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| **The Pneumonia Severity Index is useful in predicting mortality and complications of community acquired pneumonia.** |
| Athiththa Satchithanandha2,3,Kristina Kairaitis1,2,3 |
| *1. Ludwig Engel Centre for Respiratory Research, The Westmead Institute for Medical Research, 2. Department of Respiratory and Sleep Medicine, Westmead Hospital 3. Western Clinical School. Faculty of Medicine and Health, University of Sydney* |
| **Introduction/Aim:** The pneumonia severity index (PSI) is a clinical tool used to predict mortality for community acquired pneumonia (CAP). The aim of this study was to examine the utility of the PSI in hospitalised patients with CAP.**Methods:** Electronic records of all patients >18 years admitted between 2018-2019 with an admission diagnosis of CAP were reviewed. Exclusion criteria included: alternate diagnosis on discharge, palliation on admission or chronic tracheostomy. Data collected included: demographic data, ICU/HDU admission, intubation and ventilation, length of stay, duration of oxygen administration, clinical data to calculate admission PSI, and complication rate. Complication rate and ICU/HDU admission between low PSI (1-2) and high PSI (3-5) were compared using Fisher’s exact test. P<0.05 was considered significant. **Results:** We identified 1466 patients with CAP admission diagnosis, 1062 were excluded (563 for other discharge diagnosis (pulmonary embolism, pulmonary fibrosis, COPD being the most common), 80 palliated on admission or long-term tracheostomy in-situ, 227 cases of aspiration or hospital acquired pneumonia and 192 for inadequate data). There were 404 patients with CAP (n=404); 233 males, 171 females, age 64 (45-74) (median (IQR)), length of stay 6.91(3-8) days, with PSI distribution of 63(15.6%) Class I, 147 (36.4%) Class II, 93 (23%) Class III, 85 (21%) Class IV and 16 (4%) Class V. 80 (19.8%) required HDU/ICU, 27 (6.7%) required NIV and 12 (3%) were intubated. Complications developed in 18 (4.5%) patients (6 death, 4 cavitation/abscess formation, 4 empyema and 4 other), age 60 (43.5 - 72.5) years, 14 (77.8%) males. Of those who developed CAP complications, PSI distribution was 0 (0%) PSI I, 3 (16.7%) PSI 2, 4 (22.2%) PSI 3, 7 (38.9%) PSI 4 and 4 (22.2%) PSI 5. Patients with a PSI 3-5 were more likely to require ICU/HDU admission (P=0.002) and develop complications (P=0.012) than those patients with PSI (1-2).**Conclusion**In patients admitted to hospital with severe CAP, a PSI≥3 was associated with an increased risk of ICU/HDU admission and developing complications. However, pneumonia complications occurred even in subjects with PSI scores less than 3, demonstrating that clinical judgement remains an important determinant of the requirement for hospitalisation. **Grant Support: Nil** |