

## Theoretical classes for Respiratory diseases

### Day 1.

**a. Different age group in paediatrics:**

0-4 yr., 5-9 yr., and 10-19 yr. These age groups are according to the causes of morbidity and mortality

Less than five years: infections, congenital defects, nutritional problems

5- 9 years: rheumatic fever, nephritis, eye problems, skin disorders, enuresis, behavioral problems

10-19 years: sexual disorders, psychological problems, endocrinal, gynecological problems, accidents

**b. Common respiratory conditions responsible for high childhood morbidity and mortality in different age groups:**

<i>Present</i>	<i>By 2017</i>
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IMR: 64.4	34.4
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Under 5 MR: 91.2	62.5
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<i>Morbidity</i>	<i>Mortality</i>
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Cough/cold	Pneumonia
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Otitis media	Meningitis
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Diarrhoea	Severe dehydration
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	Severe malnutrition
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Malaria	Sepsis
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Worm infestations	Birth asphyxia
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Vitamin A deficiency	
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Micronutrient deficiency	
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**c. Epidemiology of Acute Respiratory Infections**

Children under the age of 5 years. Morbidity and mortality decreases with age. ARI episodes per child per year is not different in developed and developing countries. Pneumonia is 7-18 times higher in developing countries. Risk factors for Pneumonia.

**d. Diagnosis and treatment of community acquired pneumonia in children.**

WHO classifications according to the IMCI, management principles.

### Day 2.

**a. Different types of pneumonia.**

Risk factors

Infective and non-infective.

Vaccinations reduce the bacterial pneumonia.

Viral and bacterial can not be differentiated.

**b. Diagnosis of pneumonia.**

Tachypnoea is the most reliable sign. Hyperopnoea in a previous child with pneumonia indicates acidosis. Auscultatory findings appear late and difficult to hear in small children.

Presentations:

a. cough or difficulty in breathing.

b. High fever.

c. Abdominal pain

d. Meningitis

- e. Shrugging of shoulder.
  - f. Abdominal distension and vomiting.
- c. Management of pneumonia.**  
 Antibiotics and oxygen are the mainstays of treatment.  
 Pneumococcal: Penicillin  
 Staphylococcal: Penicillinase resistant: nafcillin/claulinic acid plus ampicillin  
 H.influenzae: chloramphenicol or ceftriaxone  
 Combination of penicillin and chloramphenicol
- d. Complications of pneumonia.**  
 Local and distant: lung abscess, effusion, empyaema.  
 Early and late.

**Day 3.**

- a. Principle of wheeze.**  
 Sounds are produced from the oscillations of airways.  
 Narrowing of the intrathoracic airways (obstructive airways) produces wheeze.  
 Narrowing of the extrathoracic airways produces stridor.  
 Mostly wheezes are expiratory, if inspiratory also then it indicates severe form.
- b. Why early life predisposes to obstructive airway disease?**
1. Decreased amount of smooth muscle in the peripheral airways.
  2. Mucous gland hyperplasia
  3. Disproportionately narrow peripheral airways.
  4. Decreases elastic recoil of lungs.
  5. Highly compliant rib cage.
  6. Decrease number of fatigued resistant skeletal muscle.
  7. Deficient collateral ventilation.
- c. Causes of wheeze.**  
 Reactive airway disease.  
 Bronchiolitis.  
 Compression, extrinsic or intrinsic.  
 Pneumonia and wheeze are often associated together.
- d. Management of wheeze.**  
 Facilitate patient adherence  
 Promotion of health care.  
 Educating patient and family.  
 Pharmacological therapy.: bronchodilator, steroids and oxygen.

Home

management, hospital management.

## Day 4.

### a. Congenital respiratory disorders

Tracheo-oesophageal fistula:

Presentation: A history of maternal polyhydramnios. Choking, cyanosis and coughing while feeding. Froth in the mouth with plenty of air bubble. Passing of a tube through the oesophagus does not enter. Coiled up. Emergency treatment.

Hypoplasia of the lung:

Presentation depends upon the severity. Over crowding of ribs.

Congenital laryngeal stridor:

A self limiting disorder. Soft laryngeal cartilage which collapses during the inspiration. Counseling. Patients thrive well. Never cyanosed may have chest indrawing.

### b. Diagnosis and management of the following conditions:

Acute nasopharyngitis, acute pharyngitis, retropharyngeal abscess, adenoidal hypertrophy, croup, acute epiglottitis, acute infectious laryngitis, acute spasmodic laryngitis, bronchiolitis, aspiration pneumonia, Loeffler's syndrome.

Case histories of :

#### a. acute laryngotracheobronchitis

A two year old child presented with the history of brassy cough for one day duration. This started suddenly in the night and he developed the noisy breathing since last few hours. He has history of preceding cough, cold and mild fever for two days. On examination he is alert, active, able to feed and mildly pyrexial. One could hear stridor and basal creps.. X-ray is non specific. TLC and DC are normal. His oxygen saturation is 90%

#### b. acute epiglottitis

#### c. spasmodic croup (findings of infection absent)

#### d. infectious laryngitis

Treatment according to the presentation

Acute respiratory failure