3.11 Predictors of Outcomes in Community Acquired Pneumonia

¹Rachel Crooks, ¹Kerri-Marie Heenan, ¹Máire Drain, ¹Paul Minnis

Antrim Area Hospital, Antrim, United Kingdom

Background: Community-acquired pneumonia (CAP) has a huge impact on healthcare systems. Scoring systems such as CURB-65 have been used to estimate mortality and help determine treatment. We aim to assess admission variables outside CURB 65 that could predict outcome measures. Methods: We recorded the incidence of inpatient CAP within the Northern Health and Social Care Trust throughout 2018. We collected baseline demography, relevant past medical history including anticoagulation; CXR evaluation; admission investigations including platelets, CRP, Glucose, Neutrophil Lymphocyte Ratio(NLR) and Neutrophil to Lymphocyte and Platelet ratio(N/LP); and outcomes. Results: During the study period 2008 index cases were identified. Accepting 22% of all CAP are admitted this represents a burden of \sim 1900 cases per 100,000 population per year. Baseline characteristics: mean age 71.9 (SD 15.4), 48% male (n 961), median length of stay 6 days (IQR 3-11), with 19.3% treated with anticoagulation pre-admission. The mortality rate was 12.3%, with readmission within 30 days 15.5% and 90 days 31.2%. Mortality correlated with sodium (0.48), admin CRP (0.49) and max CRP (0.116) [All p <0.05]. We also found correlation with NLR and N/LP, however theses were not statistically significant. **Conclusion:** Mortality rates within out trust was similar to that of previous studies done in England. Correlation of mortality with admission variables using CURB 65 can be valuable but other biochemical values may help guide treatment. **Conflict of Interest:** The authors declare that they have no conflict of interest.

References:

- 1. Lawrence H et al, Readmission following hospital admission for community-acquired pneumonia in England. *thorax*, (2023). 78(12), 1254-1261.
- 1. Woodhead MA et al.Prospective study of the aetiology of pneumonia in the community. Lancet. 1987;1:671–4.
- 1. Cakir Guney, B, Hayiroglu, M, Senocak, D, Cicek, V, Cinar, T, and Kaplan, M. Evaluation of N/ LP ratio as a predictor of disease progression and mortality in COVID-19 patients admitted to the intensive care unit. *Medeni Med J*. (2021) 36:241–8.