Feidhmeannacht na Seirbhíse Sláinte
Health Service Executive
Clinical Strategy and Programmes Division

PAEDIATRICS

Faculty of Paediatrics
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Childhood Pneumonia

BACKGROUND

- Pneumonia is a clinical diagnosis
- Viruses are the causative organism in 90% of children <2 years of age
- *S. pneumonia* & *Mycoplasma pneumoniae* are common in older children
- The majority of children with fever and cough have an URTI
- Wheeze is almost never present – if the child is wheezy, rethink the diagnosis
- Chest auscultation <2 years of age is unreliable in diagnosing pneumonia

GENERAL MANAGEMENT

- Families of children well enough to be managed at home should be advised about:
  - ✓ Managing fever
  - ✓ Preventing dehydration
  - ✓ Identifying signs of deterioration
- Chest physiotherapy is not beneficial

PREVENTION

- Smoking cessation
- Vaccination
  - ✓ PCV
  - ✓ H. influenzae
  - ✓ Pertussis

REFERENCES

- BTS Guidelines for the management of community acquired pneumonia in children 2011

HISTORY

- Cough: Characteristics & pattern, most often non-productive
- Fever
- Breathlessness
- Chest/abdominal pain
- Anorexia, lethargy, headache

EXAMINATION

- Respiratory rate
- Use of accessory muscles of respiration
- Grunting & nasal flaring
- Fever ± toxicity
- Local chest signs
  - ✓ Diminished air entry
  - ✓ Crackles
  - ✓ Bronchial breathing
  - ✓ Pleural rub

INVESTIGATIONS

- Most children in the community do not require investigation
- CXR if admitted
- Repeat CXR 4-6 weeks later if round pneumonia, collapse or persisting symptoms

TREATMENT

- PO amoxicillin in the pre-school child
- PO clarithromycin in the older child with community-acquired pneumonia

TAKE HOME MESSAGES

- Respiratory rate is very important in diagnosis
- If signs of coryza or URTI symptoms, bacterial pneumonia is rare
- Asthma is always in the differential

REFERRAL

- RR >70 breaths/min in infants or >50 breaths/min in older child
- Significant respiratory distress ± grunting
- SaO_2 <92%
- Symptoms not improving despite treatment (consider empyema)

ANTIBIOTICS

- All children with a clinical diagnosis of pneumonia should receive antibiotics, except children <2 years with mild symptoms (viral)
- Oral route is recommended even in severe CAP
- Amoxicillin is recommended as the first line treatment in all children
- Macrolides (e.g. erythromycin, clarithromycin) may be used if mycoplasma or chlamydia pneumonia is suspected

COMPLICATIONS

- Pleural effusion
- Empyema
- Necrotising pneumonia
- Septicaemia
- Haemolytic uraemic syndrome

EMPYEMA

- Consider if not improving
- Usually very sick
- Diagnosed with U/S chest ± CT
- Treated with early chest drain ± urokinase