



RECURRENT PNEUMONIA

- Pneumonia is clinically defined as a combination of respiratory symptoms (cough, dyspnoea, or tachypnoea) and signs (fever, crepitations, focally-reduced breath sounds, fremitus, or wheeze).
- Unfortunately, there are no guidelines, or universal agreement for the definitions of recurrent and persistent pneumonia. [1](#)
- Suggested definitions include: [2](#)
 - Recurrent pneumonia - 2 episodes within the same year, or 3 or more episodes over any time period. For a child to be diagnosed with recurrent pneumonia, there must be complete resolution of clinical and radiological findings between acute episodes.
 - Persistent or non-resolving pneumonia - when there is clinical and radiological evidence of pneumonia despite adequate treatment for a month.



PLAIN RADIOGRAPHY

- Not all children with pneumonia receive chest radiographs, but a radiograph demonstrating pulmonary infiltrates is essential in defining an episode of pneumonia in cases of suspected persistent or recurrent pneumonia. [2](#)
- Comparison should be made to previous films to confirm the diagnosis of pneumonia and assess if the consolidation is localised to a single lobe, or whether multifocal disease is present as this has implications on the differential diagnosis and subsequent investigations. [2](#)
- Unlike adults, there is no indication for routine follow-up of all otherwise healthy children with uncomplicated community acquired pneumonia. Those with clinical evidence or suspicion of recurrent or persistent pneumonia, or who are immunocompromised should have repeat films done at least 2-3 weeks after commencement of treatment. [3,4](#)
- Round pneumonia is common in children and simulates a pulmonary mass. In these cases, follow-up radiography is important to confirm resolution and to exclude the presence of an underlying mass.

COMPUTED TOMOGRAPHY

- The indications for CT in children with lower respiratory tract infections include: [5,6](#)
 - Suspected complications of bacterial pneumonia (eg. abscess)
 - Exclude an underlying abnormality in recurrent or persistent pneumonia
 - Investigate the immunocompromised child with a normal or equivocal radiograph.
- CT is the preferred method for investigating perilaryngeal or mediastinal compressive masses affecting the airway and has largely replaced conventional angiography for investigation of suspected vascular rings. [6](#)
- CT results in significant exposure to ionising radiation and care must be taken to minimise the effective dose. [6](#)
- High Resolution Computed Tomography (HRCT) is used for evaluating all forms of bronchiectasis (including cystic fibrosis) and interstitial lung diseases in children. [6](#)

UPPER GASTROINTESTINAL CONTRAST STUDIES

- Indicated if aspiration, reflux, or mediastinal compressive masses/vascular rings compromising the airway are suspected. [10,11,12](#)

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Website

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