



## 2010/11 Paediatric Pneumonia Audit

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There was an excellent response to the 2010/2011 paediatric pneumonia audit with a record number of 2,200 cases from 77 institutions. Data overall was remarkably consistent with 2009/10 ( 891cases) suggesting little change in case mix or management. Near 50% of cases were aged < 3years and 52% cases were male. One third of patients had been given antibiotics before admission for a median of 4 days.

At admission 55% of children < 1 year had a respiratory rate of between 50 and 70 breaths/min and 10% > 70 breaths/min. In the older children approximately 25% had a respiratory rate > 50 breaths/minute. Intercostal recession was present in 52% and 8% were grunting. Overall one third of children had a high temperature (> 39C) and 37.5% were hypoxic (SaO<sub>2</sub><92% in air.) Wheezing was noted in 35% of preschool children and 20% of those >5years old.

A CXR was abnormal in 86% with lobar consolidation present in 42% of cases. Investigations for aetiology were largely limited to blood cultures ( 57% ) and nasopharyngeal aspirates ( 18%) but a causative aetiology was identified in 305 cases ( 21%). Not surprisingly common viruses accounted for 260 cases with *Influenza* taking the lead ( *Flu A* 21cases; *Flu B* 27 cases and *H1N1* 51 cases) and *RSV* in second place (74 cases -3%). Overall influenza contributed more than in the 2009/10 season when it was only identified in 1% (12 cases). *Streptococcus pneumoniae* was the most frequent bacterial isolation in 44 cases (2%).

Clinical management is largely reflective of signs and symptoms at presentation with 46% of children receiving oxygen therapy; 3% assisted ventilation and 41% bronchodilators. Nasogastric feeds were given in 6% but 32% were given intravenous fluids and one suspects most of these were treated with intravenous antibiotics. Since the 2002 guidelines there has been new evidence supporting the use of oral antibiotics for pneumonia and the recently published guideline revision 2011 makes new recommendations (1). Perhaps we shall see a change in the 2011-12 audit.

Choice of antibiotic may also change with the new guidelines. In 2010-11 Augmentin was the top antibiotic choice for children (34.5% aged <5y and 29.4% aged > 5 years) with a macrolide in second place (20.1%<5years and 27.2%>5 years), followed by Amoxicillin ( 17.6% < 5years, 10.4% >5 years). The new guidelines strongly support amoxicillin as first line treatment.

The joy of looking after children is that they get better quickly and the median duration of admission was 1 day with <10% staying in hospital for >5 days (Figure

1). Complications occurred in 7.1% with empyema in 4.4% and lung abscess in 0.9%. Despite this a surprisingly large number of children had hospital follow-up 32.5% with 13.6% having a CXR at follow up. These figures are similar to last year but are considerably higher than the recommendations in either the 2002 or 2011 guidelines. Here is a real opportunity to save some money for the cash strapped NHS.

The 2011/12 audit tool has been changed slightly to reflect the new guideline but most questions will permit comparison with previous data. I hope that everyone who took part in 2010/11 will do so again and encourage other units to join in.

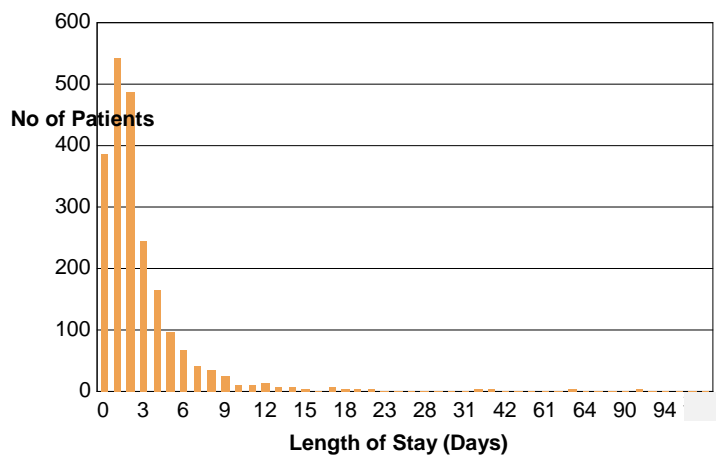


Figure 1

1. BTS Guidelines for the Management of Community Acquired Pneumonia in Children: Update 2011, Thorax, 2011, Vol 66, Supplement 2.  
<http://www.brit-thoracic.org.uk/guidelines/pneumonia-guidelines.aspx>