British Thoracic Society
2012 – 2013 BTS Paediatric Pneumonia Audit
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A record number of hospitals took part in the BTS Paediatric Pneumonia audit last winter (data collection from November 2012 – January 2013). 127 hospitals submitted data on 3,571 patients. Admissions were mainly in young children with 26% aged 1–2 years and 73% of cases under the age of 5 years. There was a male predominance (53%) consistent with previous years. At admission 41% of children had oxygen saturation less than 92% (Figure 1), 29% a temperature exceeding 39° C and 26% were wheezing; all features consistent from year to year.

The BTS guidelines are clear that investigations do not aid management and should be selective, but just over 50% of cases had blood cultures taken, and disappointingly other blood investigations including blood count and CRP were unchanged from last year and performed in 63% of cases.

A causative organism was found in 18% of cases with RSV identified in 157 cases (4% of total and 23% of cases investigated for viral ideology); influenza was responsible for 48 cases (cf 12 in 2011/12) and adenovirus 24 cases. *S. pneumoniae* was the commonest bacterial aetiology (53 cases) and *Group A streptococcus* was found in 10 cases. *S. Aureus* was seen in 16 patients with 3 cases of methicillin resistance. *M. pneumonia* was thought to be the causative organism in 16 cases.

Guideline advice on antibiotic choice was not followed with oral amoxicillin prescribed for only 17% of cases (stubbornly the same as in 2011/12) and amoxicillin with another antibiotic for a further 11%. The commonest oral (n = 1070) and intravenous antibiotic used was co-amoxiclav with oral azithromycin also popular. There was a small decrease in the number of children receiving any iv antibiotics from 52% to 50%. The evidence is that most children will do well on oral antibiotics, oral antibiotics are cheaper, and oral co-amoxiclav is twice the price of amoxicillin, so considerable savings are possible in some hospitals.

Most children improved rapidly with a median hospital stay of 2 days; 81% were discharged within 4 days. Only 4% of children experienced complications but despite this 31% of children had a hospital follow up (down from 33% in 2011/12) and 11% a follow up chest x-ray. It is difficult to see why so many children are being followed up in hospital. If only 8% were seen for follow up (double the number of those with complications) then at 20 minutes per follow up appointment and a tariff of £125 there would be a saving to the NHS of 273 hours of paediatric time and £102,625.

The next audit will begin in November 2014 so there is plenty of time for these results and the guideline to be inwardly digested and for paediatricians to improve their practice.

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Figure 1. Lowest Saturation in Air