Determinants of hospital costs in community acquired pneumonia

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Community-acquired pneumonia (CAP) is a prevalent disease and constitutes a substantial socio-economic burden. On the other hand, there is limited data about the cost of CAP in Turkey. This study investigated direct costs and related factors for hospitalised CAP patients. Direct hospitalisation costs and possible associated factors (age, sex, comorbidity, clinical and laboratory findings, smoking history, antibiotic usage within 3 months, length of hospital stay, ICU stay, PSI, CURB65, treatment success and medication groups such as antibiotics, steroids, immunosupressives) were assessed in a retrospective study of 106 patients admitted to a hospital ward due to CAP. The mean patient age was 60.4 yrs and 35.8% were female. Comorbidities were found in 87% and the most significant comorbidities were DM, CAD and COPD. Eight (7.5%) patients needed ICU care. Overall CAP treatment success rate was 89.6%. Length of hospital stay (p=0.001, r= 0.78), use of antipseudomonal antibiotic combination (p=0.001), use of antibiotic within 3 months (p=0.001) and two or more hospitalisation days within 3 months (p=0.031) increased the costs but age, comorbidity, treatment success, ICU requirement, PSI and CURB65 scores did not increase the costs. In conclusion, this study provides cost estimates for the treatment of patients hospitalised with CAP. Major determinants of costs were length of hospital stay, use of antipseudomonal antibiotic combination, use of antibiotic within 3 months and two or more hospitalisation days within 3 months.