A Practical Approach to Pediatric Chest

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Objectives

- Identify normal
- Tips and clues to interpret plain films
- Review of common pediatric X-rays
  - Chest Radiographs
Chest Radiograph

- **Thymus**
  - Normal age related appearances
    - Infant-toddler: Large ant. Mediastinum with wavy and hazy borders and soft density
    - Child to early teen: Thymus usually not visualized - AP CXR
    - Young adult: Thymus not visualized - AP CXR
  - Variants
    - “Sail” sign
    - Thymus extending down to diaphragm
Spectrum of Thymic appearances
Spectrum of Thymic appearances
CT Correlation

Infant to older child

Older child to early teen

Early teen to adult
Pneumonia

- Typical Bacterial Appearances
  - Round Pneumonia: represent pneumococcal infection in early consolidative phase
  - Lobar Pneumonia: mostly bacterial. May also happen with viral disease.
Role of Imaging

- confirm or exclude pneumonia
- exclusion of other pathology
  - evaluate complications
Consolidation

Segmental to lobar

Air-space disease or Consolidation (air-bronchograms)

Pleural effusions

Bacterial (Pneumococcal, most common)
Pleural Effusion
Pleural Effusion
Thymus x Mediastinal Masses

- Assess airway displacement and narrowing
- Assess Density
- Additional findings
  - Effusion
  - Atelectasis
  - etc
Thymus x Mediastinal Masses
Thymus x Mediastinal Masses
Mediastinal enlargement
Round Pneumonia x Tumor
Opaque hemithorax
Opaque hemithorax
Hyperlucent hemithorax
Hyperlucent hemithorax
Cases
2 y old female
Neonate at birth
3 y old male
2 w old female
Thank You!