



2010/11 Adult Community Acquired Pneumonia Audit

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The 2010/2011 BTS CAP audit captured data on over 3500 patients from 72 institutions, thus surpassing last year's record. A striking finding is that much of the data from the 2010/11 audit are similar to the 2009/10 audit. The consistency across 2 years, together with the size of the audit, adds to the confidence that the audit is capturing 'real-life' CAP as encountered in routine clinical practice. It also suggests little has changed nationally in the overall management of CAP.

Patient profile and outcome

The mean age of cases was 68 years; 63% were aged 65 years and above. Admission from a residential or nursing home was documented in 462 (13%) cases. Based on the CURB65 score, 46% of patients had low severity CAP (score 0 to 1), 27% moderate severity CAP (score 2) and 26% high severity CAP (score 3 to 5). The median length of stay was 5 days and critical care admission was required in 8%. Overall, 730 (20.4%) patients died while an in-patient.

Processes of care & antibiotic use

The time from hospital admission to a chest x-ray was generally short; within 4 hours for 78% of patients. However, the subsequent interval from CXR to the first dose of antibiotics was > 4 hours in a substantial minority (21%).

The first dose of antibiotics was given < 4 hours after admission in 55% (see Figure 1).

Antibiotics were given in accordance with *local* CAP guidelines in only 52% of cases. Overall, initial empirical antibiotics were given intravenously (IV) in 75% (n=2663) of cases. A beta-lactam + macrolide combination was given in 48% of cases with low severity CAP, 53% with moderate severity CAP and 59% with high severity CAP.

Summary

Overall, figures were very similar across the last 2 audits. Adherence to local CAP guidelines continues to be poor. This is probably reflected in the overuse of IV antibiotics empirically, and the mismatch in use of empirical combination antibiotics according to CAP severity. The importance of this aspect of care lies in the growing evidence that adherence to CAP guidelines together with good antibiotic stewardship is associated with improved patient outcomes.(1)

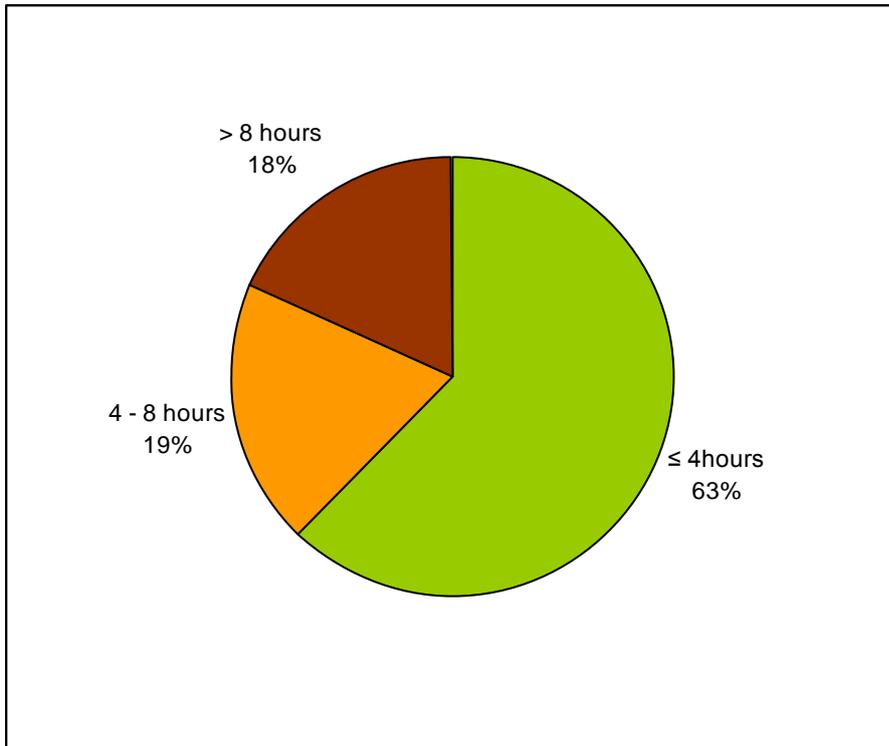
In addition, appropriate early treatment is also associated with improved outcomes. The time interval from hospital admission to CXR (and thus hopefully an accurate diagnosis) was encouragingly short for most patients. However, only 55% of patients received their antibiotics within 4 hours of admission.

A major challenge facing many respiratory units is that of influencing practice in emergency and acute medicine departments, especially in the first 6 hours of admission when optimal management of CAP is most important. In recognition of this, as one of its quality improvement initiatives the BTS is in the process of developing a CAP Care Bundle and of identifying partners and resources to support its implementation both locally and nationally.

References:

(1) Bosso JA, Drew RH. Application of antimicrobial stewardship to optimise management of community acquired pneumonia. *Int J Clin Pract.* 2011 Jul;65(7):775-83. doi: 10.1111/j.1742-1241.2011.02704.x.

Figure 1: Time from hospital admission to first antibiotic: proportions of patients treated (based on 3173 patients)



Acknowledgements: Many thanks to Sally Welham, Chris Routh, Kerry Reid and Christine Bucknall for all their help and invaluable efforts in running the audit.

October 2011

British Thoracic Society CAP Audit Report 2010/11
www.brit-thoracic.org.uk/audit.aspx