

6.5 COMMUNITY ACQUIRED PNEUMONIA IN CHILDREN AND YOUNG PEOPLE

Acute pneumonia is infection and inflammation in the small air sacs and tissues of the lung, rather than infection/inflammation in the breathing tubes (bronchi) which is called 'bronchitis.'

It is estimated that around 8,000 children under the age of 14 are likely to develop community acquired pneumonia each year. This condition is twice as common in children aged under five as in older children.

Children with pneumonia develop a fever, cough, grunty breathing and increased breathing effort (fast breathing and indrawing). Although viral infections are the most common cause of pneumonia about a third are due to potentially serious bacterial infections and thus appropriate antibiotics are used in all but the mildest cases.

The majority of children with pneumonia can be managed in primary care but, for some, admission to hospital will be required.

Very occasionally the pneumonia will become complicated – for example when fluid and pus leak out and accumulate between the outer surface of the lung and the inner surface of the chest wall (ribs). Infected fluid and pus in this space between the lungs and the rib cage (pleural space) typically contuse to expand causing compression on the lung. This complication is called "empyema" and these children become very unwell with uncontrolled infection and reduced ability to maintain adequate breathing. They require referral to the Royal Belfast Hospital for Sick Children (RBHSC) where the empyema is surgical drained, powerful antibiotics are used. Some children may require intensive care treatment.

Children who have suffered recurrent episodes of pneumonia will require to be referred to a paediatrician to determine if there is any underlying reason for the repeated pneumonias, such as an immune deficiency.

Overarching Standard 27:**Assessment, diagnosis and treatment**

All children and young people with suspected community acquired pneumonia (CAP) should be assessed, diagnosed and treated according to the BTS Guidelines.

Rationale:

The early assessment and diagnosis of pneumonia allows a clinically appropriate management plan to be implemented with effective use of the most appropriate antibiotics and, where necessary, admission to hospital. This can lead to a reduction in morbidity and mortality.

Evidence:

British Thoracic Society (BTS) Guidelines for the management of community acquired pneumonia in childhood (2002) <http://www.brit-thoracic.org.uk/Portals/0/Clinical%20Information/Pneumonia/Guidelines/paediatriccap.pdf>

British Thoracic Society (BTS) Guidelines for the management of pleural infection in children (2005) <http://www.brit-thoracic.org.uk/Portals/0/Clinical%20Information/Pleural%20Infection%20in%20Children/Guidelines/PaediatricPleural.pdf>

Responsibility for delivery / implementation

HSC Trusts
Primary Care
Out of Hours Services

Quality Dimension

1. Children and young people should be diagnosed and managed according to the BTS guidelines.
2. Children and young people with infected pleural effusions and empyemas should be referred to the tertiary respiratory unit as per "BTS guidelines for pleural infection in children".

Performance Indicator	Data Source	Anticipated Performance Level	Date to be achieved by
Percentage of children and young people diagnosed with CAP who met the BTS guidelines for diagnosis and treatment	PAS Hospital records BTS audit pro forma Rolling audit	75% 95% attaining 4 out of 5 key items each year	March 2011 March 2012
Percentage of appropriate children and young people who are formally considered for ICU transfer according to BTS guidelines	PAS Hospital records BTS audit pro forma Rolling audit	75% 95%	March 2011 March 2012