improvement across the five parameters has not occurred, then double the dose, and continue to double each time till the patient is completely atropinised.

Maintenance dose of atropine:

After achieving complete atropinisation, an atropine infusion should be started. The usual dose requirement is 10 – 20% of the dose of atropine required to load the patient every hour. In most cases, the patient will not require more than 3-5mg/hour of atropine.

Lung cancer

- Lung cancer should be considered when a smoker or ex-smoker over 40 years of age is found to have a lung opacity on X-ray or has new symptoms of worsening cough/ hemoptysis.
- A new onset hemoptysis and change in character of cough in a person with tuberculosis / COPD should be viewed with suspicion.
- Presence of a new opacity in a follow-up chest X-ray of a patient with TB or COPD should be treated with high index of suspicion.
- A high index of suspicion is necessary for an early diagnosis and optimal treatment. In most cases, the diagnosis is made late when the disease is advanced.
- Imaging modality should be chosen to obtain an anatomic location for biopsy and maximum information for staging.
- Early Palliative therapy should be initiated and patient performance status should guide investigations and therapy.